

RESPOND

COP29: BAKU





Prince Sultan Bin Abdulaziz
International Prize for Water

Recognizing Innovation



Winners for the 11th Award (2024)



Creativity Prize

[1] The team of Maria Cristina Rulli (Polytechnic of Milan, Italy) and Paolo D'Odorico (University of California, Berkeley, USA)

for spearheading novel analyses of the water-energy-food nexus that describe how numerous complex factors interact, providing for better freshwater stewardship in a changing, globalised world.



Maria Cristina Rulli



Paolo D'Odorico

[2] The team of Zhiguo He (Zhejiang University, China)

for developing working, versatile soft robots with unprecedented manoeuvrability that have the capacity for numerous underwater research and monitoring applications. Team members include: Pengcheng Jiao and Yang Yang.



Zhiguo He



Surface Water Prize

Qihua Liang (Loughborough University, UK) and his team

for developing innovative, open-source, multi-GPU hydrodynamic models to support real-time flood forecasting at fine temporal resolutions. Team members include: Huili Chen, Xiaodong Ming, Xilin Xia, Yan Xiong and Jiaheng Zhao.



Qihua Liang



Groundwater Prize

Chunmiao Zheng (EIT, Ningbo, China) and his team

for powerful management tools to understand groundwater processes in ecohydrologic systems under diverse hydrological and climatic conditions, considering environmental and socioeconomic factors at local and national scales.



Chunmiao Zheng



Alternative Water Resources Prize

Virender K. Sharma (Texas A&M University, USA) and his team

for the effective removal of antibiotics and pharmaceuticals from wastewater through advanced oxidative processes by activated ferrate, which work at high, even enhanced, efficiency in water containing commonly occurring natural organic matter. Team members include: Ching-Hua Huang, Chetan Jinadatha and Radek Zbořil.



Virender K. Sharma



Water Management & Protection Prize

Joseph Hun-wei Lee (Macau University of Science & Technology, China)

for developing unique and highly effective hydro-environmental modelling systems for the sustainable water management of smart cities.



Joseph Hun-wei Lee

Invitation for Nominations 12th Award (2026)

Nominations open online until 31 December 2025

www.psipw.org

e-mail: info@psipw.org



H.E. Mukhtar Babayev, COP29 President-Designate, Minister of Ecology and Natural Resources, Republic of Azerbaijan



COP29

Baku
Azerbaijan

COP29 will be the first hosted in the Caucasus, and we are honoured to represent our region to the world. Climate change affects everyone differently: we face extreme heat, water scarcity and declining water levels in the Caspian Sea that have a direct impact on our lives and livelihoods. But we are also a source of solutions and opportunities, such as our abundant wind and solar potential, which can play an important role in the renewable energy landscape, supporting transition to low-emissions and climate resilient development not only at the national, but also at the regional and global level, and we are determined to lead by example.

We have built an agenda that seeks to work in harmony across multiple cross-cutting dimensions. We have developed initiatives to address all climate pillars, involve global, regional, national and subnational groups, take a holistic view of sustainable development, and include all demographics within an inclusive process that delivers inclusive outcomes. These activities will be guided by the principles, objectives and goals of the Convention and the Paris Agreement.

As more actors contribute to climate action in an increasingly global effort, coherence amongst initiatives is a growing imperative. To ensure interoperability with existing international frameworks, we have partnered with UN and international agencies in the development and delivery of the COP29 Action Agenda, which we hope will help ensure continuity and COP-to-COP legacies.

We are launching multiple platforms to bring otherwise disparate stakeholders together and develop efficiencies and synergies. We have sought to build on previous achievements, and many initiatives have been informed by the first Global Stocktake, amongst other milestone agreements, as we look to fill gaps and take the next steps towards implementation.

The COP29 action agenda has been a collective global effort, and we would like to thank everyone who has contributed to its development. This includes the line ministries of the Republic of Azerbaijan, the private sector, academia, NGOs, the UN Task Force for COP29, international organisations, and all Parties, Constituencies and non-party stakeholders who have provided feedback and ongoing support.

Azerbaijan is just one country and we cannot solve the climate crisis alone. But we never underestimate the value of an individual contribution or the power of example. If we cannot mobilise every actor, then at least we seek to inspire them and demonstrate what is possible with commitment and determination. We hope to remind everyone that even in the face of such an enormous challenge, every action matters because every fraction of a degree matters.

Climate action is a common commitment that requires action and leadership from everyone. Through the COP29 Action Agenda we wish to give everyone an opportunity to sign up, speak up and step up. This is how we seek to build momentum to enhance ambition and enable action and move forward in solidarity for a green world.

*Abstract from Letter to Parties and Constituencies,
published September 2024*

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A port building forests: heading toward a green future

The Ports of Paraná are located in the middle of a very important and well protected biome, known as the Atlantic Rainforest, found in the east of the state of Paraná, bordering the Atlantic Ocean. This biome has a huge natural richness and wide biodiversity that covers the largest section of the Brazilian coastline. That means we are inside the Mata Atlantica Biosphere Reserve, recognized by UNESCO. We are also part of the Paranaguá Estuarine Complex, one of the largest estuaries in Brazil.

Given its position in such an important environment and the effects that human activities have on its surroundings, Ports of Paraná act to try to minimize the most negative effects that port activities have on the environment.

The Ports of Paraná have, as their main objective, the sustainable development of the state's coast, taking into consideration the conservation of the region's biodiversity, trying to act according to the 17 UN Millennium objectives.

Ports of Paraná currently run more than 40 environmental programmes focusing on environmental monitoring, education and conservation. Among the programmes developed are the Degraded Areas Recovery Plan, reaching up to 400,000 m² of area in the watersheds that flow through the Paranaguá Estuarine Complex. The main objective of this important programme is to monitor the amount of sediment that will be prevented from being carried by rain, through the watercourses, before it reaches the waters of the bay, causing the silting of the navigation channels.

According to the partner university in this process, when carrying out monitoring actions, there is no other similar action in the world, being developed by a Port Authority, with such emphasis and scale.

The project began by registering families of small farmers who had degraded areas on their properties and were willing to restore these areas through the implementation of agroforestry systems. The systems were chosen because they not only recover the areas but, by using native species that help retain sediments, they also sequester atmospheric carbon, attract biodiversity and enhance the flora.

Beyond these benefits, the project also guarantees food sovereignty and diversifies the income of participating families. The agroforestry systems used not only imitate the natural plant succession in forests, but they also use those varieties with economic value.





The Ports of Paraná are a port complex, composed of the ports of Paranaguá and Antonina. Strategically located on Brazil's South Region. Along with its regular duties, the port team has developed a range of different measures focusing on compensation and mitigation of its impacts in the territory.

Through these initiatives, the Ports of Paraná aim to not only encourage the recovery of degraded areas, but also to reduce riverbank erosion and consequently decrease sedimentation in the navigation channels, thereby minimizing the need for dredging.

Additionally, the Ports of Paraná run educational programmes for local communities, offering training and workshops such as permaculture classes that focus on improving the environmental quality and lives of residents on the surrounding islands, using bioconstruction techniques like alternative sewage treatment systems through wetlands use.

Considering its economic importance to South America, the enterprise has projects to expand their port capacity in a sustainable way, by building new piers with modern systems that aim for greater process efficiency. Apart from economic and environmental performance, the Ports of Paraná aim for the social development of the state's coast, seeking integration and balance between communities, environment, culture and economy, with the entire port process.

www.portosdoparana.pr.gov.br



Energy-efficient technology is here. Now, let's put it to good use.

Energy efficiency gains can halve the environmental impact of the lighting industry.

To achieve the goal of limiting global warming to below 1.5°C, the world faces a decade of tough tasks – not least, doubling the annual rate of energy efficiency improvements to 4% between now and 2030.

Reaching this goal will require a sustained effort from governments and policymakers, businesses and households, and the urgent prioritization of energy-efficient technologies that can curtail rising energy demand. One of the simplest changes we can make can have a surprisingly significant impact: accelerating the global switch from conventional lighting technology to energy-efficient LED lights and connected systems.

LOW-HANGING FRUIT

Lighting represents up to 40% of total electricity usage in a typical city¹. Transitioning fully to LED is a very achievable task. It is low cost, non-disruptive and can reduce electricity consumption by up to 90%. LED outperforms conventional lighting in almost every conceivable way. It expends less energy, lasts longer and is readily compatible with lighting controls. Upfront costs are swiftly offset by reduced energy bills and can be alleviated through innovative finances options such as Light as a Service.

As a company that produces more lighting than anyone else in the world, Signify has been at the forefront of the development and mass adoption of low-energy lighting solutions. In 2012, energy efficient LED lights and connected systems made up just 22% of our sales. By 2023, it was 91%.

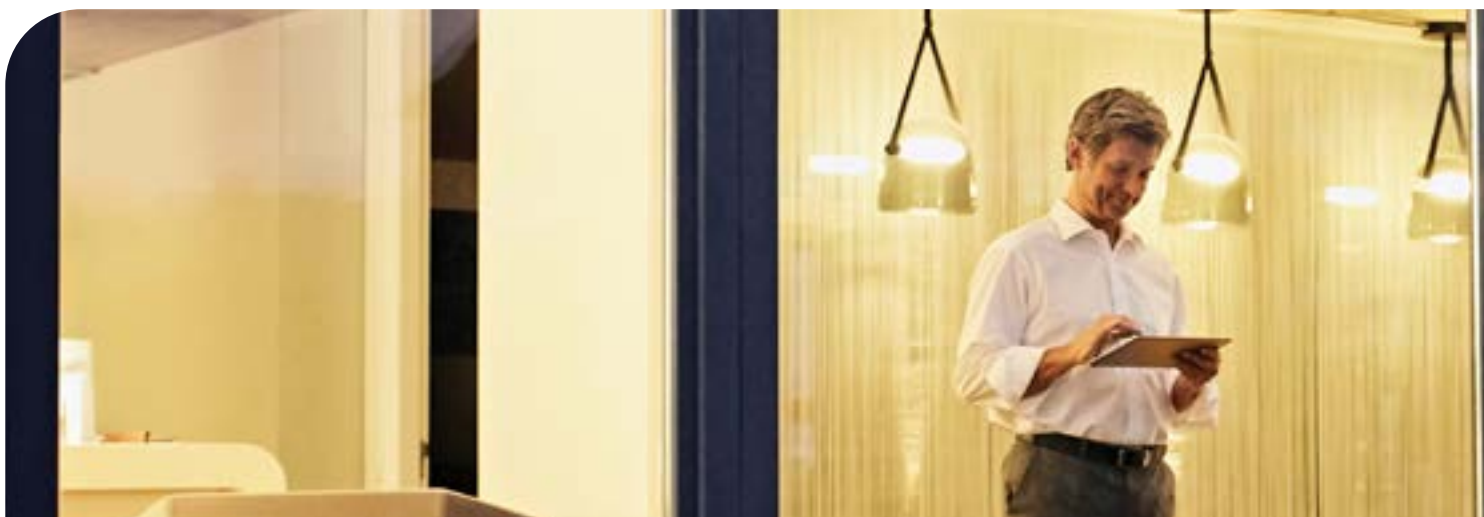
But there is still work to be done. According to the International Energy Agency (IEA), in 2022, lighting accounted for more than 2% of global greenhouse gas emissions, equivalent to the impact of aviation². With effective actions, it's possible to cut that number in half and achieve 1% emissions from lighting.

CLIMATE TRANSITION PLAN

Earlier this year, Signify launched a Climate Transition Plan, inspired by the four As of the climate leadership framework from the We Mean Business Coalition³. Our climate transition plan focuses on how we respond to the climate crisis with **Ambition**, achieve our ambition with **Action**, lead a broader transition through **Advocacy**, and drive progress by showcasing **Accountability**. Through following this blueprint, we aim to achieve our 2040 target to reach net-zero and reduce absolute scope 1, 2 and 3 greenhouse gas emissions by 90%, eliminating the remaining 10% through carbon removals.

The use phase of our products accounts for more than 99% of total emissions across our value chain. Therefore, to achieve net-zero, we must further increase the energy efficiency of our lighting. The latest ultra-efficient technologies last even longer and greatly surpass the energy savings previously possible with LED, resulting in a 50 – 60% improvement in efficiency compared to first-generation LED.

The technology is there. Now, we need to ensure that it is adopted by all. We cannot act alone. We work closely with consumers, businesses and cities to help them phase out conventional lighting and replace it with more energy-efficient LED. We continue to invest in energy efficiency





in our products, systems, and services, and in tools like our Green Switch Calculator, which helps public, business, and individuals calculate the financial and emissions benefits possible when converting lighting in cities, workplaces, and homes.

However, if we are to half emissions from lighting, we need support from governments to enact the commitments made under the Paris Agreement, educate and incentivise consumers, and increase renovation of our public infrastructure. Working together, we can reduce

dependency on fossil fuels and create a cleaner, more sustainable world for our children.

Calculate what you can save with Green Switch:



Signify (Euronext: LIGHT) is the world leader in lighting for professionals, consumers and the Internet of Things. Our Philips products, Interact systems and data-enabled services deliver business value and transform life in homes, buildings and public spaces. In 2023, we had sales of EUR 6.7 billion, approximately 32,000 employees and a presence in over 70 countries. We unlock the extraordinary potential of light for brighter lives and a better world. We have been in the Dow Jones Sustainability World Index since our IPO for seven consecutive years and have achieved the EcoVadis Platinum rating for four consecutive years, placing Signify in the top one percent of companies assessed. News from Signify can be found in the Newsroom, on X, LinkedIn and Instagram. Information for investors is located on the Investor Relations page.

Sustainable Life Centres, places that promote and inspire sustainability



With a robust governance structure and a long-term vision, ALLOS aims to positively impact society and the environment.

With nearly 50 years in the industry and sustainability in our DNA, we connect people to what truly matters, continuously transforming retail in Brazil. Our ESG Platform, based on the concept of "Sustainable Life Centres," outlines our strategic sustainability plan and sets commitments for 2030 and 2040.

ALLOS' ESG Platform is divided into four main hubs: Diversity and Inclusion, Well-being and Human Development, Environmental Conservation and Communities and Sustainable Habits.

DIVERSITY AND INCLUSION

We aim to create inclusive, pluralistic and democratic spaces. Our initiatives began with a census that highlighted a diverse workforce, with 45% women and 40.7% Black individuals in leadership positions. As a signatory of the Global Compact and a partner of MOVER (Racial Equity Movement), we promote various awareness programmes, literacy initiatives, workshops and thematic weeks to engage our teams and value chain in this agenda. Our

efforts are recognised by our inclusion in the Bloomberg Gender-Equality Index and B3's Diversity Index.

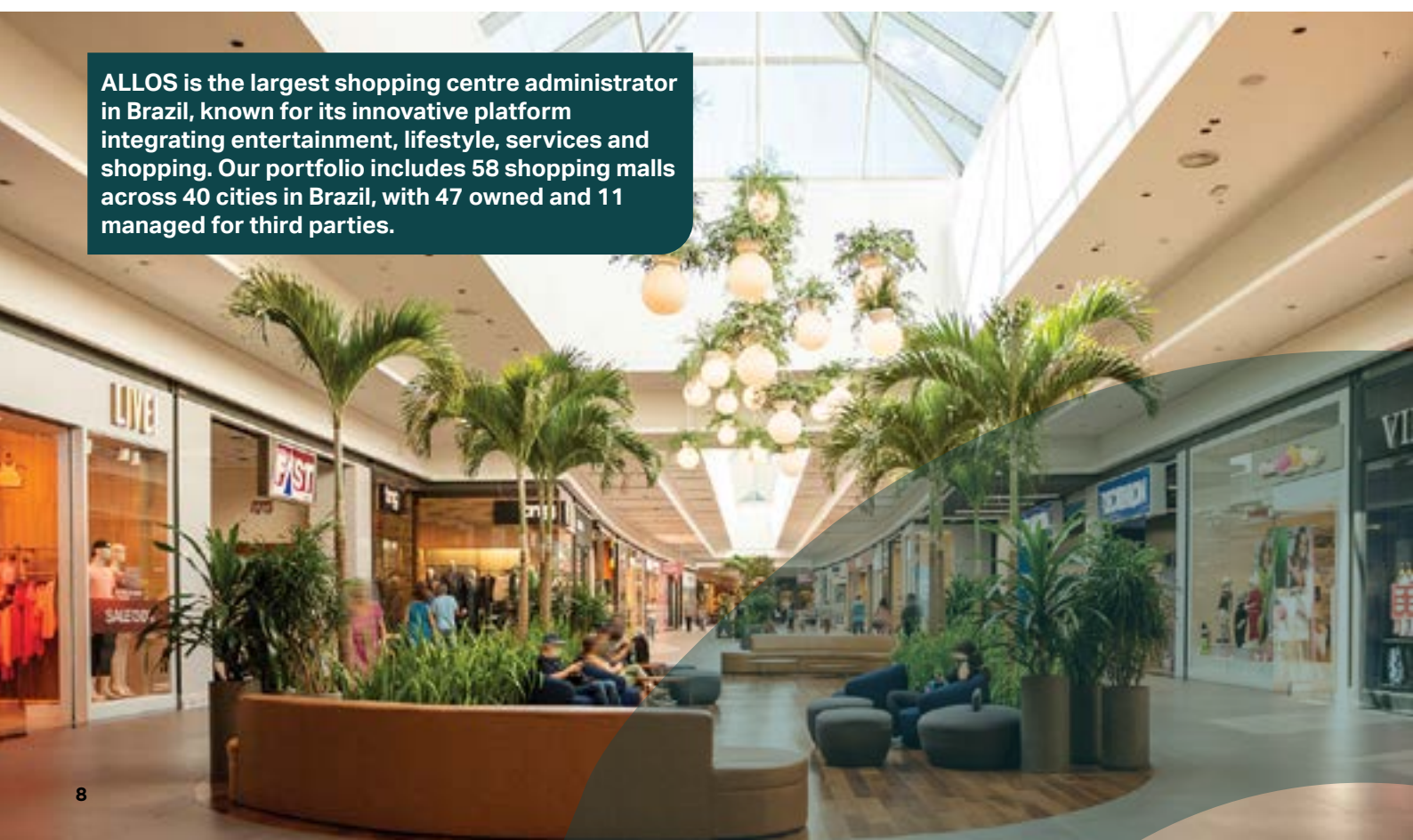
WELL-BEING AND HUMAN DEVELOPMENT

We are committed to fostering a safe and healthy environment for our employees and customers. Our comprehensive development ecosystem provides diverse training and learning journeys, and regular climate surveys help maintain team motivation. Customer satisfaction surveys are also conducted to identify and implement improvements.

ENVIRONMENTAL CONSERVATION

Combating climate change is a priority. We have developed a climate transition plan and focus on efficient natural resource use, with 80% of our contracted energy coming from renewable sources. We operate a solar power plant and have various energy efficiency projects. In 2023, we were included in B3's Efficient Carbon Index (ICO2) and received the Gold Seal in the GHG Protocol for the second year. We also enhanced our CDP (Carbon

ALLOS is the largest shopping centre administrator in Brazil, known for its innovative platform integrating entertainment, lifestyle, services and shopping. Our portfolio includes 58 shopping malls across 40 cities in Brazil, with 47 owned and 11 managed for third parties.



58
MALLS

+54m
VISITS
EVERY MONTH

6.8m
M² BUILDING
POTENTIAL

2million m²
OF GLA

R\$ 40bi
SALES

R\$ 2.7bi
NET REVENUE

4,236
OWN EMPLOYEES

R\$ 2.4bi
NOI

Disclosure Project) score to B. Our water reuse initiatives, including sewage treatment and rainwater harvesting, have enabled 14 shopping centres to save water equivalent to 170 Olympic swimming pools. In waste management, we emphasise non-generation, recovery and material circularity, diverting over 30,000 tonnes of waste from landfills.

COMMUNITIES AND SUSTAINABLE HABITS

We view sustainability as a way to make a difference for our stakeholders, paying special attention to the communities around our centres. Our shopping centres aim to be spaces of transformation, promoting sustainable habits and

supporting local development. In 2023, we supported nearly 3,000 projects across Brazil, benefiting over 500,000 people.

With all these initiatives and the mindset of generating shared value, we will transform our shopping centres into "life centres," ensuring a positive return for the business, the environment and society. We aim to serve as an inspiration for other companies in Brazil and worldwide, demonstrating that sustainable development is not only feasible but essential.

allos.co/en/

DIVERSITY AND INCLUSION

2030 COMMITMENTS:

- ▶ Achieve 50% female representation in leadership positions, promoting engagement across the entire value chain.
- ▶ Achieve 48% Black representation in leadership² positions, promoting engagement across the entire value chain.
- ▶ Ensure 100% of shopping centres have accessibility certification³.

(2) Commitment established with the Movement for Racial Equity – MOVER
(3) NBR 9050 Certification

ENVIRONMENTAL CONSERVATION

2030 COMMITMENTS:

- ▶ Achieve 100% renewable electricity by 2030⁴ and reach carbon neutrality by 2040⁵, continuously investing in energy efficiency.
- ▶ Recycle 90% of the total waste generated.
- ▶ Reduce water intensity⁶ by 5%, with 100% of shopping centres implementing water reuse systems.

(4) Does not include cogeneration
(5) Scopes 1 and 2
(6) m³/m² of common area, excluding stores consumption

SUSTAINABLE COMMUNITIES AND HABITS

2030 COMMITMENTS:

- ▶ Ensure 100% of the shopping centres promote and create solutions to enable the adoption of circular and low-carbon practices by our customers.
- ▶ Ensure 100% of the shopping centres support at least one strategic project on local development.
- ▶ Progressively increase the number of people benefited by local development projects.

WELL-BEING AND HUMAN DEVELOPMENT

2030 COMMITMENTS:

- ▶ Maintain or exceed 85% employee engagement.
- ▶ Ensure 100% of employees have development plans.
- ▶ Raise awareness and implement actions to promote well-being among employees and customers.

(1) The 2030 commitments consider owned and controlled enterprises.

Clean Beauty innovation in pharmacies

It is impossible to talk about clean beauty in Brazil without mentioning Simple Organic. With over seven years of growth, the brand has steadily established itself in the market. From the beginning, we understood that small actions can positively impact the planet.

We play an educational and engaging role, built daily through our community relationships, to encourage a more critical purchasing perspective, aiming to balance consumption and awareness. After all, change begins from within.

Beyond providing qualified information, Simple Organic operates on several fronts, demonstrating that sustainability is a feasible path. Here, it starts with the rigorous selection of raw material and packaging suppliers, support for extractive communities, sponsorship of social projects and carbon neutrality in our logistics operations and penetrating the Farma channel, another door we are opening to democratize clean and sustainable beauty.

This marked a new chapter in our history, reaching more than 2,000 pharmacies across the country, which enabled us to be even closer to our community.



COMMITMENT TO SUSTAINABLE DEVELOPMENT

As a signatory of the UN Global Compact and a participant in the COP for the third consecutive year, we implement solutions that offer social and environmental benefits, aligning with the Sustainable Development Goals (SDGs).

SDG 2: We support small farmers and extractive communities in the Amazon. Last year, in partnership with the Beraca Institute, we built artisanal oil extraction houses in the Anajás community on Marajó Island, strengthening the local economy.

SDG 12: Our Packaging Policy adheres to the criteria established by the National Solid Waste Policy (PNRS): no double layers of plastic, easy disassembly and predominantly glass to maintain recycling value for cooperatives.

Our raw materials come from sustainable management, and our suppliers are monitored according to the brand's socio-environmental criteria.

For e-commerce purchases, we use corn-based extruded materials that can be repurposed as plant fertilizer after use.

SDG 13: We encourage our consumers to join our Reverse Logistics Program so that empty packaging is directed to associations, cooperatives and selective collection and recycling operators.

100% of the packaging released into the market is recycled through environmental compensation, supporting recycling cooperatives.

We adopt Carbon Neutral Shipping to offset the carbon emissions from our product deliveries.

SDG 14: In partnership with Sea Shepherd Brasil, an international non-profit marine conservation organization, we train divers and contribute to purchasing professional equipment and training for dive instructors to remove ghost nets from the seabed. These efforts have removed nearly half a ton of underwater waste.

Our concern with plastic and microplastics extends beyond packaging and formulas. We have developed the Simple Bag, an exclusive, 100% compostable, plastic-free and zero-waste bag.

We also replaced ingredients in traditional sunscreen formulas that contribute to coral bleaching in our Simple Sun line. Instead, we use safe filters with better environmental compatibility, enhanced by Eco Sun Pass technology.

SIMPLE ORGANIC

SPECIALIZED ESG INFORMATION

Providing original and specialized ESG content is one of our ways to educate the community. Recently, Simple launched Enter, an independent platform focused on fashion, beauty, trends, sustainability and lifestyle.

Enter is both a physical and digital platform, being the first communication vehicle in Brazil with this focus.

BEYOND SKINCARE

While we are known as a skincare brand, we are more than that. We are a movement towards a more sustainable life, where less is more.

We aim to encourage an ethical stance towards nature and preserve our future and the coming generations. We strive to promote our purpose daily, reaching more and more people so they can become agents of this change.

We hope this is an irreversible path.

simpleorganic.com.br





Brazil and Climate Change: Government Technological Strategies

On April 27, 2024, the first heavy rains began in the state of Rio Grande do Sul, Brazil. From that date, the southernmost state of the Brazilian territory started experiencing soil saturation and the rise of the main river basins in the region.

To assist in agile decision-making and provide quick aid to the population, the use of cloud technologies enabled the rapid resumption of processes that helped governments act quickly and precisely to meet the population's needs.

The technological infrastructure of the state and municipalities ceased to function because their structures were underwater. As a result, internal and external communication was hampered, and decision-making was hindered by the information generated during the catastrophe.



During the heavy rains, **471 cities were affected by floods**, more than **200 people died**, over **600,000 people** had to leave their homes and 80,000 people had to stay in temporary shelters. **On average, 95% of the state's economy was impacted**, with **\$300 million** in uncollected taxes.

Thus, Codex and Esri made their technological structure available in ArcGIS to assist in the resumption of technology use in government structures. **Over 30 days, 17 applications** were implemented in the operational flow during the floods. These technologies supported the following government decisions:



Logistics organization of rescues;



Visibility of affected immigrants;



Monitoring of dam breaches;



Prediction of areas that could be affected by water levels rising in cities;



Providing an overview of the before and after of affected areas, facilitating faster reconstruction in the most impacted regions;



Monitoring of blocked roads



Locations of public infrastructure impact estimates



Estimation of the number of people/families that could be affected by neighborhoods;

However, it is important to highlight that these solutions were only possible due to the prior organization of data governance in the involved institutions. This organization ensured a faster and more efficient response, ensuring safety in the analysis and management of risks associated with the unpredictability of floods.

With the experience gained during this catastrophe, it became clear that prevention and the use of software that speeds up decision-making are essential in the face of the rapid increase in climate events. Prevention, therefore, can save lives.

471 cities
were affected
by floods



600,000
people

had to leave
their homes



Codex is a Brazilian company that operates in the thematic areas of climate change, cities, data governance, environment, infrastructure and gas, offering solutions with data intelligence for agile and efficient decision-making. Our team works to facilitate and optimize the use of data, aiming to ensure security and efficiency in daily activities.

www.codex.com.br

+180
projects

Les Eaux Minérales d'Oulmès: A pioneer in industrial digitalization for climate action

A strong commitment to sustainability

Les Eaux Minérales d'Oulmès leads the mineral water, the refreshing drinks and healthy hydration sector in Morocco. In alignment with its sustainability strategy, the company continuously seeks innovative ways to optimize resource use, minimize Greenhouse Gas (GHG) emissions and reduce its overall environmental impact.

Driven by its dedication to sustainable development, especially in terms of climate action, Les Eaux Minérales d'Oulmès participates in several global initiatives, including the Science Based Targets initiative (SBTi), adhering specifically to its "Business Ambition for 1.5°C" standards. The company is committed to progressively decreasing its GHG emissions by 2030, in alignment with Morocco's Nationally Determined Contributions (NDC).

To meet this goal, Les Eaux Minérales d'Oulmès has launched several major projects as part of its low-carbon roadmap. These include reducing primary and secondary packaging, gradually replacing its truck fleet with more eco-friendly vehicles, incorporating photovoltaic energy to enhance the energy mix and increase the share of renewable electricity, and implementing digital energy consumption management – its flagship initiative, which has had a considerable impact on energy efficiency.

Digitalization for energy efficiency and carbon neutrality in industry

In pursuit of improved energy and industrial performance, Les Eaux Minérales d'Oulmès has deployed a digital system for energy monitoring and operational efficiency across its production sites. This system features two cutting-



A PROJECT UNDER THE DIGITAL DEMAND-DRIVEN ELECTRICITY NETWORKS INITIATIVE

The digitalization project was developed in partnership with the Italian Ministry of Environment and Energy Security, UNEP and the International Energy Agency (IEA), as part of the tripartite Digital Demand-Driven Electricity Networks Initiative (3DEN). The initiative strives to accelerate global climate action and the widespread adoption of clean energy models and to improve the flexibility, reliability and resilience of energy systems while reducing the company's carbon footprint.



LES EAUX
MINÉRALES
D'OULMÈS

edge digital solutions: the first optimizes energy flow management at the company's two main industrial sites, while the second enhances industrial performance and resilience through data analysis and anomaly detection.

Energy consumption data is now automatically collected with real-time precision, thanks to IoT sensors deployed across the production lines. The advanced IT solutions, powered by Artificial Intelligence (AI), provide detailed monitoring and analysis, enhancing decision-making efficiency. These systems also help the company identify inefficiencies at every stage of production and predict potential breakdowns through proactive maintenance, significantly reducing downtime, optimizing energy usage, and ultimately lowering operational costs.

Beyond immediate energy savings, this project marks a major step toward a more sustainable future. It allies environmental responsibility with operational excellence and serves as a replicable model for other industries in the region aiming to transition to low-carbon, Industry 4.0 operations.

www.oulmes.ma



A WHITE PAPER TO INSPIRE

Les Eaux Minérales d'Oulmès is preparing a white paper to share its experience with companies in the agri-food and industrial sectors, detailing the methodology, prerequisites and various stages of the digitalization and energy optimization project to inspire and support efforts towards more sustainable, decarbonized operations.

Brazil's road to COP 30

The role of the private sector

Luciana Nicola, Sustainability Director, Itaú Unibanco

COP 30 will take place in Belém, Pará, at the end of 2025. It will be the first time the conference has been held in the Amazon Rainforest and has been informally dubbed the "COP of the Forests". The choice of Brazil as host was a remarkable diplomatic achievement for the country and for its ambition to lead on the climate agenda. The challenge is daunting and will require strong articulation from both the public and private sectors to demonstrate the country has done its homework.

Tens of thousands of people, including scientists, diplomats, world leaders, CEOs, civil society representatives and activists, will be in the capital city of Pará, a promising venue to link the global climate discussion to issues of interest to the country, such as land use change, biodiversity and low-carbon agriculture.

By COP 30, Parties will be faced with the challenge of revising their Nationally Determined Contributions (NDCs), in order to limit the global temperature increase to 1.5°C. The new NDCs are expected to be more ambitious, but more importantly, feasible.

Brazil's NDC was set in 2016, and in the almost 10 years since the signing of the Paris Agreement, Brazil and the world have experienced several lessons that must be reflected in the new NDC, which must take into account the specificities of the different sectors of our economy.

We need to demonstrate and leverage our strengths, such as the renewable energy grid, the wide availability of nature-based solutions and the potential of low-carbon agriculture, while addressing challenges such as curbing illegal deforestation, regularising rural property through the Rural Environmental Registry (CAR), regulating the





carbon market and establishing a taxonomy of sustainable activities.

The private sector has also played its part, and the ESG and climate agendas have become priorities for companies, with pressure from various stakeholders for greater ambition and, above all, transparency.

For all these reasons, it is worth remembering some initiatives that bring the private sector together to strengthen a bottom-up economy, such as the Braçoçoam Business Council for Sustainable Development, which brings together some of the largest companies in Brazil; the Net Zero Banking Alliance, created within the UN to bring together financial institutions from around the world around decarbonisation; and the Glasgow Financial Alliance for Net Zero (GFANZ), created at COP 26, which recently created a specific chapter for Brazil.

Itaú Unibanco is carrying out these and several other initiatives, and they are proof that the private sector recognises that by acting together, companies have much more power to drive the changes needed to stabilise the rise in global temperatures.

Before Belém, however, we have COP 29 in Baku, Azerbaijan, which is expected to be the COP of climate finance, as one of the most urgent agendas will be to set new targets for financing mitigation and adaptation, and to operationalise the Loss and Damage Fund itself. The climate transition should mobilise important public and private financial resources, but we are still facing the debate on who should pay for the transition of developing countries, which may extend to the COP in Brazil.

We are at a pivotal moment: the effects of climate change are already being felt – Belém and the Amazon Rainforest itself are facing recurring droughts and temperatures that can exceed 35°C – and countries and businesses are being asked to step up their ambitions. It is a race against the clock, and COP 30 is the moment to give this discussion the weight and relevance it deserves, and to put Brazil and Latin America at the forefront of this agenda.

www.itaú.com.br



Empowering women for energy security

The climate crisis is a pressing issue that demands urgent and comprehensive solutions. As we grapple with escalating socio-economic tensions, widening poverty gaps, and amplifying gender inequality wrought by climate change, it becomes clear that women must be at the forefront of the energy transition. Their unique perspectives, skills and experiences are not just beneficial but essential in driving the change needed for a sustainable future.

Climate change does not affect everyone equally. Women, particularly in developing regions, often bear the brunt of its adverse effects due to their vulnerable socio-economic status. The climate crisis acts as a threat multiplier, exacerbating existing inequalities and creating new challenges for women and girls. This heightened vulnerability underscores the urgent need to empower women in the fight against climate change.

The energy transition requires a shift towards gender equality, recognizing women as crucial stakeholders, policymakers and implementers. Historically, the energy sector has been male dominated, but the tide is changing. Events like COP29 also reaffirm the commitment to a gender-responsive, just transition, emphasizing that gender equality and women's empowerment are pivotal to accelerating the implementation of the Paris Agreement.

Research shows that women tend to have more positive attitudes towards climate action. This is why increasing female representation in leadership positions and ensuring gender-balanced boards are vital steps towards a low-carbon future. Women bring fresh perspectives and innovative solutions, which are essential for the sustainability and success of the energy transition.

Despite the progress, significant gaps remain. Women are still under-represented in senior roles within the energy industry. Structural barriers, biases and a lack of mentorship and role models contribute to this disparity. To overcome these challenges, we must start early by encouraging girls to pursue Science, Technology, Engineering and Mathematics (STEM) subjects and providing mentorship opportunities to young women.

To foster female representation in corporate leadership, it's imperative to create inclusive and supportive environments. Robust inclusion, diversity and belonging policies are key. Organizations must measure and communicate gender metrics, support women through middle management, and provide flexible working conditions, especially for those balancing family responsibilities.

“ The energy transition is not just a technical challenge, but also a social one. By empowering women and integrating gender equality into our strategies, we can build a more resilient, innovative and just energy system. The future of our planet depends on it. ”

Vito Saluto
Head of ESG

Role models and allies, both male and female, play a crucial role in this journey. Women need to see and feel that they can occupy spaces traditionally dominated by men. By holding everyone accountable for greater inclusion and celebrating diversity in top roles, we can create a more equitable and effective energy sector.

At AMEA Power, we believe that women have a central role to play as agents of change in the energy transition. We are constantly assessing and reviewing our policies to reduce gaps between men and women and improve company performance, as we firmly believe that their empowerment accelerates the path to a sustainable future.



Recently, we also announced a collaboration with the International Finance Corporation (IFC) to conduct a Gender Assessment aimed at identifying operational gaps and developing strategies for growth.

Additionally, as part of our Community Development and Investment initiatives, we aim to harness the strength of women in our project host communities, supporting their development and opening up sustainable opportunities for women to thrive. Our focus on gender inclusion is key to a sustainable future.

ameapower.com



Change for a more sustainable future

**Pamela Phua, Global Product Management Director,
Innovation & Sustainability, Decorative Paints, AkzoNobel**

Climate change stands as one of the most pressing challenges humanity faces today. The year 2023 and the first half of 2024 saw numerous record-breaking temperatures and extreme weather events worldwide. January 2024 marked the hottest January on record, with an average sea surface temperature of 20.97°C, surpassing the previous record set in 2016.

These disruptions to nature directly impact our environment, ecosystems, human lives and production processes, etc., ultimately affecting global development and security. Addressing climate change has thus become an urgent imperative for every nation and its people.

DUAL GOALS ON SURFACES

As a reputable global provider of surface products and solutions, AkzoNobel's product range spans various economic sectors, including industry, production, services and residential use. AkzoNobel's innovations significantly influence industry transformations and the lives of customers, as demonstrated by the following achievements:

In the Beverage Industry:

AkzoNobel introduced Aqualure G1 50 and Accelstyle, the new generation of coatings technology compliant with FDA and EU regulations, enabling beverage can manufacturers to offer products with surfaces free from bisphenols, styrene and PFAS. The new products allow manufacturers to switch to coatings that do not contain harmful substances, while maintaining commercial viability. Additionally, AkzoNobel's bisphenol-free products reduce carbon emissions by up to 26% compared to previous epoxy-based products. It means, with Accelstyle, AkzoNobel achieves the dual goals of protecting users and minimizing environmental impact.

In the Transportation Sector:

In aviation, AkzoNobel developed new paint for Brazilian manufacturer Embraer's Profit Hunter E195-E2 aircraft, called Tech Eagle, unveiled at the 2023 Dubai Airshow. AkzoNobel's colour experts provided the ideal paint palette aligned with Embraer's vision. The skilled team at MAAS completed the aircraft painting.



On the ground, AkzoNobel became the first supplier of bio-based interior coatings for KIA Motors. The interior paint for EV9, the new electric SUV, uses bio-rosin (*rosin*

As a company committed to sustainable development, AkzoNobel has prioritized innovation to provide solutions that help combat global climate change. Built on a solid foundation of passion and dedication, the AkzoNobel team has relentlessly pushed boundaries to create new, high-quality, aesthetically pleasing, safe and more sustainable surface solutions.

In 2023, AkzoNobel embarked on comprehensive improvements and innovations driven by a shared ambition: to paint the future and collaboratively build a vibrant, colourful and more sustainable world for future generations.

is a solid form of resin) one extracted from rapeseed and one from pine rosin, meeting all colour and functional requirements, including UV protection, air cooling, temperature regulation and scratch resistance.

Pursuing a philosophy of perfect surfaces that are not only beautiful but also meet quality, impact, efficiency and sustainability criteria, AkzoNobel sets high expectations for its R&D team. This team is tasked with delivering digital solutions that streamline processes and increase profitability, helping auto repair shops work smarter and more sustainably. Refinish+ is one of the outcomes of this effort. This is a comprehensive set of solutions from Sikken's Vehicle Refinishes for repairing the entire paint layer on vehicles, from restoring the original colour, reducing drying time and volatile organic compounds (VOC) emissions, to lowering carbon emissions on the vehicle body, etc.

In the Powder Coatings Industry:

AkzoNobel's approach to sustainable development is guided by the principle of reducing consumption and increasing durability. AkzoNobel pioneered the introduction of Interpon D1036 Low-E, a product that can cure at temperatures as low as 150°C, 25% faster than conventional powder coatings, thereby reducing energy consumption by 20% during production. Products using Interpon D approved coating techniques can be warranted for up to 30 years for exterior architectural applications, supporting sustainable construction trends, cost savings and resource conservation.

Similarly, in the **Decorative Paint Sector**, real-world tests have shown that AkzoNobel's Dulux Professional Weathershield Express improves application productivity by 30% compared to traditional three-coat systems, saves 20% of time and reduces material consumption by 15%. Closely linked to daily life, AkzoNobel has successfully applied bio-based PureAir technology to improve indoor air quality and KeepCool Technology™ to reduce building surface temperatures by up to 5°C.

AkzoNobel

HEARTS TURNED TO THE COMMUNITY

Beyond my passion for creating surface solutions and adding colour to life, thousands of AkzoNobel employees worldwide share a big dream: to join hands in building a better world.

For nearly a decade, AkzoNobel has partnered with SOS Children's Villages in numerous social programmes. The "Let's Colour" initiative aims to reduce youth unemployment through soft skills education, vocational training and innovation, and has been successfully implemented in countries including Argentina, Belgium, China, Brazil, Nigeria, South Africa, Pakistan and Indonesia. Besides job and entrepreneurship training, the programme focuses on character and capability development. For example, in Banda Aceh and Meulaboh, Aceh Province, Indonesia, young people are trained to make furniture from wood and iron or learn about constructing nursery structures.



received vibrant, inspiring murals, creating a friendly space for children to grow and create. Dulux EasyClean Anti-Virus was used to ensure the projects were more sustainable and provided a safe, healthy environment for the children. Once again, a dual goal achieved by AkzoNobel!

Renovating community projects has become a hallmark of AkzoNobel's social efforts. In Vietnam, repainting historically significant local lighthouses like Dai Lanh, Vung Tau and Cu Lao Xanh, has been well-received by local residents and the young Vietnamese community. The short film 'Eyes of the Sea', integrating the refurbishment of Dai Lanh Lighthouse into a heartwarming family story, garnered over 13 million views, linking Dulux Weathershield with the image of lighthouse guardians in this tropical country. The message of joining hands to protect lighthouses was also spread to young Vietnamese.

YouthCan! Initiative, another SOS Children's Village activity in which AkzoNobel participates, reaches out to orphans, providing them with the best language skills to communicate with the world, opening up new job opportunities.

In India alone, over 3,500 underprivileged youth have been trained at AkzoNobel India's Paint Academy, and this number continues to grow as training activities expand worldwide.

Notably, these community contributions, regardless of time or place, always receive enthusiastic support from passionate hearts. I am deeply moved by the images of Indian AkzoNobel employees painting community halls and family homes at SOS Children's Village Greenfield in Faridabad. Similarly, in Indonesia, AkzoNobel employees joined hands to renovate foster homes and kindergartens at SOS Children's Village in Jakarta. These foster homes



► FOR A BETTER WORLD

As mentioned, responding to global climate change is an urgent priority, compelling AkzoNobel and other businesses to take resolute action. In alignment with the Paris Agreement, AkzoNobel is actively striving toward sustainable value indicators, which include: reducing carbon emissions by 50% in its operations, cutting carbon emissions by 50% across the entire value chain and achieving 100% circular material usage in operations through reduction, reuse and recycling. AkzoNobel also aims for 50% of its revenue to come from more sustainable solutions.

AkzoNobel continues to develop radical solutions to combat climate change. One such innovation is KeepCool Technology, which uses special pigments to reflect infrared heat, keeping exterior walls up to 5°C cooler in the Dulux Weathershield product line. To reduce solvent emissions, AkzoNobel is converting specialty wood coatings and decorative paints to water-based technology, targeting over half of its production. Additionally, in the furniture sector, AkzoNobel is implementing circular solutions by increasing the use of renewable materials in finishing products.

It's important to note that climate change and sustainable development must be collective efforts, not the responsibility of a single business or country. This common goal requires strong collaboration among businesses, organizations and governments. Focusing on green transformation, carbon reduction, innovation and cooperation, AkzoNobel gathers resources from partners across the value chain to address main challenges. AkzoNobel continues to work with ecosystem partners on research and transformation activities.

Thanks to these combined efforts, AkzoNobel has achieved impressive results. By 2023, compared to 2018,

AkzoNobel's absolute energy consumption in operations decreased by 4% and relative energy consumption decreased by 7%. Furthermore, all production sites in North America, Europe and Latin America now operate with 100% renewable electricity, marking a significant milestone following a 48% reduction in waste to landfill versus the 2018 baseline. These achievements are not the final destination. Responding to climate change is only part of the overall sustainable development goal. The circular economy presents more opportunities, despite significant challenges. By adopting this economic model early, AkzoNobel has achieved notable circular solutions, such as a unique two-layer coating method that reduces material usage and improves labour productivity while maintaining superior performance similar to the conventional three-layer coating method. This material reduction goal is further supported by Sprayvision, a data technology that adjusts materials according to surface needs. This data-driven coating technology helps customers save time, ensure perfect coverage and reduce waste.

AkzoNobel is also using renewable materials as bio-based binders in decorative paints and producing recycled paints from waste materials. These circular paint lines have been launched in some European countries under the Sikkens and Dulux brands. Despite certain cost challenges, AkzoNobel's circular, more sustainable solutions genuinely enhance user health and happiness. The bio-based paint line protects walls from harmful pollutants, providing cleaner indoor air and fresher homes. AkzoNobel's wood coating line ensures that high moisture MDF wood interiors and exteriors eliminate harmful volatile compounds.

Since its foundation in 1792, AkzoNobel has positioned itself as a brand that brings colour to spaces, protecting vital values in life: family bonds, creativity, social development





and community cohesion, etc. AkzoNobel's mark can be found in projects deep underground, in homes, cities, transportation means and even spacecraft. Each layer of paint tells a story, just as each person is a marvel of creation. AkzoNobel believes that opening up a world full of potential is built on the most basic foundation everyone has access to: the colours of life. As Zen masters often advise us living mindfully, recognizing, capturing and cherishing the most beautiful moments around us in the present is the key to opening up a bright future. AkzoNobel's future path will be guided by the purpose **"Paint the Future"**.

"Paint the Future" is not only the purpose for AkzoNobel but also a call to action. The world is striving to accelerate the transition to a better economy. In a constantly moving world, sustainable development requires building an innovation ecosystem. Collaboration, connection and positive

inspiration to explore new limits are the springboards that elevate human imagination and skill to new heights. I believe this connection, not just between businesses but also at local, national and regional levels, is essential. Only then can we collectively achieve climate goals and meet basic human needs – all for the benefit of tomorrow's world.

"Paint the Future" will be the foundation and motivation for AkzoNobel to surpass all limits. AkzoNobel's innovative activities will be built on three main pillars, also the identity it has established over time: Innovation, Sustainability and People. Imagine a day where you greet the morning not with plans to complete routine tasks, but with dreams of a better world where each of us is a colourful piece in the mosaic of that bright future. Your day would be much more wonderful, wouldn't it?



Pamela Phua is currently the Global Product Management Director, Innovation & Sustainability. With more than 25 years of experience in the Paints and Coatings industry, she has driven the business with new technology development and product implementation across the globe, especially in Singapore, Vietnam markets and the South East and South Asia regions.

In her global capacity, Pamela implements the functional and production innovation strategy for exterior wall paint. She spearheads the RD&I functional excellence, standards and capability, and the efficient delivery of processes as the approved standards and processes across the globe.

Together with a special passion for sustainable development, she has led her teams to innovate paintings products and solutions through increasingly sustainable benefits for AkzoNobel customers and the environment. She also actively gets involved in sustainable activities in projects to create inspiring living spaces for local communities and to promote green architecture trends.

She is the President and Technical Chairperson for the Singapore Paint Industry Association. Pamela is also a committee member in the Chemical Standards Council of Singapore and the Chairperson for the Technical Committee for Surface Coating. Pamela is an industry consultant to regulatory bodies such as Enterprise Singapore, Singapore Green Label, The Housing and Development Board of Singapore, Singapore Green Building Council, National Environment Agency of Singapore and the Singapore Institute of Architects. She contributed to the development of various Singapore Standards such as SS 345 (Specification for emulsion paints for decorative paints), SS678 (Specification for Solar Reflective Waterbased Coating), SS500 (Specification for elastomeric wall coatings), SS150 (Specification for Emulsion Paints for Decorative purposes), SS 579 (Specification for water-based sealer for interior and exterior uses) and many others.

Pamela currently leads Working Group for Fine Ceramics (for photocatalysis) and Waterbased Standards and participates in the Working Group for Energy Efficient Coatings. She is also an A* Star certified auditor for accredited laboratories in Singapore.

Pamela is also the vice-chairman for ACIF, Asia Coating and Ink Council Federation incorporated in Hong Kong, 2022.

Email: pamela.phua@akzonobel.com

Navigating Brazil's path to a just energy transition

Maria João C. P. Rolim
Vivian Marcondes de Oliveira

The global shift from fossil fuels to cleaner energy sources, known as "Energy Transition," is a pivotal movement in the fight against climate change. At its core lies the concept of a just transition, which seeks to harmonize decarbonization efforts with the development of a more equitable, secure and sustainable energy system.

Brazil stands at the forefront of this transition, boasting a well-balanced energy matrix that combines renewable and non-renewable sources. According to the 14th annual report by the World Economic Forum, the "*Fostering Effective Energy Transition 2024*", Brazil ranked 12th in the Energy Transition Index, ahead of nations like the United Kingdom (13th), China (17th) and the United States (19th). This index evaluates 120 countries on the performance of their current energy systems, focusing on equity, environmental sustainability and energy security, as well as their readiness for transition.

Brazil is uniquely positioned for success. With its domestic energy endowment, potential for developing disruptive technologies, such as green hydrogen, and stable democracy with strong energy sector regulations, Brazil has attracted significant investment. In 2023, the country invested USD 34.8 billion in renewable energy initiatives, carbon capture, green hydrogen and electric vehicles, as reported by BloombergNEF's "*Energy Transition Investment Trends*". However, challenges such as developing skilled labour, fostering innovation, building robust infrastructure and enhancing resilience to climate disasters remain.

Despite each country following a unique energy transition path, as stated by the World Economic Forum, they share common goals, such as: enhancing energy security through diverse energy and electricity mixes; as well as, diversifying import partners; improving energy and carbon intensity; increasing the share of clean energy in the fuel mix;

implementing carbon pricing mechanisms; and establishing strong and supportive regulatory environments.

In recent years, Brazil has demonstrated political commitment and strengthened institutions, creating an ecosystem conducive to energy transition. Key policy instruments include the Ecological Transformation Plan (Plano de Transformação Ecológica - PTE, in Portuguese), the Industrial Deep Decarbonization Initiative and the Low Carbon Hydrogen Bill of Law.

Launched at COP28, the PTE is a proposal from the Global South (developing or emerging countries) to promote sustainable development and rethink globalization. With an estimated annual cost between USD 130 billion and USD 160 billion, the plan aims to stimulate investments that enhance the environment and reduce inequalities. The proposal includes establishing a regulated carbon market, creating technological innovation centres in universities, expanding forest concession areas, electrifying bus fleets, promoting recycling and executing public works to mitigate natural disaster risks.

The Industrial Deep Decarbonization Initiative addresses challenges in the so called hard to decarbonize sectors like cement, steel, aluminum and petrochemicals. It prioritizes social safety nets, community engagement and workforce reskilling, ensuring that economic growth aligns with environmental sustainability and social justice.

As for the newly approved Low Carbon Hydrogen Law in Brazil, also known as Law No.14.948/2024, it marks a significant step towards Brazil's green reindustrialization as it establishes essential nomenclature for the national hydrogen market, differentiating types of hydrogen based on energy sources and emissions, as well as introduces crucial economic incentives to boost this emerging industry.

Rolim Goulart Cardoso

Brazil's role as the current G20 president adds momentum to its energy transition efforts. The Federal Government emphasizes the social dimension of the transition, aiming for a fair and inclusive process, and allocating resources swiftly in response to the climate crisis – underscored by the climate catastrophe in southern Brazil earlier this year.

The relentless rains and massive floods in May 2024 left deep scars on the population. The disaster resulted in approximately 160 deaths, 500,000 displaced people, 463 affected cities, destroyed roads, collapsed bridges, left nearly a million people without drinking water and 180,000 areas were without electricity. The long-term impacts of this catastrophe are still unfolding.

To leverage its strong momentum, Brazil must address its unique challenges and seize opportunities. As highlighted by the World Economic Forum, transitioning to an equitable energy system requires collective efforts from multiple stakeholders and carefully designed and targeted interventions to achieve energy equity.

As Brazil advances in its energy transition journey, it stands as a beacon of both opportunity and responsibility. The nation's commitment to integrating social justice with environmental sustainability is a model for the global community, demonstrating that economic growth and ecological stewardship can go hand in hand. By investing in cutting-edge technologies like green hydrogen and prioritizing inclusive policies that address the needs of all citizens, Brazil is poised to lead the world in crafting a just and sustainable energy future. Nonetheless, the challenges ahead are significant and demand attention. Considering the country's unique blend of resources, innovation and political will, Brazil is well equipped to navigate them. By fostering collaboration across sectors and embracing its role on the international stage, Brazil can not only meet its own energy needs but also inspire other nations to pursue a more equitable and resilient path. Let's hope Brazil navigates well on these waters!

www.rolim.com



Maria João Rolim

Vivian Marcondes de Oliveira

Dc. Maria João Rolim is a founding-partner at Rolim Goulart Cardoso. She holds a B.A. in Law and Economics; a Masters in Law from the Federal University of Minas Gerais; a LL.M. in European Law from the London School of Economics and a Phd in Energy Law from the Centre for Energy, Petroleum and Mineral Law and Policy, in Dundee. She was a Visiting Scholar at the Sabin Center for Climate Change Law at Columbia University.

Vivian Marcondes de Oliveira is a lawyer at Rolim Goulart Cardoso. She holds a B.A in Law from the University of São Paulo and a LL.M in Environmental Law and Policy from Stanford Law School. She is pursuing a Masters in Law at Mackenzie Presbyterian University.

Smart Solar Technologies: Leading the Charge Towards a Sustainable Future

As the world faces the urgent challenge of addressing climate change, the role of renewable energy in the transition to a low-carbon economy has never been more critical. Smart Solar Technologies, a global leader in the renewable energy sector, stands at the forefront of this transformation, exemplifying how innovative solutions and strategic investments can drive the world towards a more sustainable future.

Pioneering Innovations in Photovoltaic Technology

Smart Solar Technologies' core operations revolve around two primary business lines: the production of photovoltaic (PV) modules and cells, and the provision of turnkey installation services for both rooftop and ground-mounted solar projects. With an impressive manufacturing capacity of 2400 MW for PV modules and 800 MW for cells, the company is a key player in the solar energy market.

Recognizing the pivotal role that technological advancements play in the widespread adoption of solar energy, Smart Solar Technologies continuously invests in cutting-edge research and development.

Strategic Investments in Vertical Integration and Energy Transformation

A cornerstone of Smart Solar Technologies' strategy is its commitment to vertical integration. In addition to its existing capabilities in photovoltaic module and

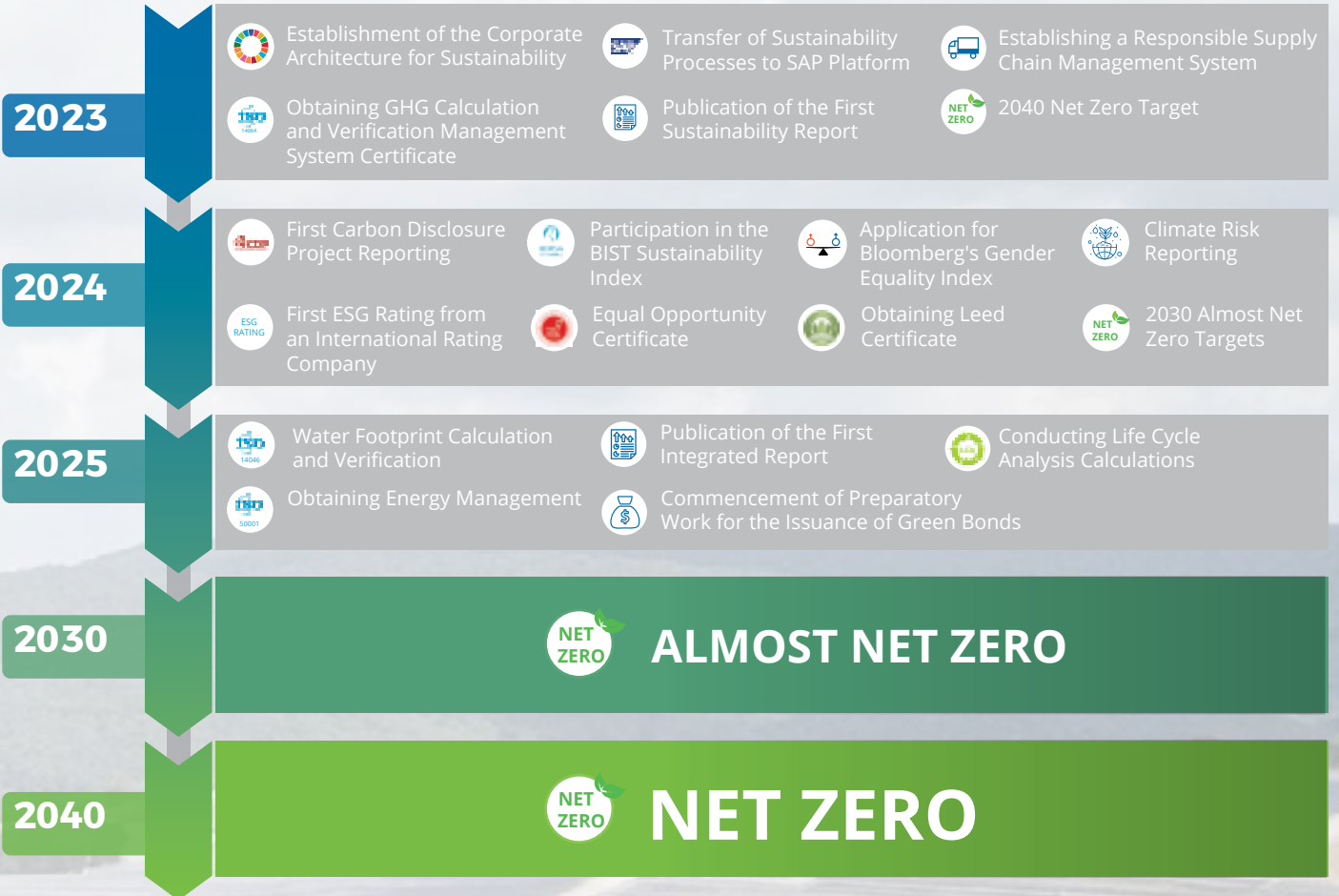
cell production, the company is planning significant investments in the production of ingots and wafers, further enhancing its control over the entire value chain.

Beyond its core activities, Smart Solar Technologies is actively engaged in developing integrated energy transformation solutions. These initiatives include advancements in green hydrogen production, energy storage systems and electric vehicle (EV) charging infrastructure – all of which are powered by solar energy. By integrating solar power with these emerging technologies, the company is playing a crucial role in building a comprehensive and resilient renewable energy infrastructure.

Responding to Global Developments and Embracing Sustainability

In the rapidly evolving global climate and economic landscape, Smart Solar Technologies is acutely aware





of the importance of adapting its strategies to new challenges and opportunities. Developments such as the Russia-Ukraine war, the Green Deal Industrial Plan announced by the European Union to ensure energy security and the US Senate's Inflation Reduction Act (IRA), which aims to increase the country's renewable energy production potential as part of the fight against inflation, are among the important issues we take into account when developing our sustainable growth and investment strategies. As stated in our corporate strategy document, we aim to start investment activities in 2024 for US panel and cell production facilities with a total capacity of 3 GW in at least two states, the feasibility of which has been completed in 2023.

Enhancing Supply Chain Sustainability

A significant milestone in 2023 for Smart Solar Technologies was the launch of our Sustainable Supply Chain Management project. We have developed a comprehensive Supply Chain Policy and Supplier Code of Conduct, which are being integrated into all our corporate

sustainability practices. We expect all our suppliers to adhere to these guidelines, ensuring that our supply chain operations respect human rights, protect the environment and comply with International Labour Organization (ILO) and United Nations principles. Furthermore, starting in 2024, we are implementing polysilicon traceability requirements to enhance transparency and accountability across our supply chain.

As Smart Solar Technologies looks to the future, it remains steadfast in its mission to drive the green energy transition. With a Net Zero target set for 2040, the company is on a path to achieving significant reductions in carbon emissions across its operations. Through strategic investments, innovative products and a strong commitment to sustainability, Smart Solar Technologies is not only shaping the future of the energy industry but also contributing to the global effort to combat climate change.

<https://smartsolar.com.tr/en/>

Ehfaaz: reimagining the future of waste in the UAE

In the UAE's arid landscapes, often linked with fossil fuel extraction, Ehfaaz is pioneering sustainable waste management, showing innovation can thrive even in challenging environments.

A Circular Economy Oasis in the Desert

Ehfaaz began by converting food scraps and agricultural byproducts into nutrient-rich animal feed with its flagship product, ReFeed, addressing sustainable animal feed demand and reducing landfill waste and methane emissions. Expanding its portfolio, Ehfaaz introduced:

Reproco:

Eco-friendly cleaning products from unwanted cosmetics.

Recova:

Comprehensive recycling for homes, hospitality and offices.

ReFeed:

A composting and animal feed system for agriculture and sustainable feed.

Revive:

A data-driven platform optimizing waste management and tracking sustainability.

These solutions, part of the Ehfaaz Ecosystem, are both environmentally friendly and profitable, proving sustainability can drive profitability.

The Ehfaaz Ecosystem: A Symphony of Circularity

The Ehfaaz ecosystem transforms organic waste into animal feed and compost (ReFeed), discarded beauty products into cleaning agents (Reproco) and uses the Revive platform to optimize waste management with AI and analytics. Ehfaaz redefines waste as a resource, using innovative technologies to create a regenerative system benefiting both the environment and economy.

The Science Behind the Transformation

Ehfaaz uses composting and anaerobic digestion to break down organic waste. Food waste is transformed into animal feed through fermentation, reducing environmental impact and providing livestock nutrition. The Revive platform optimizes waste collection and processing with data analytics and AI.

Technology as the Catalyst: The Revive Platform

Revive underpins the ecosystem, leveraging AI and analytics to optimize waste management from collection to product distribution, ensuring resource recovery and transparency for clients.



Ehfaaz is a pioneering UAE-based company specializing in circular economy solutions, transforming waste into valuable resources for a sustainable future. Learn more at www.ehfaaz.ae



The Multifaceted Impact of a Circular Ecosystem

Ehfaaz's ecosystem provides:

- **Climate Mitigation:** Reducing methane emissions by diverting organic waste from landfills.
- **Resource Conservation:** Decreasing reliance on virgin materials.
- **Sustainable Agriculture:** Producing animal feed from food waste.
- **Economic Opportunities:** Creating green jobs and stimulating regional growth.

Aligning with Global Sustainability Goals

Ehfaaz aligns with multiple UN Sustainable Development Goals (SDGs) and the UAE's national sustainability goals, including UAE Vision 2050 and Dubai Municipality's waste diversion targets.

COP29: A Global Stage for Ehfaaz's Vision

Ehfaaz's model aligns with key initiatives like the Climate Finance Action Fund (CFAF), Partnership 4 Reducing Organic Waste (ROW) and Baku Initiative for Climate Finance, Investment and Trade Dialogue (BICFIT Dialogue).

Ehfaaz is transforming waste into valuable resources, creating a new paradigm for sustainability.

A Global Impact:

From Local Innovation to International Inspiration

Ehfaaz's model inspires similar initiatives globally, gaining attention from UNEP and UNFCCC. Their participation in COP29 solidifies their leadership in sustainable waste management.

Looking Ahead: A Model for the World

Ehfaaz's success shows the potential of the circular economy to address global challenges. Participation in COP29 will showcase their approach and inspire others to embrace circularity, catalyzing a global transition to a circular economy.

www.ehfaaz.ae

The Ehfaaz Impact: More Than Just Numbers

ECONOMIC:

Increased partner revenues by **15%**

Reduced waste disposal costs by **20%**

ENVIRONMENTAL:

Diverted **5,000** tons of organic waste

Reduced CO2 emissions by **10,000** metric tons

SOCIAL:

Created **25** new green jobs,

empowered farmers with sustainable feed

THE CIRCULAR ECONOMY APPROACH



Fighting climate change

Lojas Renner S.A. was founded in 1965. It is one of the largest fashion and lifestyle companies in Brazil, and it is respected for its work on sustainability and has made sustainability part of its values since 2013. Lojas Renner has more than 670 stores operating in Brazil, Uruguay and Argentina, based on the brands: Renner, Camicado, Youcom, Ashua, Repassa, Realize CFI and Uello.

We understand that environmental preservation and the development of conscious, fair and prosperous social relationships are paramount to gaining and maintaining the trust and pride of our employees, customers, suppliers and shareholders. We try to contribute to the construction of a more transparent company, aligned with a value proposition that contributes to a more sustainable model.

All advances to leverage our value generation have our commitment to responsible fashion embedded, guided by public commitments stated in 2021, until 2030, with our focus on the development of human and diverse relationships, to climate, circular and regenerative solutions and expanding connections in the search for solutions in the value chain, mitigating risks and capturing socio-environmental and climate opportunities with a leading role in global retail.

In recognition of our actions, we were, once again, the leading fashion retail company in the Dow Jones Sustainability Index and Top 3 in general retail in the world.

All of our advancements are guided by our 2030 Commitments, which are focused on three key pillars:

- **Human and diverse relationships:** promoting diversity and inclusion.
- **Climate, circular, and regenerative solutions:** reducing emissions and creating sustainable processes.
- **Value chain connections:** fostering collaboration to mitigate risks and seize socio-environmental and climate opportunities.

Our main challenge in the transition to a low-carbon economy is linked to reducing emissions per piece in the coming decades and, at the same time, continuing to grow sustainably, being increasingly efficient in our operations.

In this sense, our Transition Plan foresees efforts to increasingly promote the use of more sustainable raw materials (recycled), energy transition in our supply chain and in our operations.

Our climate strategy is based on keeping our business resilient to climate change. In addition to science-based emission reduction targets, we manage and monitor the main climate risks for the company and our supply chain. We have established a climate adaptation programme, which contains a multidisciplinary team to find better solutions to climate threats and their possible impacts.

Learn more about our progress with public commitments at: <https://www.lojasrennersa.com.br/en/sustainability/2030-commitments/>

www.lojasrennersa.com.br





Our Commitments:

Net Zero by 2050, target under analysis, submitted to SBTi (Science Based Targets initiative) in December 2023
 Reduce absolute GHG emissions for scopes 1 and 2 by 46.2% by 2030, compared to 2019, in line with the 1.5°C target scenario
 Reduce scope 3 GHG emissions from purchased goods and services by 75% per item of clothing and footwear (Renner and Youcom) by 2030, compared to 2019, a target aligned with the target scenario of well below 2°C



Our Operating Plan:

Since 2021, all our operations use low impact renewable energy
 Store Automation Program, based on energy efficiency
 Gradual replacement of air conditioning units with more efficient models and cooling fluids with lower GWP
 All of our own vehicles to use renewable fuel by 2028
 Incorporate the principles of the circular economy into our products and services



Plan for the Supply Network:

All our Tier 1 suppliers to have GHG inventories of the operations and use the primary data of our inventory, by 2025.
 90% of our operations to use low impact renewable energy by 2028
 Energy efficiency program for our boilers and machinery
 All main raw materials to be more sustainable by 2030



Positive Influence on Society:

Target aligned with the latest studies on the 1.5°C target scenario
 Join allies in advocating positive climate action
 Engage with our customers about the climate emergency



Governance:

Annual reporting of progress on actions and targets since 2013 and third-party assurance since 2014
 Monitoring of the topic by the Sustainability Committee
 Variable remuneration for executives based on performance in this area (since 2021)
 Commitment to TCFD principles
 Since 2012, investors informed of progress through the CDP

Making meaningful fashion, that promotes positive impact in the world and for all

Our Sustainability Vision "Making meaningful fashion that promotes positive impact in the world and for all" clearly expresses the intention of a business model with integrated strategic planning, ideology and ESG principles. We organize our sustainability strategy guided by this vision, with axes and initiatives that encompass the pillars of sustainability and ESG. **The 5 guiding axes for us are:**

1. Ensure integral and sustainable governance;
2. Ensure care and valorization of people in the value chain;
3. Promote eco-efficient and responsible operations;
4. Innovate in sustainable materials and products;
5. Engage the network of relationships for a fashion with meaning culture.

Throughout our journey, we have structured projects and implemented actions to promote positive impact for the world and for all. Like our women's fashion brand "Vila Flor," which uses surplus knitwear and fabrics from other Lunelli brands to produce their products, making the best use of available materials and reducing environmental impact. The brand's priority is to offer democratic products, with more accessible value, and support the circular economy in fashion. In this way, we directly operate in axis 3 - *Promote eco-efficient and responsible operations.*

We understand that we make meaningful fashion when we value and respect all people, which is why we invest in a Diversity and Inclusion strategy, where we operate in our axis 2 - *Ensure care and valorization of people in the value chain.* In 2024, we continued our **RESPECT INSPIRES**





RESPECT project, where through local actions and a global mindset, we launched the corporate Diversity and Inclusion Policy, conducted workshops and working groups in each state where we are present. It was through active listening and people's involvement that we identified areas for improvement for each reality, the most appropriate actions and indicators to progress on the topic.

We believe that businesses play a fundamental role in building a better world and that our suppliers are important agents in this journey. Therefore, we seek to operate in axis 5 - *Engaging the network of relationships for a meaningful fashion culture*, to positively influence our supply chain. We conducted a Sewing Supplier Training Programme, starting with a pilot in 2023 with 7 suppliers and expanding to 24 suppliers in 2024. In this programme,

we share with our partners business management best practices, people management, workshops on indicators and lean manufacturing, productivity, quality and financial management. Through the programme, we aim to empower our partners, reduce related risks and promote positive impact throughout our chain through collaboration, training and positive influence.

We know that it is through a systemic view that we will progress on the journey towards a more conscious and responsible fashion. What unites all actions is our sustainability vision: Making meaningful fashion that promotes positive impact in the world and for all. We are confident that the journey is ongoing, and we have many opportunities to strengthen our positive impact in the world.

www.lunelli.com.br



Lunelli is a textile company that has been operating as an industry and retailer for over 40 years, through eight brands, more than 21,000 customers, 4,800 employees and 14 units in Brazil and Paraguay, producing over 14,000 tons of fabric and 24 million garments per year.

The Signify logo, featuring a stylized '@' symbol followed by the word 'signify' in a lowercase, sans-serif font.

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