

Building the world, better

Activity report

2022



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The year 2022 has been a remarkable period for TPF, characterised by significant progress in all our development goals. It will undoubtedly be remembered as a year of significant growth.

Our revenue surged by 13.8% to reach 281 million euros, reaffirming our robust growth momentum. Most of our Business Units experienced organic growth, with noteworthy performances from Portugal, Brazil, and Romania, where organic growth surpassed 20%.

This year, the TPF team expanded by over 600 full-time equivalent (FTE), bringing the total to 4,990 employees. Our progress is remarkable when examining the post-pandemic period. In 2021 and 2022, TPF recorded revenue growth of over 50 million euros (+24%) and successfully onboarded 1,000 new employees.

TPF also had an outstanding year in terms of business performance. In 2022, we achieved a total of 389 million euros in signed contracts, resulting in an unprecedented book-to-bill ratio of 1.4. This solid performance contributed to a backlog of orders amounting to 588 million euros as of December 31, 2022, ensuring 25.5 months of operations and instilling confidence as we look towards the future. To sustain a high level of organic growth remains our objective for 2023.

For the fiscal year 2022, TPF attained a net profit of 3.6%, confirming the gradual improvement in profitability witnessed in recent years. This achievement would not have been possible without the intensive work of all our Business Units, which all contributed positively to the net result.

Regarding our ESG (Environmental, Social, and Governance) goals, we are beginning to witness positive outcomes. The proportion of women within TPF is experiencing positive growth, currently standing at 32%. We have continued our commercial strategy in alignment with the Sustainable Development Goals (SDGs) and aim to further increase the percentage of our revenue associated with the SDGs.

Upon the culmination of this year, we would like to convey our profound appreciation to all our esteemed colleagues for their exemplary contributions. Their ingenuity, aptitude, and dedication have given TPF its present stature and continue to push us forward in these times. Let us strive to fulfill the objectives we have set forth and persist in **building the world, better.**



Julie Belmans

Chief Human
Resources


Philippe Thibaut

Chief Financial
Officer


José Santos

Chief Operating
Officer


Christophe Gilain

Managing Director



Thomas Spitaels

Chief Executive
Officer



INTERVIEW

Thomas Spitaels

Chief Executive Officer

How was 2022 for TPF?

TPF experienced a remarkable year in 2022. It will be remembered as a year of significant growth. Our revenues witnessed a remarkable 13.8% increase compared to the previous year, and we made substantial progress in various areas of development.

We prioritised enhancing communication and collaboration among our teams, reinforcing our identity, and improving our ability to deliver high-value solutions to our clients.

Our relentless commitment to continuous improvement resulted in stronger profitability.

In 2022, we also reinforced our dedication to environmental, social, and governance (ESG) principles and sustainability. We achieved substantial progress in our decarbonisation efforts by assessing our direct emissions and creating sustainable propositions for our customers.

What can we expect in 2023?

We anticipate more progress on our journey. The order book reached an all-time high of 588 million euros in December 2022, representing over 25.5 months of operations. This achievement instils great confidence in our ability to sustain organic growth.

In 2023, our focus will be to dedicate special attention to our people. We are determined to foster an ecosystem that empowers our employees to leverage their skills and creativity to the fullest.

Furthermore, we aim to make significant improvements in decarbonisation, setting long-term goals for reducing our own emissions and expanding our portfolio focused on sustainability.

What are the main challenges or risks?

Our primary challenge is to continue developing and expanding our pool of talented individuals. Over the past two years, our workforce has grown by over 1000 full-time employees. Sustaining this growth rate, while valuing and nurturing our teams' development and fostering a strong sense of belonging within the organisation, remains our greatest challenge. Improving employee retention is a top priority for us and will be instrumental in our overall progress.

As a company with a diverse geographical presence in over 40 countries, we embrace a wide range of cultural backgrounds and academic profiles. We are actively encouraging increased representation of women in leadership roles, building upon positive progress achieved in 2022.

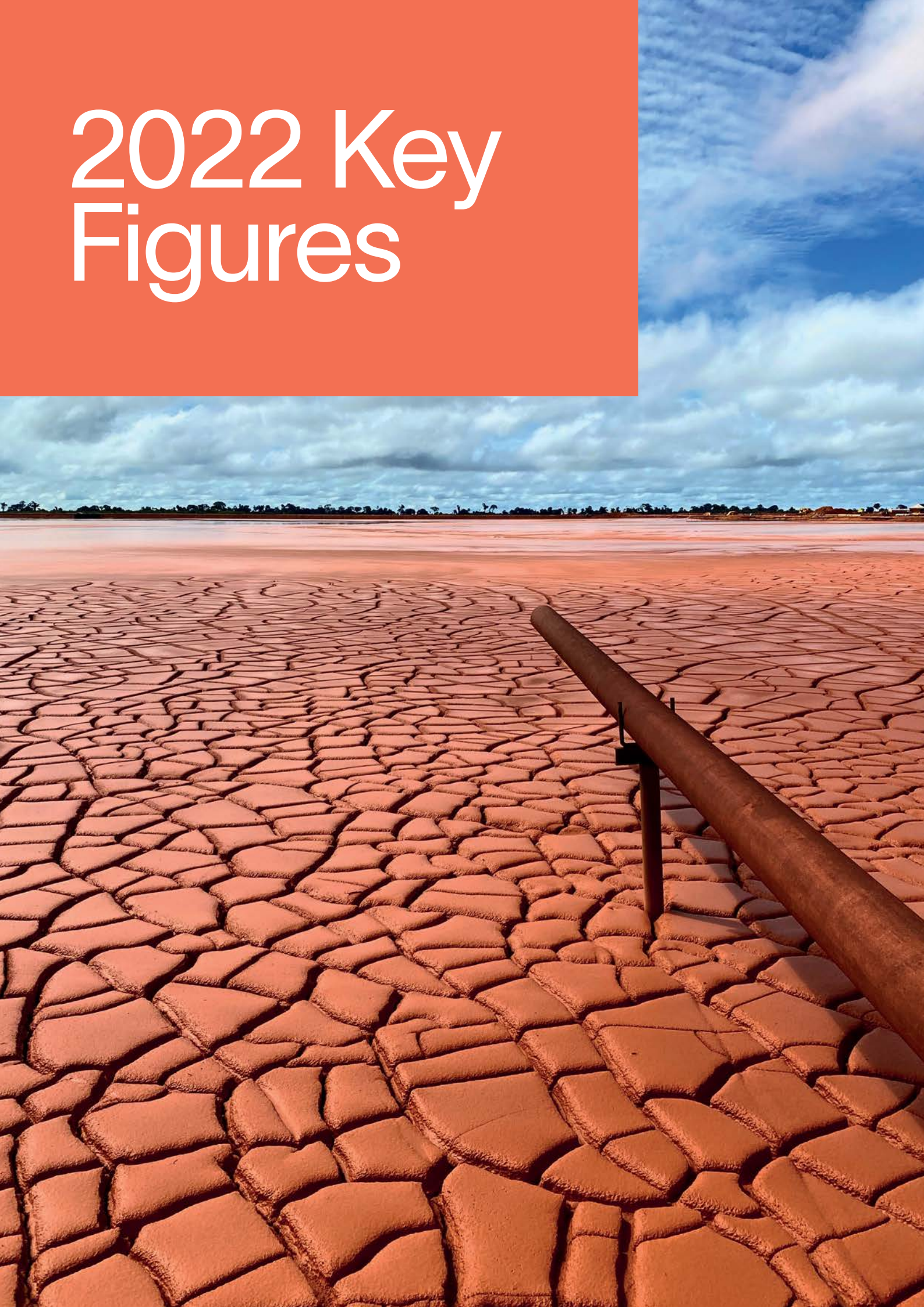
Does the macroeconomic environment in Europe, characterised among other things by inflation and higher interest rates, pose additional challenges or risks for TPF?

First and foremost, trivialisation of the war in Ukraine should be avoided at all costs. We should never forget its horror, gravity, and the geopolitical and economic destabilisation it entails.

The volatility of the macroeconomic landscape certainly adds complexity to our management. However, TPF's diversified distribution of business across various geographies, client types, and scopes of activity significantly mitigates these risks. Additionally, a considerable portion of our financing is structured at fixed interest rates, which currently helps reduce the impact of financial volatility.

Ultimately, these are the key assets at the root of TPF, and the new perspectives we have successfully outlined will allow us to approach the coming years with serenity.

2022 Key Figures



Financial KPIs

Revenues 281 M €

Organic growth 13.8 %

EBITDA 37.0 M €

EBITDA % 13.2 %

Free Cash Flow 7.6 M €

Commercial KPIs

Backlog of orders 588 M €

Backlog of orders in Month of Operations 25.5

Book to Bill Ratio 1.4

Human Resources



Number of employees

4990



Nationalities

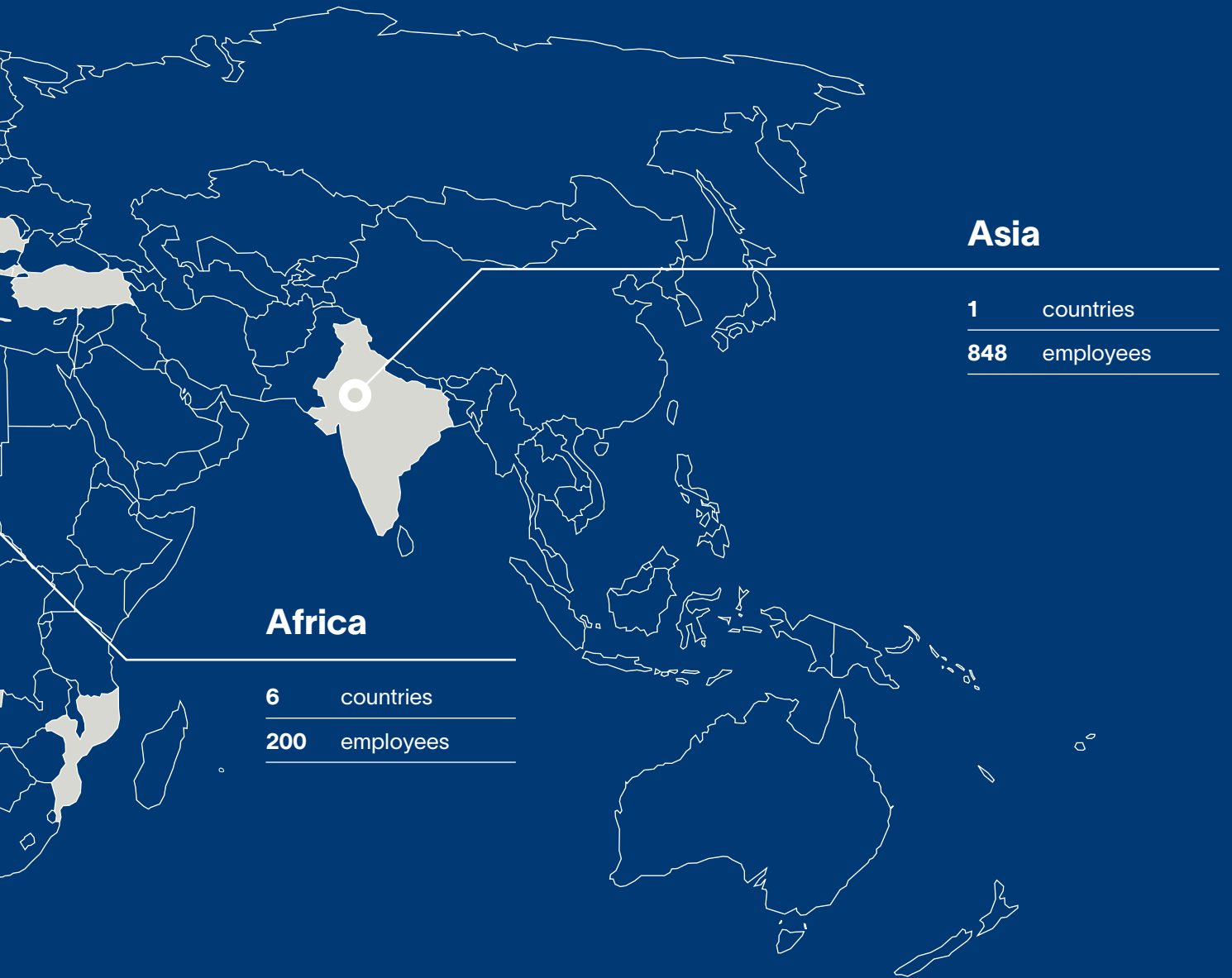


43

Languages



25



Average age



41

Gender Split



32 %

Women



68 %

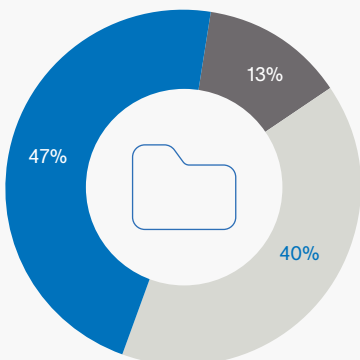
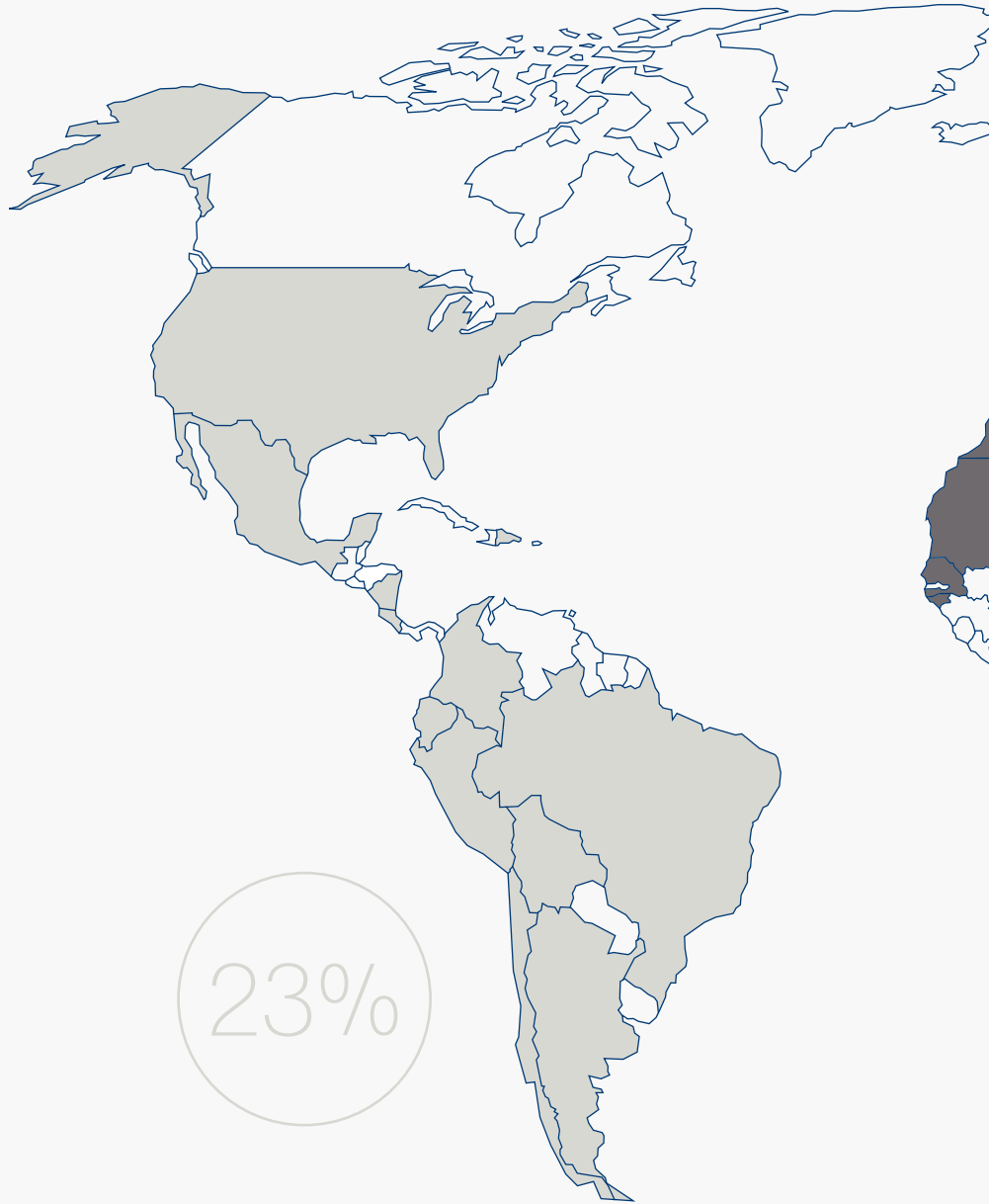
Men

Revenue Distribution

Geographical Split

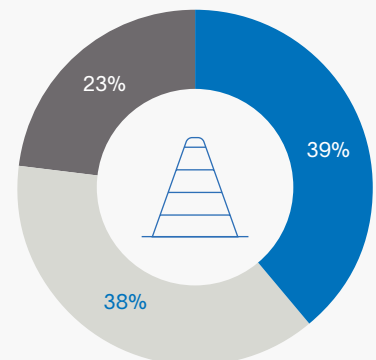
- Europe
- Americas
- Asia
- Africa

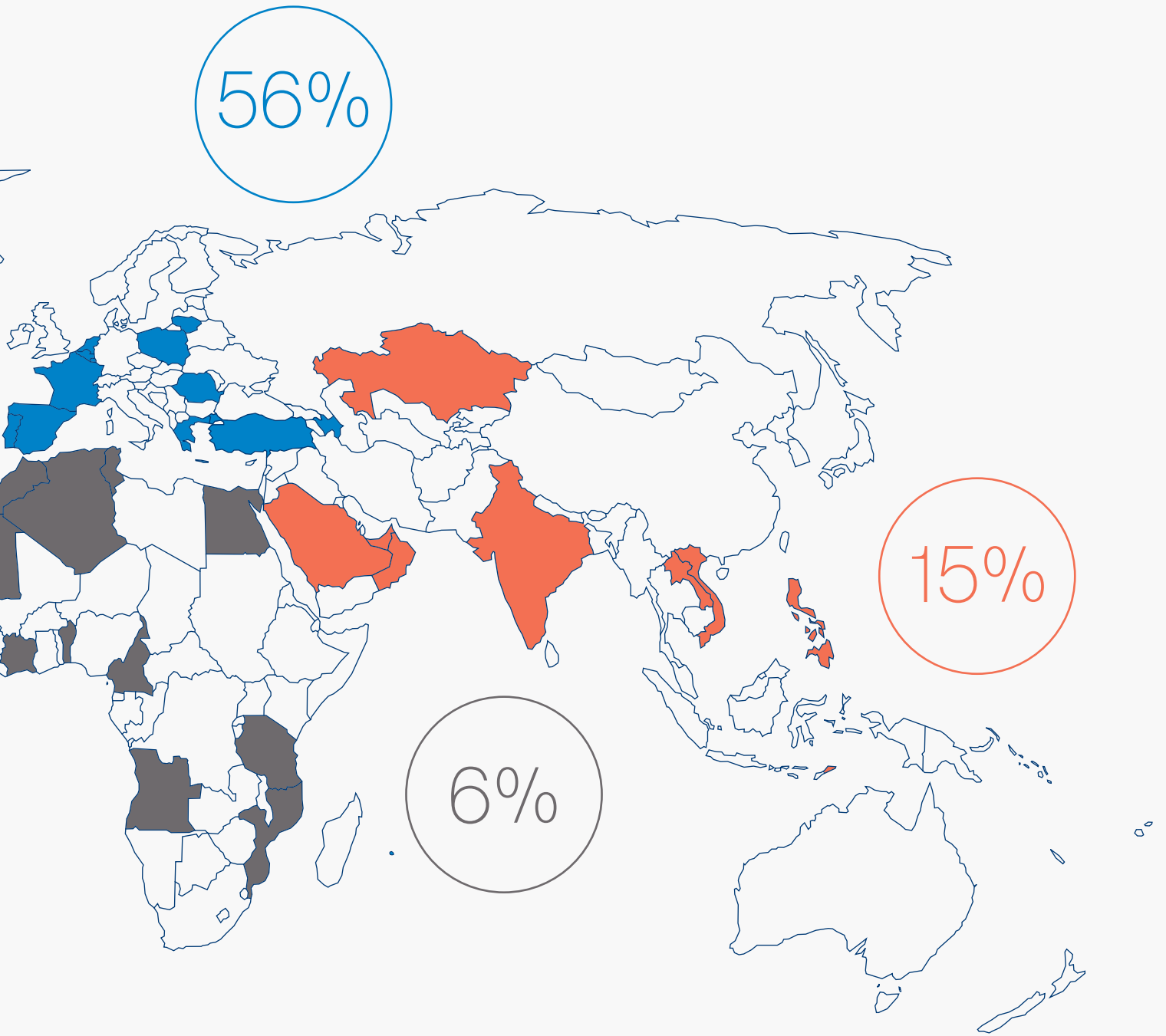
Number of countries



Service Type

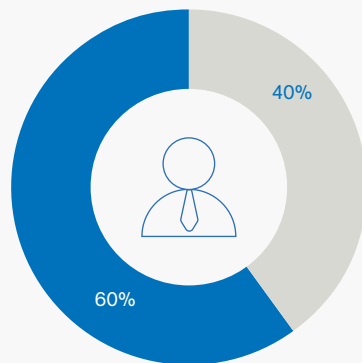
- Design
- Management and supervision
- Asset management





Sectors

- Transport and mobility
- Buildings and cities
- Environment and water



Client type

- Public
- Private



Executive Committee

Thomas Spitaels

Chief Executive Officer

Christophe Gilain

Managing Director,
Member of the Executive Committee

José Castro Santos

COO, Member of the Executive Committee

Philippe Thibaut

CFO, Member of the Executive Committee

Julie Belmans

CHR, Member of the Executive Committee

Our Environmental, Social and Governance (ESG) Strategy

For several years, our strategy in terms of environmental, social and governance (ESG) issues has reflected our desire to demonstrate our slogan “Building the world, better”.

Our priority is to support our clients in projects that integrate the essential criteria of sustainable development, such as sustainability, clean energies, the preservation of natural resources, circularity of materials, respect for the environment and improvement of our communities' living conditions.

Since we aim to make the world a better place for future generations, our commitment to ESG is aligned with the Sustainable Development Goals (SDG's) defined by the United Nations. Through all the projects that we carry out around the world, we contribute in particular to the achievement of the following fifteen goals:

- SDG 1 – No poverty,
- SDG 2 – Zero hunger,
- SDG 3 – Good health and well-being,
- SDG 4 – Quality education,
- SDG 5 – Gender equality,
- SDG 6 – Clean water and sanitation,
- SDG 7 – Affordable and clean energy,
- SDG 8 – Decent work and economic growth,
- SDG 9 – Industry, innovation and infrastructure,
- SDG 11 – Sustainable cities and communities,
- SDG 12 – Responsible consumption and production,
- SDG 13 – Climate action,
- SDG 14 – Life below water,
- SDG 15 – Life on land,
- SDG 16 – Peace, justice and strong institutions.

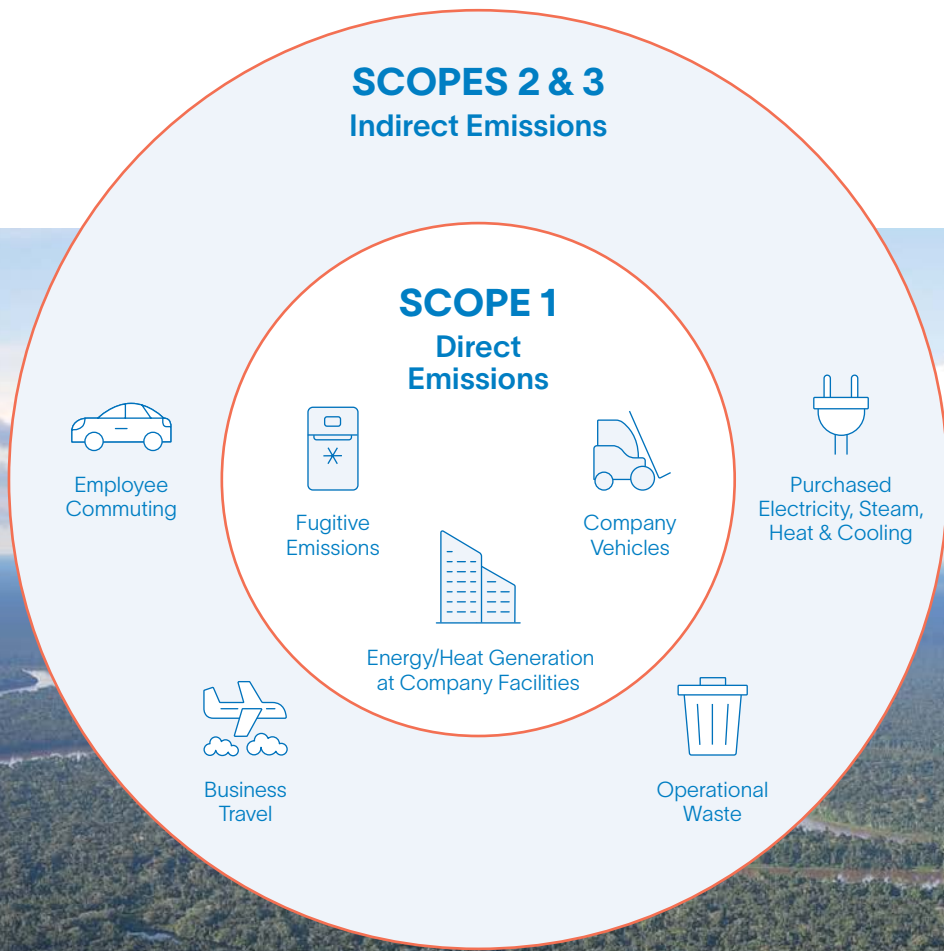
The Group's Ethical Social Responsibility Charter was adopted in line with these objectives. It is detailed into a code of conduct which is specific to each entity, and is accompanied by a set of concrete measures. A survey has shown that young people attach paramount importance to the societal commitment of the company in which they work and that this factor constitutes an important criterion in their professional choice. This is why at TPF, we are doing everything we can to accelerate the transition of our societies towards carbon-free economies. This commitment also corresponds to a strong request from our teams who are also keen to contribute to the creation of a more sustainable future.



CARBON FOOTPRINT

In order to be able to calculate our carbon footprint, TPF has adopted the international "Greenhouse Gas Protocol (GHG)" carbon accounting methodology, which establishes a common framework for measuring greenhouse gas (GHG) emissions of companies. And to do this, it is necessary to categorise GHG emissions according to scopes or "perimetres": direct emissions (Scope 1), indirect emissions related to energy (scope 2) and everything else (scope 3).

The objective is to identify the origin of emissions and take the necessary measures to reduce the group's carbon footprint scope by scope. •



DIVERSITY AND EQUALITY

It's no surprise that women remain a minority in the world of engineering. Despite the difficulties in opening up the traditionally male sectors with which we work, we can nevertheless observe a notable improvement in the situation in terms of gender equality in most of our subsidiaries, as well as an increase in the number of women occupying leadership positions. •



GOVERNANCE

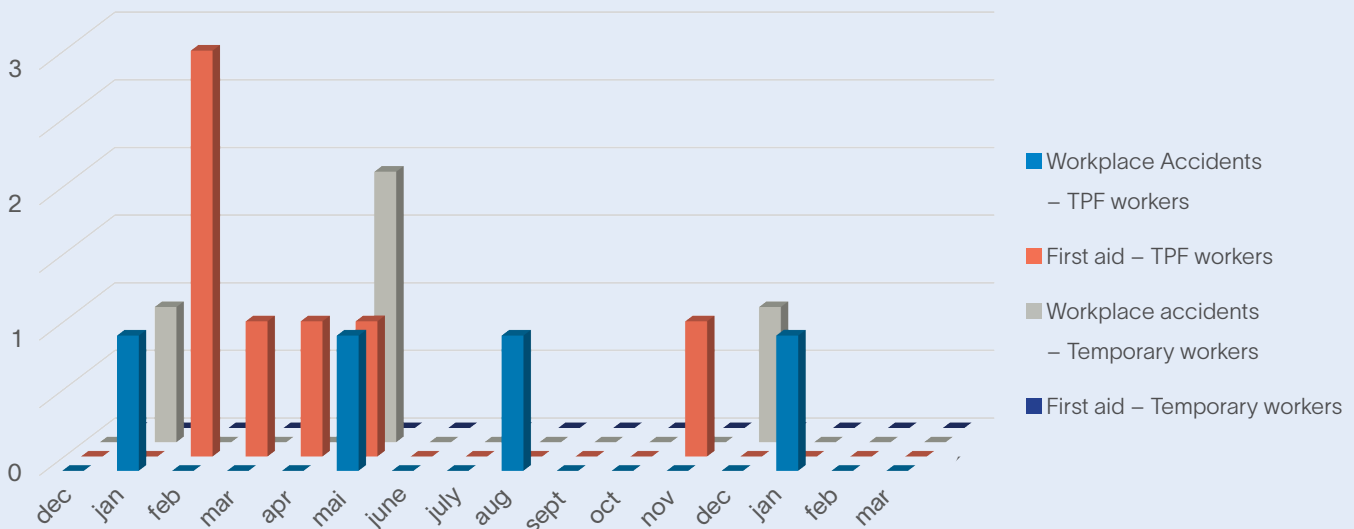
The efforts made by our subsidiaries to reduce professional risks have been successful. We have observed a reduction in accidents at work and occupational diseases this year. In addition, our occupational health and safety prevention policies have reduced the number of days of incapacity for work. •

SOLIDARITY AND HUMANITARIAN CAUSES

Human values carried by the company such as solidarity, respect for people and the environment, as well as the desire to build a better world are all reasons that have led the group to support causes that are close to its heart. •

FOCUS ON SOME KEY ACTIONS OF THE YEAR

- In Belgium and France, we can highlight the remarkable work provided by our maintenance company to reduce the number of work accidents on construction sites. The monthly meetings of the Committee for Prevention and Protection at Work (CPPT) in which trade union delegations take part are of great importance. They make it possible to examine and understand accidents that have occurred. The ultimate objective is of course to learn the necessary lessons to prevent the risk and recurrence of accidents at work. This approach has been successful and resulted in a significant reduction in accidents, both for temporary and permanent staff.
- In collaboration with the Turkish branch of TPF, we set up a solidarity movement in Spain in response to earthquakes which occurred on the Turkish and Syrian border in February 2023. We have provided concrete assistance to the victims by collecting goods and basic necessities items as well as foodstuffs, and have provided financial support to the humanitarian aid organisation Turkish Red Crescent (Kızılay), the Association of Aid to Humanitarian Relief (AHBAP) and Turkish Disaster and Emergency Management Agency (AFAD). All items and donations were collected from AFAD centres and distributed from there.



- In Brazil, our subsidiaries have joined the companies adhering to the United Nations Global Compact. This initiative encourages companies to align their strategies and operations with the ten universal principles relating to human rights, labour, the environment and the fight against corruption, as well as to take measures to advance societal goals and the implementation of the Sustainable Development Goals.
- In India, we launched cleanliness awareness campaigns in October, the anniversary of Mahatma Gandhi's birth. The aim was to make everyone aware of the importance of cleaner and better environmental hygiene. •



➤ Arvi Talegaon, Nagpur - Cleanliness Drive

➤ Jalgaon Chalisgaon, Nashik - Cleanliness Drive

HUMAN RIGHTS

ENVIRONMENT

LABOUR

ANTI-CORRUPTION



SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY 	2 ZERO HUNGER 	3 GOOD HEALTH AND WELL-BEING 	4 QUALITY EDUCATION 	5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION 	7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 	13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS 	17 PARTNERSHIPS FOR THE GOALS 			

Innovation and digital transformation

Innovation is deeply ingrained in our culture and an integral part of our daily operations at TPF. Over the past few years, our industry has undergone rapid transformations due to technological advancements, regulatory changes, and evolving societal demands. Recognising this trend, TPF has proactively embraced digital transformation, organising our efforts around our Innovation Axis.

This strategic framework has facilitated the free flow of ideas and fostered collaboration within TPF. Our cross-international teams work together to develop solutions that address the pressing challenges of our time by leveraging the latest technological advancements and applying them to real-world problems.

As these initiatives and exchanges gain momentum, effectively managing the vast pool of knowledge becomes crucial to deliver innovative solutions to our clients. To this end, we have developed TPF's own Knowledge Management platform, known as the Collaborative Repository of Experience (CoRE). CoRE enables us to tap into the collective experience of our global community and connect ideas in a seamless manner.

This collaborative environment also nurtured an agile culture at TPF, where experimentation is encouraged and failure is seen as an opportunity for learning. Initiatives like TPF Labs, our innovation accelerator, provide a safe space for ideas to be pitched, developed, and put into action. In 2022, concepts originating from this program were showcased at international congresses and received industry accolades, including the prestigious Inovainfra and Autodesk Forge Hackathon awards.

As a leading player in its industry, TPF recognises the pivotal role it must play in the transition towards a decarbonised economy. Across our various areas of expertise, our teams have harnessed TPF's innovative capabilities to tackle this challenge head-on. For instance, by combining Business Intelligence with Building Information Modelling (BIM), our design teams can rapidly iterate through alternative solutions, thereby reducing embodied carbon and enabling instant cost impact calculations. Moreover, our facility managers utilize Internet of Things (IoT) sensors to gather energy consumption data, allowing them to optimise technical installations and reduce both energy consumption and carbon footprint.

At TPF, we remain committed to driving innovation, harnessing technological advancements, and collaborating globally to deliver sustainable solutions that address the evolving needs of our clients and contribute to a better future.





→ **EMBODIED CARBON** encompasses the greenhouse gas emissions generated outside of a building operation, including raw material extraction, manufacturing, transportation, construction, and eventual demolition. In the realm of sustainable construction, it is of utmost importance for design teams to meticulously consider embodied carbon when assessing different design alternatives for buildings. To facilitate this crucial process, our teams have developed an innovative embodied carbon calculator. Leveraging information from Building Information Modelling (BIM) models and public databases on emissions, this calculator expedites the analysis and enables rapid iteration through alternatives during the early stages of conceptual design. By harnessing this groundbreaking

development, our design teams can make well-informed decisions that prioritise sustainability, paving the way for environmentally responsible buildings and a greener future.

The **DECARBONISATION** of building energy emissions plays a crucial role in achieving a net-zero emissions future worldwide. As part of the Horizon 2020 program, TPF is involved in the development of a digital platform to optimise energy investments. This platform will allow to simulate different investment scenarios combining different technical solutions in order to respond to a specific consumption profile. For realising this project, different expertise relating to engineering, data visualisation and optimisation were integrated by TPF teams into a single tool.



Environment & Water

Recent weather events and natural disasters have highlighted the urgency of accelerating action to protect the health of our planet.

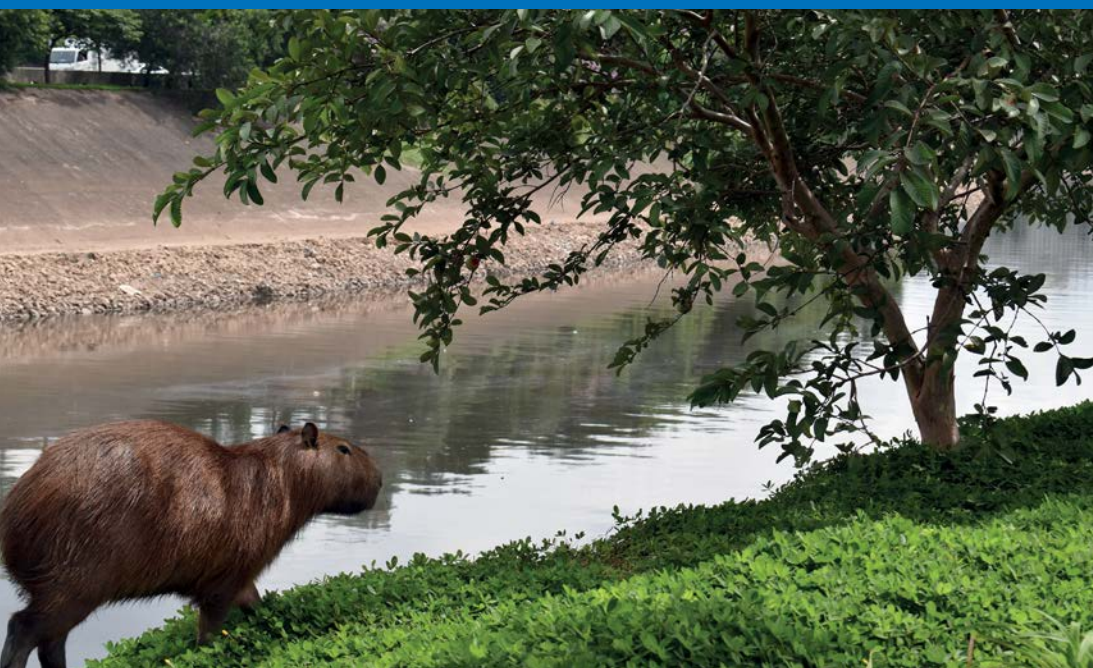
To combat environmental degradation, it is imperative to adapt our energy behaviours, limit greenhouse gas emissions and take measures to protect, restore and responsibly manage natural resources and ecosystems.

Water is a key issue for sustainable development, as it is so vital for health, food and energy security and the economy. According to the United Nations, 40% of the world's population is affected by water scarcity, 80% of wastewater is discharged into the environment without being treated, and more than 90% of disasters are water-related.

The production and consumption of energy exert considerable pressure on the environment. The energy sector alone is responsible for two-thirds of global greenhouse gas emissions. Biodiversity and major natural carbon sinks, such as forests and oceans, are also being degraded.

In the face of these challenges, as UN Secretary-General António Guterres has pointed out: "There is no Planet B. We must fix the world we have."

As a responsible company, we want to be part of the solution and contribute at our level to making the planet more sustainable and liveable.



→ Sustainable Development Goal 6 aims to give **UNIVERSAL AND EQUITABLE ACCESS TO DRINKING WATER** and to **SANITATION** by 2030. It also calls for a **SUSTAINABLE MANAGEMENT OF WATER RESOURCES**. Many projects are being implemented or planned to achieve this objective and TPF is committed to continuing its efforts to improve the situation.

Among the projects in which we participate, we can mention: in Brazil, the Malha d'Água drinking water supply project in the state

of Ceará, the implementation of the Water Resources Management Plan for the hydrographic region of the Paraguay River in Recife, the Tiête River Sanitation Project in São Paulo; in India, the beautification and rejuvenation of Mithi river and holding ponds in Mumbai; in Romania, the rehabilitation and extension of water supply and sanitation networks in the County of Galati, and in Senegal, the project to strengthen drinking water supply systems in the cities of Saint-Louis, Kaolack and Kolda.



BRAZIL

By 2025, with more than 4,500 kilometres of new pipes, the Malha d'Água project will ensure a reliable supply of drinking water to 6.3 million inhabitants

Its objective is twofold: to provide sufficient quantity and quality of drinking water to consumers, and to improve the efficiency of water storage management in the State of Ceará.

TPF was contracted to develop specialised technical engineering services for the executive project and implementation works for the Banabuiú Water Main System, part of the Malha D'Água Project, which will supply treated water to 9 municipalities and 38 districts of Ceará, benefiting 284,435 inhabitants at the end of the work, with a demand flow of 540l/s. This will be the first work in Brazil to use the contract modality expressed in FIDIC's Yellow Book. •

BRAZIL

TPF, in a consortium, supports the National Water and Basic Sanitation Agency (ANA) in the implementation of key actions for the Paraguay River Hydrographic Region Water Resources Plan

The work involves the development of instrument studies for the management and governance of surface and groundwater; resolution of water use conflicts; conservation of water resources; and assembly of an investment plan. •

SENEGAL

The project to reinforce the drinking water supply systems of the cities of Saint-Louis, Kaolack and Kolda offers a sustainable solution to the problem of access to quality water

The work to be carried out is being financed by the European Investment Bank (EIB). It is carried out in two lots including the construction of a water intake in Bango, and a new 12,000 m²/day water treatment plant in Saint-Louis (Khor), including the supply and installation of a main distribution pipe

DN500 over 10.5 km and DN250 over 1.3 km, and a water tower with a capacity of 3,200 m³ in Saint-Louis (Sanar). TPF is part of the group in charge of works control and supervision. •



INDIA

TPF, in consortium, is developing the Feasibility study, Detailed Design Report and Project Management of Flood Control, Beautification and Rejuvenation of Mithi River and Holding Ponds in Mumbai

This ambitious project has two main goals. One will be the rejuvenation of the Mithi River, which includes developing measures for flood control, improving water quality, enhancing biodiversity, developing recreational activities near the river and improving navigation. The other goal will be to develop holding ponds in different areas of Mumbai, that will be used for flood control and to produce reused water for different purposes.

The transformation of the Mithi River into a pleasant place will be a milestone in the urban development of the area and the entire city of Mumbai. •



BRAZIL

The depollution of the Tietê River in São Paulo is the largest environmental remediation project underway in Brazil

Four years ago, the company in charge of water supply and sanitation in Greater São Paulo (Sabesp) appointed TPF, in consortium, to carry out this operation.

The projects contributing to the success of the program are multiple and essential to improve the quality of life of the citizens of São Paulo. Eventually, the wastewater generated by 3.7 million inhabitants will be able to be collected and treated. In addition to project management and supervision, our mission is also to provide technical assistance.

To optimize contract management, an integrated platform has been developed by TPF, as well as mobile application that facilitates data collection, working both online and offline, and leveraging on dynamic analysis of this data powered by Business Intelligence solutions. •





ROMANIA

The second phase of the project for the Rehabilitation and Extension of Water and Wastewater Infrastructure in Galati County is expected to be completed by 2026

It represents a major operation, which will ensure the quality and quantity of drinking water needed by the county's residents.

The project goal is to rehabilitate the water networks in Galați, expand the water supply and sewage system in Matca and rehabilitate the raw water supply pipe in the Liești area. As a consultant, TPF provided support to the beneficiary APA CANAL S.A. GALATI in the preparation of the funding application and the preparation of the award documentation.

The implementation of the project will lead to an increase in the degree of coverage with centralized drinking and wastewater services, the efficiency of the collection of household water in the rural area, the realization of controlled discharges, the reduction of infiltrations and exfiltrations from water and sewage networks, thus reducing the impact on the environment. •



/ Ada Ravana

Brazil / Product Manager

" TPF has been operating for four years in the Management and Supervision of the works that make up the Tietê River Depollution Project. We are very proud to participate in this project, which becomes challenging due to its territorial scope (the river crosses the entire metropolitan region of São Paulo, which represents more than 30 cities), the inherent characteristics of a large metropolis, and the number of contracts in simultaneous execution. " /



/ Ovidiu Trușcă

Romania / Design Engineer –
Water Supply and Sewerage

" Since my student years, I wanted to be involved in a project with a major positive impact on people and the environment. This project brought me close to the community and helped me better understand people's needs. The TPF team, of which I am proud to be a part, has contributed through the implementation of the project to important benefits that derive from the costs saved by consumers. " /

- Climate change is disrupting ecosystems and increasing the risk of **EROSION** and **FLOOD**. Although we cannot prevent these natural phenomena, we can nevertheless help cities and regions to deal with them. In Lisbon, for example, we are supervising the construction of two new drainage tunnels, and in Senegal, we are particularly concerned about the problem of coastal erosion which affects the East and West cornices in Dakar. In Spain, we are implementing tools to prevent the risk of flooding in the Ebro and Tagus basins.



SPAIN

TPF leverages its hydraulic expertise to support the management authorities responsible for the river basins of Ebro and Tagus

In response to the catastrophic floods that have affected Europe in recent decades, the European Commission adopted in 2007 Directive 2007/60/EC on the assessment and management of flood risks in large river basins. This directive establishes a working method which includes the production of Flood Risk Management Plans (FRMP) with the aim of minimising negative consequences associated

with floods on human health, environment, cultural heritage and economic activity.

This year, our teams continued preparing, approving and implementing flood risk management plans on behalf of the authorities responsible for the management of the Ebro and Tagus river basins, i.e. the two main river basins in Spain (totalling a surface of 136,000 km²). •





PORTUGAL

The works planned by the Lisbon Drainage Master Plan (PGDL) 2016 – 2030 to fight against flooding officially began on September 28, 2022, with the signing of the partial consignment document

This is the largest project ever undertaken by the municipality of Lisbon, at an estimated cost of around 250 million euros. This plan provides for the construction of two large drainage tunnels for the transfer of the basins: the Monsanto - Santa Apolonia tunnel, approximately five kilometres long and the Chelas - Beato tunnel, one kilometre long. These six kilometres of tunnels will channel excess rainwater to the Tagus. The project is particularly complex with seven construction sites scattered across the city. Our mission is to supervise the construction of tunnels and related operations. •



/ Ana Paula Jesus

Portugal / Deputy Team Leader of the Construction Supervision Team

“ Being part of the Supervision team of the construction works for the Lisbon drainage tunnels is both a challenge and a source of pride. This is a structuring project that, while minimizing flood risks, will allow the reuse of stormwater for public use and a significant increase in the volume of treated water conducted to the Tagus River, reducing its pollution levels. ” /



SENEGAL

In Dakar, TPF focuses on the problem of coastal erosion within the framework of the West African coastal management program WACA

TPF is part of the consortium responsible for carrying out the Summary Preliminary Project and Detailed Preliminary Project studies, as well as the preparation of the tender documents for the stabilisation of the East and West cornices (lot 1).

To carry out this mission, our team mobilised all of its skills and knowledge regarding currents, hydro-sedimentary phenomena, hydrology and hydraulics.

We have already been able to identify the most affected areas on a 25-kilometre coastal stretch and have offered solutions. At this stage, two sites have been selected for the Detailed Preliminary Project phase: the cliff and the beach of Anse Bernard on the eastern cornice and the beach of Cheikh Anta DIOP University on the western cornice.

This project provides for the construction of 6 breakwaters implanted at depths of about 3 metres, the construction of three riprap banks and the development of masonry ripraps. The work should be completed in 2024. •



/ Awa Babou

Senegal / Project Manager

“Coastal erosion is a natural and anthropogenic phenomenon which unfortunately intensifies with global warming. In Senegal, the world of engineering and consulting has little expertise on the subject. As the person in charge of the stabilisation project for the eastern and western cornices of Dakar, I am particularly concerned about this problem. With the support of our Tunisian partners, we were able to carry out the various studies. These have required extensive research and approaches that have strengthened and deepened our expertise in this area. Today, TPF is able to meet this type of challenge in Senegal and elsewhere.” /

→ Although economic development is essential for improving living conditions and fostering job creation, it can also have adverse effects on the environment, including on local communities. Conciliating **ECONOMIC DEVELOPMENT** and **ENVIRONMENT** is not an easy task. TPF is well aware of this and strives to find sustainable solutions in order to avoid, reduce and compensate for the negative impacts of economic activity on the environment, biodiversity and human health.

This year, we have been particularly active in Brazil. In particular, we supported the Brazilian mining group VALE in its social and environmental responsibility approach, as well as in its operations to dismantle a tailings dam in the state of Minas

Gerais. Our teams have also signed a three-year contract with SOMINCOR – Sociedade Mineira de Neves Corvo SA (subsidiary of Lundin Mining) relating to thirteen mining residue storage facilities. Finally, in the region of Maceió, we are interested in the impacts of subsidence on the population and the environment.

↓ Model of the alternative chosen for the project to dismantle the tailings dam



BRAZIL

The Brazilian mining group VALE called on TPF for the decommissioning of a tailings dam

TPF was contracted to prepare the alternatives studies and the conceptual project for the decommissioning of a tailings dam located in the state of Minas Gerais.

The activities of the contract were divided into two major stages: the preparation of the studies of alternatives and the conceptual design of the chosen alternative. In the first stage, the geotechnical, water, structural and environmental studies resulted in the development of 3 alternatives. The choice of the most cohesive solution was made through a hierarchical multi-criteria analysis of the environmental, structural, hydric, operational and socio-economic aspects, including the creation of a matrix of advantages and disadvantages for the options studied.

Once the solution was chosen, the design stage of the decommissioning project began, which followed the main national and international standards of the discipline. A highlight in the project was the application of BIM methodology for modelling and compatibility of projects, in addition to the use of agile methodology and maintenance of constant communication with the client, priorities throughout the work. •



Thiago Almeida
Brazil / Product manager

“ The project allowed the development of the team in different themes. First, it is a challenging dam de-characterization project, in which technical discussions provided the team’s growth. Agile project management was also idealized, applied, and perfected, which has become an asset for application at TPF. Therefore, pleasant teamwork. ” /



BRAZIL

TPF supports the VALE group in the implementation of its CSR (Corporate Social Responsibility) approach

Our advisory and consultancy mission is to support the development of a social performance assessment model, for cases where the client operates in joint venture. The project's mission is to develop guidelines and training material on social management to help assess the level of social responsibility of Vale's partner companies throughout Brazil and abroad. •

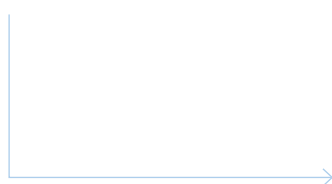
BRAZIL

TPF focuses on the subsidence phenomenon in the region of Maceió, capital of the State of Alagoas

The so-called Case Maceió aims to implement actions and works that reduce and avoid future impacts of geological subsidence for the population of Maceió. Among the activities carried out by TPF are engineering, supervision, inspection, and administrative support services, including developing engineering and architectural projects and solutions in the city.

In addition, TPF also provides:

- demolition waste management services which are based on carrying out studies to identify and operationalize treatment alternatives,
- elaboration of a Masterplan of Sustainable Urbanism for four districts of the city,
- studies of Circulation and Public Transport and Preparation of the Plan and Basic Project of Road Interventions in some neighborhoods of Maceió. •



BRAZIL

TPF plays a leading role in the security of tailings storage facilities as an Engineer of Record (EoR)

The safety of tailings storage facilities is currently a key issue for mining operators, which has been addressed in detail in several international standards and guidance documents, such as the Global Industry Standard for Tailings Management (ICMM | UN | PRI, 2020).

This new industry standard seeks to establish a framework to ensure the safe management of tailings storage facilities in order to avoid any harm to people and the environment. It is within this framework that the figure of the Engineer of Record appears, which is a complement to the structure of the operator itself and which should be responsible, among others, for the projects to be implemented in the tailings disposal facilities, for monitoring and recording changes in the structure and for analysing the behaviour of the structure.

Recently TPF signed a 3-year contract with SOMINCOR - Sociedade Mineira de Neves-Corvo S.A. (owned by Lundin Mining), for provision of Engineer of Record' services for 13 tailings and industrial water storage facilities of the Neves Corvo mines, including the Cerro do Lobo tailings dam. •





/ Gonçalo Tavares

Portugal / Associate Director

“ The safety of dams, in particular those intended for mine tailings, is a major issue for our society. TPF is a committed player in this field. Taking on the role of EoR Engineer for tailings and industrial water storage facilities at the Neves Corvo mine has been a challenging, rewarding and fulfilling work experience. However, the success of this work was only possible thanks to the involvement of the entire team and the remarkable relationship with the Somincor team. ” /

→ Over the past few decades, the amount of household waste has increased dramatically, especially in regions that have experienced rapid urbanisation. The projections are hardly encouraging, since the World Bank foresees a tripling of **WASTE** production by 2050 in sub-Saharan Africa and a doubling in many parts of the world, where more than half of the waste is dumped without any particular attention to environmental and health impacts.

In this context, sanitary landfills are an interesting waste disposal solution. At TPF, we are well aware of this issue and have been commissioned to carry out the technical studies and the detailed design of a new landfill in Maputo.

We are also aware that correct waste management is essential not only to improve environmental safety, the quality of life of inhabitants and the attractiveness of cities, but also and above all to reduce health risks. The use of digital technologies now makes it possible to optimise waste management. In Brazil, TPF has notably developed smart solutions to improve waste collection management in the city of Recife.

MOZAMBIQUE

TPF is mobilising to promote more sustainable waste management

The Municipal Council of Maputo has entrusted TPF, in a consortium, with the technical studies and detailed design for the construction of a new sanitary landfill in Maputo, and the closure of the sanitary landfill of Hulène located in the municipal district of Catembe. These studies are an integral part of the Maputo urban transformation project which is financed by the World Bank. •





BRAZIL

For the city of Recife, smart waste management has become a priority

To streamline waste management and improve its accountability and transparency, the City of Recife, a leader in Brazil's intelligent city movement, decided to use technology. The City Hall hired TPF to implement and operate the Operational Control Center of Emlurb (Autarchy of Maintenance and Urban Cleaning of Recife). This solution combines IoT, mobile applications for data collection, business intelligence (BI), and management expertise of TPF projects. In 3 years of operation, CCO Zeladoria Urbana increased the efficiency of managed services by 15% and reduced costs by 6%. •

→ Sustainable development is important for us and we are convinced that taking into account the social, environmental and community dimensions is essential from the design phase of a project.

This year, in Brazil, our **SOCIO-ENVIRONMENTAL WORK** focused on several themes that are particularly close to our hearts, such as the **SOCIAL AND TERRITORIAL VULNERABILITY OF INDIGENOUS PEOPLES OF THE AMAZON**. Our team carried out actions in favour of indigenous communities affected by the construction of the Belo Monte hydroelectric plant. We have also supported the executive management of the "Sustainable Barcarena Initiative (IBS)", which aims to improve the living conditions and livelihoods of the inhabitants of Barcarena through actions of **HUMANITARIAN AID AND LOCAL DEVELOPMENT**. In Vitória, in the state of Espírito Santo, we were commissioned to implement an **INTEGRATED MANAGEMENT PLAN** including actions of social communication, environmental education and support for local productive activities.



BRAZIL

As a development pole of the State of Espírito Santo, the city of Vitória has hosted many industrial projects that have generated disorderly urban sprawl

Our mission is to support the municipal public administration in social, environmental and economic recovery. We are executing an integrated management program that includes social communication, environmental education actions and support to local productive activities. •

BRAZIL

Our commitment to indigenous communities in the Amazon, particularly in the Middle Xingu region of Pará, goes back many years

One of our successful projects in the region is the execution of the Basic Environmental Plan for Indigenous Communities (PBACI) on the Xingu and Curuá Routes. This work led the consulting firm to become a reference in its work with indigenous populations, meeting their expectations regarding ethno-development, incorporating the references of the protective agencies regarding the mitigation and compensation for impacts in the region, and also achieving measurable results for the social and environmental investments made by the client.

In the territory, we are running programs of institutional strengthening, indigenous school education, productive activities and indigenous land management, relating to families of 9 villages of the Xipaya and Kuruaya Indigenous Lands, located on the Curuá Route, a region impacted by the Belo Monte Hydroelectric Plant. •



BRAZIL

TPF supports the Executive Management of the “Sustainable Barcarena Initiative (IBS)”

This collaborative platform for sustainable development was created to improve the living conditions and livelihoods of the inhabitants of Barcarena and beyond. Its mission is to promote humanitarian aid and local development actions, as well as to finance projects with a strong social impact through the Hydro Corporate Sustainability Fund (FSH). Our Brazilian subsidiary is responsible for the implementation of the project. •



Karin Matzkin

Brazil / Project Manager

“ The challenges faced by the indigenous peoples of the Xingu region due to their social and territorial vulnerability are considerable. Our daily work with families is very important to ensure food security and local income generation. Territorial management is also essential to protect forests and land. Furthermore, the institutional reinforcement of indigenous organisations and increased political participation are essential to protect the rights of indigenous peoples. ” /

Transport & Mobility

The sector of transport and mobility constitutes an essential lever for several Sustainable Development Goals (SDGs) such as food security, health, well-being, education, economic development, and employment. Unfortunately, it is also responsible for approximately one-quarter of the world's total CO2 emissions, which poses a significant challenge. How can we meet the growing demand for mobility while reducing the impact of transportation on the climate?

Although progress has been made to curb the rise in CO2 emissions from global transportation, they remain largely insufficient to achieve sustainable mobility. It is therefore crucial to multiply efforts for a fairer and more sustainable mobility. This entails encouraging intermodality and modal shift towards less polluting modes of transportation such as trains, trams, bus rapid transit, or bicycles, as well as deploying the most innovative technologies to decarbonise the transportation sector. It is also crucial to make freight transport more efficient, ensure safe access to essential goods and services by improving existing infrastructure and transport networks, modernising them, and rehabilitating them if necessary. Lastly, it is indispensable to sustainably address the infrastructure deficit in regions of the world that suffer from it by investing in new constructions.

As a key player in this sector, we aim to play an active role in the development of environmentally friendly mobility.





© Sanju Krishna Volvoikar / Zuari Bridge reflections - Goa, INDIA / 2023 TPF Photo Contest

- By promoting the development of environmentally friendly **PUBLIC TRANSPORTATION** modes such as the METRO, BUS RAPID TRANSIT (BRT), TRAMWAY, and LIGHT RAIL TRAIN (SLR), we can reduce CO₂ emissions and discourage the use of individual cars. Our company possesses the skills and experience necessary to actively support the transition to more sustainable modes of transport.

While the construction of new lines is essential to meet the growing demand and the evolving needs of users, the renovation of stations and existing infrastructures is equally important. Whether it involves deep renovations or functional redesigns, the primary objective is to offer travellers more comfort, greater safety, and improved accessibility.

Once again, this year, TPF has demonstrated its dynamism in the metro sector. From new lines to extensions and station refurbishments, it goes without saying that ideas and initiatives have not been lacking in 2022.

Among the most anticipated projects, we can mention the extension of Brussels Metro Line 3 to the north of the capital and the redevelopment of the Central Station metro station in Brussels, Belgium; the new Rosa Metro Line in Porto, Portugal; the future Line 7 of the Santiago Metro in Chile; and the extension of Line 11 of the Madrid Metro in Spain.



Frédéric Detandt

Belgium / Associate Director of the structural engineering and civil engineering division

“Designing high-quality, reliable, sustainable, and resilient infrastructure seems essential to me for the citizens' quality of life and the economic development of our regions. Contributing to this as an engineer is not only a source of pride but also a personal commitment that aligns with my values. By participating as a project manager in the renovation of Brussels Central metro station, I am contributing to enhancing the capital's attractiveness and, above all, creating a true living space that meets the evolving needs of travellers.” /

BELGIUM

The redevelopment works of Brussels Central metro station began in spring 2022

These encompass both the metro station itself and the upper platform extending from the end of the pedestrian tunnel to the railway station. This extensive project, for which we are currently providing supervision, includes the implementation of new staircases, the replacement and installation of new elevators and escalators, as well as the inclusion of shops, bank ATMs, and public toilets in the renovated space. Numerous additional technical rooms are also integrated into the new station. It is worth noting that TPF conducted the stability and special technical studies in partnership with W.J. & M.C. Van Campenhout NV. •

CHILE

TPF has been selected to participate in the construction of Line 7 of the Santiago Metro in Chile as part of the Chilean government's Urban Transport Investment Plan

The future Line, entirely underground, consists of six sections. TPF was awarded the contract to carry out the technical inspection of construction works on Sections 5 and 6 of Line 7. The assignment covers the supervision of the works undertaken by the civil engineering contractors in charge of the construction of shafts, galleries and tunnels between Vitacura Station (beginning of Section 5) and Estoril Station (end of Section 6). Some of the most significant works include six station shafts, five construction shafts, a ventilation shaft, main and secondary galleries and 7,560 metres of tunnel.

Work on the technical inspection contract has started this year and is scheduled to be completed within 65 months. •





/ Nuria Grañeda Rodriguez

Spain / Mobility Manager

“ The Madrid Regional Transport Consortium has once again placed its trust in us by entrusting us with the study of the extension of Line 11 of the Madrid Metro. This study marks the third of its kind that we undertake for this client. This assignment represents the major challenges of enhancing cross-connectivity and effectively integrating new areas and future developments, thus encouraging public transport use in our city and addressing daily mobility needs within the framework of sustainability. ” /

SPAIN

The Madrid Regional Transport Consortium has chosen our team to carry out the study for the extension of Line 11 of the Madrid Metro between La Fortuna and Conde de Casal stations

This project is part of the initiatives submitted to the EU Recovery Fund for the acceleration of the green transition, innovation and social and territorial cohesion.

The project comprises three stretches (north, east and south), with an average of 6, 9 and 2 stations respectively. For all the alternatives that are considered, totalling about 108 kilometres in length, we will perform an analysis of the stations, their coverage and accessibility, a functional and demand study, as well as the assessment and selection of the preferred option.

The Line 11 extension will connect all seven of Madrid's interchange stations and other transport hubs in the city, such as Atocha Railway Station and Adolfo Suárez Madrid-Barajas Airport. •



/ Juvenal Parra Zamora

Chile / Technical Works Inspection Manager

“ With over 30 years of professional experience, including the construction of Line 3, this is one of the most important projects of my career. Relying on professionals with wide expertise in metro works, we strive to carry out the best on-site technical inspection on the whole Line 7. We are enthusiastic and take on new challenges every day thanks to the commitment of this excellent team. ” /



PORTUGAL

The new Rosa Line, stretching from Praça da Liberdade to Casa da Música, will add 3 kilometres to the Porto Metro network

TPF has been entrusted with the supervision and control of its execution. The new metro line, entirely underground, consists of a tunnel and four stations. Its realisation will enhance accessibility to the central areas of Porto while significantly reducing CO2 emissions. •



→ The train is recognised as one of the most environmentally friendly modes of transportation. Its role is crucial in reducing greenhouse gas emissions from the transportation sector through modal shift. However, the aging RAILWAY network no longer always meets current needs. In addition to regenerating and modernising the existing railway network, it is necessary to build new lines to enhance the attractiveness of trains and increase railway services in regions of the world where they are inadequate. But that's not all, to make train travel more appealing, it is important to make stations safer, accessible, comfortable, and user-friendly.

Among the major ongoing railway projects, we can mention the modernisation of the conventional network in northern and central Spain, as well as the modernisation of the Madrid-Seville

high-speed line. The construction of an additional 300 kilometres of lines for the South Eastern Railway in the Chattisgarh and Orissa regions of India is also underway. There is also the modernisation of Line 229 in the Pomeranian Voivodeship, the construction of a new 20 km railway line in Gdansk, the modernisation of Railway Line 93 in the Silesian Voivodeship, and the construction/modernisation of over thirty stations in Poland. In Portugal, there is the construction of the new Evora-Elvas line (connecting with the East line), the four-track expansion of the Linha de Cintura, and the modernisation of the Northern line. Additionally, the modernisation of the Caransebeş-Timişoara-Arad line in Romania is underway, not to mention the construction of the Çerkezköy-Kapikule railway line in Turkey.

INDIA

TPF is working for the South Eastern Railway (SER) in the Chattisgarh and Orissa regions

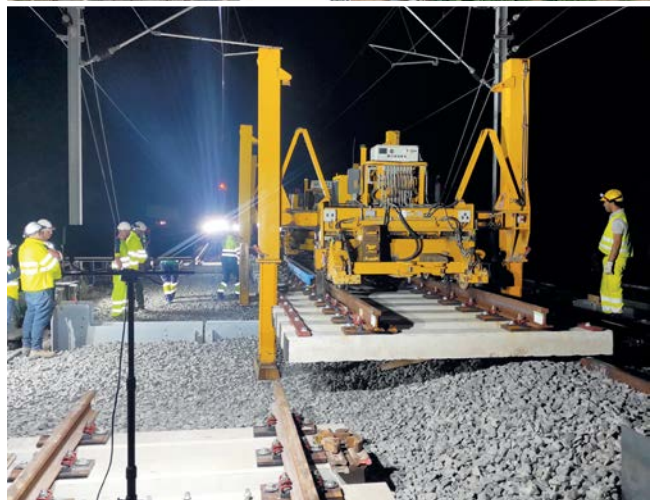
This extensive railway network plays a major role in the transportation of passengers and goods. It covers major steel Plants, Iron Ore, Bauxite, Manganese, Limestone and Coal Mines. South Eastern Railway has appointed our Indian subsidiary as a Design consultant for preparation of Detailed Project Report and Detailed Design Consultancy for several

railway connections covering nearly 300 kilometres of railway lines. This detailed report needs to be prepared in connection with Execution of Preliminary Works such as Final Location Survey, Soil Investigation Works, Preparation Yard Plans, Slope stability analysis and Submission of various detailed Design & Drawings. • →

SPAIN

Our Spanish subsidiary is supporting the infrastructure administrator ADIF in upgrading the power supply and telecommunications systems of the conventional railway network in the northern and central regions of the country

The design and supervision services contract that we have won covers an impressive total of 1,176 kilometres of tracks, 413 stations and halts, as well as 163 tunnels. In addition to the laying of 850 kilometres of fibre optic cables and 1,211 kilometres of power supply cables, the project involves the installation of 39 transformer stations and 101 new power supply points. These works will contribute to reducing the carbon footprint of the sector. •



SPAIN

The modernisation project of the Madrid-Seville high-speed line is progressing well, under the watchful eye of our team responsible for overseeing the works

This 471-kilometre high-speed line, the very first of its kind in Spain, was put into service in 1992. The objective of this modernisation is to extend the lifespan of the infrastructure while increasing the line's capacity and adapting the systems to European interoperability standards. The construction works include earthworks, drainage, structures and tunnels, track superstructure, relocation of utilities and easements as well as environmental protection and accessibility improvement measures. •





POLAND

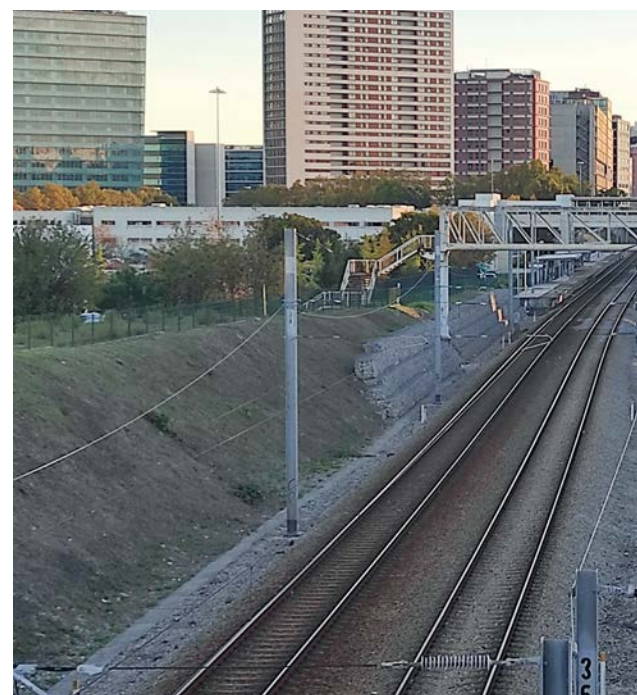
TPF has won the feasibility study for the Pomeranian Metropolitan Railway (PKM South) project

The programme includes the design of a new 20-kilometre railway line in Gdansk and the modernization of the existing railway line No. 229 in the Pomeranian Voivodeship. The scope of the contract includes socio-economic, marketing, traffic, technical, environmental, financial, and geological-geotechnical analyses. We have successfully completed the technical study this year. •

POLAND

The modernisation works of the railway line 93, Trzebinia - Oświęcim - Czechowice Dziedzice, in the Silesian Voivodeship, are expected to be completed by the end of 2023

The objective of this project is to improve traffic management and adapt the line to the interoperability standards of the Trans-European railway system. The works include the modernisation of stations and passenger stops, the reconstruction of structures and engineering installations, as well as modifications to the track layout. TPF is responsible for supervising the execution of project documentation and construction works. •



PORTUGAL

The new railway line Evora - Elvas (connection with the East line) is taking shape

This new line, spanning a length of 88.5 kilometres, is currently under construction, and we are ensuring its supervision. Initially, it will have only a single electrified track, although the planned platform allows for future expansion to a double track. This line will be

integrated into the South-International Corridor, which is part of the TEN-T network, and will connect the European railway network with the major ports in the South, including the port of Sines in Spain. •



PORTUGAL

TPF is contributing to the implementation of the National Investment Program (PNI2030) launched by the Portuguese government

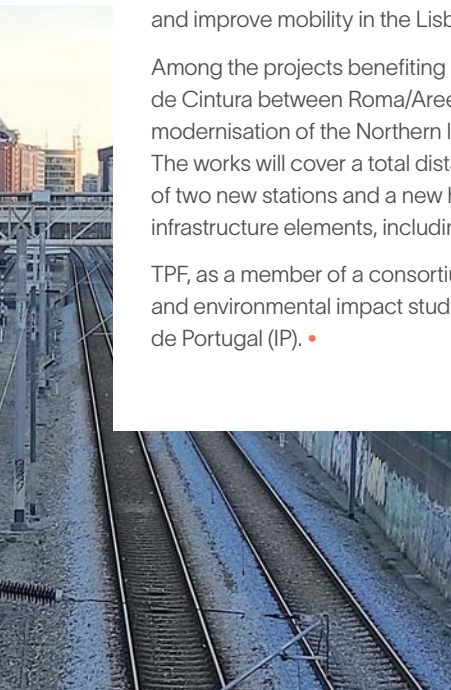
Its ambition is to increase the operational capacity of the railway system and improve mobility in the Lisbon metropolitan region.

Among the projects benefiting from this program are the quadrupling of the Linha de Cintura between Roma/Areeiro and Braço de Prata stations, as well as the modernisation of the Northern line between Braço de Prata and Sacavém stations. The works will cover a total distance of 15.5 kilometres, including the construction of two new stations and a new halt, as well as the construction of several infrastructure elements, including three bridges, a viaduct, and two tunnels.

TPF, as a member of a consortium, is responsible for the detailed design and environmental impact study on behalf of the public company Infraestruturas de Portugal (IP). •



© Jorge Manuel Conde Ribau / Sunset on the viaduct of Pardais 2023 TPF Photo Contest



ROMANIA

TPF is involved in the modernisation of the Romanian railway network, with a particular focus on the Caransebeş - Timișoara - Arad line

This project aims to double the track, except for a section that is already double, and increase the traffic speed to 120 km/h for freight trains and 160 km/h for passenger trains.

Last December, TPF was selected to provide consultancy, coordination, and supervision for the design and execution of works for Lot 3 of the line, located between Timișoara and Arad. •



TURKEY

In Turkey, our teams have continued their supervision activities as part of the construction of the Çerkezköy - Kapıkule section of the Halkalı - Kapıkule railway line project

The first rail welding ceremony in Çeka marks an important milestone for this large-scale construction project. The event took place on June 6, 2022, in the presence of the Minister of Transportation and Infrastructure Mr. Adil Karaismailoğlu and the Acting Director of the South Neighborhood and Turkey Directorate of the European Neighborhood Policy and Enlargement Negotiations (EU DG NEAR), Ms Henrike Trautmann. The event celebrated the progress and marked enthusiasm for the next phase. •



Selen Ersaraç

Turkey / Document Controller for the Çerkezköy - Kapıkule Railway Line Project

" Working for a railway project that passes through three different provinces across 150 kilometres is quite complex and intensive. Setting a good document control system by archiving and managing the correspondence traffic as it is formed, is key for the successful operation of the project. Since the beginning of the works in 2019, we have managed 15,850 correspondences, which include many third-party government and local institutions, Employer (Department of Transportation), End Recipient (Turkish State Railways), Engineer and Contractor. For me, this is challenging and I'm proud of being part of the TPF Project team, who received the FIDIC Contract Users' Award last year. " /



SPAIN

TPF is overseeing the construction works undertaken on the B-40 Barcelona Ring Road

This new bypass will enhance connections and mobility among the mid-sized cities encircling the Barcelona metropolitan region, the second most populated metropolitan area in Spain. The main features of the stretch awarded to TPF are a twin-tube tunnel of one kilometre (each tube with an excavated cross-section of 226 m²), several viaducts and a solution aimed at overcoming complex geotechnical challenges. •

- Although road transport generates noise pollution and air pollution, **ROADS** continue to play an important role in ensuring the mobility of people and goods. Beyond facilitating travel, they must guarantee high levels of service and safety.

From the very beginning of a road project, it is essential to consider the environmental impacts and incorporate operational and maintenance considerations, whether it is to improve aging infrastructure or to build new roads in remote areas or areas poorly served by public transportation. The ecological, energy, and digital challenges are enormous, and stakeholders in road transport are well aware of them.

To address these challenges, it is necessary to encourage the use of clean vehicles and promote carpooling. Innovative solutions can be developed, particularly in terms of materials used (to preserve non-renewable resources) and equipment (adaptive lighting, LED lighting systems). Roads can also be designed to generate energy and benefit from information and communication technologies to improve traffic efficiency, flow, and safety.

This year, we have had the opportunity to participate in several large-scale projects, such as the construction of the B-40 Barcelona Ring Road in Spain; the construction of the new cable-stayed Zuari Bridge, the development of a grade separator at Dabolim Airport, Goa, and the rehabilitation of 138.9 kilometres of road in the Maharashtra state in India; the construction of a 22.38-kilometre section of the S3 expressway in the West Pomeranian Voivodeship and 100 kilometres of the S10 expressway in Poland, not to mention the rehabilitation of the DN15E road and the 31.75-kilometre section 3 of the Craiova-Pitesti highway in Romania.



INDIA

The first phase of the Zuari Cable-Stayed Bridge was inaugurated on December 29, 2022

The Hon'ble Union Minister of Road, Transport & Highways Shri Nitin Gadkari in the presence of Hon'ble Chief Minister of Goa Shri Pramod Sawant and several other state ministers and attendees inaugurated the northbound carriageway of the Zuari bridge in Goa.

The Zuari bridge is slated to be 640 metres long, with a central span of 360 metres and end-spans of 140 metres on either side, making it the second longest cable-stayed bridge in India and a crucial link between north and south Goa across the river Zuari.

The bridge will consist of 27-metre wide dual carriageways and a centre median

of 10.7 metres. Its deck will consist of a composite structure and will be built on site using cutting-edge robotic welding technology. The bridge is being constructed in 3 sections: an 8.2-kilometre highway from GMC Bambolim to Goa Velha, a new 1.08-kilometre Zuari Bridge, and 3.6-kilometre highway.

TPF is proud to be working on this project in the capacity of Authority's Engineer. •



INDIA

The construction of a grade-separator has helped alleviate congestion and improve traffic flow at Dabolim Airport, Goa

This project consists of two "U" shaped flyovers: one towards Verna (686.7 kilometres) and the other one towards the Vasco side (579.3 kilometres) of the Dabolim airport.

TPF has been appointed as a Consultant by the Goa State Infrastructure Development Corporation Limited (GSIDC) to provide technical design and construction supervision services. •





/ Utpal Chakravarty

India / Team leader and senior bridge engineer

“ Due to Covid-19, the project came to a standstill in 2020 and 2021 as Construction Stage Analysis was outsourced by the contractor. TPF team came to the rescue by taking the responsibility of construction stage analysis and advised the site on day-to-day basis. Erection of all the segments of RHS 4-lane bridge was completed on 30th August 2022 and opened for traffic on 29th December 2022. ” /



INDIA

The road network in the state of Maharashtra is in need of modernisation

The Ministry appointed TPF in JV as the Authority's Engineer for construction supervision of 138.9 km highway connecting Sangola to Karad in Maharashtra.

To improve connectivity and to resolve the traffic issues on NH965G & NH166E, the two-lane road with paved shoulders was rehabilitated and upgraded. •



ROMANIA

The Craiova-Pitesti Express Road (DEX 12), currently under construction, will have a total length of 121.18 kilometres

TPF's mission is to provide supervision services both during the design and execution period of the works and during the guarantee period of the works.

The road section 3 between Valea Mare and Colonesti has a length of 31.75 kilometres. •



POLAND

A new 22.38-kilometre section of the S3 expressway, featuring a 2x2 lane configuration, has been put into operation between Brzozowo-Miekowo in the West Pomeranian Voivodeship

TPF completed the management services contract for the design and implementation of the works in October 2022.

The S3 road runs along the western border of Poland and will connect Świnoujście (sea ferry terminal) and the port of Szczecin with the border with the Czech Republic. •



POLAND

The development of the S10 expressway is a major project of the European transport network RTE-T

Eventually, the S10 will connect Szczecin to the ring road of the Warsaw agglomeration over a distance of 500 kilometres.

TPF is involved in the design of the section between Włocławek and Płońsk, which spans 100 kilometres. The task consists in analysing possible variants of the investment's route and its connection with the existing, constructed and designed road system. For this purpose, we have used the multi-criteria route optimisation software Trimble Quantm, enabling us to generate 50 different options. Careful consideration will be given to the selection of the route in order to minimise the negative impacts on the environment as much as possible. •

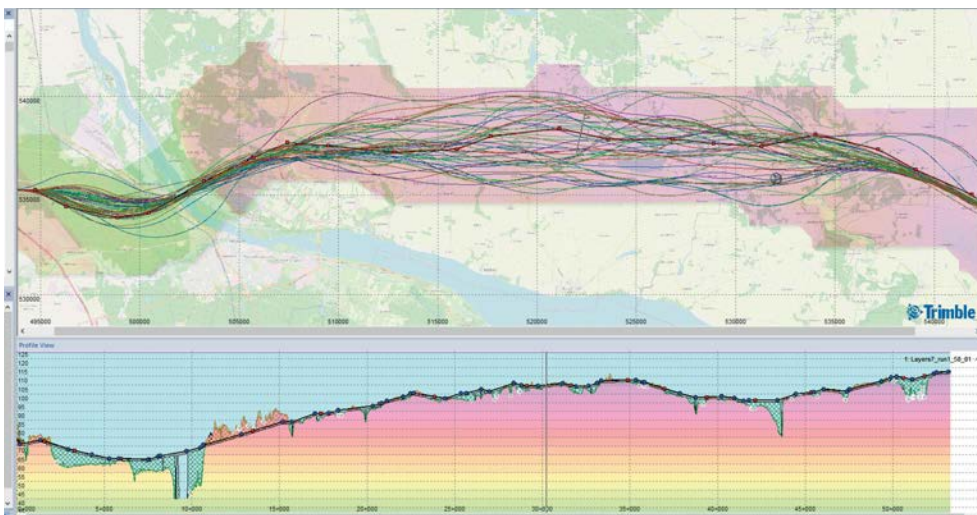
ROMANIA

Romania continues its efforts to enhance the efficiency of its transportation infrastructure

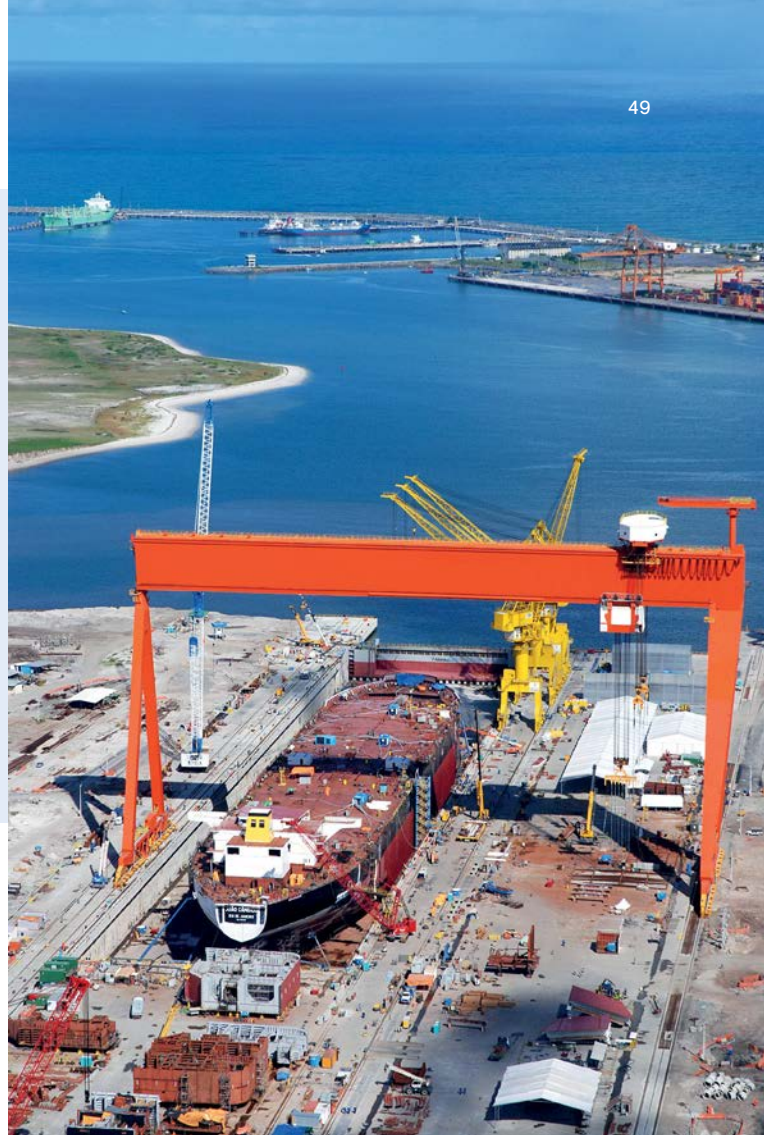
The project at hand involves the rehabilitation of the DN15E road (km 6+275 - km 45+280).

The objective is to increase the economic efficiency of the transport network in Romania by improving travel speed, connectivity at the regional level, and the conditions of goods traffic.

TPF's mission in this project is to draw up the technical documentation for the rehabilitation of the section between Targu Mures and the village of Satul Nou (39 km of road and 5 bridges). •



→ **MARITIME TRANSPORT** plays a paramount role in the global economy, accounting for over 80% of international trade volume and nearly 3% of global CO2 emissions, as stated by the International Maritime Organisation (IMO). The evolution of this sector is therefore crucial in combating climate change and further encouraging modal shift from road to maritime transport. The development of maritime and port infrastructure remains at the core of our activities. Our involvement in the construction project of the mineral and commercial deep-water port in Buba, Guinea-Bissau, as well as the cereal terminal project in the Romanian port of Constanta, serves as a testament to this. In Brazil, our teams are actively engaged in the port of Suape.



GUINEA-BISSAU

This year, we have continued the feasibility study of the construction project for the mineral and commercial deep-water port of Buba and its concession

The studies cover the technical, economic, financial and environmental aspects of the future Port's feasibility. The Buba Port will strengthen international trade in goods between West Africa and other parts of the world, as well as promote the creation of an integrated rail and road axis and a new development hub with cross-border repercussions.

Financed by the African Development Bank (AfDB) through the Ministry of Natural Resources and Energy of Guinea-Bissau, this project represents the largest civil engineering project ever undertaken in Guinea-Bissau. •

BRAZIL

In the state of Pernambuco, TPF continues to be actively involved in the Suape industrial port complex

Among the works we are carrying out are the services of planning and technical support for the maintenance of equipment (electrical and mechanical) at the Port of Suape. This includes planning, managing, inspecting, and creating continuous improvement projects in machine elements, equipment, and new structures. Additionally, we are responsible for the inspection of the renovation and recovery of the port's liquid bulk pier number 2. •



ROMANIA

The largest port on the Black Sea is set to have a new grain terminal by 2024

TPF is involved in the extension of the capacity of a new cereal terminal in the port of Constanța. The location of the project is on the northern breakwater. The maritime construction department was assigned to design the infrastructure and design the deep foundations that were used in this type of work. The biggest challenge was to provide sufficient stability for the new cereal elevator which has a total height of around 50 m. The weak fillings that were used to create new land together with the strong salt intrusion made us use piles with a length of 30 meters. This first phase which consists of the new elevator, a transport tunnel and the infrastructure surrounding all these constructions should finish by the end of 2023. The second phase, where TPF is the main designer, will involve us to design the infrastructure and the foundations for a group of circular silos that will increase the terminal capacity to 60 000 tonnes, from 110,000 to 170,000. •



/ Alexandru Cristian Ionescu

Romania / Port Engineer

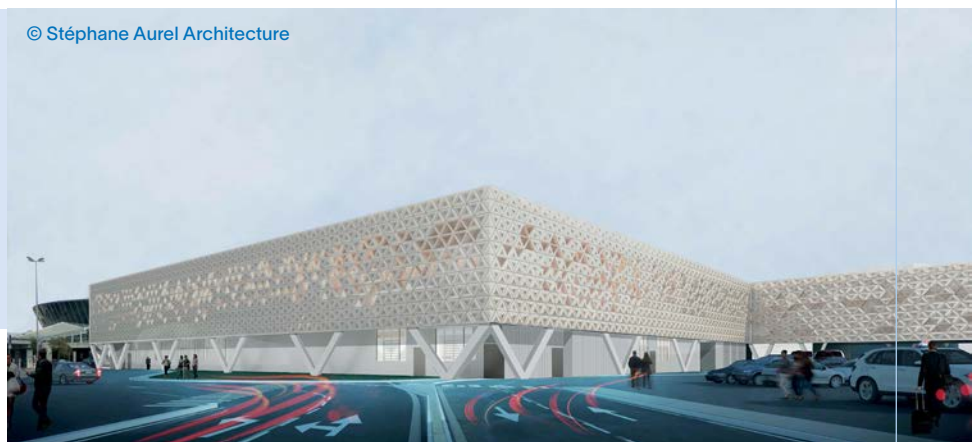
" I am delighted to be part of the maritime engineering team entrusted with the design of the new grain terminal in the port of Constanta. In the current international context, marked by the war in Ukraine and the grain crisis, the arrival of this new infrastructure will be particularly appreciated.

From a technical standpoint, it involves designing specialised structures with utmost detail and precision. It is truly an exciting task that has allowed me to deepen my knowledge. I have been devoted to it for a year and a half now." /



© Stéphane Aurel Architecture

→ In 2022, **AIRPORT ACTIVITY** resumed after being severely affected by the Covid-19 pandemic. In this sector, TPF is notably involved in the project for the expansion of Terminal 2 at Nice Airport.



FRANCE

The expansion of Terminal 2 at Nice Côte d'Azur Airport will allow for the accommodation of up to 18 million passengers per year

The design of the terminal extension project began in 2018, but construction was interrupted in early 2020 due to the health crisis. The engineering studies resumed at the end of 2021, with some modifications made to the program. They were completed by the end of 2022, and construction work was able to resume in early 2023. This operation involves our Buildings and Infrastructure teams, who bring their expertise to this major airport project. The works are taking place in a complex environment, considering the operation of the site as well as the environmental and geotechnical constraints. The extension is expected to be delivered in 2026. •



/ Adelina CALVI

France / Business Engineer

" Taking on the role of project director for the expansion of Terminal 2 at Nice Côte d'Azur Airport, I have embarked on a true challenge, both in terms of the project's magnitude and the domain it encompasses: the creation of an airport building subject to specific challenges in terms of regulations, environmental integration, and construction optimisation in an operational site. " /

→ In order to support the decarbonisation of the transport sector, TPF is also involved in the deployment of **HYDROGEN**. While hydrogen buses are already a reality in several cities around the world, their introduction requires adaptation of existing infrastructure, and their refuelling raises safety concerns. Our Spanish subsidiary is currently working on this issue in the Spanish capital.

SPAIN

TPF is contributing to the implementation of hydrogen technology in Madrid's urban transport

The Regional Transport Consortium of Madrid has entrusted us with the adaptation of the preliminary draft that governs safety measures for Madrid's underground interchange stations, so that they can be used by vehicles powered by CNG and by hydrogen-powered vehicles.

Simulations using Computational Fluid Dynamics (CFD) software were performed in order to assess the impacts of any possible gas leakage from the fuel tanks (natural gas, hydrogen), as well as the upgrading of fire protection systems, ventilation and smoke exhaust systems, electrical system, video-surveillance and public address systems. •



Buildings & Cities

Amidst their energy consumption, the materials utilised for their fabrication, and their territorial expanse, buildings presently account for 37% of global CO₂ emissions, as indicated by the 2022 report on the global condition of buildings and construction disseminated by the Global Alliance for Buildings and Construction (GlobalABC), hosted by the United Nations Environment Programme.

No individual possesses all the solutions to revolutionise the future world. Yet, as an engineering and consulting firm deeply committed to combating climate change and ensuring the sustainability of buildings, we strive to support profound and tangible societal transformations and assist our clients in adapting to this newfound reality.

Whether it pertains to housing, transportation, work, leisure, urban planning, or territorial development, we can contribute to the mitigation of greenhouse gas emissions linked to the building sector and the attainment of Sustainable Development Goals (SDGs).

→ The health crisis has highlighted the need to accelerate digital transformation, modernise and strengthen the healthcare offer in the [HEALTH SECTOR](#) in order to improve patient care and optimise the work of caregivers.

Designing a healthcare facility is a multifaceted endeavour. It must cater to critical needs and adhere to stringent hygiene standards, while embracing a sustainable development approach and integrating cutting-edge technologies and state-of-the-art systems (including information transmission and communication systems, security systems, HVAC, fire detection, and medical fluid systems, among others).

Building Information Modelling (BIM) has revolutionised the conception, construction, and management of buildings, with its widespread utilization throughout the lifespan of structures becoming increasingly commonplace.

Once again this year, our teams provided support to healthcare stakeholders in the realization of their projects. These encompass the construction of the King Albert II Institute, amalgamating oncology and haematology activities at the Cliniques Universitaires Saint-Luc in Brussels; the establishment of a Women-Child Centre on the premises of the Avicenne hospital in Bobigny, France; as well as the construction of nine novel hospitals in Angola.





© Youssef El Hamzaoui
Mirrors - Rabat, Morocco
2023 TPF Photo Contest

ANGOLA

TPF reiterates its commitment to healthcare in Africa

Currently, our teams are developing the Detailed Design of seven new hospitals. Among them, three military hospitals are situated in the municipalities of Cabinda, Luena, and Huambo, while four hospitals are distributed across the provinces of Bailundo, Catumbela, Dundo, and Malanje.

The Cabinda and Luena hospitals will each comprise a building with a floor area of 10,600 m², accommodating 102 beds, whereas the Huambo hospital unit, with a capacity of 204 beds, will span two buildings, totalling a gross area of 17,310 m².

Regarding the new hospitals in the provinces of Catumbela, Dundo, and Malanje, they will be distributed

over a 1-floor building with a floor area of 15,500 m², housing 187 beds each.

Lastly, the Bailundo Province Hospital will manifest as a three-story edifice, spanning an area of 17,085 m², providing accommodation for 187 beds.

These projects form an integral part of Angola's strategy to fortify its healthcare system—a significant program that also encompasses the construction of two new general hospitals in Cacuaco and Viana, designed by TPF and presently under construction. •



Ângela Rodrigues
Angola / Project Manager

" This year, I had the pleasure of contributing to several hospital projects in Angola—a remarkably gratifying experience that allows me to contribute to the enhancement of healthcare in the country in numerous ways. As a designer, the principal challenge lies in exploring and harnessing the most advanced and promising technologies in the realm of sustainable development. " /

BELGIUM

A new cancer and haematology centre, housing 120 beds, is projected to commence operations in Woluwe-Saint-Lambert in 2024

Our structural and technical utilities engineers are currently engrossed in the construction of the King Albert II Institute on the premises of the Cliniques Universitaires Saint-Luc. Not solely that, our team also plays a role in this project as a PEB adviser and as a building physics adviser for the study of the external envelope.

This ongoing BIM project involves the construction of a 22,000 m² edifice that will unify activities in oncology, adult haematology, and paediatric haematology. Underground parking facilities are also part of the plan. •





- ← Cacucaco Hospital (1, 2)
- ← Viana Hospital (3, 4)



FRANCE

TPF, in a consortium with Rabot Dutilleul Construction (leader) and AIA Life Designers, has been awarded the global sector-based public contract for the construction of the Women-Child Centre on the site of the Avicenne hospital in Bobigny

This hospital project, covering an area of 20,000m², aims to address the health needs of the population by providing high-quality and safe healthcare services. The future maternity section of the Women-Child Centre will facilitate 3,000 deliveries annually. The project is designed to be modular, scalable, and energy-efficient, targeting certifications such as E3-C1, Biodiversity, and Effinature.

Following our involvement as a design office in the ongoing construction of the New Lariboisière Hospital, the Assistance Publique – Hôpitaux de Paris (AP-HP) has once again entrusted us with the tasks of civil engineering (roads and networks), electrical engineering, and acoustics for this new project. •



Didier Chapron
France / Head of Electricity activity

“ Since 2021, I have been working at TPF as the Activity Manager and, specifically for the Women-Child Centre project, as the Project Manager focusing on Electricity. The complexity lies in interconnecting and modifying the existing high-voltage network with loop reconfiguration, while ensuring the continuity of service for various high and low current installations. ” /



© AIA Architectes - Kaupunki

→ Whether through the construction of new buildings or the renovation of existing infrastructure, our teams remain dedicated to enhancing access to **EDUCATION** and make up for the lack of school infrastructure. We are particularly proud to have secured our first study contract in Benin for the rehabilitation and construction of 21 Agricultural Technical High Schools.



BENIN

The Beninese government aims to build and rehabilitate 30 Agricultural Technical High Schools (LTA) by 2025

This program, initiated by the Agency for the Construction of Infrastructure in the Education Sector (ACISE), seeks to promote the economic and social development of the country by providing quality agricultural training to over 48,000 future farmers.

TPF has been selected to conduct technical studies for the construction of 21 modern high schools, encompassing buildings and various roads and networks (VRD). •



↑ Agricultural Technical High School in Kpomasse

→ In order to achieve a zero-carbon society in the **RESIDENTIAL** and **OFFICE** sectors, it is crucial to promote buildings with high energy efficiency, with sustainability labels and certifications. It is also important to promote soft mobility and green spaces.

In Brussels, Belgium, the "Move' Hub" mixed-use real estate project, which we are currently involved in, aims to attain BREEAM OUTSTANDING and WELL Platinum environmental certifications.

In France, the new Cité administrative de Toulouse sets ambitious goals for environmental and energy performance, striving to be an example in these aspects. The new Lesaffre Group Campus in the Lille metropolitan area, France, is designed with a bioclimatic approach, ensuring low energy consumption.

In Gdansk, Poland, energy efficiency is prioritised in the design of the "Waves" office project, while in Luxembourg, the Grand Duchy of Luxembourg, the new "Caractères" complex of 120 housing units adheres to sustainable development and environmental values.





BELGIUM

Located in the Gare du Midi district of Brussels, Move'Hub is expected to be completed in 2026. This mixed-use complex spans 53,000 m² and offers offices, public facilities, shops, and 72 affordable housing units

This high environmental value project, supported by a partnership between Atenor and BPI Real Estate Belgium (IMMOANGE) and the Jaspers-Eyers Architects and B-architecten offices, was designed in a sustainable and responsible way. Apart from aiming for the BREEAM OUTSTANDING and WELL Platinum environmental certifications, Move'Hub also dedicates a significant portion

of its space to promote sustainable transportation and green areas. TPF is responsible for the complete mission of structural engineering, technical utilities, and acting as an EPB adviser. •



© Atenor-BPI Real Estate Belgium - Jaspers-Eyers Architects - B-architecten

FRANCE

TPF actively contributes to the construction of the new Cité administrative in Toulouse

Our French subsidiary is part of the consortium that has been awarded the global public performance contract for the reconstruction and rehabilitation of the "Lemareshquier" state-owned site, which will serve as the foundation for the new Cité administrative de Toulouse. This project strives to set an example in terms of environmental and energy performance,

aiming to achieve ambitious objectives such as the BEPOS-Effinergie 2017 label for new buildings (E3C1) and the Effinergie Rénovation label for rehabilitated buildings. Our engineering office was selected for its recognised expertise in the fields of structural engineering, HVAC, electricity, and VRD (roads and networks). •



© Antoine-Duhamel

FRANCE

In the Lille metropolitan area, we proudly celebrated the inauguration of the new Lesaffre Campus

As project managers for all trades, alongside TANK Architectes, we were involved in this 23,000 m² project.

The campus was designed with a bioclimatic approach, focusing on low energy consumption. It has allowed the group's 700 employees to be brought together on a single 19-hectare site. Nearly 60% of the space is occupied by laboratories and industrial pilots dedicated to research and innovation in the field of fermentation. •

GRAND DUCHY OF LUXEMBOURG

The new "Caractères" residential complex, situated in Luxembourg's Hollerich district on the former site of Imprimerie Centrale, will offer 120 high-end housing units

Developed by CODIC Luxembourg and designed by local architectural firms Tetra Kayser Associés and Archi 2000 & Associés, the project adheres to the principles of sustainable development and environmental values.

It involves the demolition of existing buildings and the construction of four new buildings, providing 43 studios and 77 apartments ranging from 1 to 3 bedrooms, including 9 penthouses and 2 duplexes. The development of 86 underground parking spaces is also planned in the programme. Our office performs the full mission of structural consulting engineer. •



© Codic Luxembourg

POLAND

TPF is actively involved in the creation of a high-end office building on Sucha Street in Gdańsk

The objective is to construct a contemporary office complex that offers optimal comfort while prioritising energy efficiency.

The building incorporates features such as an energy storage system, photovoltaic panels, and heat recovery ventilation, making it a true exemplar in terms of energy performance. It is built for the Pomerania Development Agency. The complex will offer 9,000 m² of offices and 1,200 m² of services as well as 240 parking spaces, some of which are underground.

The project, nicknamed "Waves" due to its proximity to the sea and its architecture emphasizing movement, involves TPF's responsibility for the building design, including landscaping, roads, and various networks.

TPF is responsible for the multidisciplinary (all-branch) design of the building, including landscape, roads and technical media connectors (concept design, building permit design, execution design, authors supervision). Work should begin in mid-2024 for a period of 15 months. •





BELGIUM

In Brugelette, the renowned Pairi Daiza animal park continues to unveil a series of successive projects

As the highly anticipated inauguration of the magnificent Galerie des Mondes, inspired by the 19th-century glass-covered galleries, draws closer for February 2023, the construction of the new "Sanctuary" world is also progressing steadily. The Sanctuary is a colossal greenhouse spanning 40,000 m² and towering at a height of 20 m, faithfully recreating the biotope of the Amazonian forest. Within its premises, there will be pools, accommodations, and restaurants, providing a comprehensive experience for visitors. Our team of structural and technical utilities engineers is responsible for conducting thorough studies and supervising the construction process, ensuring the successful execution of the project. •



Paweł Frencel

Poland / Architect – BIM Specialist

"Working for the "Sucha" office building project in Gdansk presents an incredible opportunity to use BIM technology enabling quick and fair resolution of most design issues. Thanks to the entire multi-branch team's effort, we proposed innovative facility management solutions and we were able to avoid up to 1,500 collisions. Thanks to this approach, the process shortened incredibly. " /

→ The role of **SPORT** and **LEISURE** in achieving the Sustainable Development Goals is of utmost importance. They are essential for human development. Apart from the necessity to adjust to evolving practices and the dynamic requirements of the population, infrastructures must also accommodate emerging environmental concerns.

Among the ongoing projects, a few notable ones deserve special mention: the forthcoming sustainable development-oriented aquatic centre in Manosque, France, and the remarkable endeavours undertaken by Pairi Daiza animal park in Brugelette, Belgium, including the completion of Galerie des Mondes and the construction of the new World Sanctuary.

↪ New entry

↑ Sanctuary

FRANCE

Exciting developments are taking place in the field of sports in Manosque, as the construction of the future aquatic centre progresses smoothly

This state-of-the-art sports facility, designed by A26, R+4 Architectes, Régis CHAUMONT, and TPF, encompasses a range of impressive features. It will comprise three pools, including a versatile pool equipped with a movable floor and a high-performance stainless-steel pool with eight lanes, along with dedicated wellness areas and play zones. Noteworthy emphasis has been placed on environmental considerations, as well as the implementation of technical solutions to ensure optimal technical and acoustic comfort, efficient water treatment, and streamlined operation and maintenance processes. It is worth highlighting the meticulous attention given to these aspects right from the design phase. •



→ **CULTURE** plays an important role in achieving several Sustainable Development Goals, in particular SDG 11 which aims to “make cities and human settlements inclusive, resilient and sustainable”. The preservation and protection of cultural heritage, whether tangible or intangible, are major issues.

At TPF, we attach great importance to culture and had the opportunity to work on several remarkable projects in 2022. In France, we are contributing to the construction of the future Grand Siècle museum in Saint-Cloud, while in Morocco, we are delighted to participate in the construction of the new museum complex in Rabat and the Cité des arts et de la culture of Essaouira.

FRANCE

The Department of Hauts-de-Seine plans to install the future Grand Siècle museum in the former Sully barracks in Saint-Cloud by 2026

As part of the global performance contract that we won alongside FAYAT BATIMENT and Rudy Ricciotti, we are in charge of roads and networks, HVAC and electricity engineering for the restructuring of the barracks. In addition to the 7,400 m² renovation, this large-scale cultural project also includes the construction of the 1,300 m² Belvedere pavilion, whose envelope is made of ultra-high performance fibre concrete (UHPC). •



© Rudy Ricciotti

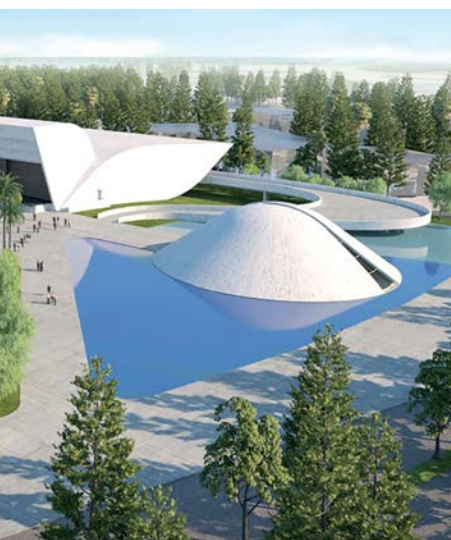


MOROCCO

A new cultural complex dedicated to promoting arts and heritage is set to grace the city of Rabat, situated directly across from the Mohammed VI Museum of Modern and Contemporary Art (MMVI)

This expansive cultural hub, spanning 11,000m², will be housed within a historic building dating back to 1924, originally serving as the first headquarters of the OCP. The complex will feature the Pan-African training centre, focused on the conservation and restoration professions, alongside two new museums: the Rabat Museum, dedicated to showcasing the city's history, and the Continent Museum, which will curate African art in all its diverse forms.

An underground passage will connect the new cultural complex to the MMVI, which will now be exclusively dedicated to modern and contemporary art. A dedicated exhibition space within the MMVI will be reserved for Moroccan painting and its rich history. Technical studies and comprehensive monitoring of all trades have been entrusted to TPF. Delivery of the building is scheduled for mid-2025. •



MOROCCO

The highly anticipated City of Arts and Culture in Essaouira, envisioned by the renowned Brazilian architect Oscar Niemeyer, is set to materialise between 2023 and 2024

Spanning a net surface area of 20,930m², this expansive cultural complex will be constructed on a nearly 4-hectare plot of land. At its heart, a covered performance hall boasting 1,000 seats will serve as a focal point. Surrounding this central feature, the complex will house a music conservatory, a book centre, a grand open-air stage capable of accommodating 30,000 spectators, an agora dedicated to the plastic arts, and a workshop for craftsmen and designers.

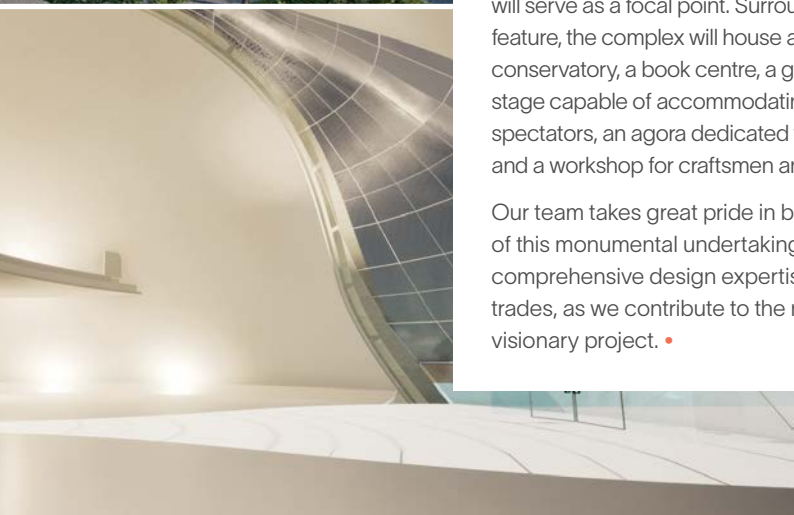
Our team takes great pride in being part of this monumental undertaking, providing comprehensive design expertise across all trades, as we contribute to the realization of this visionary project. •



Lasri Abdellah

Morocco / Head of the Electricity Department
CFO CFA

“ Being an expert in the field of electricity, specifically involved in projects like the City of Arts and Culture in Essaouira, I have observed the continuous evolution of high-current and low-current electrical professions. The realm of electricity has become intricate and interdisciplinary, with artificial intelligence (AI) playing an increasingly prominent role in the construction industry. The integration of AI systems has become crucial for optimizing the operation and maintenance of facilities. ” /



→ Despite lessened activity in the sectors of **LOGISTICS** and **INDUSTRIES**, we nevertheless worked on several projects.

In Belgium, for example, the Delhaize Group called on our know-how for its online order warehouse project in Brussels, a particularly ambitious project in terms of sustainability. In the food sector, we also worked on the design of a new fresh produce market in Fuengirola, Spain. In India, our geotechnical experts looked into the project to extend the Kalinganagar steelworks complex.



BELGIUM

Delhaize Group will establish a new online order warehouse in Brussels

This expansive 19,593 m² distribution centre will be responsible for preparing online shopping orders placed by customers, which will then be delivered to their homes through the "Home Delivery" service or made available for collection at designated supermarket collection points.

The construction of this building was entrusted to Montea, a real estate company specializing in the rental, development, and acquisition of logistics buildings. The facility comprises a logistics hall with rooftop parking and a multi-level floor structure, including administrative premises dedicated to the logistics operations.

To minimise the environmental impact of the project, several sustainable choices have been made. These include the installation of solar panels and the implementation of green roofs. Careful consideration has been given to traffic management on the site, and plans have been made to create a mini urban forest, which will integrate with Brussels' green belt, promoting land conservation.

Arcoteam, an architecture firm, has designed the project, and TPF has taken on the role of consulting engineer, overseeing structural and special technical aspects. •



Sébastien Van Naemen

Belgium / Architect

" The new Delhaize distribution centre project is truly remarkable on multiple fronts. It has been meticulously designed with a forward-thinking approach, placing sustainable development at the forefront within an industrial and logistical framework. " /



SPAIN

In Fuengirola (Malaga), an exciting project is underway to design a new covered market focused on fresh produce

With over 11,000 m² spread over 4 levels, this impressive building will be a national reference for sustainability due to the innovative use of eco materials (cross-laminated timber), with an international certification for sustainability and an Energy Performance Class A rating. Worthy of mention are the central lobby with a skylight and 39 stalls, the gastropubs, a business incubator and the terrace. •



INDIA

Tata Steel plans to expand its Kalinganagar plant in the state of Orissa

The Indian steel giant Tata Steel wants to increase its crude steel production capacity from 3 to 8 million tonnes per year.

To plan and design the foundation structures, our team of soil engineers were tasked with carrying out detailed geotechnical investigations to determine the nature and properties of the underlying soil. •



Dr. Madhusudan Nayak

India / Geotechnical Expert / Chairman of the Board of Directors

“ As a Geotechnical expert for 45 years and running, I think this project's uniqueness lies in its scale. The magnitude of the project is very high and with a tight delivery schedule. The completion of the project on time will only be possible due to procurement of automatic hydraulic Rigs. This job once completed will be a milestone in TPF's history within the Indian context. ” /

→ Effective management of data has emerged as a significant challenge for companies and public institutions alike, as they strive to find the optimal solutions for collecting, processing, and storing this vast amount of information. In this context, the establishment of highly secure spaces has become essential. TPF has acquired solid experience in the deployment of **DATA CENTRES**, the latest being the Galileo monitoring centre located in Saint-Germain-en-Laye in France.

FRANCE

After two years of construction, the new Galileo Surveillance and Security Centre in Saint-Germain-en-Laye has reached completion

This centre is part of the European satellite radionavigation program known as Galileo. The building encompasses nearly 4,500 m² of data centre and tertiary spaces, built on behalf of the Defence Infrastructure Department of the Ministry of the Armed Forces, carried out by the consortium gathering Spie Batignolles, Enia architectes, TPF Ingénierie and Critical Building. One of the central challenges of this project was to ensure optimal security. This involved the implementation of robust physical security measures to prevent intrusion. Additionally, the central part of the facility was designed with a Faraday cage, offering secure electromagnetic shielding. •



/ **Olivier Chabaliér**
France / Business engineer

“ As the Project Manager of the Galileo Surveillance Centre, I am particularly proud to have contributed to the design of a complex building at the service of European space expertise. ” /

→ TPF holds a crucial role in supporting the transformation of urban landscapes and the development of territories, encouraging a shift in mindset towards innovative city planning and growth strategies. The creation of **SMART CITIES** emphasizing sustainable urban development is a response to the new energy, ecological and digital challenges facing cities. In France, we support the City of Vichy and Vichy Community in the digital and sustainable transformation of their territory.

It is also important to **REVITALISE TERRITORIES** and **DEVELOP URBAN SPACES** in a sustainable way. The revitalization of public spaces requires a pedestrian-centric approach, prioritizing reduced road traffic and emphasizing greenery while enhancing architectural and cultural heritage.

A prime illustration of our dedication to rejuvenating territories is evident in the redevelopment of the coastal area between Fréjus and Saint-Raphaël. Furthermore, our commitment extends to an ambitious program aimed at supporting socially significant communities, with a particular focus on urban restructuring projects in Recife, Brazil.



© Agence Guillermin

FRANCE

La Promenade des Bains is a four-kilometre seaside redevelopment project between Fréjus and Saint-Raphaël

The primary objective of this initiative Led by Estérel Côte d'Azur Agglomeration, is to impart a distinctive and contemporary identity to these public spaces along the coastline, while preserving the remarkable natural and cultural elements of the landscape. The project focuses on reducing traffic lanes to prioritise public transportation and create a dedicated cycle path, promoting sustainable mobility options.

TPF, in collaboration with Agence Guillermin and Jean-Pascal Clément, has been entrusted with the framework study and project management agreement for the comprehensive redevelopment of the seafront in Fréjus-Plage and the seaside area of Saint-Raphaël. The project is scheduled for completion in 2025. Additionally, our teams have secured the project management contract for the development of the Fréjus Plage stormwater network. In this capacity, TPF will provide expertise in road infrastructure, utilities, and hydraulic engineering, ensuring a comprehensive approach to the development of the area. •



© Agence Guillermin



Alix Vallier

France / Business engineer

" As Project Manager of the Promenade des Bains, I am proud to participate in the realisation of a major territorial operation which also has a virtuous environmental and societal dimension. The aim is to enable local residents to reclaim the seaside through sustainable development, promoting peaceful traffic in an exceptional landscape and heritage setting. " /

FRANCE

TPF is dedicated to assisting the City of Vichy and Vichy Community in their pursuit of digital and sustainable transformation within their territory

This forward-thinking and eco-conscious territorial project addresses climate and environmental challenges, specifically by promoting decarbonization efforts. Leveraging its expertise in this domain, TPF has been selected to provide project management assistance, collaborating with esteemed partners including Open Citiz, Parme Avocats, and Hexa Ingénierie. •



Brazil

The Recife City Hall has launched an ambitious program in favour of social interest communities

TPF has collaborated in the elaboration of basic and executive engineering projects for programs in communities of social interest, developed by the Recife City Hall. Included in this set are urban reorganization works, integrated sanitation projects and projects for hillside containment and urbanization in risk areas. •

→ We design buildings for long-term sustainability. We understand the importance of regular maintenance operations to ensure the optimal functioning and enhanced energy and operational performance of technical equipment. Taking a proactive approach to maintenance not only preserves the health and safety of building occupants and users but also safeguards the overall well-being of the structures themselves.

This is why our teams specialised in **ASSET MANAGEMENT** maintain the technical and chlorination installations of the Lille University Hospital in France, as well as the maintenance of the technical installations of the newly renovated Multi Tower in Brussels, Belgium.



Multi Tower

BELGIUM

A significant milestone in Brussels this year was the signing of the maintenance contract for the technical installations of the Multi Tower, located on Boulevard Anspach

This newly renovated 20-storey tower stands out for its exceptional commitment to circularity, durability, and comfort. Hosting globally renowned companies such as the Bank of New York and bpost, the tower necessitates the diligent care of its technical installations to ensure the longevity, safety, and comfort of its occupants. Our team of skilled and experienced technicians will be responsible for the maintenance of these installations over a six-year period. This encompasses a wide range of tasks, including the upkeep of fire protection equipment, high voltage systems, heating and air conditioning units, as well as specialised installations such as the window cleaning system and speed gates. •

FRANCE

TPF has secured two significant contracts for the maintenance of technical installations at the Lille University Hospital

The first contract involves the renewal of our services for the maintenance of chlorination and water treatment facilities. It is following the successful completion of an initial six-year contract signed in 2016. These preventive measures are crucial in limiting the proliferation of legionella within the hospital complex, which includes seven hospitals, two clinics, an intensive care centre, two institutes, and a biology centre. From a technical standpoint, our responsibilities include water circuit analysis, monitoring chlorine concentration, and regulating it within a closed system. The primary objective is to ensure impeccable water quality and the safety of all users within the hospital facilities.

The second contract, spanning four years, entails the operation, maintenance, and monitoring of ventilation, air conditioning, refrigeration, air treatment, heating, and domestic hot water production systems in various buildings of the Lille University Hospital (Lot 4). This encompasses three hospitals, a balneotherapy centre, a dental care centre, a mortuary room, several medical and psychological centres, a SAMU centre, and a laundry facility. The contract also incorporates an energy management incentive, which includes a bonus-malus system based on gas consumption. To fulfil these obligations, a dedicated team of four technicians will be employed full-time. •



Jonathan Coppens

France / Technician

– fitter specialised in water treatment

“Water treatment has always held a special place in my heart. My career began as an operator technician, where I gained valuable experience. After two years, I had the privilege of joining the TPF group as a versatile technician-assembler. This new role provided me with a remarkable opportunity to contribute to a crucial mission at the University Hospital of Lille. Specifically, I was involved in initiatives focused on preventing the risks associated with legionella. We are all aware that this poses a significant public health concern, making it absolutely vital to guarantee the absence of bacterial contamination within the water networks.” /

Chlorination installation



→ To respond to climate issues, the Belgian Defence asked us to draw up an action plan to improve the energy efficiency of the buildings of the Saffraanberg Campus of the Royal School of Non-Commissioned Officers as part of an [ENERGY PERFORMANCE CONTRACT](#).



BELGIUM

TPF is fully committed to reducing the energy consumption of the Belgian Defence on the Saffraanberg Campus of the Royal School of Non-Commissioned Officers located in Saint-Trond

As part of a consortium, TPF has been entrusted with the technical management (Facility Management) of the facilities for a period of 10 years. In line with this new contract, the Belgian Defence has adopted an Energy Performance Contract (EPC) to enhance the energy efficiency of its buildings.

TPF, leading this initiative, conducted a thorough analysis of various improvement possibilities, which led to the selection of the most suitable scenario for achieving a 30% reduction in electricity consumption and 10% reduction in gas usage.

The energy performance contract includes a range of measures such as window renovations, boiler replacements, installation of

heat pump boilers for domestic hot water production, deployment of a hydrogen fuel cell (Hydrogen Fuel Cell), implementation of a cogeneration unit, installation of energy monitoring systems, lighting upgrades, insulation of equipment in the boiler room, and optimization of regulation and hydraulics.

After eighteen months of dedicated efforts, most of these improvements have been successfully implemented, resulting in an overall energy consumption reduction of over 20%. We continue to diligently monitor and review energy data to ensure that our commitments are met and to propose further energy-saving measures in the future. •



Nathalie Wilkin

Belgium / EPC Project Manager

"It is a great pleasure for me, both on a human and technical level, to work on the Saffraanberg project. This project involves numerous interactions with the TPF team on site, our partners and above all the Defence. It constitutes the first real Defence Energy Performance Contract. We are particularly proud to have been chosen to carry out this mission and to be able to contribute to climate objectives. "



Consolidated Accounts 2022





" Juste sous nos pieds "
Métro de Lisbonne
Tunnel TBM près de la Station Apolónia (Ligne Bleue)
© Rafael João Marques Carvalho do Espírito Santo

Consolidated Balance Sheet

2021
(000 euros)

2022
(000 euros)

Goodwill, tangible and intangible assets	64 685	65 398
Rights of use assets	21 544	20 274
Other non-current assets	22 204	22 646
Non-current assets	108 432	108 318
Inventories and contract assets	29 731	32 040
Trade receivables	76 682	78 325
Other current assets	20 934	27 368
Cash	38 192	34 034
Current assets	165 539	171 767
TOTAL ASSETS	273 972	280 085
Group share in the equity	40 436	56 958
Non-controlling interests	8 978	7 636
Equity	49 414	64 594
Provisions	9 998	9 380
Borrowings	80 526	73 588
Lease obligations	15 821	13 590
Other non-current liabilities	8 534	5 502
Non-current liabilities	114 878	102 060
Borrowings	23 128	23 064
Suppliers	35 283	39 747
Contracts liabilities	5 628	949
Lease obligations	6 323	7 494
Other current liabilities	39 318	42 176
Current liabilities	109 680	113 430
TOTAL LIABILITIES	273 972	280 085

Consolidated Profit & Loss Account

2021
(000 euros)

2022
(000 euros)

Revenues	246 954	280 968
Cost of sales	-75 123	-88 469
Cost of goods and services	-25 773	-33 045
Employee benefits	-106 947	-116 517
Other operating charges	-4 241	-5 971
EBITDA	34 871	36 965
Depreciations and amortizations, write-offs and provisions	-17 007	-13 172
Share in the result of associates and joint-ventures	13	-131
Operating result	17 876	23 663
Net financial result	-6 904	-8 230
Result before taxes	10 973	15 433
Income taxes	-5 663	-5 195
Net consolidated result	5 310	10 238
Share of the non-controlling interests in the net result	563	1 999
Result of the Group	4 747	8 239



© Natália Karam Amorim
Socioeconomic questionnaire with the families
impacted by the Brumadinho dam collapse, Brazil
2023 TPF Photo Contest



Capilar
Capilar
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Red bowl containing some food items.

Metal container with cutlery.

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→ 2023 TPF Photo Contest: 1st place

Category "Another look at TPF"

Marco Manuel Fernandes Caetano / Fire salamander
Várzea da Serra, Tarouca / Portugal

