

by The Navigator Company

Navigator pride

Our people make the

difference!





It's people, their quality of life and the future of the planet that inspire and motivate us.









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Nº PLANET

Published and coordinated Direção de Comunicação e Marca

Director Rui Pedro Batista

Design Ray Gun / Creativity Worldwide

Content Key Message Comunicação Estratégica

Proprietor/ Published by The Navigator Company

Adress and editorial office Av. Fontes Pereira de Melo, 27. 1050-117 Lisboa

Publication Tri-monthly

Distributed free of charge









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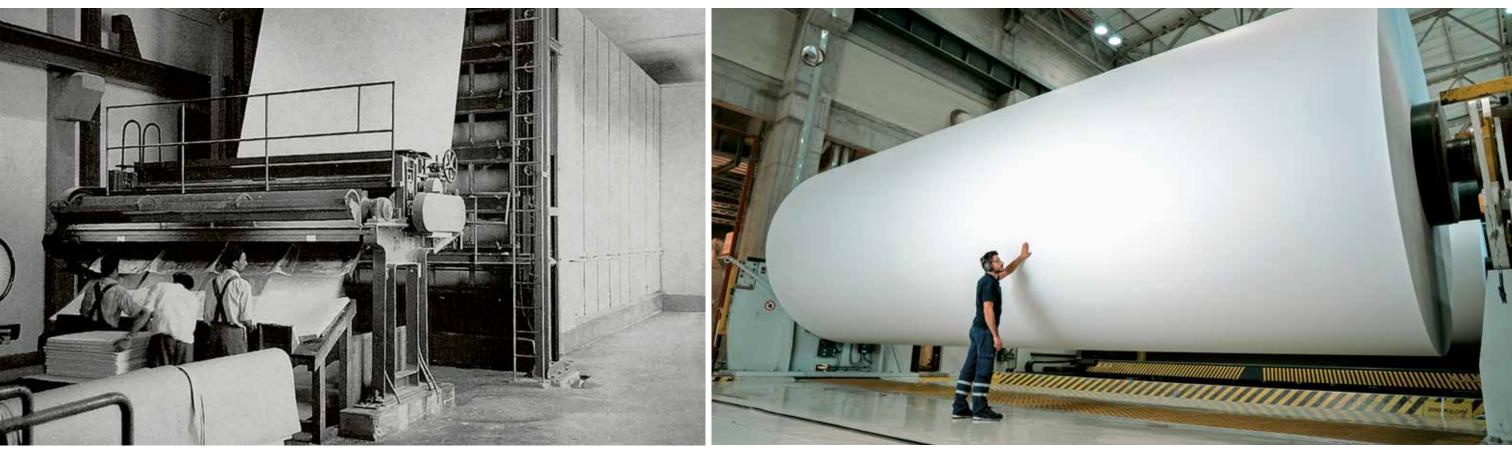
You can read this and other issues of MY PLANET magazine online

Just go to **myplanet.pt** or follow the link in the QR Code. The dictionary definition could not be clearer: group of people working together to the same end. But it still doesn't explain everything. Because the real meaning of a team, its magic and strength, lies in the way that, by bringing people together, the team can be something greater than the sum of its parts. The Navigator Company has traditionally excelled in bringing out individual talents and enabling them to thrive and grow in a team setting. We went to find out how this works.

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eafing through the pages of The Navigator Company's history, it's easy to find examples of how teams have been the driving force of a company which today sets global standards for quality and for bold new thinking. So, what lies behind this talent for initiative which has flourished for seventy years? "Breaking the mould" is one of the ideas in a very recent document produced by The Navigator Company, its candidacy for the National Innovation Prize, which the company won in June this year, for its research work leading to the adoption of Eucalyptus globulus as the raw material for different types of packaging.

This reflects much more than a passing concern. Instead, it's a key concept that the company has consistently embraced since 1957 when, at the mill in Cacia operated by Navigator's predecessor, Companhia Portuguesa de Celulose, bleached eucalyptus pulp was produced for the first time in the world on an industrial scale using the kraft method. This established a benchmark for the industry and opened a new and successful market around the globe for eucalyptus fibre, previously overlooked by the sector. Short eucalyptus fibre was generally held at the time to be ill suited to the production of printing and writing papers. Today, Navigator is the European leader in the

segment, thanks to the competitive advantage provided by this forestry species.

The disruptive attitude that brought success in the late fifties has been a constant feature of a long history of global pioneering. This was the company that took the bold step of branding its paper, launching the Navigator brand, today the world leader in the premium segment. And which, when it decided to diversify into tissue, chose not to take the conventional route, but instead to deploy its teams to develop products with highly innovative proprietary technologies. The company which, in 1996, set up a research institute, RAIZ, in partnership with three

universities, blazing a new trail in forestry, processes and products by generating expertise with a direct impact on the company's business, but also more widely on society as a whole. And the company which, today, is implementing its From Fossil to Forest agenda for researching, developing, and marketing innovative packaging solutions, designed to substitute the single-use plastic packaging used today, from fossil sources, replacing it with renewable and biodegradable materials from eucalyptus forests.

If we look for a connecting thread in Navigator's journey over seven decades, we find a corporate culture that rewards good ideas.

As well as innovation, what sets Navigator apart is its flair for translating new thinking into

industrial success, putting ideas into practice in a process that involves coordinating different skills sets in a team effort. Scientific knowledge, people with

talent and expert skills, combined with innovation and technology, are regarded at Navigator as the foundation for a sustainable future. That's why talent management is one of the company's priorities, based on systematic and career-long development of employee skills, as well as rewarding merit. Three members of teams involved in

recent Navigator projects - gKRAFT, tissue and Inpactus - tell us about the

RAIZ is a Forestry and Paper Research Institute, functioning as an R&D laboratory owned by The Navigator Company and the universities of Aveiro, Coimbra and Lisbon (Higher Institute of Agronomy)..

Just like seventy years ago, it's people who make the difference at Navigator, where the sum is always greater than its parts.

co-creation process characteristic of the company.

João Escoval, Head of Brands

The story behind the gKRAFT brand, Navigator's new range of packaging papers, tells us a lot about the company's culture. João Escoval, Head of Brands, explains: "In the world of printing and writing paper, Navigator has always been about developing its own brands. It's the central plank in its strategy, and a big part of its success".

"When it was decided that the products we were developing in the packaging sector could together form a basket for a specific category, we decided to create a new brand", he tells us, breaking with normal

"Navigator has always been about developing its own brands. It's a central plank in its strategy, and a big part of its success."



brand, with a name that would

values. We wanted to centre on the

raw material, eucalyptus globulus,

which is one of the reasons for the

company's success, and we'd never

Escoval, alluding to the "g", that

the name used for a category of

The same brainstorming approach

came up with the tagline "From fossil

in other company contexts: "It's taken

demonstrate Navigator's strength as

an agent of change, in the transition

from fossil-based materials to forest-

to forest" that ended up being used

on a life of its own and is used to

based bioproducts".

papers.

stands for globulus, and to "Kraft",

done that in the past", explains João

communicate its identity and

practice in the market: "When you look at the competition, you can see that they all, or nearly all, use the corporate brand".

The creative process that came up with the name was itself outside the box: "What often happens is that you brief the agency, and they suggest several alternatives. But in this case, we talked about the ideas internally, eventually hitting on a name that we then proposed in our briefing to the agency. The back story was created by a multidisciplinary team including not just marketing people, but also the person in charge of packaging, Luís Simões, as well as the sustainability team, with Pedro Filipe Silva".

"The second phase also involved our research institute, RAIZ, the sales team, as well as technical product development, so we brought more and more people into the team ". This was because, as soon as they arrived at a name, the brand story had to be based on concrete facts. For João Escoval, the matter is clear: "We achieved this very positive and innovative outcome because a lot of teams were involved".

"We already had an innovative product, but we had to find a new

João Escoval makes no secret of its personal satisfaction at helping to create a new brand and now watching the impact of the values it conveys: "One of the reasons why I'm so proud to work at Navigator is the concern with sustainability across the whole organisation. To have developed a brand that its closely linked to the company's purpose, focused on the future of the planet and people's well-being, all this helps make our work more meaningful."

Vasco Ferreira,

Diretor de Business Development Vasco Ferreira joined The Navigator

Company in 2014, at a time when the company was preparing to diversify into the tissue segment, then a new business area for the organisation. "The move into the tissue market was made after in-depth strategic analysis, as a way of diversifying the group's business portfolio by including new forestry segments and products, based primarily on using eucalyptus cellulose, the prime raw material produced by Navigator, featuring superior quality and performance" Navigator's Business Development Director recalls. Navigator took its first step into the



Vasco Ferreira has been part of the tissue team from the outset



tissue business with the acquisition, in 2015, of the AMS Star Paper mill Vila Velha de Ródão, followed in 2017 by a new mill on the Aveiro industrial site, integrated with the pulp mill, thereby doubling the group's production capacity. More recently, in early 2023, the group further expanded its tissue production capacity by acquiring the mill in Ejea de los Cabaleros, near Zaragoza, from the Spanish

"It's people, and their talent and dedication. that make and develop businesses. When we look at investment operations, we keep a special focus on the quality of human resources."

Gomà-Camps group, along with the respective Consumer Tissue business. This operation has enabled Navigator to position itself as the leading Portuguese manufacturer of tissue and the second largest in the Iberian Peninsula. It also represents international expansion of the group's manufacturing base, previously concentrated in Portugal. Vasco Ferreira points out that the human factor was central to the strategic decisions that shaped the move into this segment: "One of the main reasons why we moved into tissue by acquiring a company. AMS (today called Navigator Ródão), was precisely to incorporate and retain its staff, who had a large store of know-how and experience. This meant we could learn the ropes of the business and develop our operations faster and on a sustained basis. These people were integrated into our corporate structure and many of them occupy top jobs in the Navigator group today, not just in the tissue unit".

"It's people, and their talent and dedication, that make and develop businesses. When we look at investment operations, we keep a special focus on the quality of human resources and the experience and professionalism of the people responsible for the company's operations," explains Vasco Ferreira. An example of this is the more recent acquisition of GC Consumer: "When we analysed the company, one of the positive factors we identified was precisely the quality, expertise and professionalism of its staff". "It's exciting and rewarding to see your plans get off the ground", Vasco Ferreira concludes: "Nothing in this process was left to chance, everything was planned, studied in minute detail, and decided after careful consideration. The result is that eight years down the line we've gone from zero in the tissue market to turnover we expect this year to top 300 million euros. A success we owe to the valuable contribution of staff right across the Navigator group".

Ana Carta, researcher at RAIZ

When she thinks back about Inpactus, Ana Carta can see clearly how it mobilised people: "We were all part of a project that radically changed RAIZ and the company too". As a researcher, she noticed how "the new ideas it produced opened a lot of doors and brought Navigator a fresh contingent of customers". Here too, "Inpactus was a landmark project".

But it went further: "Everyone involved, doctoral students, the people on research bursaries and contractors, everyone grew their expertise. And some of them stayed on in the company".

Ana Carta points out that all the research undertaken "was highly important in the context of the current environmental crisis, and the urgent need to replace single-use plastics". By the end of Inpactus, we had "an array of starting points for work on different fronts to offer answers to these issues. such as the packaging projects in progress under the RRP". "After Inpactus, things will never be the same. It was a real turning point", she tells us. This change is even more important considering that "the paradigm shift is neither easy, nor fast", said Ana Carta, going on to explain: "It's a slow process, that needs expertise and hard work, and Inpactus helped and supported the work, as well as laying the foundations for continued efforts". About the multidisciplinary approach

required, she has this to say: "This support is fundamental because the transition has to be built on science and that's only possible with a wide variety of skill sets".

"Inpactus also made it possible to endow RAIZ with new equipment that has added to our capacity and ability to support Navigator, to develop new products and new business areas. In my specific case, at the start of Inpactus, one of my first tasks was to implement the new



Ana Carta makes no secret of her pride in being part of the Inpactus team.

"Being part of **Inpactus was** extremely rewarding. It was a chance to build something from scratch, to see through the whole process of development and growth, up to the final product."

tissue analysis laboratory, which didn't exist before", she recalls. "The new equipment acquired was also very important for the biorefinery sector, paper and pulp. There were analyses and resources for product and process development that were previously unthinkable here. In addition, it helped to create expertise that enables us not only to do this work, but also to interpret the findings, to give recommendations that can help in choosing the way forward for the company." As a team member, this researcher at RAIZ makes no secret of her personal sense of satisfaction: "Being part of Inpactus was extremely rewarding. It was a chance to build something from scratch, to see through the whole process of development and growth, up to the final product. It's not everyone who can say 'I was involved in developing a product from the start and today it's on the market'. It's like a baby we nourish and see grow. It's the magic of creation". •

Co-promoted by The Navigator Company, RAIZ and the universities of Coimbra and Aveiro, Inpactus was the largest ever Portuguese R&D project in the forest-based bioeconomy It ran from 2018 to 2022.

People and the Planet

"It's people, their quality of life and the future of the planet that inspire and motivate us" - the opening words of The Navigator Company's purpose is clear about the company's priorities for creating a positive impact on society. But what does this purpose mean to the company's employees in their daily lives? Sara Sequeira, converting operator at Vila Velha de Ródão, and José Nunes, processing supervisor at the Setúbal mill, share their personal experience.

Sara Sequeira

"For me, being a team player means achieving quality standards, working together and people helping each other. That's really important! Not just in Converting, but right across the company. It's the most important thing and the key to our success in Vila Velha de Ródão.

The company itself is very concerned with a business model that cares about the circular economy and environmental issues. One example is having solar panels on our industrial complex, to power its operations. The company is investing wisely, channelling its efforts into things that also benefit society, because the environment is extremely important. It's our future. We must live here, don't we?

We want to create value responsibly, not just in the end product, with a view to profit, taking out social and environmental responsibility very seriously, for the sake of the planet and of people."

José Nunes

"There's a fantastic spirit of people helping each other out and constantly sharing what they know across the generations. I've noticed that in workforce. This sharing of knowledge could be the key to



Sara Sequeira, paper converting operator at the Vila Velha de Ródão mill



José Nunes, processing supervisor at the Setúbal mill

Navigator's success. It's become part of us. People are ready

to go the extra mile, it's what motivates them to come to work.

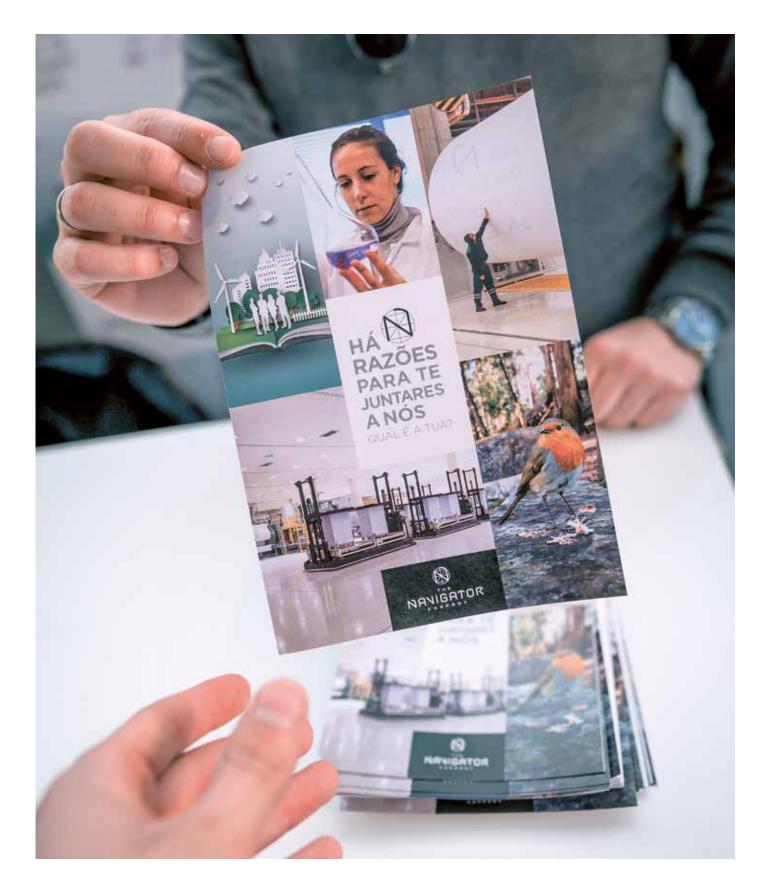
At Navigator, over time, we have learned from the older generations that we always have to do the best we can. This sense of pride in our work is then reflected in the person who buys a ream of paper and sees: 'This is flawless'. It's really satisfying. Sometimes I find myself in the

supermarket trying to see whether it was me who produced that ream of paper. I've talked about this at work, as several people do the same: they look at the tracking code to see whether it's a ream that they produced and whether it's all OK. And they feel proud when they talk to people outside who ask: 'Do you work at Navigator? Great company'."•

Can a 70-year-old company be attractive to someone who's just 20? This is something The Navigator Company works on every day, on a range of different fronts. Innovation, training, dynamism, and mobility are part of its organisational culture, seeking to meet the expectations of professionals from younger generations. All this against a backdrop of a corporate purpose centred on people and sustainability, and facilitated by multiple routes of entry into the Navigator world. The company's rejuvenation is happening now.

WELCOME to Navigator





In talenthunting mode

Job fairs, seminars, workshops, open sessions, pitches, factory visits, student internships, dissertation projects, study grants. There are myriad opportunities for students to make a connection with The Navigator Company during their academic career, in a relationship that benefits both sides.

en the aim is to attract young talent, it's essential to reach the right person with the right message, so that the company's brand is recognised and valued in the job market. That's why Navigator has a team dedicated to Employer Branding, raising the company's profile with young students, either by going out to meet them on campus, or welcoming them to our sites, in many different ways, tailored to the communication style of each individual.

Navigator takes part in countless job fairs, but also reaches out in other ways, through seminars, panel discussions and open sessions. And it keeps its doors open to students, welcoming them for internship programmes of varying duration, and on organised visits to its industrial sites.

This close contact is essential, because it is from the ranks of undergraduates that the company meets its recruitment needs. It's not enough just to advertise traineeships and jobs on the company's LinkedIn page and website, constant work is needed to boost awareness of Navigator's brand as an employer. And no one is better placed to spread this message than those who, in their daily lives, make the company what it is. "Having an on-campus presence is a routine part of the company's life, and that's the right approach. It's not

something we do sporadically", explains João Baleizão, Maintenance Manager at the Setúbal Industrial Complex, who often takes part in these events. "On top of that, working with young students is something I find very satisfying. You need to prepare everything carefully, but in the end, it's really rewarding", he tells us. "If we can manage to play an important role in what the students we meet decide to do, even if they only reach the conclusion that this is not for them, it's a worthwhile thing to do, and we have to remember that. There's an element of social responsibility in this", says João Baleizão. To do this well and rise to the occasion, the secret, he says, lies in being honest. "We have to be honest and show them what motivates us, so that, when it's a good fit, the young people can say 'this makes sense for me'".

The company on campus

Job fairs offer a key opportunity to present Navigator to potential applicants with the right profile for joining its workforce. The company is a regular participant in events of this kind, organised by countless universities and polytechnic institutes up and down the country. In the 2022-2023 academic year, it clocked up participation in 31 events, including 16 job fairs.

The company's stand at these events is manned by Navigator Ambassadors, whenever possible people working in areas

In the 2022-2023 academic year, Navigator hosted 21 students working on their dissertation projects and 10 on student internships.







"We don't simply expect the company to open its doors to our students-we want to leave something of value. It's a 'winwin' situation. that benefits both sides."

Teresa Grilo. assistant lecturer at the Department of Management, ISCTE **Business School**

"Working with young students is something I find very satisfying."

João Baleizão. Maintenance Director, Setúbal Industrial Complex

Open Sessions - custommade events

As well as taking part in job fairs and other events organised by universities, Navigator has sought to reach out to students through its own initiatives. One example of these custom-made events, designed to make contact with the professionals of the future, is the Open Sessions, aimed primarily at MSc students, but not excluding those working for their first degree. João Baleizão, Maintenance Director at the Setúbal Industrial Complex, has taken part in two of these sessions at Nova FCT, in Almada. "The focus is on explaining in detail who we are, what we produce, where we are. And we try to transmit something of our enthusiasm for what we do, like planting a seed We don't take motivational films or blockbuster presentations, just that enthusiasm and honesty."

Each Open Session can last between an hour and a half and two hours: "We're never in a hurry to wind up, so that we can answer all the questions", says João Baleizão. Whenever possible, the session ends with an invitation for the students to visit the Setúbal Industrial Complex. "Following on from last year's visit, one of the students made such a positive impression that she ended up being contacted by the company's human resources office, came and did a professional internship and is now an employee", he told us.



corresponding to the academic subjects of the students, as well as representatives from the Talent Management and Organisational Development Department. The ambassadors are often former students at the institution in guestion, as this is an effective way of connecting with the students. As well as the employer stands, job fairs often feature panel discussions, short interviews, and sessions at which former students share their experiences. All of these are opportunities for the company.

Djêide Rocha, process engineer at the Setúbal Industrial Complex, has been one of the Navigator Ambassadors practically since she joined the company in 2015. A former student of the Instituto Superior Técnico, she is often back on campus. "When I was studying, I felt that students don't really know what an engineer does in industry, in particular in the pulp and paper sector. As ambassadors, we can answer the questions that naturally arise. Because I've been there myself, I'm better placed to answer, I know what they're looking for", she explains.

At the same time, for the company, it's a unique opportunity to tell its own story. "I try to convey what we do, how we do it, the concerns we have and our people-focused purpose. In other

words. letting people see into what it's like on the inside. That's essential", says Djêide Rocha.

The questions students ask divide into three main groups: "What an engineer actually does at Navigator and how our processes work. Then they want to know about the opportunities for joining the company and developing a career, in other words, what we have to offer. And then there are questions relating to environmental awareness", explains the ambassador. "There are real concerns about that. They're very curious about how we address issues of sustainability", she tells us. "People ask about this more and more. The concern is growing, but the disinformation is the same. Addressing pre-conceived ideas is an important part of what we do at the fairs, which serve as points of contact with the community. We pay a lot of attention to this", she concludes.

Students in the company

Student internships are a way of Navigator establishing contact with future professionals at an early stage of their careers, while they are still at university. This can be part of a degree course or else for their MSc dissertations.

Each year a list is drawn up of topics that might be of interest to the company, and this is shared with leading universities, where students can apply to work on one of the areas. Making a connection even before they conclude their studies is an important strategy for attracting talent.

João Margues, aged 23, MSc student in Industrial Engineering and Management at Instituto Superior Técnico, did a student internship at Navigator in the 2022-2023 academic year. Although he's never been very sure about where he wants to work, he was clear about one thing: "I wanted my MSc dissertation to include a component of professional experience, that would take me into a real industrial situation. That was the most important thing for me, so that I'd be better prepared for my first job". His dissertation supervisor was in contact with Navigator and told him of the possibility of a student internship with the company, in the Risk Management Department. It lasted five months, from March to July this year, and offered João Marques exactly what he was looking for: "I was put in a working environment, full time, just like a company employee. I worked on a hybrid basis, just like everyone else on the team: three days in the office, and

two days from home". he told us. The subject of his dissertation, "Risk Assessment and Management in a Business Setting", involved contacting different areas of the company: "I vaguely knew that Navigator was a big Portuguese company, but I had no idea of how big it really is. This project enabled me to understand the whole organisational process, I was in contact with a lot of different departments and got to know the company as a whole. It was a really interesting and worthwhile experience.'

As for the welcome and support he received, he could hardly be more positive: "Although I was just a student intent, I always felt I was part of the team. Actually, I still feel like I am. We all got on really well, which was easy because we were all young and also, I think, because we were just six people in the team. It was a great experience, and now I feel much better prepared to be a good professional in future". We're happy to report that the company was also happy with João's internship, and he has been offered a job at Navigator when he finishes his MSc.

Business-academe partnerships "A win-win situation"

"When universities and industry work



"Because I've beentheremyself, I'm better placed to answer, I know what they're looking for."

Djêide Rocha, Navigator Ambassador at talent recruitment events

Best places to work: Navigator ranks second in industrial sector

For the third year running, Navigator made it into the top 20 in the Randstad Employer Brand Research 2023 ranking, listed as the 11th best place to work. In the industrial sector it did even better, claiming second place in the ranking.

Randstad Employer Brand Research analyses employee perceptions of the job market and the 150 largest employers in Portugal, publishing each years its lists of the companies and sectors most attractive to potential employees in Portugal.

"Although I was just a student intent, Ialwaysfelt I was part of the team. Actually, I stillfeellikeIam."

João Margues, MSc student in Engineering and Industrial Management at Instituto Superior Técnico





Grants for forestry students

The Navigator Company, Altri, Corticeira Amorim and Sonae Arauco have joined a publicprivate partnership to fund 22 study grants in the field of forestry engineering, covering 100% of the recipients' course fees. The scheme is in partnership with the University of Trás-os-Montes and the Upper Douro, University of Porto, Higher Institute of Agronomy and Coimbra Higher Institute of Agronomy. Navigator is responsible for six of the grants and the aim is that they will be renewed each year.

closely together, there are great benefits for students who are concluding their first degrees or Master's. It allows them to enter the job market before they graduate. We would see it as a shortcoming in their education if they finished without an experience of this kind", says Teresa Grilo, Assistant Lecturer at the Management Department of the ISCTE Business School and deputy director of the Department of Marketing, Operations and General Management. "In the case of Navigator, we're talking about a large company, with long experience in the pulp and paper sector, which has turned out to be hugely advantageous for our students in the scheme we set up two years ago", she adds.

Teresa Grilo's students can potentially contact Navigator at two different stages of their academic career. At the end of the degree course in Industrial and Logistical Management, all the students have to work on a practical project applied to a company, with a duration of four months. And in the

Master's course that she coordinates, in the area of supply chains and logistics. students work on a project which can last up to a year.

"In both cases, our relationship with Navigator has worked really well", says Teresa Grilo. "The staff hosting our students at the company premises have been extremely helpful and the experience has proved very fruitful. It's an excellent way of getting a better picture in practice about things they have studied in theory", she tells us.

The scheme has been of great benefit for the students and is also intended to be rewarding for the company. "We always try to respond to what the companies actually need", explains Teresa Grilo. "In the case of the Master's course, the idea is that the students choose a topic from a list of needs that the company has identified. And they conciliate their work on something scientific with a contribution to the organisation. That's what we're looking for, it's not just a question of the company opening its doors - we want

The Navigator Company is regularly to be found at job fairs and other on-campus events, seeking to attract young talent

to leave something of value. It's a 'win-win' situation. that benefits both sides", she concludes.

Navigator's long-established partnership with the Department of Chemical Engineering at the Faculty of Science and Technology in Coimbra is proof that the benefits are mutual. "Since 1988 we've had an MSc module on Pulp and Paper Science and Technology, for which the syllabus is designed in conjunction with Navigator", we heard from Paulo Ferreira, lecturer and researcher. "We present the programmes, discuss it with them, and then the classes are mostly taught by staff from the company", he explains

In this department, contact with industry is a fundamental part of the training of each student. It's something that both students and the university value. "On the one hand, students are increasingly eager to do their MSc dissertation on something with a business or industry dimension, and at the same time the university is encouraging us to to do this", says Paulo Ferreira.

Co-promoted by The Navigator Company, its forestry and paper research institute, RAIZ, and the universities of Coimbra and Aveiro, Inpactus was the largest ever Portuguese R&D project in the forest-based bioeconomy It ran from 2018 to 2022.

In terms of research, the partnership between Navigator and the Department of Chemical Engineering at the University of Coimbra "has already resulted in several doctoral theses, jointly supervised by staff from the company. There's always research being pursued in partnership", Paulo Ferreira tells us.

When the projects are led by Navigator, the joint efforts can be taken to a new level. This is what happened with the Inpactus project. The University of Coimbra is represented on the scientific board of RAIZ, the forestry and paper research institute owned by The Navigator Company, the universities of Aveiro, Coimbra and Lisbon (Higher Institute of Agronomy), and as a result, of the 15 doctoral theses produced as part of the project, seven were at the Department of Chemical Engineering. "We were deeply involved in Inpactus", says Paulo Ferreira. "In the field of research, our working relationship with Navigator is extremely strong".



"Students are increasingly eager to do their MSc dissertation on something with a business or industry dimension."

Paulo Ferreira, lecturer and researcher at the Department of Chemical Engineering of the Faculty of Science and Technology, University of Coimbra

Interns embrace Navigator identity

Irrespective of the type of programme, duration, area of training or academic level, one thing is certain: everyone accepted as an intern at Navigator is welcomed as part of the team. The company offers a variety of programmes, designed to appeal to different types of young talent. Of course, they will all have a lot to learn, but they will also find countless opportunities to contribute, take part and feel they belong. It's everyone's job to make sure this happens. But to give us a real picture of what it's like, who better than people who've been through it themselves? Let's listen to the interns.

The N factor: trainees programme for adventurous spirits

The N Factor is a structured long-term programme aimed at MSc finalists and graduates. Over the course of two years, the trainees selected work inside Navigator on four projects in different areas of the company. One of them must be unrelated to their field of study. The idea is to give them a fully rounded picture of the organisation.

The programme is aimed primarily at young engineering graduates (electrotechnical, chemical, mechanical and IT engineers), industrial management, management, economics and data science. Each trainee is assigned a mentor, to help them build all-round skills, not just technical, but also functional and behavioural. Recruitment for the N Factor is opened every two years, and the demand for places is invariably high. Part of the appeal is the 100% retention rate. In other words, all the candidates accepted join the company workforce at the

end of the programme. For the 2022 intake, just nine trainees were selected out of around a thousand applicants. Those accepted are people who are curious, adventurous, versatile and communicative, and who value the chance to have varied experiences. One example is João Colarinha, aged 25, who left school thinking he wanted to be a vet, but ended up with two other degrees, in forestry engineers and agronomy, as well as an MSc in Agronomy, specialising in agriculture and livestock farming. He joined Navigator's Forestry Management Department in Setúbal in 2022 as a long-term trainee. "The N Factor caught my eye because of the chance to experience different areas, one of them outside my field of study", he tells us. "I've always been interested in different things and never been very sure of what I wanted. So I thought the programme was an excellent opportunity, above all because it's such a big company." Carina Anastácio, aged 25, also

joined Navigator in November 2022, through the N Factor programme, and is equally eager to discover new things during the two years of the programme: "There's a plan designed to reflect the mobility possible within the company. That really appeals to me. We're just starting out, we're not yet sure what we want to do, but we want a challenge. I think I could have a long career within the company, without always being in the same area. And that for me is one of the strong points of Navigator". With a first degree in biomedical engineering and an MSc in Engineering and Innovation and Enterprise Management, she's in the Information Systems Department and assures us the experience is living up to her expectations: "It's my first contact with the world of work and I feel I'm learning a lot". For António Dias, aged 27, chemical engineer and trainee at the Setúbal Industrial Division. this is not his first experience of professional life. He actually left his first job when

Factor N has a retention rate of 100%, in other words, all the candidates accepted join the company workforce at the end of the programme.



ROUTES OF ENTRY INTO THE NANIGATOR WORLD

Carina Anastácio, long term trainee

To start a career as a researcher at RAIZ, you need to apply for vacancies available through publicly funded bursaries.

he learned he was one fo the 9 successful applicants to N Factor. "My career wasn't progressing as I'd hoped, and when I saw what the Navigator trainees programme had to offer, I decided to take my chances", he recalls. So far, what's surprised him most is how ready colleagues are not just to help, but also to listen: "People are very keen for us to learn, but they also want to know what we think. 'This kid's straight out of college, maybe he has an idea that might be interesting' — that's the main attitude vou find".

Carina Anastácio is in the corporate sector, but her experience has been similar: "Everyone is really patient about showing us the way. Not just in technical things, but also on behavioural and human skills. It's a very dynamic team, very open to innovation, and that's great". Innovation is also one of the points that João Colarinha talked about: "The company is aware that everything is always changing, people are open to new ways of doing things, inventions, new technologies, and that's very stimulating."

RAIZ: joining the world of research to bring about change

The pathway to joining RAIZ, the forestry and paper research institute owned by The Navigator Company and the universities of Aveiro, Coimbra and Lisbon (Higher Institute of Agronomy), is different from the student and professional internships and trainees' programmes. Starting a career as a scientific researcher invariably entails applying for vacancies, bursaries or temporary contracts, under projects funded by the public or private sector.



Beatriz Roque, short term trainee

The R&D&I (Research, Development and Innovation) projects undertaken by RAIZ are funded by Navigator or by regional, national and European programmes, which support research bursaries or highly qualified employment contracts (scientific employment). Applicants are selected in accordance with the rules and pay scales of the FCT (Foundation for Science and Technology). There are bursaries and employment contracts that require a master's degree, others a PhD, all of them with a work plan and a set duration linked to the project timings. When this period comes to an end, researchers with the most potential may be offered a job at RAIZ or Navigator (RAIZ is also an innovation centre working to develop and train talent!) or, depending on what's available and if they are interested, they can move to other R&D&I projects funded. This is what happened to Miguel Coelho, aged 29, after working on two projects with a research bursary. With an MSc in Biological Engineering, he applied for a vacancy at RAIZ to join the Inpactus project. "They put me to work on paper, on the application of micro and nano fibrillated celluloses for developing barrier properties", he tells us. He did this from May 2019 to the end of 2020. "An opportunity

then presented itself with different funding, offering the chance to switch to a project where I could continue in the same area, but more focused on finding solutions that could be scaled up to an industrial level. That made it more exciting for me. We've already done an industrial trial", he told us, brimming with enthusiasm.

The aim continues to be to create those barrier properties in paper, but this time by using surface additives that can be applied in the mill. "It's a very new area, and so there's still a lot of research to be done", he says. The funding scheme under which I was working ended in August this year. But there was a staff vacancy at RAIZ, and they invited him to take the job. "The most exciting thing", he says, "is being involved in work connected to the paradigm shift and the need to replace fossil-based plastics. We're a part of that change and, for people working in research, change is what matters. It's what motivates us."

Short trainees programme: for people who know what they want

This traineeship scheme is run in partnership with the Institute of Employment and Vocational Training (IEFP) and its Ativar.pt programme. It lasts nine months and is aimed at graduates (first degrees or Master's).





More youth employment

In January, The Navigator Company signed the "More and Better Youth Employment Pact". By so doing, the company committed itself to investing in a number of indicators, by 2026, in particular by hiring and retaining young employees, providing them with quality employment, whilst also training them, developing them and giving them a voice.

The company is well on the way to achieving the targets. It currently has 379 employees aged 29 or less, and 54% of new hires are in this age group. The "More and Better Youth Employment Pact" is an initiative of the Fundação José Neves and the Portuguese Government, acting through the Department of Employment, with the President of the Republic as patron.



Learn more about the More and Better Youth Employment Pact.

João Domingues, short term trainee

Industrial Maintenance Technicians: cooperation with vocational colleges

The Navigator Company has made arrangements with several technical and vocational educational institutions located close to its industrial complexes. under which it hosts student internships. The aim is that, at the end of these three-year courses, it will be possible to hire some of these students for more specialist positions, as control and power technicians, mechanical maintenance technicians and laboratory analysts. The internships are part of the curriculum, one each year. Ideally, the company is eager for students to do all their work placements at its facilities, so it can monitor their progress and gradually create a relationship. These specialist technicians can also reach Navigator after completing a postsecondary course: these are called technical-higher vocational courses (or CTESP). These are offered by higher education institutions, normally polytechnics, with a duration of just two years, within the first cycle of the degree course. In the 2022/2023 academic year, the Company hosted 41 student interns from these technical courses in its maintenance sectors, across the four industrial sites (



António Dias, long term trainee; Júlia Vaz, Wood Yard Reception Operative, Figueira da Foz

At Navigator, around 60 young people are accepted each year as trainees under this programme. The retention rate is over 70 per cent, meaning that most of the young people are offered a job at the end of their traineeship.

Generally, these are young people who are principally motivated to learn more about their chosen area and who have definite ideas about what they're looking for in their future careers. Like Beatriz Roque, aged 27, who has a degree in biology, an MSc in Ecology and Environmental Management and post-graduate studies in Sustainability Management. "When I started looking for opportunities, Navigator was immediately one of the companies where I would love to work", she tells us. "First, because it's a forest-based company and so it works on the basis of a natural resource, meaning it ties in with everything I worked on in my studies. It brings everything together", she explains. She was also looking for much more than just a job: "I wanted to belong to an organisation with a purpose consistent with my values, my environmental awareness, and my lifestyle. And I have always had the idea of doing something noteworthy in my life, something where I could leave my mark".

So, she was really excited to learn she had been selected for the vacancy in the

company's Sustainability Department. "It was the cherry on the cake: after all my studies I now feel I can start to build a career in an area with which I identify and where I can really have an impact". Her traineeship ran from September 2022 to June 2023, but ended up being extended for three months, at the company's sole expense, without further support from Ativar.pt. "Navigator showed it wanted me to continue working there. And so my traineeship was extended as far as possible. It's very gratifying to be appreciated".

When this additional period comes to an end, there's no guarantee of a contract, but that doesn't leave a bitter taste for Beatriz Roque. "It's been an extremely valuable experience. The door that I needed to open, Navigator held it wide for me. From now on, I feel I have a different level of know-how and of bargaining power. My life will clearly not be the same after this traineeship". João Domingues, aged 27, is at an earlier stage of his traineeship, but he already feels it has been a success, whatever happens at the end. With a degree in accountancy and auditing, and a master's in management control, he left a job with a major consultancy firm, where he'd been for a year and a half, to join the market analysts' team at Navigator's Marketing Department, where he has been a trainee since April this year.

The appeal of returning to his hometown, Figueira da Foz, combined with his eagerness for a fresh professional challenge, bringing him closer to the area where he wanted to work, brought him to Navigator's door. "I wanted to experience this financial side of management, and the chance to do it in my home town made it the perfect opportunity", he tells us.

"I wasn't looking for a job for life, I think that's a thing of the past. I came looking for what I found: an incredibly rewarding experience, both professionally and personally. I'm lucky to work with people with lots of experience in the field, but they're also great people, and that's been fundamental in how I've learned and grown". he reflects.

Summer internships: a "taste" of what it's like to work at Navigator

These are short experiences, of a month to a month and a half, and the aim is for the trainees to get an idea of what it's like to work at Navigator in their area of training. This summer, the company hosted 48 young people under this programme. Most are students towards the end of their degree courses or working towards master's degrees. Applications are allowed as from the second year of university courses. For most of these young people, it's their first contact with the industry.

Social responsibility criteria are applied to the summer internships: Navigator awards places on a priority basis to the children and family members of its employees, and also to young people living close to its industrial sites.

João Barbeiro, aged 23, is near the end of his MSc in Mechanical Engineering. Both his parents work for Navigator, so he's familiar with their "second home", the Setúbal Industrial Complex. Not just from the conversation around the dinner table, but also because he's been to the mills before. "I first visited the old mill, with my mother, and then they took me to see the new mill, soon after it opened. I was nine or ten at the time and I can remember it clearly and the impact it had on me. Everything



One internship leads to another estágio

Although the programmes available for young people within Navigator comes in several different formats, there's no obligation to stick to only one. A summer internship or a student internship are sometimes just the start of a longer relationship with the company, leading the students to apply later to the short or longterm traineeship schemes, in many cases ending up as company employees. Sara Santos, aged 23, has already been a summer intern and a student intern, and now she's taking it further in the ninemonth programme. With a first degree in economics and a master's in management, she started off by just looking for experience, in a business setting, in the field of Human Resources. This resulted in her being a summer intern in August 2022 in the Talent Management Department at the Figueira da Foz Industrial Complex. "I needed to experience it in the real world to find out whether it was really an area where I'd like to work", she tells us. "I enjoyed it so much, that I got more interested and decided that my student internship would be in the same area." The opportunity arose for her to do this at Navigator too. So from February to June this year, she was working in the company's Talent Management Department, this time

in Lisbon: "During my student internship, I worked on a proposal for implementing a benchmarking programme in the industrial sector, as part of the Grow project. I had a lot of support from inside the company, from the whole team that was working on this initiative. But I also had contact with the Performance and Careers sector, where I'm now on the short term programme", she recalls. "When I came back, as I already knew the team and how some of the processes work, it made it much easier for me to fit in", she tells us. It was a natural decision for her to choose this programme in the same company: "It made sense to take my experience further, I felt I still had a lot to learn at Navigator. I started in July and it's going really well. It's like I just picked up from where I left off." One important factor in her decision was the importance given, in the company, to the human factor. "They're really interested in retaining talent, investing in people and they want to develop them. I really felt that during my student internship. Rather than giving me answers, my colleagues would get me thinking, they would challenge me." Looking back at her three internships, Sara Santos tells us: "The experience has really helped me grow. And I've developed skills at different levels".

Learn about the Grow project on pages 44-47 of this magazine.



João Colarinha, long term trainee

was huge, gleaming white and super modern. It aroused my curiosity and made me want to learn how it worked." He was far from imagining that he'd have the chance on a work experience programme, little more than ten years later. His internship lasted just a month, but it was enough for him to make an impression, and a few months later he received an invitation to join Navigator's workforce once he concludes his MSc. "I was surprised", he recalls. "I hadn't yet started to look for jobs. I was more focussed on my dissertation. But of course, I was thrilled". The summer internship was a rewarding experience, and one that helped him complete some of his course units. And it also opened the door to the world of work, which he will be joining in October 2023. João Barbeiro is confident about what lies

ahead: "I really liked the atmosphere, the way I was welcomed and what I saw of the work of a Maintenance Engineer. There's no routine, and that's suits me".

Technical Career: a world of opportunities where there's a place for everyone

In a company of Navigator's size, with such varied processes, recruitment is never limited to university graduates. There are openings in the Technical Career channel for people who have completed secondary education or else a technical-higher vocational qualification (known in Portugal as CTESP); these are opportunities in more operational areas. This doesn't mean applicants must definitively set aside any ideas of further study: Navigator not only seeks to offer

working hours compatible with the timetables of employees who decide to return to academic studies, but in some cases will also pay their fees. One of the main routes into the Technical Career channel is by taking the course for Industrial Production Technicians, in partnership with IEFP. Applications are welcome from school leavers and also from people who are unemployed. After a psychotechnical assessment, involving psychomotor criteria, conducted by the external firm, those considered suitable go to receive classroom training, provided by IEFP, and on-the-job training from Navigator. This training period lasts around six months, and the trainees undergo several assessments. Once this is complete, if both parties are interested, the trainee can do a ninemonth professional internship, under the Ativar.pt programme. At this point

Catarina Faria, Process Operative, Figueira da Foz

Miguel Coelho, researcher at RAIZ

they will be allocated to a specific area, for which they have found to appeal to them. Of the 125 trainees who started the IEFP/Navigator course in 2022 and 2023, only 10% failed to make it to the professional internship.

After completing the internship, or in some cases earlier, there is the chance of joining the Navigator workforce, as Process Operatives, at one of the company's industrial complexes. This was the path followed by Catarina Faria, aged 34, now a process operative at the Figueira da Foz Industrial Complex, and the first woman to do this job in the Processing section. "The course requirements said M/F, so I decided to risk it. I know several people who work as operatives at Navigator, but no women. I thought they only hired me, but if they were accepting

had nothing to lose", she tells us. She went through the recruitment stages, where she was nearly always the only woman: medical examinations, psychotechnical tests, interviews. In the end, I didn't just get into the course, I got a professional internship, and was offered a job even before I finished it: "18 February 2022, a day I'll never forget. I'd only been on the internship for six months They called me to say there was a vacancy and I could walk straight into it. It was the best thing that could have happened to me. I'd never had a permanent employment contract before. Now I have the stability I needed", she says. As for working shifts, she assures us she has more time for her children than when she worked nine to five: "It's tiring when I work nights, but I



applications from women, I thought I

For its summer internship programme. **Navigator gives priority** to the children and family members of company employees.

sleep while they're at school and it's no more than seven days a month. The upside is that I end up having more time with them. It works out being really rewarding. We have health insurance, help with school., holiday camps, and real reasons to feel my work is appreciated." Júlia Vaz was another pioneering woman in her area, as an Operative at the Wood Yard Reception, on the Figueira da Foz site. She's 42 years old and joined Navigator six years ago. "We're not the weaker sex, as they say, and we can do many more types of work than people think", she tells us.

When she did the psychotechnical tests, she immediately realised she'd wandered into a male-dominated world: "There were 20 applicants, and I was the only woman there that day", she recalls. She thought she didn't have a chance, but was selected and joined the wood reception team. The good working atmosphere and stability are the things she most values: "It was great to have this opportunity. I hadn't had a steady job for a long time, and when you have children it's fundamental. Now I manage to give them everything they need and even more. I have good working conditions and the atmosphere is good. The most difficult thing is working shifts, but all the rest makes it worthwhile", she assures us. 🔵

PROFESSIONAL PATHWAYS AT NANIGATOR

Job Family Model opens up new prospects

and a statistication

Guiding and promoting employees' professional development, valuing and facilitating mobility and internal advancement.

> fter taking steps to engage and communicate with staff across the company, the Talent Management and

Organisational Development Department at The Navigator Company this year implemented a new Jobs Family Model. This system applies to all employees not covered by the Careers Plan.

This new organisational model groups jobs in roles and functional families, providing clarity about the entry requirements, individual development priorities and the possibilities for professional advancement.

Another benefit is the way it links roles to the organisation's value chain (and not to divisions and departments) and provides a solid basis for putting the right person in the right role, taking their skills and experience into account.



In view of the level of innovation and specialisation within the organisation, this entails assigning greater value to technical careers, creating broader professional pathways, equivalent to management careers.

In practice, there is a core area and the possibility of advancement either in a management career, or in a technical career, with equivalent ranking and clearly defined levels design to promote skills development.

The Job Family Model has been applied across the Navigator Group, including to the sites in Portugal, Portucel Moçambique and the sales offices around the world.

Gradual adaptation

During 2023, Navigator has been

progressively adapting all its human resources and talent management policies to the Job Family Model. This started with the Skills Model and the Performance Model, which have been adapted to the new Organisational Groups and to the new types of technical and management career.

The company is working on both its pay policy and on its professional pathways and the mobility model, and expects the results to be visible for employees in the course of 2023 and 2024

Navigator is also working on a new process for effective succession planning, with a view to creating development and training plans adjusted to employees' growth prospects in the company.

Support for academic studies

The Navigator Group offers its employees a series of incentives for training and further study, through its Qualifica programme and contributions to course fees. Employees studying for PhDs, MBAs, master's degrees, first degrees, post-graduate qualifications and other advanced courses with a duration of more than three months can apply to Navigator for financial support, provided they meet the requirements established in the regulations on Contributions to Academic Costs. This support is available to employees with at least three years' length of service, although in exceptional cases this may be reduced to one year.

Creating skills

In a country where the business fabric is dominated by small and medium-sized businesses and where there is little tradition of forestry, Portucel Mocambigue, a subsidiary of The Navigator Company, is investing heavily in the country's human resources and provides training for many of its employees.

ortucel Mocambique is pursuing a forestry and ndustrial venture in Manica and Zambézia provinces, and works to share value and bring sustainable socio-economic development to communities. At the end of 2022, the company had a permanent workforce (direct and indirect) of 250, of whom 95% are Mozambican nationals and 30% are women. It also generates seasonal employment for over a thousand (FTE - full-time equivalent), mostly drawn from local communities. It is a priority for the company to build skilled employment in the various areas of forestry, as well as in the environmental sector, safety, communication, technology, administration and finance, human resources and other related field. The academic studies available in Mozambique have been complemented by Portucel, which has invested heavily in the country's human resources, by providing "in house" training, at different skill and professional development levels, across all sectors of the company.

The strategy has entailed recruiting primarily recent graduates or young people with some experience, and training them in the skills essential for the company's development. The results have been clearly positive and attracted attention in the wider world. The University of Zambeze (Unizambeze) recently invited Portucel Moçambique to contribute to the "prizes" for its best students; the company responded by offering an internship for the best agronomy student

There are plenty of success stories. Like those of Vinódia Eduardo and Ilídio Muianga, which you can read about here.

Passionate about forests

At the age of 28, Vinódia Maurício Eduardo is a key figure in Portucel



Portucel Mocambique

has 250 permanent employees, 95% of them of Mozambican origin.

Mocambigue's Forestry Department, where she liaises with other company sectors and plays a role in forestry reporting, control and monitoring. Born in Quelimane, the capital of Zambézia province, she has always had a keen interest in biology. It was through a neighbour's influence that her love of nature and plants grew into curiosity about forestry engineering. "He was away at university, and when he came home in the holidays he would tell me about his studies", recalls Vinódia, who had no hesitation in following his example.

"When the time came for me to apply, I chose two areas: forestry engineering



Ilídio Muianga, coordinator of the accounts and management control departments

and environmental education", says Vinódia, who took her degree at the University of Lúrio, where she was the best student in her course. Her good marks won her an internship at the university, but after a year, because there were no vacancies for interns to join the staff, it was the institution's director herself who told her that Portucel Mocambique were scouting for talent. Vinódia Eduardo decided to apply. "The vacancy was for a forestry officer, which meant a lot of field work, which is what I liked", she explains. However, she actually found her feet in the more administrative area of control and monitoring. And when Portucel Moçambique decided to implement the Forest Management System, Vinódia was one of the group of employees who travelled to Portugal to be trained in this area. "We returned as key users of this forest management system and today I'm the main person liaising between my department and other areas", she explains. It's been five years since she joined Portucel as a trainee, and she's clear in her own mind that this is where she'll stav and grow.

A career built on balanced books

Having joined Portucel Moçambique in 2014, Ilídio Muianga today has the dual role of coordinating the accounts and management control departments. In

nine years in the company, his career has advanced and brought him new responsibilities.

Ilídio Muianga takes a pragmatic view of life. He was always good at maths and jumped at the chance in the eighth grade to follow the accountancy course. He completed secondary school at a business college, the Instituto Médio. "I always enjoyed everything that had to do with figures and realised that, unless I followed a technical course, I could do 12 years of school and still not have a profession", he explains.

His decision to take a technical course bore fruit as he envisaged. On completing secondary education, Ilídio was not only a gualified accountant but could continue into higher education. So that's what he did, while working at a consultancy firm - a job he secured on the strength of his good marks at Instituto Médio - and eventually graduated in Accountancy and Auditina

He was still a student when he first made contact with Portucel Mocambigue, which was a client of the consultancy firm where he worked. "In 2014 they invited me to join Portucel", he recalls. "It was an easy decision to make" and one that has brought rewards. Over the past nine years, Ilídio's career has progressed as he moved from accounts clerk to head of accounts (and, for a short period, head of human

Promoting health

Portucel Mocambigue has developed a preventive medicine programme designed to promote the health and wellbeing of its employees, by facilitating prevention and early detection of diseases and injuries. With investment of approximately 25,000 dollars, the programme has brought medical personnel into the workplace, to screen and assess staff for a number of issues (clinical analyses) and to provide medical advice on healthier living (doctors' consultations). The results were shared only with the employees concerned.

resources). Since 2021, he has combined this with coordinating the management control department. He has been learning all along the way. "Last year, when we implemented the SAP system, the team in Mozambique worked jointly with the team in Portugal and the time we spent together was a period of real learning and growth", says Ilídio. Looking ahead to the next decade, he is sure he will stay at Portucel, in which he regards as an "interesting and unique project in Mozambique".

Pursuing dialogue

The Navigator Company has brought together the organisations representing employees and the Executive Board for an open dialogue on business challenges, working conditions and other employment issues.



he Industrial Forum was set up this year, to develop a closer relationship between the Executive Board and organisations representing employees, at all the sites and in every business area, making for mutual engagement and synergies. Rather than serving as a bargaining forum, the idea is to pursue open-minded dialogue and closer relations. At the first meeting, held at the Figueira da Foz Industrial Complex, participants debated business challenges and the impacts they are having on the company's competitiveness, in order to convey a realistic idea of where we are and where we can go. The forum also addressed other issues

of fundamental interest to everyone at Navigator, such as safety and absenteeism, listening to suggestions from employees on how to mitigate the problems associated with both, taking seriously the perspective and experience of operative workers. Participants discussed the Health and Safety Strategy, part of an ambitious plan involving the whole company, from top management to sector

The Forum helped to bring the Executive **Board and organisations** representing employees closer together.

managers, supervisors and operatives, with the aspiration of achieving the Zero Accidents Target. The meeting also considered the main measures for combating absenteeism, including the Ergonomics Project, the work of the Occupational Health team, the company's annual bonus, different forms of flexi-working, the 38-hour working week and the productivity bonus.

With the active participation of workers' representatives from the dozens of organisations making up the Navigator Group, the atmosphere at the Industrial Forum was one of calm, transparency and dialogue. The empowerment resulting from the sharing of privileged information was appreciated by participants across the forum.

"Industrial Forum is fundamental tool for workers"



António Melo, member of the Workers' Committee, The Navigator Company

Navigator's new Industrial Forum "is a fundamental tool for workers and their representatives, because what they can learn about the overall situation of the company and the Group will enable them to be more effective representatives", avers António Melo, a member of The Navigator Company's Workers' Committee

"The workers' representatives can use the information they obtain in order to define their position. It helps people to prepare and to take a better informed and more coherent position, and not just one based on ideology or perspectives that may not be based on facts", says the technical operative in the Energy Recovery sector, currently assigned to supporting the lime kiln operators, at the Aveiro Industrial Complex, where he also sits on the Workers' Sub-Committee.

With a long career at Navigator, which he ioined in 1987. António Melo is familiar with the whole organisation. As he had the chance to say at the opening meeting, he envisages that the Forum will offer "a way to significantly improve communication and the work climate". "The [quarterly] meetings with the director Fernando Araújo, as part of the work of The Navigator Company's Workers' Committee, are more to deal with human resources issues. By bringing in the CEO and other people, the Industrial Forum enables us to share information much more widely, concerning the company's situation, the problem it is facing, the solutions it has found, the situation in the market, and as regards suppliers and customers. It's always important for people to have an overall picture of how the company is doing. It helps them to understand the decisions that are made, which might otherwise be misunderstood", concludes António Melo.

Investing in people across the company

The Navigator Company sees people as its most important asset and the main factor that puts it in a class of its own. For this reason, the company offers a wide range of employee benefits, available also to family members, as well as working to build their skills and provide opportunities for career advancement.

he benefits package enjoyed by The Navigator Company's employees in Portugal includes health insurance, which also covers their immediate family, life insurance, including cover for death and total and permanent invalidity, additional sick pay in addition to that provided by social security and the pension fund, as well as support for families, including childcare allowances and educational support, allowances for children with special needs, study grants and childbirth allowance. This array of benefits represents average annual spending of 1,815 euros per person and an annual investment of approximately six million euros on the part of the company. Training activities are another key elements in Navigator's investment in its people. In 2022, 96% of employees in Portugal, Mozambigue and the international offices were involved in the various training activities organised, representing a total of 150,904 training hours. Under its schemes to provide financial rewards for performance and productivity, Navigator concluded the process, in May this year, of distributing 34 million euros to its employees, the largest ever sum in the company's history. On average, this corresponds to 18.81 salaries paid to each employees per year, up from the average of 15.9 paid over the last five years. In the past ten years, Navigator has distributed more than 110 million euros in staff bonuses

This investment in human capital has helped make Navigator the 2nd best place to work in the industrial sector in Portugal, according to the Randstand Employer Brand Research 2023 awards. For the third year running. Navigator made it into the top 20 in this ranking, where it was listed as the 11th best place to work.



Health and Welfare **Occupational health programme**

It seeks to contribute to the physical, mental and social well-being of the company's people. It is focused especially on preventing work-related diseases or injuries.

The programme works on four fronts:

- Nutrition
- Physiotherapy Mental health
- Welfare service

Insurance

Health Insurance - covers employees and their immediate families. Expenses can be claimed for treatment outside the network, with separate ceilings for each family member. Employees can also contract extended cover, through pre-defined top-up plans.

Life insurance - covers all employees on permanent contracts. Includes cover for death or total and permanent invalidity.

Healthcare access

Employees can consult the company doctors or use the nursing service. All industrial complexes have a duly equipped medical unit.

Pension fund



In order to complement social security retirement pensions and help maintain their living standards when they reach retirement, employees benefit from the Navigator Pension Fund. The company pays a monthly contribution calculated as a percentage of each employee's salary. Employees become entitled to pension benefits, in most cases, after three years' length of service.

Support for families

Childcare allowance

Contribution to day care for employees' children.



Educational allowance

Support for educational expenses of employees' children aged 6 to 25 attending primary, secondary or higher education.

Student grants

Study grants for employees' children in higher education, studying for a first degree, Master's degree or PhD.

Support for children with special needs

Special allowance for employees' children with special needs.

Family Christmas

Every year. Navigator offers Christmas presents to our employees' children (up to 12 years of age).

Flexibility

Hybrid working



Navigator operates a hybrid working model that enables employees whose jobs can be done remotely to work from home up to two days a week.

Shorter working hours

To ensure a better work-life balance, the company has instituted a 38-hour working week, instead of the normal forty hours.

25 days' holiday leave

Employees are entitled to 25 days'

holiday leave each year, three days more than stipulated by law. They are also given Christmas Eve and Shrove Tuesday. Shift workers who continue to work on this basis are entitled to one extra day after 25 years, and two extra days after 30 years.

Personal and professional development



Learning center

A digital platform design to respond to the training needs in the different business sectors, and enabling employees to improve their skills and grow as professionals. This internal portal is also available on mobile devices and provides Employees with online learning, allowing them to consult the training on offer and to view training course schedules.

Training

More than 500 training events each year, in areas such as leadership, management, behavioural, technical training in pulp production, tissue paper, energy, forestry, safety, laboratories, environment, management systems and information systems - total training hours in 2022: 150,904 (reaching 96% of employees).

More than 600 e-learning courses available on the Learning Center portal, to which any employee can sign up

• Specific Navigator e-learning courses, in the fields of safety, management systems, environment, laboratories, and others.

• Complementary e-learning in the fields of pulp manufacture, paper,



energy, tissue, maintenance and safety.

Online language learning

Available on the Learning Center portal, for all employees and their immediate families (spouses and children). Twelve different languages offered, including conversation lessons with native tutors.

Contribution to academic costs

In order to support and encourage employees in developing their expertise. Navigator contributes to the costs of academic studies, including: PhD, MBA, Master's degree, first degree, post-graduate studies and advanced courses lasting 3 months or more.

Reduced fees at ISCTE

A 10% discount on total fees for employees, spouses and children. on post-graduate studies, Executive Master and Executive MBA, at ISCTE Executive Education.



Mobility Travel

Free transport service to and from the Figueira da Foz and Setúbal sites.

Fuel

Discount cards for several major filling station chains.

Personal travel

Discounts in air travel, hotels, care hire and service charges.

DIOGO

Listening to young professionals, taking their ideas and outlook seriously, is part of the corporate culture at The Navigator Company. The Future Leaders Forum offers a real chance for these young professionals to show what they're made of.

heir heads are bursting with ideas and they can hardly wait to apply them and change the status guo. This is a generation that likes to guestion and, if given the chance, they can bring new ways of thinking (and doing things) to the corporate settings in which they find themselves. The Future Leaders Forum is promoted by The Navigator Company, eager to harness their youthful energy, turbocharged by their talent. The young people seek to respond to a challenge chosen by the Forum, from a list of proposals submitted by the Executive Board (EB). Over the course of the process, they report on their progress to the EB, in a two-way dynamic that benefits both the participants and the organisation. This is a way for the company to give a voice, here and now, to our future leaders, promoting closer interaction with senior executives, in what seeks to be a more participatory management process. This accords perfectly with the company purpose, centred on people and their quality of life, a sphere to which investment in skills and professional development belongs.

The programme seeks to encourage the spirit of questioning the established order, allowing for fresh perspectives on important topics, challenging the accepted wisdom and pointing to innovative approaches. The process permits participants a privileged insight into the company's strategy and priorities, helping them to engage more deeply with its purpose.

In practice

To join the Future Leaders Forum, young management staff must be aged 33 or younger and have worked at The Navigator Company for at least 12 months. The forum meets twice a

year and on each occasion there are around 60 employees in the same age group who come together with two goals: to attend the presentation by the members of the Future Leaders Board on their achievements in the preceding six months, and to vote on the topic to which the new board is to work in the next six months.

The board comprises eight members. with different academic and career backgrounds, who commit themselves to working on a topic of strategic interest to the company. They are selected on the basis of short introductory and motivational videos. and together are representative of the different areas of the company (from manufacturing to forestry, including corporate and sales). Over the course of the process, they have close support from a group of mentors, drawn from senior staff, some with technical expertise in the topic area, others from different areas, constituting a similarly heterogeneous and multidisciplinary group.

"Working on a topic outside my area was the most appealing thing"

The third edition of the Future Leaders Forum is currently running in the second half of 2023, with the Board members seeking answers to the challenge "What's the best strategy for increasing the availability of wood on the Portuguese market?". Most of the members have no particular expertise in this area, which is the whole idea. This experience will provide them with insights and know-how in fields that lie outside their own job description and which they would be unlike to acquire otherwise. For Diogo Monteiro, aged 32, one fo the current board members, this was motivated him most to volunteer for the Future Leaders Forum. He

"I'm 26 years old. It's the ideal time to be bold and to face a challenge."

Bernardo Pereira, Projects Officer, Forestry sector

"The fact that we're new to the issues is an advantage.Often, it's outsiders who come up with the most disruptive ideas."

Tânia Rodrigues, Product Manager, Tissue sector

"The chance to show our work to someone 'high up', i.e. the Executive Board. is very important. You learn a lot from that contact".

Joana Neves, Analyst, Supply Chain sector

"It's good for our voice to be heard. We rarely have the chance to reach so high, and that's stimulating."

Diogo Monteiro, Industrial Systems Engineer, Maintenance Engineering sector

joined Navigator in 2020, working as an electrotechnical engineer in the maintenance sector at the Figueira da Foz industrial complex. "This project is an excellent chance to see what's going on in the company outside the part that I know. The fact of having a topic unrelated to the industrial sector was one of the most appealing things", he tells us. "We cook the pulp in the digester, we make the paper come off the presses, but I want to know what happens before this, up to the wood arriving at the mill. We started just a few weeks ago, but I've already learned a huge amount", he says.

This board has two members who belong to the forestry sector and so whose task at the start is to put the others in the picture. One of these is Bernardo Pereira, forestry engineer and Project Officer. He's been at Navigator since April 2022 and, albeit for reasons different from those of Diogo Monteiro, the topic was also one of his main reasons for wanting to join the board: "The challenge is extremely interesting, extremely difficult and part of it is controversial. That's why. belonging to this area, I found it very motivating.'

In addition to what he has been learning and consolidating in his own professional area, Bernardo Pereira is sure that being a board member in the Future Leaders Forum will bring him other benefits: "It's an opportunity for growth, even at a personal level. I'll develop my communication skills, for example. And it will be a bit like that pressure we experienced as students, the excitement of the challenge when we had a project to work on. That's also stimulating."

"We were a breath of fresh air"

The members of the Future Leaders Forum meet with the Executive Board three to four times over the six months, to present the work done. This provides valuable feedback for the continuation of the project, in a helpful and constructive way. For many, it's the first time they meet the board, offering a unique opportunity for arowth.

These meetings give them visibility and exposure and are professionally challenging. "Contact with the EB is one of the most rewarding aspects of the project", says Tânia Rodrigues,



The voung people seek to respond to a challenge chosen by the Forum, from a list of proposals submitted by the Executive Board.

Joana Neves Analyst, Supply Chain sector

Forestry sector

Bernardo Pereira, Projects Officer,





Technical Department. She was a board member in the second edition of the Future Leaders Forum, which worked on the topic of the energy crisis and its impacts on Navigator. "I feel that the meetings were really helpful in gaining confidence. The EB members also made an effort to put us at our ease, which helped a lot". she tells us. "It ended up being more of a conversation, always constructive, rather than a formal conversation. We were sitting round the table with them, they would interrupt to ask questions and make suggestions, and that would steady our nerves and make us more confident. We always came out with a satisfying sense of mission accomplished", she recalls. The nerves were also part of the experience described by Afonso Ogando, aged 33, Product Manager in the Supply Chain Department, and one of Tânia Rodrigues' fellow board members. But he also recalls the feedback they received: "Whenever we went to the Executive Board, there was a degree of pressure, of course. But I remember them telling us we were a breath of fresh air. They're people who are up against tough issues all the time, and we would turn up buzzing with energy and good vibes, and new stuff to present to them."

This "new stuff" turned out to be "a disruptive proposal, with three main sets of initiatives, which was very well received and won us enthusiastic feedback", he explains. "If one day the initiatives are implemented, I probably won't be involved, because it's not my area, but even so I'll be proud to see them put into action", he confesses.

"This experience has given us a lasting bond"

For Afonso Ogando, the most important thing he gained from the Future Leaders Forum was the new people he got to know: "It was just six months, but really intense, and there was a really positive vibe between the Board members. They were eight people I didn't know but it became an important group for me. We're always in contact with each other. I don't know what the future will bring, but this experience has given us a lasting bond. As if we'd created a core group

aged 31, Product Manager in the Tissue

"They didn't give us any background or guidelines. At the start, it was likewehadablank sheet of paper and a topic to explore."

Afonso Ogando, Product Manager, Supply Chain sector

"It's also a very interesting and rewarding dynamic for the mentor."

Frederico Pisco, Energy Sector Manager, mentor

FUTURE LEADERS FORUM

"The Future Leaders Forum is a project that helps us to be more inspired in our thinking, to dream a bit more."

Mónica Passanha, Project Manager, Packaging sector, mentor

"Our job is not to set boundaries, it's just to show what's been done before. We just ask them not to deviate from the actual challenge. Otherwise, there are no limits."

Susana Morais, manager responsible for implementing Forest Yields and Certification Programme in the field, mentor



Tânia Rodrigues, Product Manager, Tissue sector

on which we can always depend", he explains.

"The people" and the new contacts that it brought were also among the main takeaways from the project for Joana Neves. aged 29, an analyst in the Supply Chain sector. She's been at Navigator since 2017 and took part in the pilot edition of the Future Leaders Forum. "It was a chance to expand our network of contacts inside the company, and that was really good. We now have people we know in different sectors", she tells us. "I got to know lots of people, not just my fellow board members, but also the mentors and all those who helped in the course of the process. We knocked on a lot of doors, there were countless people who contributed, providing information", she explains. In addition, Joana Neves points out that this contact with other departments was an important factor in her professional growth: "It was a huge eye-opener, seeing what people contend with in different sectors of the company. Navigator has so many areas, it was really useful to understand the priorities in each of them." In addition to the sense of mission accomplished, increased confidence, new insights, an expanded network of contacts and greater visibility in the company, the participants are sure of one thing: "The Future Leaders Forum shows that the company takes care to listen to us and take us seriously", says Tânia Rodrigues. "It's a way of telling us our ideas matter." •



Afonso Ogando, Product Manager, Supply Chain sector

The participants get a privileged insight into the company's strategy and its priorities.

The mentors' perspective



Susana Morais, Forest Yields and Certification Programme

"The Future Leaders Forum takes us out of our everyday life and makes us look differently at the company. We get out of the forest, step back and look at it as a whole," explains Mónica Passanha, Project Manager in the Packaging sector, who took on the role of mentor in the first edition of the programme. "The chance to follow through a project of wider strategic interest is also very stimulating for the mentors. It leads us to look at processes from different points of view and helps us to question things, which is a great advantage", she says. In the first edition, the challenge was: "What strategies should be considered for developing new business segments in the Packaging sector?". Because Mónica Passanha works in precisely this area, being a mentor proved to be an even more stimulating experience: "I'd been in Packaging a relatively short time, which made it even more of a challenge to follow through what was an extremely important project for Navigator's strategy".

As for experience of mentoring, she recalls that the main challenge was to "find a balance between giving guidance and not intervening too much". She thinks they managed to get the balance right: "We learned to observe and only take part at key moments. But we never did the work with

Frederico Pisco, Energy Sector Manager

them, which was sometimes a temptation." Although there were eight mentor-mentee pairs, the experience of the first Board was that the mentoring worked best at group level, and not just one-on-one. "What happened was that we mentored them as a group, which worked well and was assessed positively by both sides", recalls Mónica Passanha. And she adds: "It was all done through discussion and letting things evolve, debating the approaches they were taking. It made for a good learning process, with a different type of mentoring."

Frederico Pisco, Energy Sector Manager and mentor in the second edition of the Future Leaders Forum tells us he found the experience "extraordinarily positive": "The mentees did an excellent job, highly appreciated by the EB, and this resulted in a task force with a rather interesting dynamic." The fact that the group was drawn from different areas and working on the energy crisis made it especially challenging, but it was also very motivating. "It was amazing to encourage people from such different areas, from accounts to sales or forestry, to work in a field that is highly technical and where most of them had never worked before ", he tells us. "Initiatives such as this are laudable, not least because they get different age groups to interact. That's very important", adds

Mónica Passanha, Proiect Manager Packaging sector

Frederico Pisco. "Because while we, the mentors, have something from our experience to share, they, the mentees, have always got something to tell us."

Susana Morais, who works in outreach, has just started as a mentor to the board in the third edition of the Future Leaders Forum, and shares this perspective. She aims to share her experience and give some guidance, but she is also hoping to learn: "Both sides always gain from the mentoring relationship. I think it's very important to listen to the younger generation and to share knowledge, on a basis of trust If we succeed in passing on to them everything we have learned from the experience we've accumulated over the years, they can combine that with their fresh approach, their outlook and their recent training. And they're bound to come up with answers we couldn't have imagined".

The secret to making the most of what young people can bring to a company is, in her view, "being open to change. We have to be truly receptive to new ways of thinking and doing things. That's the key point of the Future Leaders Forum." 🗕

GROW PROJECT



A project by everyone for everyone

This is a motivational and multidisciplinary project for everyone working at The Navigator Company. It's where ideas and suggestions from employees improve the way we work and make people feel they belong. At the same time it will make for better leadership today and prepare the leaders of the future



people, committed and fulfilled, can lead the organisation's future". The Grow project's

slogan points to the motivational dimension of this Navigator initiative for its human capital. In a fast-changing world immersed in planetary crises, and at a time

when a new generation, with new methods, values and processes, is joining the labour market, Navigator is acutely aware that it needs to evolve. The Grow project involves different areas in the search for solutions for improvement at a

variety of levels. It sets out to boost the company's ability to respond to new challenges and at the same time to add to the personal fulfilment, professional development and wellbeing of all the people who make the organisation what it is. The idea of the project is for Navigator to grow from the inside, in other words for that growth to come from its people, and from their own development and training.

Aligned with the 2030 Responsible Management Agenda, the Grow project started up in later 2022 and

is a way for Navigator to make good on its commitment and to focus

the organisation on its purpose, building an environment that nurtures growth and skills development for all. Because the sustainability of the organisation depends on this collective endeavour. The project started with a wide-ranging process of needs assessment and co-creation of solutions, involving more than 200 management staff, from all the sites, including the international teams, in focus group sessions. Around 500 employees took part directly, but in total there were close to a thousand contributions, in a process that entailed the direct involvement

Navigator's 2030 Agenda is the blueprint guiding the company through the decade ahead, seeking to make a positive contribution to value creation and sustainable growth in a changing world. This agenda was built on the basis of a listening exercise involving 540 internal and external Stakeholders, a benchmarking analysis of international trends and the framework of the United Nations Sustainable Development Goals

The Grow project has already involved 216 employees in the needs assessment phase and 230 in results sharing. 65 employees belong to the Functional Teams working on the various initiatives.



GROW PROJECT

45



Paula Monteiro

of the company's management. This resulted in a roadmap with almost 30 initiatives, to be implemented by the end of 2024

A roadmap for Growth

The roadmap is structured around five mains areas, which are driving implementation: Our people, our ways of working, our business, our impact and our leadership. Each of them is sponsored by a member of the Executive Board, demonstrating the strength of commitment to the project and the level of mobilisation. These five main areas will be addressed through 16 pillars, each one led by two managers. From an operational perspective, there are 29 initiatives, entrusted to functional teams, consisting of the company's management staff. The first ten are already in process, under the supervision of the respective pillar leaders.

Paula Monteiro Safety and Support Systems Director

"The team is very committed"

"Working on the Grow project, listening to people's aspirations, concerns and expectations and transforming these into solutions has been extremely rewarding and satisfying. I'm particular involved in the action area 'Our Ways of Working'. The taskforce is very committed and aware of the importance and impact this topic has in everyone's lives.

When in future we look at Navigator, we'll be immensely proud of the Grow project and for all the value it will bring us."

Mafalda da Costa Bacalhau

Mafalda da Costa Bacalhau E-commerce Content Developer

"The Grow project gives people a voice"

"When I realised how important the Grow project is to the company, I decided I could contribute.. I'm involved in the initiative called 'Leading my agenda', which belongs to one of the four pillars in the action area 'Our ways of working'. On the basis of the diary tools that the company already provides, we creating a mini-communication campaign, which will soon be launched, in order to help colleagues manage their working time better. The aim is to launch on the intranet some small tools for people to learn to structure tasks, manage time, simplifying things and thereby improving their quality of life at work, but also away from work. As members of the Functional Team, we're learning a great deal from this project.

The Grow project gives people a voice and that's very important, both for our own growth and that of the company. That's why I think the project name is exactly right." •

Decisions on the methods and the organisation of the work are made independently and on a flexible basis, so as to suit the team, but a recommendation has been drawn up for each of the initiatives. Whatever the method chosen, it is important to give the team members plenty of opportunity to come together and interact. The idea is that the solutions should be designed through a multidisciplinary process, benefiting from the insights of people with different backstories, experience and sensibilities.

Communication: a key element

Because the Grow project is designed to be by everyone for everyone, communicating internally the progress made is a crucial matter. For example, the roadmap, the result of the engagement and participation of so many employees, was shared and presented in approximately 20 sessions, at Navigator's different sites. In the feedback gathered at these

Rui Faria

Rui Faria Paper Production Manager, Figueira da Foz

"All this commitment shows we're already Growing"

"The Grow project is a real opportunity for us to get aligned and leverage ourselves as an organisation. The teams are working with growing enthusiasm, dynamism and participation in order to fill out a more comprehensive and challenging roadmap. I'm involved in the initiative 'Accelerate and expand Straight to the top', in the action area 'Our Business'. At the first working sessions, I felt people were very keen to get results, but also confident in the team's alignment and capability. All this commitment shows we're already 'Growing'!" •



sessions, the dominant sentiment was of identification and recognition. Managers were also provided with a toolkit to help them answer any questions that might arise concerning the project and also to help them share the key ideas with their teams, so that the progress in the project can reach the entire organisation. A leaflet has also been distributed with information on the roadmap and there will be ongoing communication on progress on the project, both on the intranet, and through a newsletter put together specifically for this purpose. The Functional Teams will continue their work into 2024, keeping to a schedule that reflects the priorities identified and manages interdependencies between topics. The results will therefore be rolled out on an continuous basis, whilst balancing the efforts required of the employees involved. Their daily responsibilities don't stop. But nor do the company and its people stop growing, with their eyes firmly on the future.

A part of the whole

In any large organisation like The Navigator Company it can be easy to lose track of the individual, and of all the different sides to them. There's not room here for the everyone's experiences, but we pay tribute to the hidden talents that make some of the company's people unique.



Bruno Gamelas "There's always time for what you like"

Bruno Gamelas has a long-standing enthusiasm, one that has already lasted more than half his life: music. Since he was 15, he's been working on the instruments he's collected, and refuses to give up. "I don't sell my instruments", he says.

It all started with an acoustic guitar that his father hardly ever played, and then moved up a notch with the electric guitar his father bought him. "My granddad played the piano", he recalls. So did his aunt, but he wasn't influenced by either of them in his music. Now he even plays piano and electronic drums, all with what he learned "at primary school and from YouTube tutorials".

It's on YouTube that he posts his music, mostly covers of well-known artists, but also three original instrumentals of his own, among them one entitled "Hope", the project he's invested the most

in, including a video, which curiously begins with him in his work uniform. Captions on the video tell us that the recordings were made during a working week and that: "There's always time for what you like".

With eclectic musical tastes, Bruno Gamelas likes to work with "on the guitar and the bass, against backgrounds created with software that can simulate a whole orchestra". And, although he knows some people at work who are amateur musicians - "one plays in a brass band and another has drum lessons" -, he's only once worked with someone else, with a Brazilian: "He recorded the voice, I did the instrumentals and put it all together". He's a "solitary musician". "Playing live makes me anxious", he admits. But his music's online to be enjoyed.

Bruno Gamelas Shift Supervisor, Aveiro Converting

João Vaz "Nature is very comforting"

Having realised that his life had become very sedentary, João Vaz decided things had to change. "I went back to mountain biking, which I'd done since a child, and took up trail running. Just for myself, for my well-being, because I wasn't interested in competition. I go online. choose a route, adapt it and go. It's when I'm out that my mind clears - I manage not to think of anything else until I reach the finish."

He's also done trail running with coworkers from Navigator. "We even had some t-shirts made. We called ourselves the A Team. not that it had anything to do with the TV series, or because we thought we were the best, it was just that we were shift A". he laughs. "When we had a day off, we'd meet up and run."

He trains in the Serra da Boa Viagem. because it's on his doorstep and because he loves getting lost in the hills. But in the summer, "it's always back to the water", he says. "My family is very connected to the sea, and I don't know if that's why, but the sea recharges my batteries." He started with a surf kayak, but then tried stand-up paddling. He's keen on both, but when he goes on holiday, the stand-up paddling wins: "It's much easier to take the stand-up board on holiday than a kayak!". These activities help him to get grounded again, which he appreciates. "I need it. Mentally it's very important too. Sometimes we're surrounded by people and we feel lonely. When I'm up in the hills, or out on the sea, the solitude is really soothing", João Vaz confesses. It's really changed his life, and he no longer has to worry about being sedentary. Just one proviso: "It all has to be outdoors - you won't catch me in a gym! Nature is very soothing". •





"It's just for myself, for my wellbeing, because I'm not interested in competition."

João Vaz Industrial Technician. Recovery and Energy, Figueira da Foz

André Simões de Carvalho "Music brings new ideas and enables us to develop"

"During the pandemic, when we were all stuck at home, sending a video was a good way to communicate. I shared a video with some friends of me playing the pianos and the reactions were amazing, comparing me to famous pianists. 'You play like Keith Jarret', they kept saying. But it was actually something I wrote myself", André Simões de Carvalho tells us, with visible pride. All his life, he's set aside time for music, a hobby he sees as complementing his other skills. "It complements the creativity we have in doing our job and other stuff in our daily lives. It brings new ideas and enables us to

develop", he argues. André Simões de Carvalho had flute lessons when he was a child, for 4 or 5 years, but wanted to moveone to a more complex instrument, like the piano. "When I was 20, I bought a keyboard to start exploring. Later, I bought a piano and invested in classes. I expanded my technique and it gave me the tools to start composing, which is what I really wanted to do. I can pick up a tune in five minutes. It's a gift I decided to put to use, by composing. In the classes, I learned to read a score, but I don't like using them. I prefer to be free, to create my own concepts", he explains.

He has composed more than 30 pieces, ranging in style from classical – "always something Baroque, similar to Bach or Mozart, but of course much simpler" - to jazz, blues and rock. And sometimes with words - at last year's Navigator Christmas party, he performed an original song.

His inspiration often comes "from concepts, a situation, and experience. Normally, the music comes first, and then I adapt, the words, in keeping with the central idea in my head. My daughter, who's seventeen, is also keen on music, and I ask her for her opinion", he explains.

Managing his time in a "balanced" way, André Simões de Carvalho currently sets aside "four hours a week for music. Although I spend more time thinking about music, because it comes to me when I'm away from the piano, when I'm driving, for instance. I record myself humming, so as not to lose the idea".



André Simões de Carvalho Coordinator of Activity Planning Team at Forest Management Department Setúbal "I learned to read a score, but I don't like using them. I prefer to be free, to create my own concepts."

Diana Lopes "It's a matter of empathy"



Diana Lopes grew up surrounded by animals. She "blames" her mother, who has long been committed to the cause, and always helped and adopted animals in need of a family. It runs in the family... "my mother started to volunteer for a refuge and I've followed in her footsteps", she says. She's been a volunteer at AMA, the Aveiros Association for Animals, for around ten years. "It's a matter of empathy. Animals are so defenceless, I feel obliged to protect them. I've always had this drive to help."

At Navigator, Diana's love of animals doesn't go unnoticed. "I try to raise people's awareness, and whenever we need people to take in pets, I talk to them. I've even raised funds here in the company", she tells us.

Her parents, with whom she lives, foster animals, and a lot of them end up staying. "As a rule, we've always adopted the older ones. I remember once we brought an old dog called Malhadinha home so she could spend her old age in a family. At the refuge, she was very quiet. But once she came home with us, she came back to life! She left behind her quiet personality, and wrecked the whole garden", she laughs. "And she was with us for around four years. Which just goes to show the impact it has on an animal it we take them home and give them some love." • **Diana Lopes** Laboratory Analyst Aveiro

Carlos Corujo "It didn't feel like the weekend was ending"



Carlos Corujo has always liked to dance. He had a natural flair, but had also always wanted to learn more systematically. "About twenty years ago, I was 44, my children weren't young any more, I though, it's now or never. I took my wife and we went looking for a dance school", he tells us.

They found some classes for Latin dance, and decided to try it out. "It was great", he recalls, with enthusiasm: "We had classes on Sunday evenings at six, and it didn't feel like the weekend was ending".

In his eagerness to learn and try out his moves, he went wherever the rhythm took him "I would go dancing in Porto, Viana... I went all over Europe to Salsa conferences. All to keep on learning." Until it got to the point when he started teaching. "Five or six years after starting this, I started to work with a school to give classes. I also got involved in organising and promoting dance events, including putting on the music, so I became a DJ", says Carlos Corujo.

Twenty years on, his love affair with dance continues "It's my way of switching off. And that changes your outlook and the way

you look at problems and deal with them, even at work", he explains. He never misses an opportunity to dance and loves to give classes: "It's fantastic to see people make progress: I have students that dance better than me, and that's great. And I have others who aren't there to learn technique, but just for the fun. I had one student who was 92 years old! When you really want to do something, everything is possible". He's recently started to use his talents at events at the Navigator Sports Centre in Aveiro. "I've started to take part more, essentially as a DJ and organiser." It's a way of bringing his two worlds together. •

"I went all over Europe to Salsa

conferences. All to keep on

learning."

Carlos Corujo Maintenance Supervisor Aveiro

Luís Antunes "Table tennis has been crucial to making me who I am"

Luís Antunes was just eleven year old when he started to play table tennis "at the local club". Since then, he's been in a series of clubs, playing competitively. "Table tennis helped me a lot to develop as a person. I learned skills which may not be academic, but have been a great help in my life, including at work", he explains.

A turning point in his life last year encouraged him to set up a project in this area. "My first coach was a big influence on my life. He was an amazing guy, and I learned a lot from him. He died last year and, as a tribute, I decided to set up a project to coach young table tennis players, at the Carapalha Arts and Sports Club (ACDC). I want to try to do for these young people what my coach did for me."

And things seem to be going to plan: "In the team's first year, we had 38 people playing competitively, including seniors and learners".

As the matches are at weekends, "this is something that I depend a lot on my co-workers for support, to switch shifts when necessary". •

"I want to try to do for these young people what my first coach did for me."



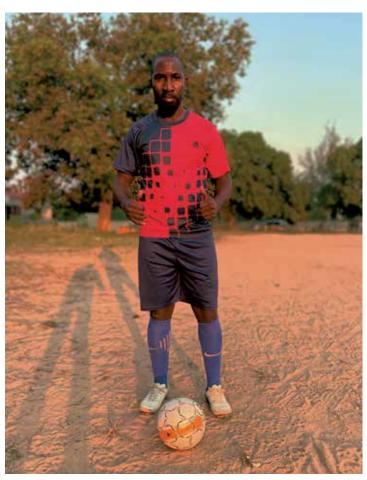
Luís Antunes Finishing Machines Driver Vila Velha de Ródão

Francisco Júnior "I'm really keen"

"People are so keen to play, that we once we even waited an hour and a half for the heavy rain to stop and then we had to dry the cement pitch with rags and towels before we could go on." This is the enthusiasm with which Francisco Júnior, aged 36, continues to dedicate a lot of his free time to eleven-a-side football and futsal. In Gurué, where the climate is unpredictable, it's normal for a sunny evening to be interrupted by a downpour, so games are often suspended, but that doesn't stop Francisco from playing nearly every day. "I'm really keen"

When he spoke to us he had travelled on company business to the Port of Beira, so he knew he wouldn't be able to take the field for the Renascidos, in a match for the local tournament that next weekend. Normally, Cota Massinga (the football nickname used by Francisco Júnior, who also answers to the same Donguene) can be sure of a place on the team as a defensive midfielder. despite the competition from younger players. "As I can't take part in the training sessions during the week. I play futsal every evening. Monday to Friday, to stay fit, as the pitch has lighting." In futsal, he plays for Madodas FC, a name which is a nice way of saying older guys. A bit like "old timers". Precisely because the team is mostly veterans.

Francisco Júnior thinks back to his youth, in Maputo, for his happiest sporting memory. "At secondary school, I was at a school in the suburbs and we won the Coca Cola Cup, a national tournament, with a trophy and a 10 thousand dollar prize. The money paid for a library and equipment for a computer room, which still today helps the generations of students who came after us. It was the best decision", he believes. Francisco Júnior's idols are the French player Zidane and the Brazilian Ronaldinho Gaúcho - "I prefer the old school", he confesses - and he's always ready to pull on his number 85 shirt, combining his own birthday with that of his wife. "It's a number no one is ever going to argue over", he points out.





Francisco Júnior Logistics Sector Coordinator Mocuba, Zambézia, Mozambigue

Gonçalo Veloso de Sousa "It's when I really relax"



Shortly after graduating, Gonçalo Veloso de Sousa took up a hobby that became a lifelong passion. "I took diving lessons in Mexico, on my end-ofcourse trip in 1995", he tells us. And he never looked back. Or rather, he took a break when his children were small, but soon got back to diving regularly.

"When you dive, the isolation enables you to switch off from everyday pressures. "It's when I really relax", he says. For a long time he was what he calls a "holiday diver", in other words, he only dived into warm water. "I've dived on every continent, and ended up getting used to doing it here in Portugal, which is cold water diving. As a rule, I go diving on Saturday mornings - it's a great way to start the weekend, which is always better as a result."

It's a hobby with a degree of risk, so "you have to be very careful about safety, which means absolute respect for the rules and a series of equipment checks". So he never goes diving alone. And that's another advantage that Gonçalo Veloso de Sousa finds in his hobby: "You always go diving with a buddy, or partner, and that helps you to build friendships".

But that's not all. "With diving, I've learned to make the most of what the circumstances offer. Not all dives will be the same, but you have to



know how to enjoy what the sea gives us. For me, any dive is relaxing, it's always worth it", he says, adding: "I enjoy all my dives, but of course there are some that stick in the memory more than others. I've been in the water with more than 50 giant mantas, with sharks, turtles, and those are the photos you show people later, and not the pictures of diving in Sesimbra, with just three metres' visibility", he laughs. He also points out that divers take their environmental responsibility very seriously. "We're taught not to interfere with the ecosystem. The whole thing is designed for the diver not to have an impact on the site. At the end of the day, it's all about the sea." •

Gonçalo Veloso de Sousa International Sales Director Lisbon

José Maria Pérez "I should really have been a pilot"

Anyone who knows José Maria Pérez knows that he's crazy about planes. "I should really have been a pilot". he says, jokingly, "and the closest I can get to it is through my favourite hobby, aeromodelling, to which I've devoted a lot of my free time for more than 25 years, in a small flying club we have in Ejea, of which I'm proud to be a member." In the world of model aircraft, there are as many categories as there are real types of aircraft. Ranging from gliders, which fly without a engine, to planes with electric engines, and then those which. according to José Maria Pérez, the true model aircraft enthusiast loves best: "propeller-driven planes with petrol or petrol-derivative engines, as they generate more power and look more realistic when you see them fly". There are also models with jet engines, but the cost and the degree of skill required of the pilot mean they are rarer, even though they're "really spectacular and it's a delight to see them fly", enthuses José Maria Pérez. An enthusiasm that extends to helicopters, "which are really hard to handle because of the length of the blades and the difficulty in maintaining static flight helicopter pilots are real artists and can do amazing acrobatics".

So what's aeromodelling all about, José? "It's a hobby where you're mostly assembling different the different parts of aircraft, so that, once they're perfectly synchronised, the whole thing can fly. It takes a long time, but you get your reward when your plane flies and you manage to bring it down in one piece. Although, as model aircraft veterans often say, there are only two types of model aircraft: those that crash and those that are going to crash."





José Maria Pérez Converting Rewinder Operator Ejea dos los Caballeros, Spain

Ricardo Pinho

"The time I spend in the hills, in contact with nature, is precious to me"



Ricardo Pinho runs tens of kilometres - sometimes more than a hundred! -, over rough terrain, in uplands and forests. But this physically challenging hobby started in a surprising way: with an accident that left him confined to bed.

"When I started to recover, I decided to walk to my physiotherapy. Then, I started to run. About that time, I read that if we do something for 21 days in a row, the habit takes root. So I set myself the challenge of running 10 kilometres every day, for a month", he explains.

When he decided to go running in the hills, he soon realised that trail running was what he really loved, more than road running. "I started running 20-30 km races. Then I moved on to ultras, which are ultra-marathons. I try to do an ultra trail run every three months, more or less. For this year I've got planned the Trail Abrantes 100, which is 100 km, in October, and the Epic Trail Run Azores, in December, which is 110 kilometres." I'd be lost today without my daily training sessions and occasional races. "Training is like therapy. The time I spend in the hills, in contact with nature, is precious to me. And we discover places we wouldn't otherwise see", he says. As for the races, "they're about the sense of achievement. When you reach the finishing line, it's an incredible feeling. That you've managed to finish such a tough course. And that you overcame all the setbacks (and there are always setbacks!)." Some of his Navigator colleagues also run. "Miguel



Raposo, for example, often trains and does races with me", he tells us. Ricardo Pinto is now working with a coach, "but at the start I just read stuff and learned about it all by myself". He aims to train every day. Sometimes at five in the morning, before work. And other times in the evening. "This has taught me discipline, perseverance and consistency. You can always come up with 20 excuses not to run, so we have to have discipline." Discipline which, he hopes, will help him achieve his next goal: "Next year, or at least by 2025, I want to do the 160 kilometre race".

How is it possible to complete something so physically and mentally draining? "Putting one foot in front of the other, until the next aid station. That's our motto. Reach the next aid station, where we'll recover our strength, maybe see people we love, and the strength that gives us is incredible." **Ricardo Pinho** Refurbishing Workshop and Transversal Sectors Manager Setúbal

Hugo Cardoso "It takes me out of myself"







Hugo Cardoso was browsing through Pinterest, to pass the time, when he came across a technique for transferring photos onto objects. It seemed to him a good way of entertaining himself and relaxing after his shifts. "It started just for fun. I thought the technique looked interesting and I tried. I did some key rings and magnets, and people started to ask me to do it with their photos, so for four or five months I've been doing it more seriously. I've been selling my work at the Tastes of the Tagus Fair, here in Vila Velha de Ródão, and it's been a

"When I do it, I find it really satisfying. You peel the paper off and the picture is imprinted on the wood... it almost looks like magic!"

success. Now I'm waiting for an answer from the tourist office, to have a small stand there." The process is simple: Hugo makes key rings and magnets in wood, and then transfers photos on to them, using a special technique. "When I do it, I find it really satisfying. You peel the paper off and the picture is imprinted on the wood... it almost looks like magic!", he tells us. "I chose wood, because it's a natural material, and plentiful in nature."

He started by cutting the wooden pieces with

a hand saw. It was fun, but it took a long time.

impressed by his talent, and commissioned a

number of pieces. One colleague asked him to

make some gifts for the guests at a christening.

"It takes a lot of concentration to make these

pieces, and so I end up leaving my worries

midnight and I'm doing this until two in the

behind. Sometimes I come off my shift at

morning.

machine that helps me to be faster."

His co-workers at Navigator have been

When I started to have more orders, I bought a

Hugo Cardoso Line Operator Vila Velha de Ródão

Celia Aguero

"Only through yoga could I understand what was right for me"



In 2015, Celia Aguero was not yet working at Navigator. She had a high-pressure job in IT, which was very stressful, and she took up yoga to have a part of the day to herself, to look inwards.

"I was getting ill, and at the hospital they said it was stress. Yoga was the only thing that did me good. In 2016 I started to go to classes more seriously, every day. And in February that year I decided to change my life, change my job - yoga enabled me to understand what was right for me. In June I got a job with Navigator", she recalls.

Her stress levels came down, but yoga had become a part of her. "The moment when it mattered to me most was in the pandemic. No one knew what was going to happen. We were working from home, and I worked all day and at the end of the day I did online yoga classes. Every day I was eager for more. It was doing me good, it left me happier, more hopeful about the future. I'm very optimistic, but yoga makes me even more so."

I got to a point, I was so advanced I couldn't progress any further. "My teachers told me that the natural thing for me to be was to be an



instructor, but I was too shy. But in the end I gave in and did a teaching course at the Yoga Alliance. Bit by bit, it started to make sense to me. The first part of what I did was for me, for my own practice, but then I realised I wanted to share all these fantastic things I'd learned with others. I'm now in my first year of giving classes, and I'm loving it. Psychologically, yoga is my escape valve, my life raft."

Celia Aguero Sales Manager Iberia Madrid, Spain

Miguel Teixeira "It's great for combating stress"



BTT, fishing, model building... Miguel Teixeira has had several hobbies down the years. But none of them have fired his enthusiasm like off-road driving, which he discovered thanks to the annual shutdown of one of the Navigator mills: "In 2017 or 2018, I'm not sure which, a colleague and I went to do the annual shutdown on the Aveiro site. We were in the same hotel, and in the evening he was always talking about his jeep and the trips he went on. That got me interested. The same year, I bought my first off-road vehicle". He took his family out driving and joined organised excursions, and then in 2019 decided to "resurrect" Santo Onofre Trails, a club that had existed where he lives. "Once a year we organise an off-road tour around the municipality. Last year, there was an abandoned piece of land, full of rubbish, that was spoiling the rest of the woodlands around here. We decided to clear the land, dispose of the rubbish properly, and we made an off-road circuit for something friendly", he tells us proudly.

Miguel Teixeira currently has four off-road vehicles. "I'm a mechanical engineer, so I also enjoy making mechanical and/or visual changes that make our lives easier when we're out, like changes to the suspension, or fitting a winch. Then of course it all has to be legalised."

Mostly, he takes his family out for drives. "We make a lot of friends", he says. For example, "The Navigator Sports Club in Figueira organises a number of off-road expeditions, and I try to take part in all of them. It's great for combating stress". This year, he embarked on a slightly larger adventure: "I went on an expedition to Morocco with 12 jeeps, with people we only knew online. It was great. We were also able to distribute staple goods, educational materials, clothes and toys, donated by the Trilhos Santo Onofre club and by ourselves... It was a very rewarding experience in human terms".

Miguel Teixeira Mechanical Maintenance Manager, Paper Figueira da Foz



Zuzana Liskova "Helping others is the least I can do to make the world a better place"

Zuzana Liskova has been a Caritas volunteer since the start of the war in Ukraine. There was a meeting point at the main station in Vienna, where refugees could ask for help, and that was where she found herself.

"After that experience, I'm very grateful for what I have: food to eat, water to drink, a flat to live in and and a very good job. I can run. I can walk. I can go to the theatre, to restaurants. I no longer take these things for granted", she tells us. She has dealt with several difficult stories, and they have all left their mark, in one way or another. Like the young family with a three-yearold boy, who were on the bus from Mariupol to Greece, and were thrown off in Vienna, because the child didn't have a valid passport. They went to Caritas for help. "I was in charge that night and it was very challenging", she explains. "The bus to Greece had left. The family needed a new passport, new tickets, somewhere to stay The next bus to Greece was in three days' time, and I couldn't bear to think of that sweet boy waiting with his family all that time without somewhere proper to stay. I decided to take them in and help. It wasn't easy to manage, but we did it. We even went on tour of central Vienna in a horse and carriage. This happened 11 months ago. Now they are in Greece and working hard for a better life. In their new jobs, learning a new culture, a new language, knowing they will never go back home, because they lost everything in Mariupol.' The voluntary work has taught Zuzana that we should all be more appreciative and grateful for everything we have and can enjoy in our lives. "Life isn't easy, we all have our battles to fight, our daily challenges", she says, "but we're lucky to be living in peace, we lucky to have freedom and independence. We don't have to run to the shelter when the sirens sound, we don't have to fight for our lives. We should be aware of this and make the most of each day. And if life gets very difficult, please, hold out your hand and ask for help."





help."



"We all have our battles to fight, our daily challenge. And if life gets very difficult, please, hold out your hand and ask for

Zuzana Liskova Sales Assistant, Vienna, Austria

Rafael Flamengo "Dogs and cars are things I love since childhood"

"My dog injured her foot and had to be operated, without us realising she was expecting puppies. Because of the anaesthetic, only one pup lived. They told me it might have health issues, but luckily it turned out not to be the case. But the birth was difficult, as Nero stopped breathing. My girlfriend is also crazy about boxers, and together we managed to resuscitate him." Rafael Flamengo tells this story with a happy ending to tell us about his love of dogs. "I've always had a dog, as my parents thought it would help to develop a sense of responsibility. But they never let me have a larger dog and I always wanted to have a boxer". he tells us. He now has three of them: Boris, aged 7, Lana, aged 2, and Nero, just 6 months. And he trains them himself: "I spend time with them every day and do some practical training."

You might imagine his love of cars developed at a later stage, but in actual fact it's as old as his love of dogs. "I come from a family of truck drivers, and they gave me miniatures when I was a child", he tells us, adding that his interest in tuning developed with game consoles, where he spent for time setting up the cars that on actually racing.

When he started to work at Navigator, Rafael Flamengo had no difficulty in finding colleagues who shared his taste in cars. "We're always talking about this down at the café. I've made friends and even done some odd jobs for them

"Your car says a lot about your personality". •

"His love of cars is as old as his love of dogs. I come from a family of truck drivers, and they gave me miniatures when I was a child."





Morena Modulon "Singing is pure happiness"

Morena Modulon has been singing and bringing people pleasure for almost thirty years, in a series of different choirs. Since 2008, she has sung in two, both conducted by Matteo Valbusa.

It's something she's loved since childhood, when she studied piano. "Singing is pure happiness. Either alone, or in a choir, or with my friends."

But the classical style of the Coro Marc'Antonio Ingegneri and Insieme Corale Ecclesia Nova is not all she can sing. "I was in a band and we sang songs from the sixties, in English", she tells us.

Morena recalls with enthusiasm singing in "Ein deutsches Requiem" by Johannes Brahms, in which her choir took part in July this year, in Berlin: "There were 24 choirs from around the world - we were the only ones from Italy. In total, almost a thousand voices. An incredible wave of sound!". Thinking back, she smiles as remembers the

time that her choir was to give an important concert in the cathedral in Verona, attended by the bishop. "The soprano soloist was singing that same day in another city, so was coming by plane. The time came for us to sing, and she hadn't arrived. We couldn't wait any longer, and were just starting. You could feel how tense everyone was, the conductor was sweating. And then, just as she was meant to start singing, the cathedral door opened and in she came, practically running. It was like a miracle! She later explained that the plane had had a problem, delaying it for hours and so she decided to take a taxi from Milan to Verona, spending a fortune, but saving the concert!"

Saving the concert! Morena's colleagues at Navigator know that she sings. "Not everyone likes this type of classical music. Sometimes I tell my boss that we're going to give a performance, because I know he enjoys it, and he's been to listen."



Morena Modulon Sales Assistant, Verona, Italy



Jesús Bailo "This sport combines two things I love: mountains and running"

"Last year. with 140 kilometres behind me. and after more than 20 hours of the race, I took a wrong turning and wasted a lot of time getting back to the route. Even so, I finished seventh", recalls Jesús Bailo. The wrong turning only served to make him more tenacious. At 44, he runs ultra marathons and has reached peak fitness, after deciding, two years ago, now that his professional life had stabilised (he joined what was Gomà-Camps Consumer in July 2018), to take his hobby more seriously. "I got myself a coach and the results are beginning to show", he says with satisfaction.

"In July this year, I went back to Beasain (Basque Country), stronger and better prepared, with the aim of improving my time." Not only did he succeed in knocking around 2h50m off his previous time, but he also finished four minutes ahead of last year's winner, in first place, of course, beating a field of 359 runners, of 20 different nationalities.

"It was my most high profile win, but this year I had already won two other events in this sport, which I adore because it combines two things I love: mountains and running". Jesús Bailo has always been a keen runner, but "at less challenging distances"; only in 2014 did he start to get involved in hill running and long distance races. Now, "with more experience and discipline", he's able to compete against "elite athletes, sponsored by big brands, although there are no professionals in Ultra Trail", he explains, speaking also of his admiration for his compatriot Kilian Jornet, "every trail runner's idol".

His love of the "mountain landscapes and his drive to get better" at everything he does have led Jesús Bailo to set aside two hours a day for training, and normally four or five, at weekends. "With two daughters and working shifts, it involves a bit of juggling", he admits. The extra effort will be needed for his ambitious plans to enter his first race abroad, in the Alps, in September 2024.



Jesús Bailo **Converting Rewinder Operator**, Paper Machine Ejea dos los Caballeros, Spain

Margarida Rocha

"I enjoy training, but I also like competing"



Her love of volleyball comes from her parents, and she's played since she was a child. At the Oeiras Volleyball Club, close to home, Margarida Rocha played for the team at every level as she grew up. When she reached the senior game, she went to play in the first division, for Belenenses, for three years. And then another year at Sporting Lisbon. "Last year I moved to the second division, with a team in Almada. It still demands a lot of time, but not as much as the first division, so it's easier to conciliate with work", she says. This year, she's going back to Belenenses, now playing in the second division.

"It's the national championship, which means travelling, so at weekends I'm busy playing."

But that's no object to a true enthusiast, and Margarida Rocha really enjoys the game. "It's a team sport, so I'm always meeting up with friends and spending time doing something I like. I enjoy training, but I also like competing. It's a form of escape", she tells us. "Of course, sport has taught me to get on with different people and to respect their differences. It's a lesson I apply in my daily life and has helped me a lot, including at work. It's also taught me to go after my goals and to manage my time better. And most important, to make compromises - it's not a job, it's not my livelihood, but it's important and requires commitment." •

Margarida Rocha

Process Engineer. Recovery and Energy, Setúbal



Paper spans generations and cultures. Paper means having ideas ready in your pocket. Paper is a book, a house, a bird or a plane. It's the tangible part of memory, a living archive, ready to be leafed through. It's neither rich, nor poor. It brings diversity and inclusion. Multilingual, multitasking, multipurpose and multidisciplinary. A child, tiktoker, architect, programmer, doctor, writer, photographer or entrepreneur. Paper can be the longest journey, a travelogue or a treasure map. It stimulates the mind and lets us take a break, at our own pace. Because reading on paper gives us focus, restores our attention span and helps us to learn or understand more complex ideas. Paper also brings us the scent of a new book, the incomparable sensation of leafing through it. It bring us the taste of our grandmother's cake recipe and the excitement of a child's first letters. It brings us music, because it's a score, a framed autograph and concert ticket. But it's also a ballot paper, a new start and a collective dream. Paper is literal, it's here in our hands. But it can also be something else: a flower, a poem or a life story, Paper lasts for ever, a scribbled note between young lovers or a wedding invitation. Paper is circular, it's nature and it brings the future. It's also round, because paper is the planet. It's front and back, but no downside. On paper, the best is possible.

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The magic of seeing young people read ON Daper

Young people are "reconnecting" with books. And swapping their screens for paper. Which helps them to be in the moment, and improves their learning, their concentration and abstract thought.



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t a time when technology is king and the digital media dominate our habits and policies, a surprising things is happening: there are more young people reading. On paper. A trend that has proven the eternal attraction of this medium and points to a long future. It also appears to contradict more discouraging recent findings. Let us look at some of the research.

A study entitled "Readers of books in Portugal. A cultural practice undergoing change"(1), published in 2021 and co-authored by Miguel Ângelo Lopes, José Soares Neves and Patrícia Ávila, pointed to an "inversion in the trend for growth previously observed in Portugal, replaced by decline", sharper among men and vounger people. Another study, "Reading Practices of Primary and Secondary School Students"(2), presented in 2020 and conducted by

"Young people enjoy reading, they like books as objects and they like to read on paper. They like to have reading time."

Regina Duarte Commissioner, National Reading Plan

the National Reading Plan (PNL) and the Centre for Sociological Research and Studies (CIES-ISCTE), showed that young people were reading less. Miguel Ângelo Lopes, who worked on both studies, confirms that "since 2007 there's been a decline, and in some cases a sharp decline, in the reading habits of young people". Despite these figures, this sociologist and researcher is optimistic. "Even with this decline, young people are the sector of the population that reads the most books", he says, stressing that the findings show that "in 2019, almost 80% of pre-adolescents and adolescents had read a book in the previous year and, in 2016, among young people aged 18 to 34, this figure was approximately 45%, somewhat lower, but even so higher than for the population as a whole, for which the figure was 39.5%". In addition, he notes, the same team from "Reading Practices of Primary and Secondary

School Students" is starting to look at new research findings, and so it's not yet possible to "say definitively whether the downward tendency has been maintained, or whether me might be at a turning point". It would seem that we are. The "official" announcement of a shift was made at the Lisbon Book Fair, in June this year, where Pedro Sobral, chairman of APEL, spoke of "signs" that "people are reconnecting with reading", in particular in the 18 to 30 age range, and Regina Duarte, who heads the National Reading Plan (NRP), confirmed that young people "are reading more" and looking for "an alternative to screens": "They enjoy reading, they like books as object and they like to read on paper. They like to have reading time". In a joint statement, Regina Duarte

and Andreia Brites, NRP commissioner and sub-commissioner, confirmed this tendency to My Planet. "It's a fact



that the book market has grown since the end of the pandemic", they write. recalling that the studies cited above refer to 2016 and 2020. "Especially among people aged 15 to 24, reading habits are tending to grow", they stress, pointing out that "specific communities have been forming, such as social media channels dedicated to books, and increased offering of titles in specific areas of interest". At the same time, they continue, "books for or read by young people have been a publishing phenomenon", underlining that "there are plentiful examples and this is nothing new": "Starting with the Harry Potter saga, which is today regarded as a literary classic, and then moving on to the Twilight, After and Cherub series, or segments such as Manga and young adult novels, it is undeniable that there are dedicated and enthusiastic readers among the adolescent and young population". In addition, "and



A book has to be read on paper. Because "books are an escape from digital media", it wouldn't make sense to read on a Kindle or other device. which doesn't "fit with the reading environment I like most, when I can switch off from the hectic world we live in". The words are those of Martim Letria, aged 19, one of the 13 young people featured in a reading awareness and promotional campaign from the NRP.

A student in biological engineering at the Instituto Superior Técnico, he first got interested in reading where he was about fifteen, with a book that his mother gave him and "changed how he saw the world": Autobiography of a Child Prostitute and Heroin Addict, by Christiane F.. He doesn't talk in terms of literary genres, because he doesn't like to "stick to something so small in the vast universe of reading". The books that have made the most impact on him, he tells us, "are those

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Martim Letria, aged 19 "Books are an escape from digital media



that have affected how he sees things. like 1984, Christiane F., Man's Search for Meaning or China Safari : on the trail of Beijing's expansion in Africa. which are all completely different", but "what they have in common is that I still think about them in my free time".

A total "bookworm", he's become "hard to please" and always ends up "spending too long on choosing a book". From everything he reads, he tries to "hold on to something", and he especially likes a book that makes him think - "that gets into his thoughts at unexpected times", he savs

These are demands and expectations he can only satisfy by reading on paper, which offers the chance to "escape and leave the world behind". He also admits that "my generation is fascinated with vintage stuff, anything retro... and books somehow fit in there"



"Horizon 2030" Future of paper assured

The Horizon 2030 study, promoted by The Navigator Company, analysed over 500 studies, papers and books. And it concluded that paper enjoys proven advantages over screens in learning processes, knowledge acquisition, cognitive development and comprehension of informational and complex texts. And the future of paper is assured.

In our current digital culture, and in every age group, paper brings a variety of cognitive benefits, as demonstrated by research at leading universities. For example, neuroscientists has shown a clear link between arm movement (especially writing and drawing) and the neurological process of learning; in the field of psychology, experimental studies have shown that writing by hand boosts learning and conceptual performance; and other academic studies have concluded that reading on paper, as opposed to on digital devices, promotes abstract thought. concentration and less eye fatigue.

These neurological studies, along with students' preferences, mean that using paper is now encouraged at all leading universities in the US, in particular at Harvard, Columbia, Cornell, Pennsylvania, MIT and Yale.

But the importance of paper doesn't stop here, as Navigator's research discovered. Economic change will bring about working situations where paper is crucial. For example, a case study in the newsroom of an online newspaper in Switzerland found that paper is still being used in the office (for lists, organisation, notes, editing and developing ideas), although the news reports are written and published by digital means

As a physical and static medium, paper possesses unique features, distinguishing it from digital media, and one of the most important of these is its ability to focus attention and engage with people. For example, a study of marketing campaigns by Neuro-Insight (2013) showed that "the physical, almost sensual, qualities of printed paper are able to trigger a stronger neurological response than digital media"

In short, paper will continue to perform important functions, with advantages over digital, in the fields of learning, knowledge and collaborative working. And although it's no longer being used for some purposes, there are opportunities for growth in all areas related to ideas, creativity and innovation. In short, to the future. 🔵

Maria Rita Matos Booktoker

above all to demonstrate the value of books", we can point to book adaptations from videogames and series aimed at young people. Sara Rodi, a writer of books for children and teenagers, confirms that young people are increasing interested in books, and points to some of the factors behind this. "I don't see it so much as a tendency, but rather the result of work to promote reading on different fronts". she says, citing "projects like the NRP. a host of initiatives by local authorites and municipal libraries, bookshops, publishers and museums, the dedication of many teachers and auxiliary staff, in the classroom or school library, all this has borne fruit".

At the same time, she continues, "parents are more aware of the importance of reading in the early years of life, and there are plenty of websites publicising books for voung children and how to get them readings". The problem, she warns, "starts later, at the start of preadolescence, at a time when, at school, students have to start dealing with a wider spread of subjects and teachers, everything more dispersed, and there's not so much investment in promoting reading habits".

It's also the age when young people discover other forms of distraction (or attraction). "Students start to have smartphones, computers, to watch series.. which all takes time away from reading, and so they take part less in initiatives relating to books". She also acknowledges that "there are less books aimed at this age range (because people read less, publishers also invest less), and parents and teachers find it much more difficult to make reading attractive to their children/students". In response to this, she argues, "we have to be more creative, both in the stories we tell and in our approach to books and reading", recalling that "for the age range of older adolescents (above all, for those aged 15 and over), there's a new crop

Several scientific studies have concluded that paper enjoys proven advantages over screens in learning processes, knowledge acquisition, cognitive development and comprehension of complex texts.

of online influencers and a lot of initiatives - such as original reading clubs - that have made reading a more appealing activity".

The power of booktokers

The truth is that we ignore the power of social media at our peril. After the booktubers and bookstagrammers, we now have the booktokers, TikTok content creators, who share their secrets and exercise enormous influence. The Booktok community is where avid readers discover new books, trends, and authors, keep up with launchers and literary news and debate emerging and contentious issues, such as cultural diversity in literature or different gender identities

These influencers - whose motivations and content vary enormously - have huge power over sales (there are publishers who hire them to promote their books) and many parents and teachers look for the books they feature, and include them in their "recommended" reading lists. The chairman of APEL and NRP commissioner have also agreed that "suggestions between peers" on social media have been responsible for young people's growing interest in books. Maria Rita Matos became a booktoker in February 2021. "I was following several foreign creators of literary



content on TikTok since the start of the pandemic, but I'd never seen anyone Portuguese, so I thought, why not?", she tells us. It all started with a video by a Brazilian teenager about the Percy Jackson adventure books saga. Her curiosity awakened, she bought a copy... and has never stopped reading. She created an account dedicated to books, where she shares her feelings about what she's read. She now has 19 thousand followers and "in a good month" can post 20 videos

"It depends a lot on the month, I don't have a set number. I can sometimes post every day for a long period, or else have a week when I hardly record anything", she explains. As for her suggestions, she confesses it's largely a matter of chance. "I read what I feel will make sense for me at that time,

there's no great logic to it. I might say I like fantasy and romance best, but if I feel like reading a mystery, I will! Just not horror fiction".

Her preference for reading on paper is something she's given more thought. Because "you feel the story much more". She acknowledges that, if you want to "read a book guickly, the ereader is perfect, but to really get into the story, there's nothing like a proper book".

Although there are no concrete figures, Maria Rita Matos is aware that her choices carry weight. "From the comments and other feedback I get, I can believe that I helped some books to be popular on TikTok in Portugal and to sell more copies, like Percy Jackson, Beartown and The Ex Talk!". She also thinks that this "recent reading trend will bring

and has brought a lot of `long-term' readers"

Some people prefer to be cautious about this phenomenon. "BookTok appears to have some influence on access to books and book reading habits among young people. But I think we have to be careful when looking at this type of phenomenon", warns the sociologist Miguel Ângelo Lopes, recalling that in the United Kingdom, for example, "the two main ways young British people discover new things to read is through friends and physical bookshops".

João Manuel Ribeiro, publisher and author of books for children and young people, also has reservations. "The booktokers phenomenon may play an important role in encouraging people to read, but this is a continuous

As a physical and static medium, paper possesses unique features. distinguishing it from digital media, and one of the most important of these is its ability to focus attention and engage with people.

E

process that demands persistence and perseverance. In a word, it's an important phenomenon, one that may encourage people to read, but it cannot in itself explain the growth in readership", he argues.

Paper vs. digital

Whatever the reasons why young people are more interested in reading. one thing is undeniable: paper books continue to be popular and successful! And this appears to be a tendency that is here to stay, countering the otherwise overpowering domination of digital media. Research has confirmed this. The Two Sides Trend Tracker Survey 2023(3), based on a poll of 10,000 consumers in 16 countries around the world, showed that 65% of respondents prefer printed books (53% in 2021) and 51% printed magazines (compared to 35% in 2021). And WordsRated(4), an international research and data



analysis unit for the publishing industry, announced in June this year that "physical books still dominate the market", with revenues from printed books growing 5.39% since 2018. Lastly, the latest findings from the Pew Research Center(5), in 2021, show that, in the United States, printed book remain the most popular format, with 65% of adults saving they had read a book in the past 12 months, as compared to only 30% who said they had read an e-book. Curiously, it is the younger respondents (68%, aged 18 to 29) and college graduates (80%) who prefer to read on paper.

In addition to the reasons that explain this resilience of the publishing market. the fact is that paper offers unique features, both when reading for pleasure and for learning. Neuroscientists and psychologists have shown it to be superior to digital media. Here are a few examples.

A meta-analysis(6) conducted by the University of Valencia using research published between 2000 and 2018. involving 170,000 students in 19 countries, points to a "paper superiority effect" in learning (especially under the age of 20), with clear advantages over digital media in reading comprehension, in particular when there are time restrictions and/or the texts are informative in nature. In addition, paper makes for superior performance in learning and understanding in primary education, which leads the authors to stress that digital environments are not always the most appropriate for optimum retention of knowledge. Another study(7), which analysed the statistical findings of research into the academic reading preferences and behaviours of 10,293 higher education students around the world, showed that the vast majority prefer to read printed materials, reporting better focus and information retention, especially in the case of long documents. Students show a clear preference for paper in tasks that entail attention and revising, saying that this format is better for concentration and memorisation.

In the wake of this research, in early 2019, more than a hundred European researchers and scientists signed the "Stavanger Declaration"(8), alerting teachers and educators to the fact



In 2019, European researchers and scientists signed the "Stavanger Declaration", warning of the dangers to child development of a transition from printed and handwritten paper to digital media.

that a transition from printed and handwritten paper to digital media can delay children's development, in reading comprehension and the development of critical thought. It's not just for reading purposes that paper offers advantages: several studies(9) have shown that writing on paper brings better results than writing on a computer keyboard, promoting abstract through and leading to better performance in the response to conceptual questions, better retention of knowledge and increased brain activity.

The pleasure of leafing through pages

As well as the advantages highlighted by science, there are plenty of other reasons (and

sensations) that make us choose paper books. The smell and feel of the cover, the pleasure of leafing through the pages, the excitement of turning the page, of opening or closing the book. Details which can make a difference and explain the survival of an object so often called into question, if not actually sentenced to extinction. "For more than a century, at least, the end of the book has been proclaimed with every technological advance. It happened with the advent of the radio (and broadcasting), cinema, television. the internet, and now with smartphones and other mobile devices; not to mention the challenge that language modelling will bring", notes the researcher Miguel Ângelo

Lopes, pointing out that, contrary to what was supposed in each case, "what has happened is that books have adapted to each new challenge. and continue to be culturally, educationally and intellectually significant".

The writer and publisher João Manuel Ribeiro points to the differences that make a book a unique object: "I often say that the experience of seeing the catalogue of an exhibition of painting cannot be compared to visiting and seeing the exhibition. With books, I think something similar happens: the pleasure of reading an e-book cannot be compared to a paper book. The relationship with reading is very different". For this reason, he is also confident that "books are and will continue to be relevant and crucial for younger generations".

Author and scriptwriter Sara Rodi reminds us that, "in contrast to technological stimuli, books help us to be in the moment and exercise our concentration. They're a form of entertainment, but they also prompt us to reflect and question - something we often miss in our age of speed and superficiality". Also, she adds, "books enable us to collect experiences and personalities - many lives in a single life -, helping us to discover ourselves, develop empathy and understand the world and the people around us. There are other ways to do all this, but a book is a fantastic 'distillation' of what we today call skills for the 21st century".

Judging by the figures and the many arguments, some more scientific than others, explaining this "passion" for the printed page, it's tempting to say that the future (and success) of paper books is indeed assured. Perhaps because, as the National Reading Plan commissioners have noted, "a paper book is magical, because of its perfection as an object". •



Schools A step backwards... and good examples

Too much technology, and especially screen time, and an understanding of its dangers is starting to cause concern about the education of future generations. From going back to paper to banning smartphones, there are plenty examples of what can be done. At a time when Portugal is equipping schools with computers and hailing the benefits of online textbooks, Sweden is leading the backlash: the government has decided to halt the programme to move education online and is again investing in paper books in the classroom. Explaining the decision, Lotta Edholm, the minister for education, warned that "we risk creating a generation of functional illiterates" due to the "acritical" approach to the "experiment" of moving schooling online

The government is now set to invest around 100 million euros in 2023 and 2024 on buying paper books to replace tablets at schools, abandoning an ambitious digitisation programme developed by the National Education Agency (Skolverket). The decision is based on the advice of health professionals, who are in favour of paper books playing an increased role. "A paper book simply has

advantages that no tablet can replicate' argued the minister.

And there are other signs of change. Christopher Willard, clinical psychologist, writer and lecturer at the Harvard Medical School, told a Mindfulness event in Chile that elite schools are returning to pen and paper, eliminating the use of digital equipment in the classroom, and that in many other education settings, electronic devices are being banned. A tendency that is bearing fruit: children "are happier", as well as "talking more, studying more and learning more". he insists.

In the Netherlands, for example, mobile phones, tablets and smartwatches are to be banned in classrooms as from January 2024 2024. "Although mobile phones are tied in with our lives, their place is not in the classroom", said the minister for education, Robbert Dijkgraaf.

Italy is one of the pioneers, with the ban enshrined in law since 2007. In France, the rule was included in the Education Code in 2018, and in the United Kingdom, although there is no official ban, 98% of schools already prohibit phones. State schools in

⁽¹⁾ https://repositorio.iscte-iul.pt/handle/10071/24765 ⁽²⁾ https://www.pnl2027.gov.pt/np4/%7B\$clientServletPath%7D/?newsId=1940&fileName=PLEP_Apresenta_____op_blica 30 9 2020.pdf ⁽³⁾ https://www.twosides.info/trend-tracker-2023/ ⁽⁴⁾ https://wordsrated.com/book-sales-statistics/ ⁽⁵⁾ https://www.pewresearch.org/short-reads/2022/01/06/ three-in-ten-americans-now-read-e-books/ ⁽⁶⁾ https://www.sciencedirect.com/science/article/pii/S1747938X18300101 ⁽⁷⁾ https://iournals.plos.org/plosone/article?id=10.1371/iournal. pone.0197444 ^(a) https://ereadcost.eu/wp-content/uploads/2019/01/StavangerDeclaration.pdf ^(a) https://journals.sagepub.com/doi/abs/10.1177/0956797614524581; https://www. youtube.com/watch?v=z0U0C7A14YI; https://www.u-tokyo.ac.jp/focus/en/press/z0508_00168.html

New South Wales, Australia, are also set to ban mobile phones from classrooms, on the grounds that these devices are an "unnecessary distraction", in the words of the premier, Chris Minns.

All round the world, people are starting to debate the matter. The Brazilian Association of Paediatricians recommends daily limits on contact with mobile phones, tablets and computers, and China wants to limit the time children spend with digital devices. Unesco itself has recommended that the use of smartphones in schools be limited solely to subjects on the curriculum.

Here in Portugal, the topic has been broadly debated, and there is currently an online petition calling for a ban on mobile phones "in all classrooms and places used for educational activities". In the meantime, some schools have moved independently to ban or restrict the use of mobile phones, including Escola Básica 2/3 António Alves Amorim, Escola Secundária Pedro Nunes, the António Sérgio Schools Grouping, and, in the private sector, Colégio Moderno, Colégio Nuno Álvares Pereira, Colégio de Santa Doroteia, Colégio do Vale and Salesianos de Manique.



Digitisation also serves the purpose of preserving the paper original, which remains the keeper of memories par excellence.

ore than 100 kilometres There is also another explanation for the of documents are stored fragile state of the documents stored in the 25 thousand square at the Torre do Tombo: their initial metres of the Torre de poor state. For 250 years, the archive Tombo Archives, in Lisbon. was installed on a provisional basis in The original documents preserved the former São Bento Monastery (now there (the oldest belongs to the home to the Portuguese Parliament). Monastery of Cete and dates from the and was carried there on cattle-drawn ninth century, relating to the church trucks, after surviving the earthquake in Lardosa) are joined by some 100 of 1755 million images available in the digital "Before the earthquake, the Torre do archive. Although Silvestre Lacerda, the Tombo (Records Tower) was part of director of the archives, has no doubt the São Jorge Castle, hence its name, that the future of archives is digital, he as it was literally the castle tower that is also certain that paper documents housed the archives and records of have an importance that will never be royal properties", Silvestre Lacerda tells lost: that of witnesses to bygone ages. us. On 1 November 1755, the castle was "In 2005 we started the process of spared the tidal wave that followed digitising documents, in which we have the earthquake, but not the ensuing kept the originals and switched the fires. "The tower collapsed, putting out medium to digital", explains the director the fire and saving the documents". of Portugal's national archives. From the he continues. In the two years that 30 thousand digital images available followed, the then director of the free of charge to the public at the turn Tombo, the engineer Manuel da Maia, of the century, the Torre do Tombo has cleaned and prepared the documents, expanded to 100 million, a number that in a hut set up for this purpose, and will continue to grow until 2026. "We they were then sent to São Bento, have expanded the data centre and where they stayed on a temporary basis until 1985, when work started gone from 750 terabytes, in 2005, to around three petabytes (one petabyte on building the current home for the is a thousand terabytes), with the RRP", archive, designed by the architect he tells us. Arsénio Cordeiro. "It's not just memory of the past, it's the memory of the present and a projection Digital media help preserve paper of future memories", argues Silvestre Lacerda, for whom archives "bear witness to societies" and documents physical documents is one of the main advantages of digitising the archives. have intrinsic value. The recent visits to the Torre de Tombo

Curiously, the preservation of the "Being handled is one of the main factors in the deterioration of older materials, in particular those from the 17th, 18th and 19th centuries", explains Silvestre Lacerda.

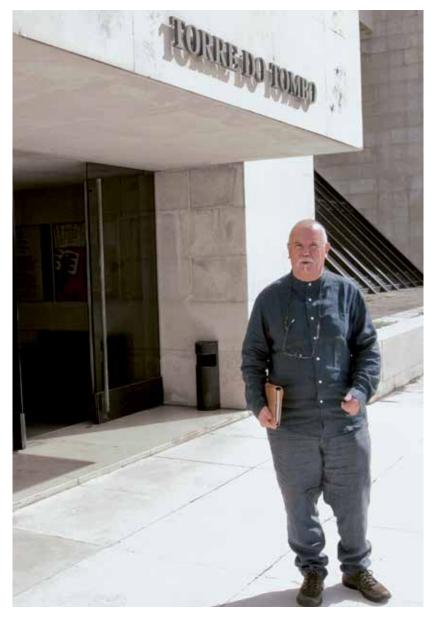
"Being handled is one of the main factors in the deterioration of older materials, in particular those from the 17th, 18th and 19th centuries." Silvestre Lacerda, director, Torre do Tombo

The archives are moving online, but the physical documents have intrinsic value, in addition to the content they record.

by two international delegations, one from China and the other from Vietnam, are example of this. "The reason was a sixteenth century map, by Fernão Vaz Dourado, including the islands which are disputed at the Court of The Hague", explains Lacerda. The document shows the South China Sea, where the islands of Paracel and Spratly, disputed by several countries, are located, and has become important in the arguments presented to the international court. both because of the date and because of the place names. "It indicates the names of the places - albeit adapted to Portuguese - and each side had arguments enabling them to justify their position". In this case, it would be possible to have a certified digital copy (which was taken to The Hague), but both delegations preferred to consult the original, to exclude any chance of deception. "People are systematically mistrustful of changes that might be made to digital documents", admits Silvestre Lacerda, for whom the issue is a red herring, insofar as forgery is a practice as old as the production of documents. "We also have forged documents from the thirteenth century, on parchment, made by the monks of Alcobaça, in order to justify their privileges", he tells us. Even so, the importance of physical documents is undeniable. "Firstly, because they bear witness to a past age - and that of course is the essential value they have. It's because of their antiquity that documents are more or less important, it's because of the information they contain". For Silvestre Lacerda, the future will entail finding new ways of adapting to the digital world: "The Torre do Tombo didn't start and finish with parchment, and won't end with paper", he says.

The sensory experience of memory

"Our memories are all tied up with smells, touch, and not just what we see", explains Teresa Margarida Rebelo, owner of "O Manuscrito Histórico", a shop in Lisbon dealing in antiguarian maps, books and manuscripts. The family business set up by Teresa's father and brother in the year of the Chiado fire serves primarily collectors and researchers. "Collectors want the original document, and not a digital copy or print from it", Teresa Rebelo assures us. And whilst the historical context and value contribute to this, the sensory experience and the direct relationship with the object in question also have an influence. "A collector of authors' manuscripts, for example, wants to feel the paper, see the



"Our memories are all tied up with smells, touch, and not just what we see."

Teresa Margarida Rebelo, owner of "O Manuscrito Histórico"

ink used, the handwriting", and this she says, is much more perceptible through touch: "The senses make a difference". And then there are many different details, or the rarity of particular physical media. "The type of paper used depends on the period and, for instance, if we look at film posters from the 1930s, when very few were produced, an original is, in principle, a rare document", says Teresa Rebelo, citing the example of original posters for Aniki Bobó, Manoel de Oliveira's first film. In her own personal case, she is convinced it's much easier for words read on paper to stick in her memory, than something she's come across online.



Accumulating memory to remember nothing

There have never been so many possibilities of storing information, and yet it seems we have never been less able to make enjoyable use of that information. In the same way that we keep a box or piece of fabric "that one day might come in handy", we store photographs, emails, and text files, that we never look at again. Scientists have already given a name to this phenomenon, which can attain a pathological dimension: digital hoarding.

Over the centuries, disruptive innovation associated with new forms of communication has always been connected to significant changes in how we store and interact with our collective memory. Today, as revealed by a study in 2022, conducted by researchers at University College, Dublin, and the London School of Economics & Political Sciences, "digital technologies, and in particular the internet and ICT-based technologies, have dramatically changed how our collective memories are created and shaped". In Portugal, the researcher Francisco Rui Cádima has written an article, "Memory and the digital age", warning of the possibility of the great information storage capacity associated with digital media being paradoxically associated with a "kind of non-memory".

In reality, much of the information stored online is not actually used. From emails which are neither read nor deleted (half are not opened, and only a third replied to, according recent research), photographs that accumulate in clouds, external hard disks and mobile phone memories, there is a tendency to accumulate substantial quantities of digital content, which is aggravated by the accessibility, usability and the wide availability of choice, both in technological equipment, and in apps and social media. This is a phenomenon which, taken to the extreme, may lead to digital hoarding, as a pathological condition. The symptoms are similar to those for physical hoarding: loss of perspective, stress and

disorganisation, with impacts on the individual's personal and professional lives.

We need images that remind us of the power of photography.

benefit of the image" keep secrets", he argues.

Edgar Martins, a Portuguese photographer based in the United Kingdom and recently voted photographer of the year in the Sony 2023 World Photography Awards, connects this type of behaviour to what psychoanalysts like Slavoj Zizek call "interpassivity". "Zizek gave as examples films stored in our video libraries - today it would be Spotify or stuff we download - to watch 'one day'. Satisfaction is no longer associated with the act of seeing the film, but with the fact of having kept it", he says. The same happens with photography: "We no longer enjoy the photos we take. It's the computer or the memory card that have the

For the photographer, this strange situation has to do with the way consumption is promoted, "rather than the creative process and our relationship with the image". In the final instance, it can cause us to forget the power of images. "Because we're bombarded with a huge choice of images, we end up not seeing anything", warns Edgar Martins. Instead of having photograph as a medium that captures everything, we have to purify our relationship with photography so as to produce images that



Edgar Martins Photographer

Photographer of the Year, Sony 2023 World Photography Awards.

Paper "followers"

In a world of cliques, there are people wedded to pen and paper to not down ideas and feelings, to design strategies or even to exercise their memory. These are people who change the world with each blank sheet.



Taylor Swift

Singer, composer "I've kept a diary since I was 13, about what's happening to me. I've written my original lyrics in these diaries, my feelings, the lessons I've learned in life." *Live feed on her Instagram account*





Quentin Tarantino

Actor, director

"Scriptwriting is very pure, I work with pen and paper. (...) It makes me very proud and it's a great achievement for me when I'm sitting in a cinema, in Leicester Square, watching a film, seeing the place full and knowing that, not that long ago, I was sitting at a table with a pen and a blank sheet of paper. That's where it all started." BBC News



Entrepreneur, founder of the Virgin Group

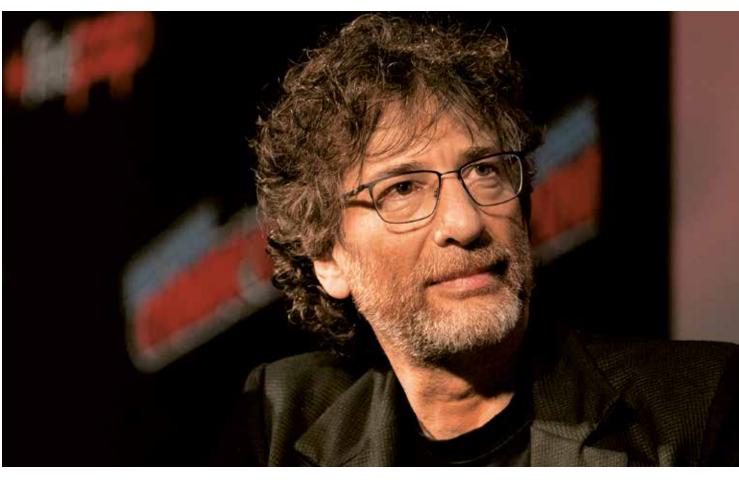
"I don't know where I'd be if I didn't have a pen to hand to write down my ideas as soon as they occur to me. I advise everyone to take notes, irrespective of what they're doing, irrespective of where they're going. Irrespective of the medium they choose - a laptop or mobile phone is better than nothing, but I prefer pen and paper". *Richard Branson's official blog*

Helen Mirren

Actor

"One of the most effective memorisation techniques, especially for people with a visual memory, is to write your lines down on a sheet of paper. There's a proven link between memory and writing: get some cards and write down your lines while you recite them to yourself. The act of writing is generally enough to leave a strong imprint on your memory." *In her masterclass on acting*





J.K. Rowling

Writer

"This is really me, but you won't have to read me much around here, because pen and paper remain my priorities." In one of her first posts on Twitter





Writer

"From my experience with computers, they don't offer a second draft. Computers provide a continuous and improved first draft, but there's no discontinuity in that. I wanted that discontinuity, so I wrote the book by hand." *Rain Taxi*

The power of therapeutic journalling

There are countless, scientifically proven reasons why we should continue writing on paper, despite living in a technology-driven world. Protecting and improving our mental health is one of them. Therapeutic writing brings many benefits and the technique is recommended by specialists for dealing with stress, anxiety, depression and trauma.

Before the invention of social media and blogs, people often kept diaries, as a record of their feelings and reflections on life. The keeping of a secret diary, in more or less colourful language, was something that appealed above all to children and adolescents, who generally gave up the habit as they moved into adulthood. This, mental health experts today would say, was unfortunate, as scientific research into this matter has shown that writing down our feelings, on paper, is a powerful strategy for managing our well-being

Therapeutic journalling is a tool used in psychology to help process negative emotions, experiences or thoughts, so that they lose their power of the person, thereby reducing their physical and psychological impact. But why is writing down these feelings on paper much more beneficial than using digital media, as several scientific studies have demonstrated? The reason is that therapeutic journalling is designed to reach deeper into our memory, reflection and understanding of events. And, in recent decades,

science has shown that the coordination of hand, brain and eyes make writing by hand superior to using digital technology at a cognitive level, with advantages in terms of learning, memory and creativity.

A study in 2017, by the neuroscientist Claudia Aguirre, explained that, by drawing the words, we activate neural pathways that would otherwise be left untouched. In other words, writing by hand requires more efforts, time and attention than using a keyboard, and its effects on the brain are deeper. This is what Pam A. Mueller and Daniel M. Oppenheimer, researchers at the University of Princeton and UCLA, discovered in their suggestively titled study, "The Pen is Mightier than the Keyboard". This is why the act of writing with a pen and paper is also an important resource for "exercising the brain" in the fight against diseases such as Alzheimer's and dementia, as confirmed in the study entitled "Illiteracy, dementia risk, and cognitive trajectories among older adults with low education", conducted in 2019, by researchers



Scientific studies have shown that putting down our feelings in writing, on paper, is a powerful tool for managing our well-being.

at the universities of Columbia, Michigan and New Mexico.

Improved well-being

According to the University of Rochester Health Encyclopaedia, journalling starts by improving our mood. The act of noting down thoughts and ideas on paper means that we have a platform for expressing ourselves and it gives us sufficient time to identify and understand our feelings. The encyclopaedia also states that the process of putting emotions down on paper "has proved to be therapeutic and to help increase feelings of happiness and reduce stress".

This conclusion is backed up by research by Karen A. Baikie and Kay Wilhelm at the University of Cambridge, who confirmed that, in the long term, people who practice therapeutic journalling record less visits to the doctor related to the effects of stress, have a stronger immune system and lower blood pressure, as well as displaying greater psychological well-being. Their study dates from 2018 and is entitled "Emotional and physical health benefits of expressive writing".

Alleviating stress and anxiety

Using magnetic resonance imaging of the brain, scientists at the Cognition and Action Neuroimaging Laboratory of the University of Indiana found that writing by hand increases neural activity in a way that can be compared to meditation, and that boosts concentration and improves relaxation.

This positive effect on stress reduction was also demonstrated in a study in 2021, led by Madelaine Schaufel, of the Rosalind Franklin

In practice

In order to start using this technique, all you need is paper, a pen, somewhere quiet and some time. Five to ten minutes a day would be ideal, but a minute is enough to have positive effects, according to the psychcentral.com website. If you feel motivated to buy a special notepad, go ahead. Then, decide on the best time for creating, and maintaining. the daily habit of writing. Establishing a routine is good, but if the obligations ends up creating more stress, you can choose the write only when you feel like it. As time passes, you'll be able to identify topics on which you should take notes and the idea is to do so without a rigid structure. letting your ideas flow with the words that come to mind. You can also draw, if that improves your mood or awakens your creativity. To get you started, here are a few tips about what you could write: things that awaken feelings of gratitude; the challenges you facing at the moment; your goals for the next week; the worst and best day in your life; a childhood memory that has had a great impact on you; what you would do tomorrow if you had no obligations or limitations; where you'd like to be in five vears' time Happy writing, for your health's sake.



University of Medicine and Science, published in PubliMed, confirming the long term effects of an expressive writing technique called 3MMM, used in hospitals to bring down stress levels and increase communication between doctors, patients and family members.

A meta-analysis of several studies of the effectiveness of journalling on management of mental illness, led in 2022 by Monica Sohal, of the University of Calgary, suggests that this technique may be more efficient in treating anxiety in women than in men. It also showed that journalling for more than 30 days maximises the positive effects.

Fighting depression

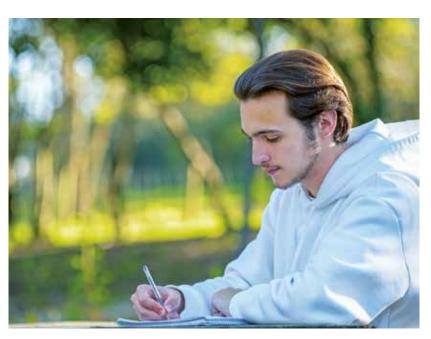
Depression affects 280 million people worldwide, including five per cent of all adults, according to figures from the World Psychiatric Association Commission. It's one of the main causes of incapacity and

strong contributor to the global burden of disease, according to a systematic analysis of the subject known as the GBD, or Global Burden of Diseases, Injuries, and Risk Factors Study.

In an American research project published on the Science Direct website and led by Katherine M. Krpan found in 2013, 40 people with several depression were invited to write about an emotional event or non-emotional daily events for several days, and this activity contributed to a significant reduction in the symptoms of depression. The study, entitled "An everyday activity as a treatment for depression: The benefits of expressive writing for people diagnosed with major depressive disorder", suggests that therapeutic journalling has even greater benefits if it is focused on deeper feelings.

Another specific approach to combating depression, according to the experts, is

3MMM stands for Three-minute Mental Makeover, a technique in which the person takes three minutes to write down three things for which they feel grateful, the story of their life in six words, and also three wishes.



to keep a gratitude diary. A study entitled "The Association between Gratitude and Depression: A Meta-Analysis", conducted in 2021 at the University of New England, in Australia, suggests that making a conscious efforts to practice gratitude may have a positive effect on mental health and counter the negative patterns that depression creates. In therapeutic journalling, a gratitude diary may consist of a simple list of things for which the person feels grateful on a given day. Researchers have found that this practices can also work wonders on our sleep, helping to improve our overall well-being. The participants in a study published in 2011 in the scientific journal Applied Psychology: Health and Well-Being, directed by Nancy Digdon, not only slept better, but also slept more,

after spending just 15 minutes an evening writing about what they were grateful for.

Coping with trauma and addiction

Getting over the past can be difficult, but one healthy way of doing it is by writing our own story using a pen and paper: as we have seen, writing by hand, helps us to remember things better. So although trauma symptoms are normally faces through psychotherapy, for many people, therapeutic journalling can be an effective self-hep technique. A study led by Denise M. Sloan, of the Boston University School of Medicine, in 2015, of the effectiveness of writing in cases of post-traumatic stress disorder (PTSD) explains that consistent expressive writing helps to reduce the symptoms of this disorder and that writing a lot about a traumatic or stress-inducing event

Using magnetic resonance imaging of the brain. scientists at the Cognition and Action Neuroimaging Laboratory of the University of Indiana found that writing by hand increases neural activity in a way that can be compared to meditation, and that boosts concentration and improves relaxation.

Benefits of therapeutic journalling

Keeping a diary of your thoughts and feelings has a positive impact on various aspects of mental health:

- Reducing anxiety;
- Interrupting an unending cycle of
- obsessive thoughts:
- Improving awareness and
- understanding of events:
- Regulation of emotions:
- Encouraging self-knowledge;
- Improving physical health, which boosts mental health.

Source: WebMD.com, 2021

can help us cope with it. Other discoveries have also confirmed that therapeutic journalling is a valuable tool in recovering from addiction. In 2022, the University of Minnesota published an article on the positive psychological impact of intervention through journalling in supporting the recovery of women undergoing treatment for substance abuse issues. According to the researchers led by Amy R. Krentzman, the findings showed that therapeutic journalling "helped participants recognise what was positive about recovery, to achieve significant short-term foals and to experience a feeling of optimism and pride in what they were achieving". •





Buildings, whether modest or eye-catching, start with an architect's sketch. The emptiness of a blank sheet of paper is where most construction projects start.

> The first study of of a high-rise



he challenge is always the same: to turn abstract concepts into tangible structures that, as well as meeting the functional needs, are able to inspire and capture the imagination. Structures that come to life, even when immobilised in concrete. This is what motivates architects to make their lines flow over the paper, so as to pin down their ideas, enabling their imaginations to take them on what is often a long process of development.

Before the first sketch, a lot of preliminary research is needed, getting the feel of the setting, exploring the surrounding environment, its culture, historical influences and, of course, the client's wishes.

Having established all this, the architect begins to sketch. The shape of spaces and volumes, or how the light will interact with people, are concerns that arise with the first lines on a blank sheet of paper. Even the choice of materials and the concern for sustainability enter the equation before any technology is used, to turn the sketch into a more detailed drawing. Computer assisted design tools enable architects to visualise the structure from different angles and even to simulate how it will fit into its environment. But it all starts on paper, as explained to us by Maria João Andrade, of MJARC Arquitetos Associados, a practice dedicated to sustainable architecture, which she runs with her partner, Ricardo Cordeiro.

Two awards in j2021 put them on the map: the 40 under 40 award from the European Centre, celebrating the talent of the younger generation of European architects and designers, and an award from the World Architecture Community. Their interest in using environmentally friendly construction materials and "bringing nature back (to the city), improving biodiversity and wellbeing" has put them on the right track to the future, "making architecture sustainable, durable and timeless" like a good sheet of paper. "Desenhar no papel é uma parte essencial no desenvolvimento de um projeto de arquitetura." Maria João Andrade

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Drawing by hand on paper is a crucial element in the creative process for my projects. I've always carried a drawing pad around with me, where I make the first sketches and set down the ideas and principles of a lot of projects, that gradually come into focus and take shape. It's a liberating process, and one that includes setbacks that can often be the catalyst for creativity and new ideas.

Drawing on paper is an essential part of developing an architectural design. Drawing on paper enables me to explore different ideas and concepts, guickly and efficiently. These hand-drawn sketches help me to understand and develop and project. A sketch also helps to visualise spatial relations between the different elements of a building and its surroundings. along with schematic plans, cross-sections and elevations. I use a variety of techniques to sketch and draw different architectural elements at their different stages; these range from a thicker graphite pencil for the early sketches to an ink pen for drawing details. Whatever technique I use, the ability to sketch and draw by hand on paper is an essential skill in the architect's process of creation. The act of drawing a design helps us to reach a deeper understanding of it.

I think there are many different benefits of drawing by hand on paper, including greater creativity, better visual communication and better problem-solving. Digital tools should not substitute sketches and drawings done by hand, as these are essential for creativity - the drawing on paper serves as catalyst for new ideas, and for perfecting others. It brings together my entire process for developing an architectural design, from the concept through to execution on site, in which I often use pen and paper to explain myself better and to communicate an idea or a detail.

The freedom that a simple drawing pad and pen give me to create, either at the early stages, or else during the construction work, is an indispensable tool for working on my projects.

Maria João Andrade, architect

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palletised.



The Navigator Company sets up Forestry Producers Club

This initiative represents a fresh approach to building relationships with partners and boosting Portugal's wood yields, through sustainable and active management practices. The club will unlock access to all areas of the company, providing members with a series of tools to support their operations and business. At the same time, the club is focused on maximising the income of all its members, using technology to reward and add value to the entire value chain

Members of Navigator's Forestry Producers Club will have access to exclusive benefits:

- Co-investment programmes to promote forestry:
- Unique sources of expertise on all forestry practices, leveraged by RAIZ, an R&D centre unrivalled anywhere in the world;
- Sustainable production costs for all participants;

- Support for modernisation and training of human resources;
- Exclusive benefits that rewards members' commitment to Navigator.

This pioneering initiative is designed to defend the countryside and forestry operators. It also seeks to contribute to reducing fire risks (burned areas in managed eucalyptus forests are four times smaller than in scrubland and uncultivated land) and the associated emissions, whilst promoting increase carbon capture, more ecosystem services and greater distribution of wealth throughout the country. Navigator's decision to set up this club reflects the all-important role played by forestry producers in the sector and the need to develop the skills and capabilities of the different operators. This is a further step towards a close partnership

with this community, based on sharing knowledge and educational activities focused on the values of sustainable forestry management and forest certification.

Register now

Information on the programmes available, as well as the advantages of membership, will be available on the Forestry Producers Club website, planned to be online as from October, where forestry operator will be able to sign up directly. Until then, membership can be arranged through the Navigator sales teams, with help from the Club's management team. Members of Navigator's Forestry Producers Club will be issued with a card to identify them as belonging to a community working to develop rural Portugal and to defend the resilience of Portuguese forests.

RAIZ is a Forestry and Paper Research Institute, functioning as an R&D laboratory owned by The Navigator Company and the universities of Aveiro, Coimbra and Lisbon (Higher Institute of Agronomy).



Vitor Paranhos Pereira Member of the Board of Directors of The Navigator Company

History is still being written on paper

n the late 1970s, when the age of personal computing was dawning, the prophets of Silicon Valley were quick to announce the end of paper in the office environment, or at least that it would become redundant(1). However, although predictions of a personal computer on every desk have proved accurate, and despite advances in information technology, such as email, the internet or cloud storage, paper remains at the centre of our lives, as the medium for whatever information is most important, or else for the purpose of reading and reasoning on more complex matters.

Some five decades on (in historical terms, the batting of an eyelid for a medium that has been with us for nearly thousand years), what we see today is an increasingly wellestablished coexistence between paper and digital media, and less of a divide. I have a strong feeling that this peaceful acceptance of both media will increasingly be the norm in our lives

We are learning more and more about the advantages of paper over digital in cognitive and learning processes, thanks to an array of studies by neuroscientists and psychologists. Researchers have looked in special detail at the advantages of paper for comprehension, analysis and expression of more complex concepts, as well as deep rebuttal evidence of knowledge, in contrast to the more superficial learning that takes place in an environment of screens. We very recently learned that the Swedish government has decided to reverse the move to online learnings, after observing a decline in reading comprehension and in the richness of children's vocabulary. The country's Ministry of Education has earmarked funding of 100 million euros for re-equipping schools with

paper textbooks. "detox measure". burnout wisdom.

⁽¹⁾In 1975, Business Week addressed the topic in an article entitled "The Office of the Future", in which it looked ahead to what it called the "paperless office" ⁽²⁾ www.twosides.info/european-forests/

At the same time, reports from the Netherlands tell us that mobile phones and tablets are to be banned in classrooms as from January 2024, except in subjects relating to digital skills, on medical grounds or for disabled people. This was done in France, in 2018, in what the country's education ministers referred to as a

As science has enriched and rationalised our experience with digital media, we have been analysing, measuring and reaching conclusions on the effects of overexposure to screens - and I'm not referring only to eye strain. Medical and academic research have described the physical and mental effect of prolonged over-use of computers, smartphones and social media, resulting a new concept known as digital

Over the past 50 years, we have also become more aware of the carbon footprint of digital media. And if we compare the recyclability of electronic devices and of paper, it is clear which is on the side of circularity: paper is one of the top recycled products around the world. What is more, paper is made from renewable raw materials, obtained, as is the case in Portugal, from certified and sustainably management forests. Indeed, paper production has been a driving force behind the growth of Europe's forests, which had increased in area by the equivalent of 1,500 football pitches a day, between 2005 and 2020(2).

It's clear to see that digital technology has not spelled the end of paper. On the contrary, it has shown how important it is to us as the prime medium on which we write, and through which we understand and enrich our historical



Executive Director of The Navigator Company

A personal relationship with forests

s a forest-based company, managing approximately 106.000 hectares of forests in Portugal and operating a vertical business model, from the raw material to the end product. The Navigator Company is well aware of the crucial importance of people, their talent, skills, dedication and care, in caring for these ecosystems in every wav.

Suffice it to reflect on the demographic changes of the past century, with the exodus from the countryside, changing ways of life and the disappearance of occupations with an active role in the use and stewardship of woodlands, to understand that the human element is vital, for example, in reducing the risks associated with the move away from the land.

In order to fulfil this essential condition for the sustainability of forests - a stable local population - it is important to persuade people, as especially the young, to take an interest in the livelihoods associated wth these ecosystems.

In this context, the diversity of occupations involved in Navigator's operations has directly served to multiply employment throughout the country, in all our business areas, in a dynamic we promote internally through our long-term trainees programme, on-the-job training for school and university leavers, and also our partnerships with educational institutions. One example of this is the public-private initiative to which Navigator belongs, alongside other forestry sector companies, to encourage university-level studies in forestry. In total, 22 study bursaries will be funded covering 100% of the fees for courses in forestry engineering at the University of Trás-os-Montes and the Upper Douro (UTAD), the University of Porto (UP), the Higher Institute of Agronomy (ISA) and the Higher Institute of Agronomy in Coimbra (ESAC). On the ground, we also seek to build the skills of

forestry operators, with our teams working daily to share knowledge with thousands of producers, including through technical advice and training in forestry, certification, occupational safety and other topics, all of this intended to implement qualify standards in good practices and in forestry management In 2022 alone, The Navigator Company's investment in the forestry production value chain totalled €210 million.

Because we are a forestry company that takes a unique approach to business throughout the country and in multiple specialist areas, we seek to interest young people in occupations in the sector, at the same time as investing in skills and high standards, so as to achieve accreditation and enhance the prestige of forestry operations. We are also forestry operators when we promote and train people to implement best forestry practices, confident that the forests we plant and manage sustainably will yield goods and services and other positive externalities which are boosted by those good practices, such as carbon sequestration, production of oxygen, promotion of biodiversity, soil protection, regulation of torrential hydrological regimes or creation of landscape amenities.

Our recent investment in setting up a Forestry Producers Club to care for and plant the future represents a further commitment to promoting human capital and all the operators in the sector, working towards active management, decent employment, increased income, and protection and security for the rural population, generating essential environmental benefits for the country. Navigator's purpose stresses that "it's thinking about people, their quality of life and the future of the planet that inspires and motivates us". All this reflects our personal relationship with the forest, based on knowledge and investment in the human element, as our commitment to the future.

How many animals and plants can you see from your window? From ours, we can count 252 species of fauna and more than 900 species and subspecies of flora.



Visit us at biodiversity.com.pt

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