

CASAIS

NEWS

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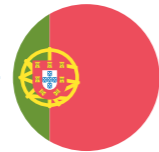
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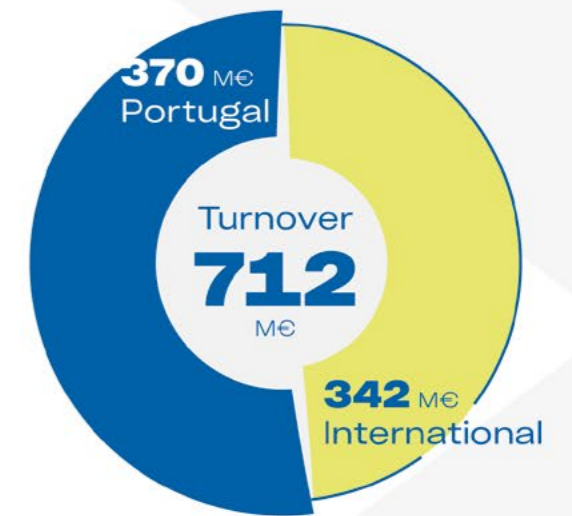
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WELL BUILT FOR WELL LIVING



98 208
Training Hours



agregate 2023



17 Countries

- | | | |
|----------|--------------|---------------------------|
| Portugal | Ghana | Qatar |
| Angola | Gibraltar | Spain |
| Belgium | Saudi Arabia | UAE (Dubai and Abu Dhabi) |
| Brazil | Morocco | United Kingdom |
| France | Mozambique | USA (Texas) |
| Germany | Netherlands | |



SUSTAINABILITY AT CASAIS

PEOPLE

COMPETENT AND SAFE PEOPLE

PARTNERSHIPS

ETHICAL AND COLLABORATIVE BUSINESS

INNOVATION

INNOVATIVE AND CONSCIENTIOUS SOLUTIONS

NATURE

SHARED AND VALUED TERRITORY

BUILDING A BETTER TOMORROW

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Chairman of the Executive Committee - CEO



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Board Member of the Executive Committee

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WELL
BUILT
FOR
WELL
LIVING

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EDITORIAL

António Carlos Fernandes Rodrigues // Chairman of the Executive Committee - CEO

In this edition of Casais News, I am proud to highlight the positive impact we have had on society over the years.

This is a special year, one in which we celebrate the **66th anniversary of the Casais Group**, which also marks **30 years of international activity, starting in Germany, and the 25th anniversary of Casais Angola, our largest international operation.**

Our culture of unity and team spirit is reflected in the **Casais Arraial**, a festival event that strengthens the bonds between employees and keeps the essence of our family alive. We are also looking to the future with initiatives that promote the inclusion of young talent in our organization, such as the **Generation C** internship programme and the **"Let's Grow Together" summer internships. The training and integration of employees from Guinea-Bissau** reinforces our conviction that we are all Casais, regardless of our country of origin.

Our value chain has been extended and enriched by collaboration with our partners. The first edition of the **Casais Partners Meeting** was notable for the experiences shared at the meeting and the **launch of KREAR** symbolizes our ongoing commitment to sustainability.

The recognition we have received is a reflection of everyone's hard work and dedication. We extend our congratulations to everyone who has contributed to the awards we have won, chief among them the **National Real Estate Award** for the Bayline and Antas Atrium projects, the **COTEC 24 Innovator Status** award, and the **National Urban Rehabilitation Award for the Lower Deck of the Luiz I Bridge**. Our dedication to sustainability has also been recognized, with the **Sustainability Award**, participation in the Mapa da Sustentabilidade programme and membership on the new board of **GRACE**.

Finally, we celebrated the inauguration of the second building in the **First Evolutionary Buildings** segment, the **Corporate First Gaia**, a milestone that reinforces our commitment to innovation and continuous development.

Let us continue to build a more sustainable, innovative and inclusive future together.



CASAIS ANGOLA → 25 YEARS OF DEDICATION, INNOVATION AND CORPORATE SOCIAL RESPONSIBILITY

Hélder Araújo
Board Member
of the Executive
Committee



In 2024, Casais Angola is celebrating a special milestone: **25 Years in Angola**. This quarter-century trajectory reflects our deep commitment to the country's development, not only through the construction of infrastructure, but also through the significant impact we have had on economic, social and human development. During this period, Casais Angola established itself as a leader in the construction sector. Its positive impact was recognised recently by the SIRIUS Award, one of Angola's most prestigious awards.

Winning the SIRIUS Award in the "Human Capital Development Programme" category highlights Casais Angola's commitment to investing in people. The award, received at the 10th edition of the SIRIUS Awards, underscores the importance of the company as a leader in practices that promote employee growth and development and strengthen the company's role as an agent of transformation.

This award celebrates the best business management practices and highlights the importance of projects that have a positive impact on the country's socio-economic development. The distinction received by Casais Angola is testimony to its ongoing commitment to investing in human capital, making a significant contribution to the country's future.



Over the last 25 years, Casais Angola has invested heavily in the **safety and development** of its employees. The consistent focus on training and development programmes ensures that each team member has the opportunities necessary to achieve personal and professional growth. This investment reflects the company's commitment to excellence and the well-being of its employees.

Technical competence and safety in the workplace are central to sustainability and long-term success. Casais Angola implements strict safety protocols and adopts advanced technologies to ensure that its employees can perform their duties efficiently and safely.

This focus is not limited to technical training, but also covers the development of a healthy and safe working environment. Investment in infrastructure, such as the **renovation of yards** and the **logistics park**, as well as the creation of **leading industrial plants** within their segment, are examples of Casais Angola's commitment to the continuous improvement of working conditions and the sustainable development of the country.



Casais Angola views social responsibility as a fundamental pillar. The company has stood out for its various initiatives aimed at improving the quality of life in the communities where it operates. These projects include education and training programmes for young people and adults which give them the opportunity to acquire technical and professional skills, thereby enabling them to contribute to the development of their communities.

Casais Angola also promotes other social initiatives, such as **renovating schools and nursery schools** and **the donation of food, clothes and books** to homes and hospitals. Such initiatives demonstrate the company's ongoing commitment to the well-being of communities, with the aim of positively impacting people's lives in many different ways.

Over the years, Casais Angola has not only built infrastructures, but has also played a crucial role in Angola's future by contributing to the country's sustainable development. The construction of schools, hospitals, roads, water supply, energy distribution, the improvement of working conditions in social facilities and participation in community infrastructure projects are all clear examples of how the company has positively impacted the lives of many people.

In celebrating its 25th anniversary, Casais Angola is looking to the future with enthusiasm and a clear vision. The company is committed to continuing to lead the construction sector in Angola with a renewed focus on innovation and sustainability. Investments in technology, infrastructure re-

novation and the construction of a new headquarters are tangible proof of Casais Angola's confidence in its future.

Innovation is seen as an essential tool for promoting sustainable development and improving the efficiency and quality of work.

Casais Angola is ready to face the challenges of the years ahead with the same determination shown during its first 25 years, and its constant striving to contribute to a better and sustainable future.



EMPLOYEE BENEFITS EARN CASAIS GROUP THREE AWARDS

The Casais Group once again received an award from Randstad Portugal for being in the **Top 3** of the **most attractive companies to work for in Construction and Infrastructure** in the country. In addition achieving a Randstad ranking, the Casais Group was recognized as a **healthy workplace** by the Order of Portuguese Psychologists on 22 May. These two distinctions reflect the Group's commitment to and continued appreciation of its employees.

May 2024 — Lisbon, Portugal

In Angola, Casais was awarded the **SIRIUS Award**, a Deloitte initiative, in the **Human Capital Development Programme** category because of its commitment to valuing and expanding the skills of its employees. The Casais Group has been in Angola for 25 years and has participated in and contributed to the country's sustainable development, on both the social and economic fronts.

April 2024 — Luanda, Angola

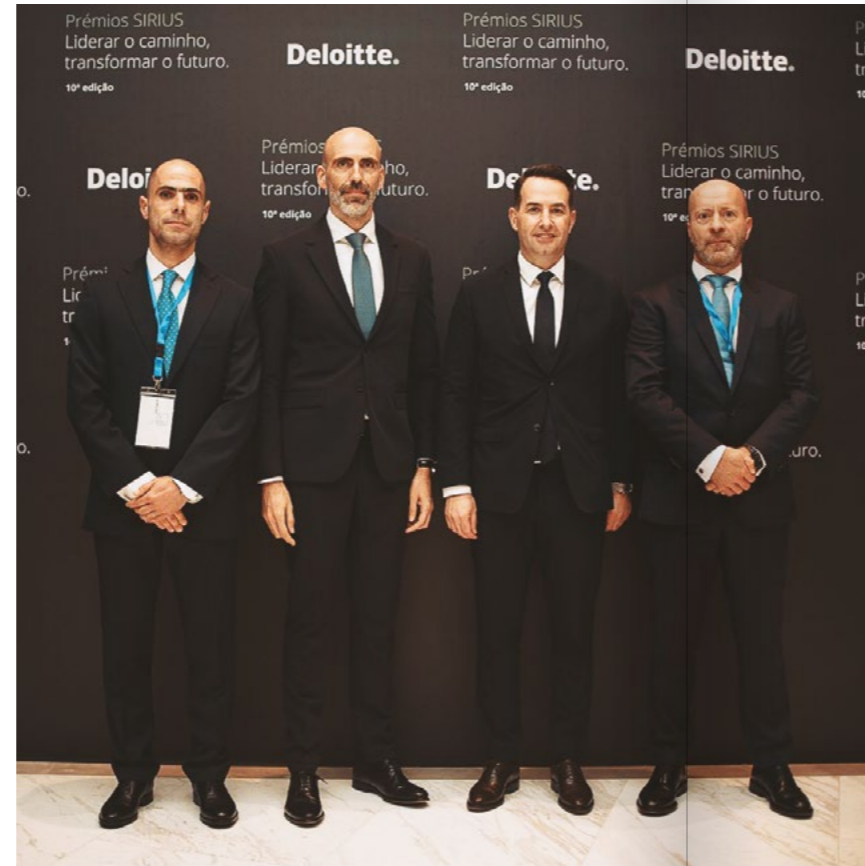


CASAIS GROUP IS RECRUITING AND TRAINING EMPLOYEES FROM GUINEA-BISSAU

In partnership with the Training Institute for Portuguese-Speaking Countries (IFCPLP) the Casais Group has created a groundbreaking project, with a special focus on Guinea-Bissau, designed to boost human resources training, capacity building and mobility in the CPLP (Community of Portuguese Speaking Countries). The project's three main objectives are to **combat illegal immigration into Portugal, improve the com-**

petences of CPLP citizens, and address the skilled labour shortage in Portugal.

At the same time, the Operational Mobility Centre reinforced teams from the Casais Group, Undel, Ancorpor, Casais Engenharia e Construção and Socimorcasa in April and May, when a total of 45 new employees arrived in Portugal from Angola, Brazil and Mozambique.





CASAIS GROUP CELEBRATIONS

PORTUGAL

23
May
2024
—
Braga,
Portugal



On the morning of 23 May, the **66th anniversary of the Casais Group** was celebrated at its headquarters. The ceremony included speeches by José da Silva Fernandes, Chairman of the Board of Directors, and António Carlos Rodrigues, CEO of the Casais Group. After the speeches and cutting of the cake, the Awards for Recognition and Organizational Merit and the ElogiArte prizes were presented.



ANGOLA

14
June
2024
—
Angola

The Casais Group has been in Angola since June 1999, thus marking 25 years in what is one of the Group's main markets. With more than a dozen companies and around 3,000 employees, Casais Angola has supported and contributed to the country's

economic and social development by expanding its operations in the construction, public works, industry and real estate sectors. The celebration of this milestone included a ceremony attended by António Carlos Rodrigues, José da Silva Fernandes and Helder Araújo, director of Casais Angola. During the day, visits were made to the construction sites in Luanda, where the directors took part in the delivery of hampers to the employees.





FESTIVAL CASAIS 2024

22
Junho
2024
—
Braga,
Portugal

As a Portuguese company that has its roots in Braga, the Casais Group has made a return to celebrating the city's culture by supporting the **Feast of São João** festivities. As a way of giving back to the Braga community, Casais offered and arranged for a concert at the festivities, bringing popular Portuguese singer-songwriter Ana Malhoa to the city.

The celebrations began in the afternoon with a party at the Parque da Ponte, in Braga's city centre, attended by employees and business partners of the Casais Group. Among the various activities and all the sardines, bifanas and other food to eat, there was no shortage of musical performances by many Portuguese favourites, such as the Grupo de Música Tradicional

de Merelim, Gatuna, Folclore, Batalá, and Borguinha & Naty Vieira.

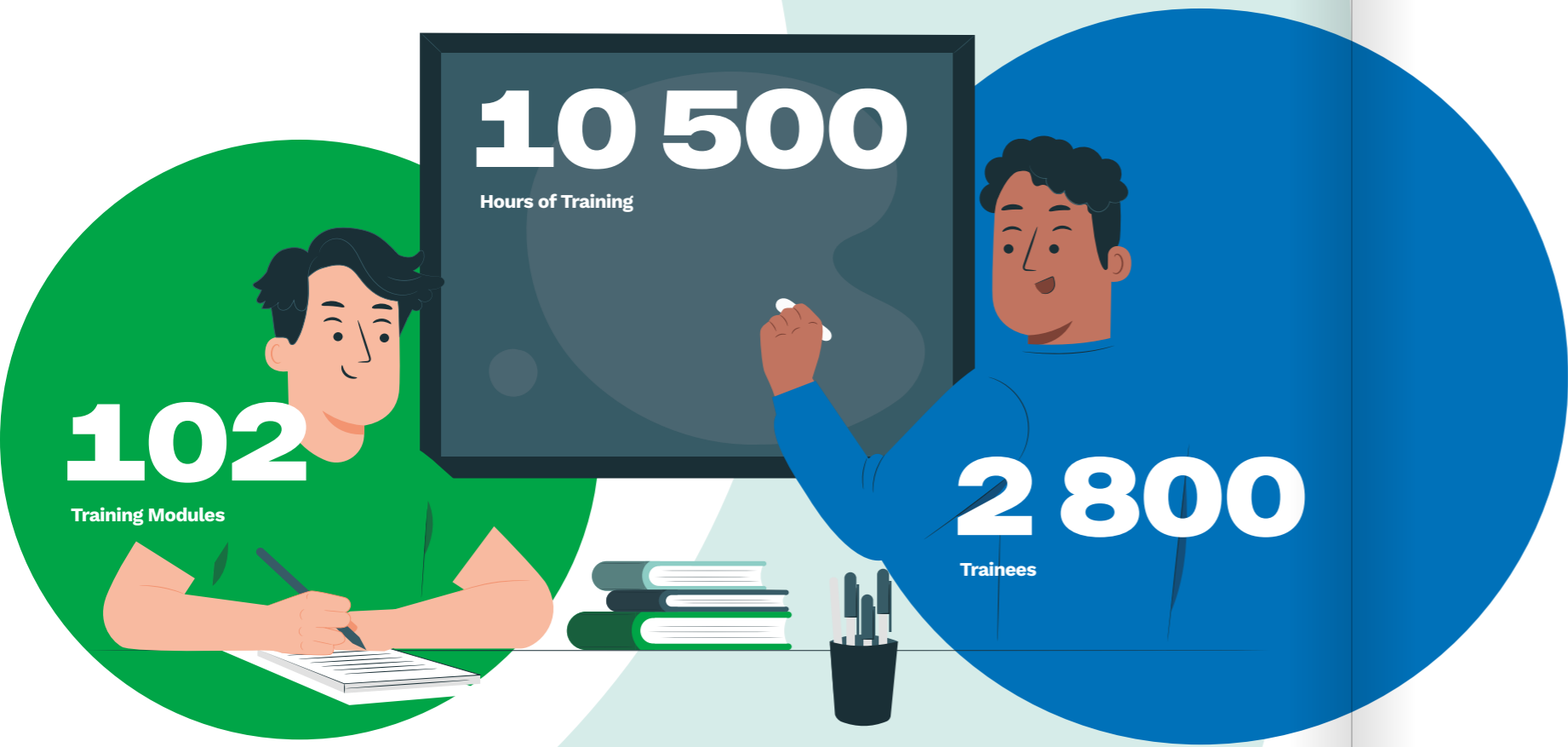
In the afternoon, the Euro 2024 football match between Portugal and Turkey—from which Portugal emerged victorious—was broadcast live. This was followed by sundowner cocktails at the venue, just before the much celebrated Ana Malhoa concert.





TRAINING

APRIL — JUNE



In the second quarter of 2024, **safety** training took centre stage, providing continuity with regard to first aid initiatives and topics such as equipment on site, ergonomics and safety in general. A total of **19 training modules**, with more than **360 participants**, covered more than **1800 hours of training**.

The ongoing Casais Group investment in **leadership** resulted in a further **six modules**, spanning **1,450 hours of training** and involving **65 participants**.

With regard to internal procedures, the focus this quarter was on the **CCS app** and the **Strategic Implementation Plan**, with a total of **ten modules** spanning **384 hours of training** on the two topics attended by **96 participants**.

Also noteworthy is the **+ Líder Programme**, with yet another edition completed in the second quarter. **Nine trainees** in the Algarve developed their skills and knowledge to enable them to assume the role of Team Leader.



PROGRAMA
GERAÇÃO
CASAIS 1ª EDIÇÃO



17
junho
2024
—
Braga
Portugal

The Casais Group has reinforced its commitment to attracting and developing new talent by welcoming eight new trainees to the **Generation C(asais)** programme. This programme is designed to provide balanced on-the-job training to future site managers by combining technical knowledge, practical experience and skills development against a professional background of innovation and the digitalisation of processes and procedures.

The first edition of this programme had 95 applicants and the **eight new members** selected are now working for the Casais Group in a nine-month programme under the guidance of a tutor, who provides continuous feedback and a designated “buddy” – a more experienced employee who works with them on site.



PROGRAMA
ESTÁGIOS DE
VERÃO

Under the motto **Let's Grow Together**, Casais Group challenged **23 higher education students** to take part in a real work experience under the supervision of experienced professionals and avail themselves of the opportunity to learn about the sectors in which the Group operates and explore the various business areas in the hopes of discovering potential career paths.



INDUSTRIALISED CONSTRUCTION — INNOVATION FOR MORE EFFICIENT BUILDING WITH LESS ENVIRONMENTAL IMPACT



Daniel Granjo
General Manager,
KREAR

Construction is one of the few industries whose processes have **remained largely unchanged for decades.**

To this day, despite improvements in the quality of materials, construction has always been associated with intensive labour, and excessively heavy and inefficient processes.

We are living in a time of change

The progressive scarcity of manpower in the sector, the inability to train and attract human resources, the delays and lack of efficiency experienced when complying with the latest environmental regulations are driving a rapid paradigm shift in construction.

Industrialised construction is intrinsically linked to innovation and technological development, combining automation and robotics typical of a factory with the digitalization of processes, such as the adoption of digital design and manufacturing tools, BIM (Building Information Modeling), intelligent logistics using software and RFID tags, big data analytics, augmented reality, blockchain and artificial intelligence (AI).

These technologies make it possible to maximize operational efficiency by planning better and controlling costs better, while also making it easier to detect faults in the process, thereby guaranteeing a high standard of quality and safety.

Shorter deadlines and greater productivity gains

Time is one of the most critical factors in construction. Projects that drag on generate additional costs and problems for developers, investors and buyers. With industrialised construction, time frames can be shortened dramatically, as this concept enables different phases of construction to take place in advance or simultaneously, which is not the case when building using conventional methods of construction.

The ability to build more quickly **reduces labour, construction work and materials costs** and also **offers a faster return for investors** and **accelerated access to housing for the population.**

Sustainability: Reducing Waste and the carbon footprint

One of the biggest criticisms of traditional construction is its negative environmental impact, given that **the construction sector accounts for roughly 37% of global CO₂ emissions,** with a large part of these emissions coming from the production of cement, steel and waste generated on construction sites.

Industrialised construction has a **positive environmental impact,** firstly because of the reduction in time taken to build, which means a direct reduction in energy consumption, and secondly because of the meticulously controlled process of standardising components reduces waste.

This construction model favours the management of resources and facilitates the incorporation of more environmentally friendly materials, including recycled ones, with positive effects on the life cycle of buildings.



Sustainability also needs to be measured by the energy performance of the buildings that result from this type of construction, which promises to revolutionize the national housing stock. Because industrialised construction is factory-based, it is possible to guarantee a high level of rigour and quality control, and achieve exceptional energy performance.

Prefabricated components guarantee excellent thermal and acoustic insulation, watertightness and the absence of thermal bridges. The result is **more efficient buildings with optimal thermal insulation, thereby reducing their impact on the planet and providing comfortable spaces** for people to live and work.

One other extremely important factor worth mentioning is the drastic and effective reduction in transportation during the building process. With this construction model, the components to be transported from the factory already incorporate numerous finishes, such as window frames and other fittings and fixtures, and so reducing transport requirements in terms of labour teams and material significantly, when compared to traditional construction.

Why KREAR?

The construction industry is at a crossroads and will be forced to reinvent itself under pressure from low productivity, inefficiency and high prices.

This scenario is set to bring about a groundbreaking shifts in the sector and give rise to new business models more focused on components and more sustainable processes, similar to those occurring in the automotive sector.

The lack of skilled labour, instability in the price of materials, successive delays in construction deadlines, and the inefficiency of the conventional construction industry in general, combined with the shortage of available housing, are all factors driving this inevitable paradigm shift.

The innovation and technological revolution in the sector is now taking place and it is in this context that KREAR came into being. This joint venture between the Casais Group and Secil is the product of a common and strategic vision with the aim of boosting the modernization and efficiency of construction processes in Portugal.

Objective and Positioning

KREAR aims to develop, supply and assemble industrialisable construction solutions, in two areas in particular: Prefabricated building structures and façades, with a focus on sustainability, adopting innovative technologies and approaches that result in buildings with greater energy efficiency and safety, as well as greater durability and structural strength.

By adopting this approach, KREAR also seeks to offer customers more flexible construction solutions, allowing for greater customisation in the design and functionality of buildings.

The system is made up of a set of industrialised 2D and 3D concrete-based parts produced in a controlled environment, which, after being assembled and joined together, make up the building's structure and façade, and can be used in new builds and renovation works.

This is a new way of building.

We are well aware of the demands of Portuguese architecture and the complex nature of our industry. KREAR stands out in the market for the flexibility of its solutions, both structurally and in terms of the types of facades it produces.

Each project will be studied carefully and the most optimised **structural solution** will be developed according to the architectural characteristics of the building.

Facades are KREAR's other strong focus. We believe that new market needs will boost demand for this type of solution. KREAR intends to develop structural and non-structural facades in the factory, completely finished, whether in concrete, ceramic, ventilated or any other material, and to include insulation, window frames, pre-installed fitting, etc. in these components, thereby adding value to the product.

The focus will be on carrying out as much of the building off site as possible, drastically reducing the need for on-site labour.

We want to work closely with architects and designers from the outset of the project that the design itself can be optimised and we can provide advice and technical support in the development of our solutions.

KREAR aims to be a **catalyst for the transformation of the construction sector** in Portugal, promoting new industrialised construction practices and stimulating innovation. We want to actively contribute to redefining the way we build, offering solutions that are both innovative, sustainable and efficient.

KREAR also wants to be recognized as a sector leader by demonstrating that it is possible to build efficiently and sustainably, without compromising quality or safety.

To achieve this, the company seeks to inspire the next generation of engineers and architects by providing a model for more innovative and responsible building practices.





1ST EDITION – CASAIS PARTNERS MEETING



6
June
2024
—
Braga,
Portugal

The **1st edition of the Casais Partners Meeting** brought together suppliers, clients and employees of the Casais Group at Forum Braga. **212 Participants** from **90 different companies** attended the first edition of the event. The main themes were the ESG and sustainability practices that the Group has already adopted as a pioneer of the sustainable approach in the construction sector, and in modular construction involving industrialisation and technological innovations, and the valuing of partners.

Check out
the summary
here →



NATIONAL REAL ESTATE AWARD

18
April
2024
—
Sintra,
Portugal

The Bayline and Antas Atrium projects were recognized at the **2024 National Real Estate Awards**. The projects, overseen by developers Vanguard Properties Portugal and Quest Capital, won the awards in the Housing category. This recognition is a testament to the commitment to excellence and quality that characterizes all our projects.



CASAIS GROUP ON GRACE'S NEW BOARD

17
April
2024
—
Lisbon,
Portugal

In April, GRACE, a non-for-profit, public-benefit business association working in the areas of social responsibility and sustainability, announced its new Board of Directors for the 2024 to 2026 term. **João Crispim, Head of Corporate ESG at the Casais Group, is a member** of this new board.



CASAIS GROUP AND SECIL LAUNCH KREAR JOINT VENTURE

2
May
2024
—
Lisbon,
Portugal

The Casais Group and Secil have joined forces to launch KREAR, a joint venture company whose mission is to promote **sustainable construction**. With innovative production facilities in Estarreja, this brand-new company has set its sights on helping to make a more sustainable world for generations to come. But how? By promoting high levels of quality and flexibility in the design and application of **industrialised construction solutions** and systems for more efficient, safer and healthier buildings.

TEKTÓNICA the construction sector fair attended by more than **25,000 people**, was the stage for the launch of the new KREAR brand that is intent on becoming the agile driving force behind a new construction paradigm in Portugal – and a key point of reference for the engineers and architects of tomorrow.





KNOWLEDGE SHARING



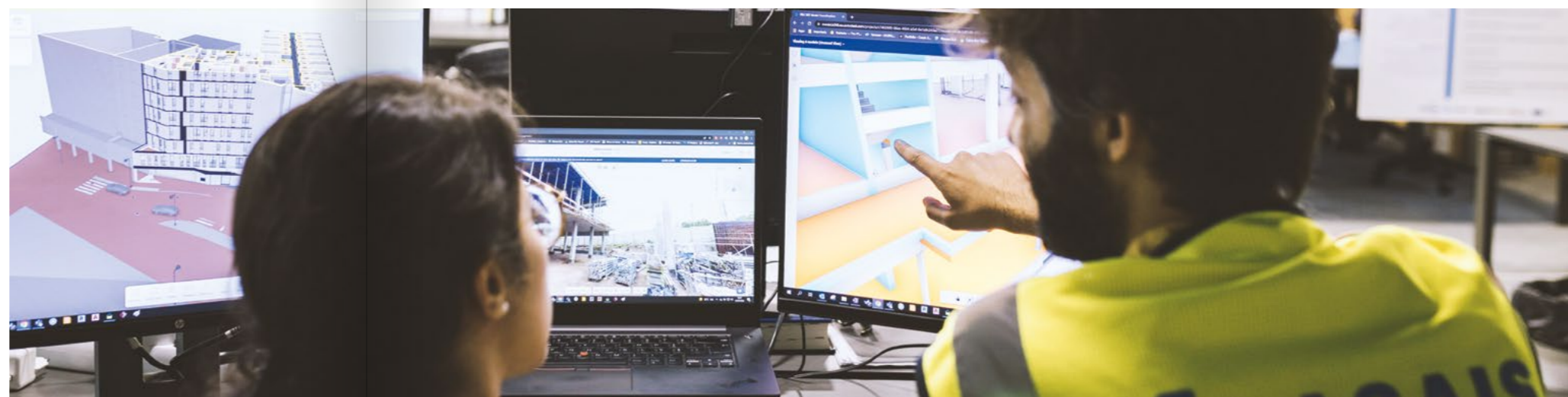
INNOVATIVE SOLUTIONS

Pedro Carneiro
Pre-Construction Specialist in Building Design

Sharing knowledge goes far beyond self-promotion. If the focus is on the solution being shared, it is natural that a public announcement will seem more like an exercise in self-congratulation, to demonstrate "how good we are for having solved X". However, I propose a different approach: **focus on the problem** presented. What is the biggest obstacle to solving a problem? **The biggest obstacle to solving a problem is not being able to formulate it properly so that you can attack it from the best angle.**

"A problem well stated is a problem half solved"

– Charles Kettering



That is the advantage of making public announcements. Rather than emphasising the solution presented by the speakers, my focus is primarily on defining the problem. Why? Because these "pains" are felt industry-wide. **We have many problems in common** and we all want to change the world, but if we try to "eat the elephant all in one go" we become overwhelmed by its size.

"I'd love to change the world But I don't know what to do So I'll leave it up to you"

– Ten Years After

Instead, we should focus on eating the elephant "one bite at a time" – on small parts of the whole that are well defined and clearly delineated. These are the problems that are effectively scaled to our capacity. Getting to grips with a small, well-defined problem is the first step in assessing whether it also applies to our case—and usually, it does—and, without detracting from the speaker's solution, we can then construct a solution that is appropriate to our context.

It is in this spirit that TopBIM is looking to include various public announcement opportunities its calendar: some to share with the public a few problems it has defined and/or solved, others to collect problems and bring them under the microscope of its "**innovation laboratory**". So, in the second quarter of 2024, TopBIM attended diverse events that were motivated by this same desire to feed problems to its audience.

BIM is a methodology whose main objective is to improve communication and collaboration between all those involved in architecture, engineering, construction and building operations. When using BIM, people are expected to collaborate in a centralised way, i.e., in a common repository containing everyone's contributions, in an unambiguous way and available for consultation by all parties involved. It is also expected that Building Information Models will be produced, which are more than purely three-dimensional geometric models: each component represented in the models, such as a wall, a door, a material, has properties and parameters that help characterize it. This in-

formation is inserted for the BIM purposes of each project, because it can be the basis for activities such as checking quantities for budgeting, energy simulations, and collision screening with other components. In other words, although the BIM methodology is a global standard, its application differs greatly from country to country (and in several countries, its use in projects is mandatory) and from company to company.

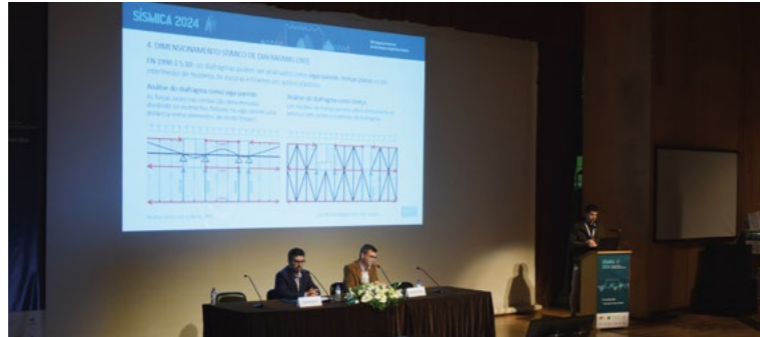
Since 2016, TopBIM has been adopting a BIM approach in a very innovative way in the Portuguese context, both when it comes to developing architectural and structural engineering projects, and in terms of providing support during the budgeting, pre-construction, and on-site operations phases of a project. This is the background against which TopBIM it has been ramping up its developments, the results of which it has been sharing with colleagues in the sector.



During this quarter, we attended the "11th edition of Lisbon's Urban Rehabilitation Week" and the "Public Session – Knowledge Sharing of the 24th Edition of the BIM Course", organized by the Order of Engineers, debating topics such as "Construction 4.0: BIM and industrialisation" and "The decisive importance of BIM in the industrialisation of construction: from drawing board to factory floor".



We gave a presentation on the "Seismic analysis of prefabricated buildings using the CREE timber-hybrid system" at the "13th National Congress of Seismology and Seismic Engineering", where we presented a proposed methodology for the seismic analysis of CREE buildings, describing its application in a case study.



At the conference "Exploring the full potential of teams through data management" at BIM World Paris, we shared the Casais Group's vision for sustainability in the sector, under which innovative and disruptive solutions have been implemented in several buildings. Among such solutions, we highlighted the CREE timber-hybrid construction system, and the positive impact derived from the effective implementation of digital twins for building asset management.

At "PTBIM - 5th Portuguese Congress on Building Information Modeling", TopBIM had the opportunity—in addition to attending very many interesting lectures on the subject of BIM delving into topics such as legislation, buildings and programming, infrastructures, processes, manufacturers and programming—to present its own contributions in two presentations. The first presentation was on the topic of "Generative Design of a Modular/Industrial Architectural System", relating to the case study TopBIM developed in partnership with the University of Minho, as part of the "BIM A+" European Master degree, which resulted in the creation of a configurator based on a generative design algorithm for CREE buildings. This approach is particularly applicable to this the CREE building system because it is modular and has standardized components.



I gave the second presentation entitled, "Dashboards for democratising data from Building Information Models", in which the problem of transferring information from the models to all parties involved was identified. In other words, despite the investment in enriching the models with useful data, the opportunity for complete sharing is lost when the project deliverables are defined in a conventional way, as written parts and traditional drawings, hiding everything that is not explicitly included in them. This phenomenon of information loss has been called BIM-implicit information.

The proposed solution—explored by TopBIM over the last year—was BIM dashboards, so that **anyone, even they have no in-depth technological knowledge**, can interact intuitively and for their specific professional purpose with model information using simple software such as Microsoft Power BI. In the case study presented, a dashboard was developed for use by a costing officer that allowed the simultaneous visualization of the model and the items in the bill of quantities, highlighting and filtering the model according to what the user selected. The dashboard enables effective tracking of the components in the model, identifying inconsistencies or opportunities for improvement, as well as assisting with costing by contextualising the item in the building.

The main impact of this approach is to democratise access to information. Usually, consulting model information requires technical knowledge of various software programs. The dashboard approach ensures that, like the dashboard of a car, it summarises the current status of the vehicle into quickly grasped symbols and lights rather than providing you with all the raw information. Similarly, we can build a simple, intuitive BIM dashboard that removes the filter of technical knowledge. What is more, each dashboard can be tailored to specific user profiles, to support any project from A to Z, helping costing teams, real estate developers, project preparation, construction management as well as BIM management itself.

TopBIM's establishment of this approach opens up a world of a world of possibilities and guarantees greater adherence to the BIM methodology, because, predictably, anyone who is able to interact so dynamically and in detail with all the wealth of data present in the models—and to use it to perform their job better without having to undergo gruelling training or look at endless Excel lists and databases unfit for human consumption—can hardly imagine working in any other way. It's also our job to make everything simpler and clearer for everyone, and that's the purpose of BIM: **to take complications out of construction.**

Conscientious and Innovative Solutions is one of the four strategic priorities of the Casais Group. TopBIM has managed to secure several successes in this regard, demonstrating its technical knowledge and leadership skills at congresses and events that bring together esteemed professionals in the field to discuss the future of construction. However, **despite the public recognition, we remain focused on the intensity of what remains to be done.** One of the main challenges is the integration of Artificial Intelligence tools for superior optimization of processes such as architectural project development, engineering, quantities extraction, planning, and digital surveying. In other words, we look at AI not as a threat, but as another tool in this disruptive technological wave that has swept through the spheres of architecture, engineering, construction and building operations, which serves to keep us highly motivated and make us passionate about a future that we can invent every day!

Conscientious and Innovative Solutions is one of the four strategic priorities of the Casais Group.

TOPBIM IS SPREADING ITS KNOWLEDGE

3
April
2024
—
Paris,
France

On April 3, Sérgio Laranjeira, architect at TopBIM, took part in the conference with the theme, "Exploiting the full potential of teams through data management" at **BIM World Paris**, where he had the opportunity to share his perspective on how data collected during the project execution phase can and should be used to enrich Digital Twins, thereby facilitating asset knowledge and improving operations and maintenance management.



9
April
2024
—
Lisbon,
Portugal

On 9 April, it was the turn of Miguel Pires, TopBIM's business manager, to share the company's knowledge and experience with the community. This time, the stage was at the **11th edition of Lisbon's Urban Rehabilitation Week**, where he took part in a round table discussion on "Construction 4.0: BIM and Industrialisation".



8 to 10
May
2024
—
Lisbon,
Portugal

On 8–10 May, the **PTBIM 2024 Congress** took place, celebrating the development of Building Information Modeling in Portugal and in Portuguese-speaking countries. TopBIM took part in two sessions: on the "Information Management and Data Analysis" panel with the presentation "Dashboards for democratizing Building Information Model data" by Pedro Carneiro; and on the "Project Support Systems" panel with the presentation "Generative Design of a Modular/Industrial Architectural System" by Wilson Granados.



21
June
2024
—
Porto,
Portugal

To round off this successful quarter of TopBIM presentations, the Public Session – Knowledge Sharing of the **24th Edition of the BIM Course** was held on 21 June, organized by the Portuguese Order of Engineers, at which the TopBIM business manager gave a presentation on "The decisive importance of BIM in the industrialisation of construction: from drawing board to factory floor".



CASAIS ENGENHARIA E CONSTRUÇÃO RECEIVES COTEC 24 INNOVATOR STATUS AWARD

6
June
2024
—
Lisbon,
Portugal

Casais Engenharia e Construção was distinguished with **COTEC 24 INNOVATOR Status** – a recognition bestowed by COTEC Portugal and its partners in the banking sector to Portuguese companies with a high level innovation performance and which show profitable growth and financial strength. This distinction recognizes the excellence and financial strength of Casais Engenharia e Construção on the national scene.



A MILESTONE IN THE ENHANCEMENT OF NATIONAL HERITAGE

REHABILITATION OF THE LOWER DECK OF THE LUIZ I BRIDGE

Carolina Cardoso
Site Assistant

Miguel Gião
Technical Manager, Public Infrastructure Sector

The **Luiz I Bridge** is a work of great value for the cities of Porto and Vila Nova de Gaia. As one of the symbols of these cities and a point of transition between the north and south of the country, it is so much more than a mere structure of steel and con-

crete. Since its inauguration in 1886, this bridge has been a silent witness to history, connecting places, cultures and people. With its imposing 172.5-metre span and 49-metre arch, it is a masterpiece that deserves to be preserved for future generations.

Listed as a UNESCO World Heritage Site since 1996, this bridge is not only a physical link between north and south, but also a symbolic link that unites past and present. The rehabilitation of the lower deck, which is about 174 meters long, was carried out

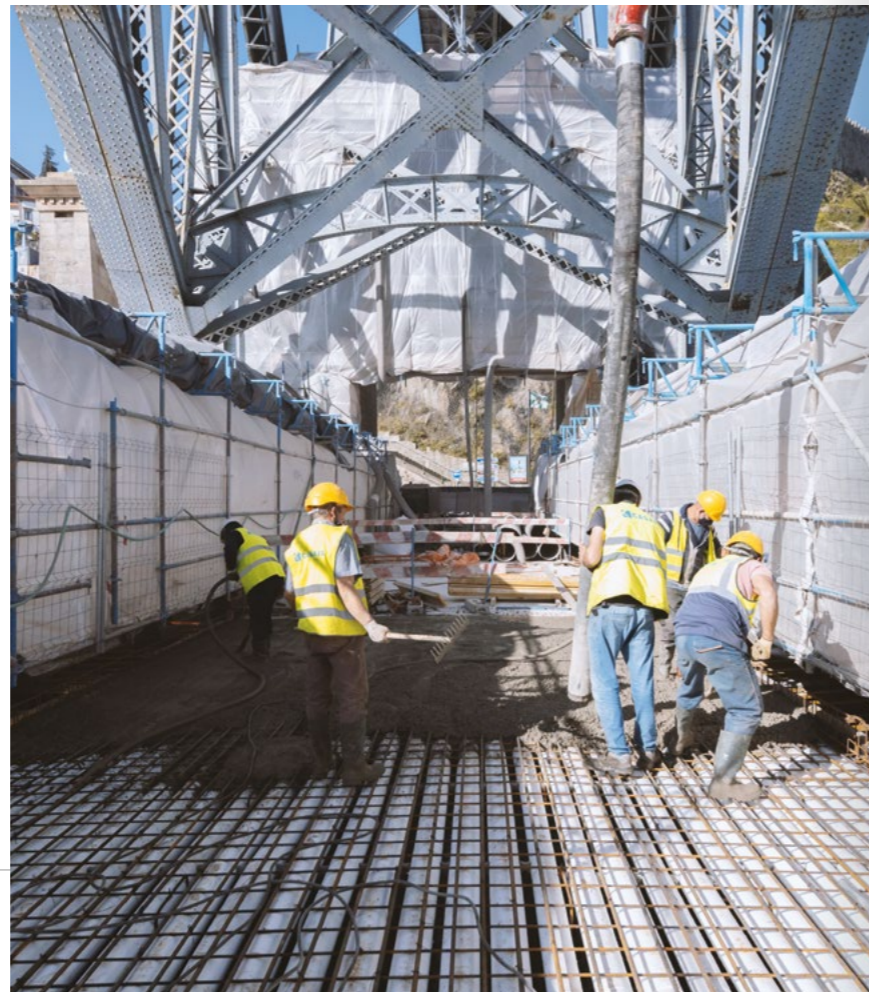
between 2022 and 2024, and reflects a deep respect for history yet integrates new engineering technologies to ensure its durability and continued functionality, given its importance for road and pedestrian traffic between the two cities.

This intervention focused primarily on **reinforcing the existing metal structure and building a lightweight reinforced concrete deck**, supported on new metal carlings and stringers that entirely replaced the old ones. This improvement is crucial, as it has eliminated the previous limitations and now **guarantees support for vehicles with a gross weight of up to 60 tonnes**, so that the bridge can continue to serve modern transport needs without compromising its structural integrity. In the process, various anomalies related to the corrosion of metal components were repaired and replaced with rivets, while deformed plates were also straightened, support braces replaced, expansion joints replaced and access doors to the abutments repaired. However, the most remarkable thing about this intervention is the balance achieved between the necessary modernization and the preservation of the architectural and historical components that define the bridge's identity.

One of the most challenging aspects of this project was the **preservation of the original riveting techniques**, which were essential to maintaining the structural and historical integrity of the bridge. **In an age when advanced technology often replaces traditional practices, the decision to retain these techniques demonstrates an admirable commitment to historical authenticity.** This is a process that has fallen into disuse in the construction industry, and was therefore a challenge in terms of establishing specialist teams and the tools needed to carry out the riveting work. To address these issues, it was necessary to **train the appropriate teams** – since the human factor in this exercise was fundamental to the final quality of the replicated rivets and the efficiency of the teams. It was also necessary to **adapt existing tools** such as electric riveting hammers and hydraulic riveting equipment to carry out this work. In addition, the metal stringers and carlings were completely replaced with

new parts, the lateral structure was subjected to a thorough and totally customised intervention, the plates in an advanced state of corrosion were removed, and the rest of the structure was cleaned and painted, while the entire deck was executed as a lightweight concrete slab, thus reducing the load on the metal arch and increasing the durability of the bridge.

Another highlight of the intervention was the **restoration of the cast iron lamps**, which were carefully restored and reinstalled, and the **maintenance work to the original pavements and railings**, which were reinforced to ensure the safety of pedestrians. The pavements were covered with olive-leaf metal sheeting, thus preserving the architectural and historical component of the Luiz I Bridge. **These elements, which could easily be replaced by modern alternatives, have been carefully preserved, ensuring that the bridge retains its unique character and its link to the**



past, preserving its historical and heritage value. Also noteworthy is the installation of an oleodynamic system which dampens the oscillating effects caused by constant traffic crossing on the lower and upper decks, the use of 3D modelling and simulation of load scenarios during the planning phase, both prime examples of how technology can be an ally in preserving heritage. This process enabled the mapping of more than a thousand anomalies identified in the structure, and so facilitated both the manufacturing process and the analysis of the effectiveness of the possible corrective solutions to be applied.

This rehabilitation of the Luiz I Bridge is more than just an engineering project; it is an example of how it is possible to combine tradition and innovation to preserve national heritage. By valuing the past, incorporating the demands of the present and preparing the bridge for the future, this project makes a significant contribution to the rehabilitation and enhancement of national heritage, reaffirming the Casais Group's commitment to the strategic priority of Shared and Valued Territory.

The recognition of this effort is evident from this project winning of the **2024 National Urban Rehabilitation Award, in the Best Structural Rehabilitation category**, and, in 2023, it won the Construir Award for Best Public Construction Project. These awards are not only a tribute to the work done, but also an affirmation of the value placed on historical heritage in our society. The restored and reinforced Luiz I Bridge remains an enduring symbol of resilience and innovation, a testament to our ability to protect and value what defines us as a nation.

AWARD FOR THE REHABILITATION OF THE LOWER DECK OF THE LUIZ I BRIDGE



15
May
2024
—
Matosinhos,
Portugal

The Casais Group received the honour of the **National Urban Rehabilitation Award** for execution of the "Rehabilitation of the Lower Deck of the Luiz I Bridge over the River Douro" public works project in the Best Structural Rehabilitation category. This is a work of public interest included on UNESCO's World Heritage List. It was built by Théophile Seyrig between 1881 and 1886 with the aim of uniting the city of Porto and Vila Nova de Gaia.

This intervention consisted of rehabilitating the lower deck, reinforcing the bridge's metal structure and completely replacing the metal carlings and stringers. Throughout the process, care was taken to maintain the characteristic architectural component of the Luiz I Bridge, preserve the pavements and railings and replace the cast iron lamps, using older, high-quality intervention techniques. At the same time, technology and innovation played a major role, through 3D modelling in the preparation of the work and the reuse and recycling of materials.



MAYOR OF LISBON VISITS CASAIS GROUP CONSTRUCTION SITES

10
April
2024
—
Lisboa,
Portugal

The second quarter of 2024 saw **three official visits by the Mayor of Lisbon**, Carlos Moedas, to Casais Group projects. On 10 April, he visited a **project to build controlled-rent housing** located in the Forças Armadas subdivision, a project that will build 68 housing units. On 7 May, he also attended the **groundbreaking ceremony for the residential complex's support building**, a parking lot consisting of five underground levels, with a total capacity of 586 parking spaces.

25 June saw the inauguration of the new **Casa Acreditar** space, with the Mayor of Lisbon in attendance. Built by Casais Engenharia e Construção, it is a place for families who are away from home and need to be with their children who are undergoing treatment at the Portuguese Oncology Institute in Lisbon.

INAUGURATION OF THE CORPORATE FIRST GAIA

21 June 2024 — Vila Nova de Gaia, Portugal



As part of the **Sunny Casais** partnership, the Casais Group inaugurated the **Corporate First Gaia**, a multidisciplinary building of traditional construction that includes the hotel **B&B Porto Gaia**, and the **Sítio** coworking space. This is the seventh B&B built by the Casais Group in Portugal and Spain, and the Group is responsible for developing five hotels in Portugal – in Montijo, Oeiras, Vila Nova de Gaia, Olhão and Guimarães. The Mayor of Vila Nova de Gaia, Eduardo Vítor Rodrigues, attended attend the inauguration.

CASAIS GROUP RECEIVES PRIZE FOR SUSTAINABILITY PRACTICES

7 May 2024 — Lisbon, Portugal

The Casais Group won the **4th edition of the National Sustainability Award**, in the Well-Being and Sustainable Cities category, for its "The First" project.. This is an initiative by the Jornal de Negócios newspaper, promoting more sustainable behaviour and work practices in line with the Sustainable Development Goals.

Undel, a Casais Group company, also received an award, the **ESG prize** presented by Sonepar Portugal and sponsored by Schneider Electric. This prize recognizes Undel's commitment to choosing sustainable materials, making it a leader in the market because of its clear investment in sustainability and revolutionizing force within the sector.



ANTÓNIO CARLOS RODRIGUES,
CASAIIS GROUP
CEO, PARTICIPATES
IN PODCAST
"O MAPA DA
SUSTENTABILIDADE"





FMC EXEC: CHANGING URBAN MOBILITY, GUIMARÃES 2024



26 and 27 June 2024 — Guimarães, Portugal

The **Mestre Casais Foundation**, an organization that promotes human and environmental sustainability through the development and sharing of subject knowledge, has developed a new learning opportunity, this time focusing on urban mobility.

On June 26 and 27 June, **nine participants** from companies such as PRIO, TUB and Grupo Salvador Caetano met in Guimarães to explore **the challenges and emerging solutions for decarbonizing mobility**. The modules included learning about the strategic, legal and regulatory framework, changes in the mobility chain, public transport and the electrification of mobility.

This, the first **Executive Programme by the Foundation in 2024**, was tailored towards municipal, governmental and business leaders, policy makers, managers, operators and other professionals working in the urban mobility sector. The ten-hour programme, divided into eight modules, was coordinated by **Professor José Gomes Mendes** and had **Paulo Humanes, Paulo Ribeiro and Adelinho Ribeiro** as lecturers.

FMC TALKS WITH JOSÉ AZEREDO LOPES AND ANTÓNIO CUNHA

8 May and 18 June 2024 — Braga, Portugal

On 8 May, the second edition of FMC Talks was attended by **José Azeredo Lopes**, the former Minister of National Defence and Professor at the Catholic University. This event brought together **70 participants** and discussion centred on **the new international geopolitics**.



On 18 June, the theme was **the North and the framework for investment in the economy**, bringing together **80 participants** with **António Cunha**, President of the Northern Regional Coordination and Development Commission. Both events took place at the Meliã Hotel in Braga, and followed the usual lunchtime debate format for these gatherings.

KEEP INFORMED ABOUT FUTURE EVENTS





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Santa Rosa de Cabal, Colombia

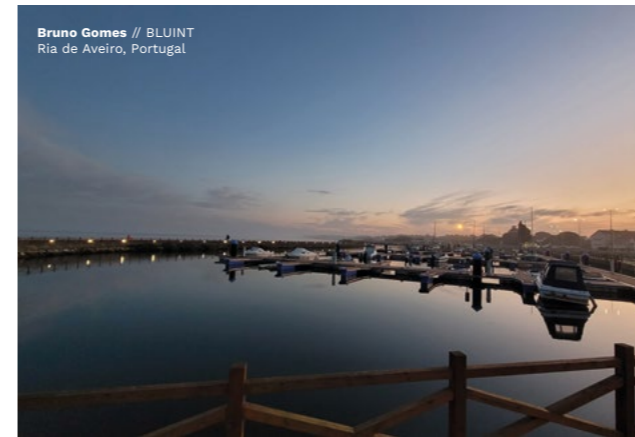


Nelson Aguiar // CASAIS Portugal
Mosteiro de Tibães, Braga, Portugal

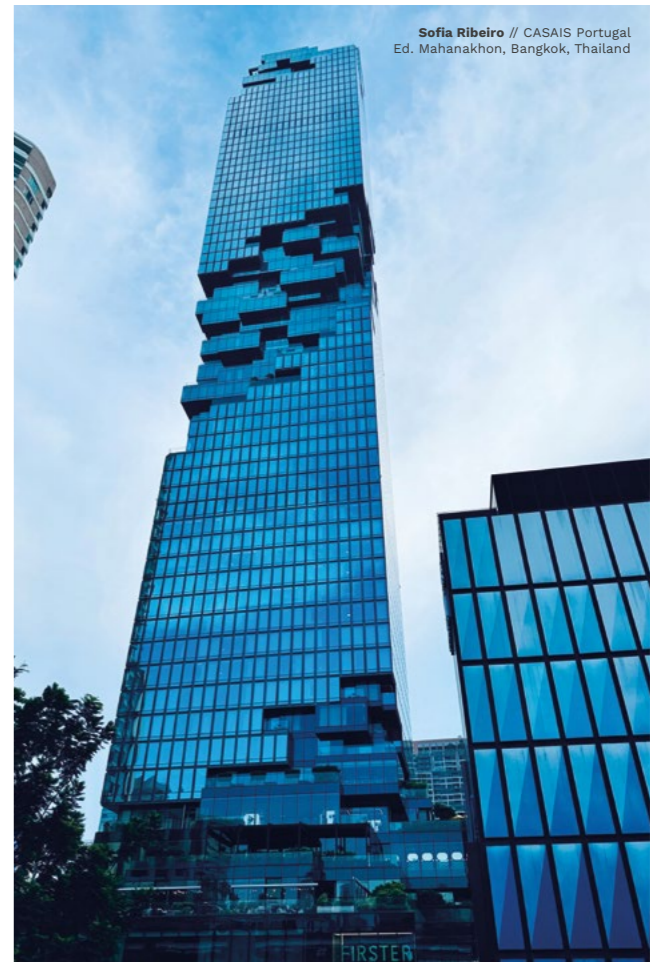


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