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The Navigator Company

Getting ready for crises before being caught by them

Rui Pedro Batista, Head of the Communication and Brand Division at The Navigator Company and his team had a long day discussing the conclusions from the annual risk assessment and the potential for new crises to emerge. It was late November 2022 and despite effective management of previous crises, Rui knew there was room to level up the readiness of the company to quickly and effectively respond to potential risks before they escalate into crises.

The company sees risk management as a core process in its business activities. So, every year, the Risk Management Division scans a variety of economic, financial, operational, environmental and legal risks to which the company is exposed in the course of its business. As the day unfolded, it was clear to the team that, despite the best control mechanisms in place, risks can quickly and unexpectedly turn into crises. Those crises typically come without asking permission. The Navigator Company (NVG) has faced important crises in the last few years. On previous occasions, the Communication and Brand Division (CBD), working as a hub in coordination with other divisions, successfully built a narrative that minimized damage perceptions and protected the company's reputation.

Yet, the context they were analyzing at that moment was particularly challenging. On top of the risks assessed and directly linked to Navigator's business processes, the war in Ukraine and the rising energy costs could add a layer of uncertainty comparable to the world's ambiguity during the pandemic.

Rui was willing to apply some learnings from previous crises and knows anticipation is crucial. What crises were likely to emerge and impact Navigator due to the war in Ukraine and the rising energy costs? CBD needed to anticipate that so they could create a communication plan that protects NVG's reputation and value when it comes.

Company Overview

The Navigator Company (NVG) is a Portuguese company that produces pulp & paper, tissue and biomass energy. Its mission is "to be a global company with a reputation for innovation and sustainability in processing forestry materials into products and services that improve people's lives."

NVG is Europe's largest printing and writing paper manufacturer and the 6th largest bleached eucalyptus pulp manufacturer. It is responsible for 50% of all biomass-generated power in Portugal and generates 5% of all electricity in Portugal. In 2021, the paper business accounted for 72,3% of the company's revenue, while pulp represented 10,1%, tissue 9,1% and biomass energy 8,5% **[EXHIBIT 1.1]**. Its four modern, large-scale industrial units in Portugal use state-of-the-art technology and are a world-class benchmark. That same year, Navigator had 3.150 direct employees (a total of 60.000 if indirect jobs are included) and a revenue of 1596M €, generated in 130 different countries, with 84% of sales coming from outside Portugal. Europe is the company's primary market, originating 60% of the company's revenue **[EXHIBIT 1.2]**. NVG was also the number three exporter in Portugal, accounting for approximately 1% of the nation's GDP¹.

The origins of the NVG step back to 1953 when the former Portuguese company of Cellulose started its plant in Cacia to produce raw pine pulp, under the leadership of Manuel Santos Mendonça. With the

¹ Source: [Annual Report 2021](#).

Portuguese Revolution in 1974, several paper, pulp and packaging plants were merged into Portucel. Determined to regain control of the company his grandfather had founded in the 1990' the entrepreneur Pedro Queiroz Pereira created the Semapa Group. This would allow him to apply for the reprivatization announced by the Portuguese government. The company's shares have been traded in the Lisbon Stock Market since 1995 and are part of PSI20. In 2000 and 2001, the acquisition of Papéis Inapa and Soporcel led to NVG's birth. In 2004 Pedro Q. Pereira became the main shareholder. By the end of 2021, institutional shareholders were mainly from Europe and the weight of US-based shareholders has now grown to 26% [EXHIBIT 1.3].

Internationally wise, the company has 15 commercial subsidiaries. In 2009 it set up Portucel Mozambique, an investment of over 2.3b US\$. With an area of 356 thousand hectares in the regions of Zambézia and Manica, the goal is to settle pulp and energy plants by 2030 and produce and export to the Asian market. On top of the production of eucalyptus, the investment includes a social development program with three axes (food safety, increased income and improved wellbeing) and has already touched over 7000 families.

Currently, its vertically integrated business model comprises research and development, forestry and production:

- **Research and Development:** RAIZ Ventures SA is a forest and paper research institute created in 1996 in partnership with three Portuguese universities (the Universities of Coimbra, Aveiro and Lisbon, School of Agriculture). RAIZ operates in two locations, Quinta de São Francisco (Aveiro) and Herdade de Espirra (Pegões), with more than 75 professionals between researchers, technicians and R&D fellows.
- **Forestry:** Viveiros Aliança S.A. is the company's largest forest nursery in Europe, equivalent to 1.2% of Portugal's land area, giving life to more than 12 million trees each year of 135 different species of plants and shrubs. Although these are not all viable from an economic standpoint, they are financed by the company to preserve biodiversity and the continuity of plant species. Annually, NVG invests 3.4M € in wildfire defence, half of which is spent on prevention;
- **Production:** NVG has four production units with a yearly production capacity of 1.6M tonnes of paper, 1.6M tonnes of pulp, 130 thousand tons of tissue and 2.5 TWh of renewable energy. The plant in Cacia (Aveiro) is located in the largest area of eucalyptus in Portugal and produces pulp, biomass energy and, since 2018, tissue. In 1957, paper pulp using the kraft method (critical for high-quality paper) was made in this plant for the first time worldwide. This plant has a yearly production of approx. 320 thousand tons of pulp, highly appreciated by high-end producers of décor, filter, cigarette and tissue paper in Europe and approx. 60 thousand tons of tissue. Vila Velha de Rodão (VVR) is the most efficient tissue plant in the Iberian Peninsula and the second in Europe. In 2015, NVG bought this plant. From a strategic perspective, this acquisition allowed the company to enter the tissue market with the best existing resources and start producing paper tissue. It has an annual production of approx. 60 thousand tons of tissue, converted into finished products for home and professional use. Due to its integrated operating model, a pipeline connects the VVR's plant to the nearby pulp producer. In some industrial units, NVG has an integrated business model, where some paper plants integrate with the pulp plants owned by NVG, its

competitors, or suppliers. As they become part of the value chain, this leads to synergies (efficiency in logistics, reduced transportation costs and ecological footprint).

Figueira da Foz is a world-class benchmark integrated pulp and paper production (570 thousand tons of pulp and 800 thousand tons of paper) and was the birthplace of the Navigator brand, the best-selling premium paper brand, processed in sheets for the printing industry (large formats) and office use (A3 and A4). The plant also produces biomass energy.

Setúbal's industrial campus also has an integrated operating model, including one pulp plant, two paper plants and biomass cogeneration plant and a power station. One of the paper plants (*About the Future*) was inaugurated in 2009 and is one of the world's largest and most sophisticated plants. The plant produces over 550 tons of bleached eucalyptus pulp and 775 thousand tons of paper annually.

All production units producing pulp use *Eucalyptus globulus* fibre as a raw material, which captures CO₂ and creates O₂ three times more than pine trees. It has additional benefits compared to other long cellulose fibres, which makes it an ally of circular economy: *globulus*-based paper requires less wood (+65% to 105% in the case of Nordic pine) and has greater burnability and recyclability (+60% to 150%).

NVG's strategy is captured in the motto *From Fossil to Forest* to create sustainable value (for shareholders and society). NVG reshaped its technology and is nowadays a world reference as an integrated forester producer - a player in the bioeconomy exploring new business opportunities in forest-based raw materials. The goal is to create sustainable alternatives to fossil-based materials and lead the transition to a carbon-neutral, nature-friendly business. When the 2021 ESG (environmental, social and corporate governance) risk rating report by Sustainalytics was published, NVG obtained a score of 14.3 (3rd/81 global companies that are part of the Paper & Forestry industry cluster and 3rd/60 global companies producing Paper & Pulp). The paper industry is often charged with being highly polluting. NVG has seen the need to publically confirm compliance with environmental legislation (as it happened in 2018, following a polluting discharge in the Tagus river²) but also to take a more proactive approach - the company has invested in initiatives such as the [MyPlanet](#) community. This showcases the company's commitment to the environment and engages people through stories and actions for a more sustainable future.

Looking ahead, NVG has defined its 2030 Agenda to increase its positive contribution to creating value and sustainable growth in a changing world. The central theme ("A Responsible Business") with three-axis - Nature, Climate and Society - cascades into strategic priorities, such as Circular Economy, Climate change and CO₂ sequestration, Biodiversity and Bioproducts, reinforcing the path to becoming a "bioindustry on the right side of the future" – creating a positive impact on the planet and people of today and tomorrow.

² Source: [Dinheiro vivo](#), Feb 2nd, 2018

Crisis Management at The Navigator Company

"Crises happen on normal days" | The importance of pre-crisis and the return to normalcy

Although many industrial companies follow high safety standards, nurturing a culture of safety has been a thoughtful decision at NVG. This mindset translates into the behaviour of not putting oneself, colleagues or the company at risk, which is visible in everyday activities and goes from car parking according to specific protocols, mandatory and optional training, using Individual Protection Equipment (IPEs), frequent emergency drills and having permanent medical services in the plants. Still, incidents can happen. The company puts a lot of effort into safety as it prevents the escalation into crises.

But where does this safety mindset come from? It comes from the awareness of potential risks and evaluating their impact. Risk management is a core process in NVG's business activities: a continuous risk management monitoring system involving all divisions, the Internal Audit and Risk Management Division (IARMD) and the Supervisory Board is based on a systematic assessment of business risks and controls in place for the most critical uncertainties, within all business processes. The Supervisory Board and the Board of Directors head this risk governance system. NVG has identified a set of economic, financial, operational and legal risks to which business is exposed [EXHIBIT 2.1.], similar to a radar system that collects information about potential crises. The risk assessment exercise educated the organization better at identifying early warning signs. At NVG, "a critical aspect of crisis management is actually preparing for a crisis while it still doesn't exist," explains the Head of CBD.

By continually evaluating and fine-tuning its internal control system to be the most critical at each moment, NVG is actively preventing crises from happening or, when they do, minimizing their impact. Investing in the preparation phase is essential because "Crises happen on normal days", says the Head of CBD. Having a crisis management plan and a trained crisis management team allows the company to "immediately activate crisis response because people know what to do."

The CBD is accountable for crisis management. And when it comes to activating crisis response and communication, it works as a hub that articulates information with other divisions and does not over-centralize: CBD collects data from different parties and conveys a narrative to the media that other divisions also distribute to their stakeholders (investor relations, financial analysts, suppliers, customers, etc.).

After the peak of a crisis, it is also essential to recognize and signal the moment to return to normalcy. "Typically, there's a short timeframe to return to normalcy since security protocols are very detailed and people are trained." But often, it makes sense to signal that as it instills trust and people need this reassurance. Finally, learnings from crises are used to improve processes and technology or even to upskill personnel to better prepare the organization in the face of a future crisis, in a permanent learning loop.

When Crisis Hit

- Despite a safety mindset, accidents can happen

It was a mild Spring afternoon on May 3, 2016. The tissue plant in Vila Velha de Rodão was working smoothly, and operators were returning from lunch. Suddenly, at 2:05 pm, an operator pressed the fire alarm - a fire had ignited in the warehouse, close to one of the paper machines.

In just a few seconds, the security protocol was activated and, recalling the learnings from previous fire drills and intensive training programs, over 300 employees were evacuated in approximately 7-10 minutes. Chemical products were isolated and gas and energy were also immediately cut. As reported at 3:08 pm by the media player [Jornal de Negócios](#), a call out to local authorities brought more than 20 emergency vehicles and 47 emergency operators from 12 firefighter units to the scene at 2:50 pm. Security protocols foresee that, due to the nature of the material, it should be let burn under the assistance of emergency experts. First news reported that the fire occurred in a warehouse and near machinery. The plant's general manager, José Miranda, reassured: "the supply of tissue paper products is not at stake and in a few hours, we expect to be back in production." Later in the day, [Radio Renascença](#) reported that the fire was extinguished at 4:10 pm.

The priority for the company was to guarantee people's safety as well as the company's assets. Despite the magnitude of the incident - the fire caused a loss of 17M € – there were no severe injuries, with two operators being lightly hit and assisted. The market reacted smoothly as the share value of NVG lost 2.99% on the Lisbon Stock Market for 2,922 € per share **[EXHIBIT 6.1]**.

But what was happening behind the scenes while emergency operators were acting in the plant? How was the orchestration of crisis response and communication with different stakeholders? While the first level of response was taking place in the field, CBD immediately activated a crisis communication plan. This means who, what and when to inform.

Relevant stakeholders (corresponding to different target audiences) were prioritized according to their relevance to resolving this crisis: in the first tier, NVG contacted public authorities (firefighters, police, municipality, Civil Protection) and employees (of that plant and the company). In the second tier, it was critical to notify customers and suppliers and inform them to expect some delays. And in the third tier, the population and investors also had to be told.

To build the right narrative for stakeholders, CBD activated a network of critical contributors: the security team in the plant was essential to understand the status and extension of the incident; public authorities (namely Civil Protection and District Command of Rescue Operations) were critical to informing them about the evolution and harshness of the operations in the field. The Executive Committee approved the press release before it was distributed to different parties as, at NVG, every communication is released only after being approved by the Executive Committee **[EXHIBIT 3.1.]**. Then, each division plays its role and informs its counterparts, adjusting the core message while making sure the company speaks with one voice - Directors' forum and employees are then informed about the release of communication; the sourcing team gets in touch with suppliers that were to arrive at the scene; the sales unit informs customers about a possible delay; the market relations team notifies the regulator Comissão de Mercado de Valores Mobiliários (CMVM) and investors **[EXHIBIT 3.2.]**; other partners, if applicable, are informed afterwards.

Time is not an ally in times of crisis. Typically, the timeframe for informing stakeholders is quite tight and social media adds another layer of complexity. When preparing the communication, CBD must combine accuracy and speed: "we communicate precisely, fast and then adjust, as we know more. It is important we manage by stages and only refer to the things we are sure of: when the fire imploded, we could only communicate there was a fire in the Vila Velha de Rodão's plant, that we were cooperating with authorities and there were no injuries. We didn't know about the loss, so we said we didn't know. Acknowledging what we know and don't know, at every step of the way and updating as we do, is essential for our credibility and to avoid rumors." The press release that was sent out followed these assumptions. Why are accuracy and speed so relevant? According to the Head of CBD, "we need to close the gap of asymmetry of information. Our job is to make sure all stakeholders are educated with the same facts as we know them. This builds trust, protects the company's reputation and consequently calms down the market."

- Despite an ethical culture, sometimes employees misbehave

A Code of Ethics and Business Conduct and a Code of Conduct for Suppliers sets the ground rules for behaviours a company allows (or does not) from employees, suppliers and other business players. NVG has had both since 2017. However, sometimes people decide to break the rules and no code can prevent that from happening.

By the end of a shift on June 23, 2020, the police entered NVG's facilities in Setúbal and arrested 16 employees from NVG. Some months before, a complaint from a supplier came through the whistleblower channel and the company decided to communicate and cooperate with legal authorities immediately. Investigation procedures involved fifty police investigators and twenty police searches during this period. It is estimated NVG had been harmed in approx. 15M € between 2017 and 2020. Even a cautious operation such as this one, thoughtfully coordinated between NVG and authorities, was likely to create anxiety in the workforce. People were shocked to see colleagues taken by the police: machine operators, supervisors and inspectors from the wood park, charged with receiving bribes from suppliers to pay for unqualified wood as top-quality material.

The Communication and Brand Division had a seat at the table while preparing the intervention from the police in the company's facilities. CBD needed to identify the communication goals for this event and the key messages for each target audience. First, it was critical to isolate who led the corruption and bribery incident and make clear the company was a victim, not a driver. Therefore, it was, in the first place, a reputational issue. It was also essential to explain to the workforce what had happened and reinforce how the company deeply trusts its employees and partners and recognizes their high ethical standards. Information was first shared in the Directors' forum and right after with the remaining employees. External communication was also coordinated with the police since the investigation included closed material procedures. The factual note to the media was released by the police, in coordination with NVG and positioned the company as a victim of misconduct of some of its employees, revealing a loss of 15M € and highlighting the company's cooperation with authorities (source: [Observador](#)) [EXHIBIT 4.1.]. On the day of the detection, the share value of NVG lost 1.6% on the Lisbon Stock Market for 2,210 € per share [EXHIBIT 6.1].

Why has NVG decided to be prudent in its communication efforts and let the police publish the initial press release? "NVG was a victim of an extensive bribe network, dismantled by the police. We should allow the police to take the lead in this case. You know, there are cases when over-communicating during a crisis doesn't necessarily improve the situation", says the Head of CBD. For NVG, effective crisis communication should be strategic and efforts are meant to enhance the condition of shareholders and the company, not to create noise.

- Despite strong security controls, attackers can strike when least expected

The team at NVG was closing the week before Christmas and some were getting ready for the holidays season and enjoying the time with their families. On Friday, December 18, 2020, the Information Systems Division (ISD) identified the company as a cyberattack victim.

The digital backbone of NVG is modular and although integrated, many technology systems work independently to avoid contamination in case systems collapse. Unlike other crisis events, a cyberattack is a silent, invisible threat. In the first hours following the attack, it was difficult for NVG to determine the extent of its impact on the company's digital infrastructures. The ISD team activated security protocols and some systems were brought to latency mode to avoid contamination while being monitored by experts. Although this cyberattack didn't block production units, it delayed some critical processes, such as purchase orders coming in from customers, invoicing, or email communication. The Head of CBD explained that the "impacts of activating the contingency plan were more prominent than the problem itself. "Although there was no breach of customers or employees' data, NVG immediately activated its crisis management plan in case of cyberattacks and moved into the crisis communication phase.

The CBD connected to ISD and prepared the first communications to stakeholders once articulated with the police. Crises often create an information void that the crisis management team must fill as quickly and accurately as possible. Again, information was released and updated as NVG became aware of the extent of the impacts of the cyberattack: the company started by informing that it had been a victim of a cyberattack and that the extent was still unknown while it was cooperating with the authorities. After some investigation, it was possible to do a status update, saying the impact was not disruptive. Some media reported the incident a few days after this incident and the company confirmed "all its infrastructure and sensitive information were kept safe and operations were not disrupted. The company also informed that all its core systems and applications have been re-established and all production units are now working as usual." [EXHIBIT 5.1.].

Although learnings from the *post-mortem* exercise were not communicated externally, the company could learn from this crisis and used it as an opportunity and accelerated the adoption of new cybersecurity measures.

For CBD, the challenge was not about what to communicate (as the principle was to communicate what was known) but rather the speed of communication. Again, the aim was to reduce the gap in information asymmetry between stakeholders: "the communication chain needs to move quickly (within a few hours), so second-tier stakeholders do not hear about the event from the media and the company can own the narrative. To increase our response capacity, we work in partnership with a communication and PR

agency³. We draw the narrative, saying what we know, facts-based, as we know it. Once we can announce the return to normalcy, we proactively do it. Society and the markets (investors and customers) need this reassurance." On the day of this cyberattack, the share value of NVG lost 1.46% on the Lisbon Stock Market for 2,5060 € per share **[EXHIBIT 6.1]**.

Interestingly, although the company has informed all relevant stakeholders, the cyberattack didn't call much attention to the media. When asked about a possible reason, the Head of CBD explained: "whenever we do a press release, we believe this information is relevant to our stakeholders. Sometimes, the media respond surprisingly – there are cases in which we think something would call much attention and these fly low, while others we thought would be low-flight raise a lot of interest. The reason is this depends not only on what we are communicating but also on other external events and interests from the media, namely if other things are happening, that could be more mediatic."

The clock is ticking

As CBD revisited some lessons learned from previous crises and looked into new risks, they understood the opportunity to level up the company's approach to crisis communication.

The war in Ukraine and the consequent energy crisis were no fiction. What crises could it cause NVG and what communication strategy could CBD put in place to protect the company's best interests and public image in the face of such an event?

³ Exhibit 4.1. includes the reference to the communication and PR company partnering with NVG.

EXHIBITS

EXHIBIT 1 | BUSINESS ID

1.1. INCOME STATEMENT 2021 (source: Annual Report 2021, p. 201)

► FINANCIAL INFORMATION BY OPERATING SEGMENT IN 2021 AND 2020

	2021						TOTAL
	MARKET PULP	UWF PAPER	TISSUE PAPER	ENERGY	SUPPORT	CANCELLATIONS*	
REVENUE							
Sales and services - external	161,241,425	1,153,642,635	145,812,710	135,173,674	-	-	1,595,870,445
Sales and services - intersegment	2,428,613	-	-	36,257,669	-	(38,686,283)	-
Total revenue	163,670,038	1,153,642,635	145,812,710	171,431,343	-	(38,686,283)	1,595,870,445
PROFIT/ (LOSS)							
Operating income	40,791,295	210,733,857	18,996,161	8,312,210	(49,259,482)	-	229,574,041
Net financial results	-	-	-	-	(17,777,209)	-	(17,777,209)
Income tax	-	-	-	-	(40,378,319)	-	(40,378,319)
Net profit for the period	-	-	-	-	-	-	171,418,513
Non-controlling interests	-	-	-	-	(7,058)	-	(7,058)
Profit/ (loss) attributable to equity holders	-	-	-	-	-	-	171,411,455
OTHER INFORMATION							
Capital expenditure	17,547,329	49,476,764	4,574,712	6,547,053	1,887,715	-	80,033,573
Depreciation and impairment	(10,819,597)	(70,212,588)	(10,114,964)	(25,860,263)	(4,991,933)	-	(121,999,345)
Provisions ((increases) / reversal)	(12,000)	(2,839,925)	-	(36,000)	(255,019)	-	(3,142,944)
OTHER INFORMATION							
SEGMENT ASSETS							
Goodwill	-	376,756,383	583,083	-	-	-	377,339,466
Property, plant and equipment	113,818,709	570,750,077	150,555,169	226,611,114	83,509,438	-	1,145,244,507
Right-of-use assets	10,318,973	37,985,826	-	-	2,888,159	-	51,192,959
Biological assets	36,885,846	110,438,215	-	-	-	-	147,324,061
Non-current receivables	74,861	530,535	91,076	-	7,908,076	-	8,604,547
Inventories	12,607,349	151,206,224	21,445,680	498,296	793,109	-	186,550,658
Trade receivables	27,516,273	144,048,402	31,270,504	791,242	7,162,662	-	210,789,083
Other current receivables	3,812,894	23,355,908	3,106,937	2,021,281	74,796,656	-	107,093,677
Other assets	1,053,682	48,859,236	1,347,605	38,500	241,873,570	-	293,172,593
Total Assets	206,088,588	1,463,930,805	208,400,055	229,960,433	418,931,670	-	2,527,311,551
SEGMENT LIABILITIES							
Interest-bearing liabilities	-	554,367	35,647,751	-	797,741,932	-	833,944,049
Lease liabilities	10,792,437	39,443,439	-	-	3,005,049	-	53,240,925
Other payables	35,865,521	214,109,691	14,194,351	1,942,885	127,049,446	-	393,161,894
Other liabilities	12,841,723	103,296,985	12,832,704	9,596,076	63,283,115	-	201,850,603
Total Liabilities	59,499,681	357,404,481	62,674,806	11,538,961	991,079,541	-	1,482,197,471

* Cancellation of intersegment operations

1.2. COMPANY'S REVENUE DISTRIBUTION BY GEOGRAPHIC AREA (source: Annual Report 2021, p. 204)

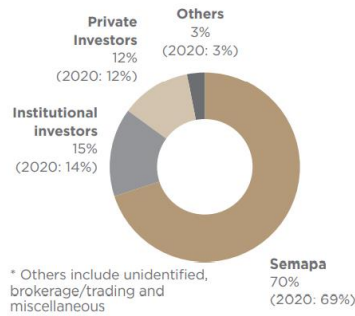
► REVENUE BY BUSINESS SEGMENT, BY GEOGRAPHIC AREA AND BY RECOGNITION PATTERN

Amounts in Euro

2021	Pulp	UWF Paper	Tissue Paper	Energy	Total Amount	Total %
Portugal	2,857,768	61,336,753	55,941,695	135,173,674	255,309,890	16%
Rest of Europe	125,606,144	586,522,363	83,886,052	-	796,014,559	50%
North America	1,800,302	128,791,201	231,616	-	130,823,119	8%
Latin America	-	69,778,306	2,020,481	-	71,798,787	5%
Africa	13,336,229	193,679,141	3,706,845	-	210,722,215	13%
Asia	17,640,982	111,852,939	26,022	-	129,519,943	8%
Oceania	-	1,681,932	-	-	1,681,932	0%
	161,241,425	1,153,642,635	145,812,710	135,173,674	1,595,870,445	100%
Recognition pattern						
At a certain moment in time	161,241,425	1,153,642,635	145,812,710	135,173,674	1,595,870,445	100%
Over time	-	-	-	-	-	0%

1.3. SHAREHOLDER STRUCTURE (COMPOSITION AND BY GEO), (source: Annual Report 2021, p. 107/108)

➤ SHAREHOLDER COMPOSITION



➤ SHAREHOLDERS BY GEOGRAPHY (Institutional - Excluding Semapa)

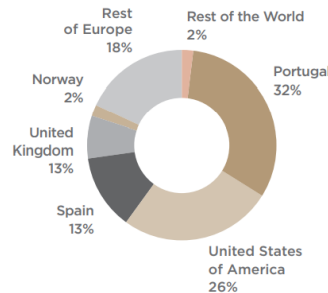


EXHIBIT 2 | Crisis Management Plan

2.1. RISK ASSESSMENT (source: Annual Report 2021, p. 52)

RISK (Non-exhaustive selection)	SUMMARY DESCRIPTION
Industrial accidents at work	Risk of the occurrence of accidents at work potentially resulting in injuries, disability or fatalities.
Increase in transport costs	Risk of increase in pulp, paper or tissue transport costs, which may result in a reduction in sales margins or the need to increase prices charged to customers.
Higher demand for raw materials (wood)	Risk associated with an increase in demand for raw material (wood) due to competitors expanding their capacity, triggering an increase in wood prices and a consequent increase in production costs.
Foreign exchange	Risk of variation in the exchange rate between the euro and other currencies, which may significantly affect the Group's results, either through revenues (sales) or costs (purchases).
Cybersecurity Failures	Risk associated with security flaws in the Company's IT systems that allow undue or illicit activities by third parties resulting in losses for the Company.
Environmental consequences of operations	Risk of occurrences with adverse environmental consequences, directly or indirectly attributed to industrial activities, potentially resulting in a breach of environmental legislation or customer and stakeholder dissatisfaction, namely as regards the local community.
Forest damage	Risk of forest damage resulting from natural or man-made causes, which may jeopardise the quantity of raw material needed for the Group's activities and consequently lead to increased costs or loss of revenues.
Energy business less competitive due to regulatory issues	Risk of less competitive terms for power sales caused to a certain extent by the regulatory environment; volatility in the regulation of the sector may lead to sudden loss (total or partial) of the contribution from this business to the Group's profitability.
Reduction in paper demand due to technological substitution	Risk associated with a reduction in demand for the products sold by the Group, which may result in a significant reduction in sales.
Failure in wood supplies	Risk of failure in wood supplies, which may result in production stoppages and consequent increase in costs or lost revenues.
Equipment failures	Risk of failure in production equipment, which may result in production stoppages and consequent increase in costs or lost revenues.
Data security failures	Risk of failures in data security relating to the confidentiality, availability and integrity of data over the process of acquisition, processing, communication, storage and destruction, potentially leading to information losses/leaks, fraud, discontinuity of operations.
Shortage of certified raw material	Risk associated with inability to obtain certified raw material, potentially resulting in a loss of value in end product and consequently in sales values.
Fraud	Risk of fraud in processes involving movements in funds/valuables, causing the Group to incur losses.
Non-compliance with legislation and regulations	Risk of non-compliance with legislation on tax, employment, environmental, accounting and/or other matters or with industry regulations. Non-compliance with accounting standards.
Irregularities in purchases and payments	Risk of inefficient or inappropriate processes in purchases of materials and services critical for the business, resulting in items being out of stock, financial losses, non-performance by and in relation to suppliers or occurrence of situations of fraud.
Occurrence of fires or natural disasters	Risk of loss of assets or even personal injury due to fires or other natural phenomena.
Loss of new business/product/process opportunities	Risk of failing to capture opportunities to develop new business, products or processes due to ineffective R&D or technology scouting.
Loss of forest productivity	Risk of not being able to achieve full production potential of the season due to failure to apply best available forestry practices.
Losses on loans to customers	Risk of credit granted to clients, which may result in unrecoverable debts and a consequent increase in costs.
Paper pulp price	Risk associated with pulp price fluctuations, which may result in losses for the Group.
Product quality	Risk associated with product quality, potentially resulting in consumer dissatisfaction and a consequent drop in sales and lost revenues.
Reduction in paper price	Risk of pressure of competition, which may result in a drop in sales or reduction of market share.
Environmental restrictions on industrial production	Risk of environmental restrictions on industrial production, which may result in changes being required in the production process, thereby increasing costs.
Legal restrictions on forestry production	Risk of legal restrictions being imposed on forestry production, which may result in a reduction in raw material output and a consequent increase in acquisition costs.
Legal restrictions on paper imports	Risk of restriction on paper imports in producer countries through the erection of customs barriers, potentially resulting in a reduction in sales.
Inadequate sourcing	Risk of inefficiency in management of relationship with critical suppliers for the business, or over-dependence on these supplies, compromising the quality of services provided, limiting Group operations or potentially leading to operational inefficiencies.
Sustainability of forestry operations	Risk of compromising the future operations of the organisation or of local society and the business community, in general, due to overuse or irrational use of the natural resources involved in forestry operations.
Sustainability of industrial operations	Risk of soil contamination or excess atmospheric emissions of noxious gases, resulting directly or indirectly from the process of supply, sanitation or processing of solid urban waste (e.g. accidents, breakdowns, techniques used) or from natural causes such as floods or droughts at intake points or serious pollution accidents.
Variation in energy prices	Risks associated with changes in the purchase and sale price of energy, resulting in additional costs and lost revenues.

EXHIBIT 3 | Fire in Vila Velha de Rodão

3.1. PRESS RELEASE (source: The Navigator Company)



Fire hits factory in Vila Velha de Ródão owned by The Navigator Company

A large fire broke out earlier this afternoon at the Vila Velha de Ródão factory of The Navigator Company, a tissue production unit. It should be noted that the security intervention made it possible to avoid personal injuries. At the moment, it is still impossible to determine the cause of the fire and the actual extent of the material damage caused by the fire. In addition to the factory's means, fighting the fire mobilized several fire departments in the Castelo Branco district.

This factory in Vila Velha de Ródão was acquired by The Navigator Company at the beginning of 2015 and has subsequently been the subject of an investment worth €39 million which doubled its production capacity as of last October.

3.2. COMMUNICATION TO MARKET RELATIONS (source: The Navigator Company, [here](#))



THE NAVIGATOR COMPANY, S.A.

Open Society

Headquarters: Península da Mitrena, Freguesia do Sado, Apartado 55, 2901-861 Setúbal

Legal entity No. 503025798 - Share capital: 717,500,000 Euros

Registered at the Commercial Registry of Setúbal

PRIVILEGED INFORMATION

Under Article 248(1)(a) of the Securities Code, The Navigator Company, S.A. ("Navigator Company") informs that, in the early afternoon of today, a fire broke out at its tissue factory in Vila Velha do Ródão. Having immediately triggered internal emergency procedures and requested support from local authorities, several fire brigades from the district of Castelo Branco are operating from the outset, in addition to the factory's own means, and there has been no personal injury.

At the moment, it is still not possible to determine the origin of the fire and the full extent of its material damage, which is limited to the production area of the paper machines, and the second machine has not suffered any damage. The fire did not affect the processing zone into a final product, nor any of the finished product warehouses, so the normal operation of the plant or the regular supply to customers will not be affected.

Setúbal, 3 May 2016

The Representative for Market Relations

EXHIBIT 4 | EMPLOYEES' MISCONDUCT

4.1. PRESS RELEASE (source: The Navigator Company)



Press Release – June 23, 2020

[The company reported a complaint and followed Police investigations](#)

Navigator confirms arrests

Following the news made public today, we have seen confirmation that the announced arrests occurred due to a complaint from The Navigator Company for having evidence of corruption crimes involving some of its employees and suppliers in the wood supply park of the industrial complex in Setúbal.

The alleged practices were carried out for the authors' interests and to the severe detriment of the company, which, up to now, remains entirely available to continue cooperating with the authorities on the investigation.

The Navigator Company is aware that, although some of its employees may be involved in the practices above, the majority of its workforce, as well as that of its commercial partners, is guided by the most rigorous ethical standards that have always characterized the conduct of the Group.

Activity at the Setúbal Industrial Complex occurs without disruption, thanks to the usual commitment and dedication of its employees and suppliers.

For more information, please contact:

Lift Consulting +351 21 466 65 00

EXHIBIT 5 | CYBERATTACK

5.1. PRESS BOOK (source: The Navigator Company)



A cyber-attack on Navigator forces servers to shut down

Media Type: Internet Release Date: 12/19/2020

Media: SIC Notícias Online

URL: <http://www.pt.cision.com/s/?l=4089de9>

According to the company, industrial campuses are already "working as usual".

The Navigator Company was hit by a cyber-attack on the systems which forced the shutdown of the servers, in order to "protect the integrity of its digital platforms".

According to a company statement, "all infrastructure and critical information were preserved and, from the outset, an assessment of this attack was immediately started to avoid significant disruptions to our operations."

The paper production company also adds that "critical applications are restored and the group's industrial campuses are working normally".

SIC Notícias

The Navigator Company targeted by a computer attack on its systems

Media Type: Internet Release Date: 12/20/2020

Media: Setubalense Online (O) Authors: Maria Carolina Coelho

URL: <http://www.pt.cision.com/s/?l=d4b58fd4>

After shutting down the servers for their protection, industrial plants are now operating as usual.

The Navigator Company, with a factory based in Setúbal, was the target of a cyber-attack on its systems at the end of last week, confirmed an official source in response to O SETUBALENSE. The company, which is dedicated to the production of paper and pulp, acted immediately, having "taken the decision to shut down its servers to protect the integrity of its digital platforms".

Due to the quick response to the situation experienced last Friday, "all its infrastructure and critical information were preserved". "An assessment of this attack was immediately started to avoid significant disruptions to our operations", explained the same source. In this way, the "critical applications are already restored and the group's industrial campuses are already working normally".

The Industrial Complex in Setúbal, located in the Mitrena Industrial Park, comprises a pulp mill and two paper mills, and also includes "a cogeneration plant and a biomass plant".

EXHIBIT 6 | THE NAVIGATOR COMPANY, SA - STOCK PRICE

6.1. EVOLUTION OF STOCK PRICE AND ITS PRICE AT CLOSURE, ON THE DAYS THESE THREE CRISES

HIT NVG (source: Yahoo Finance, [here](#))

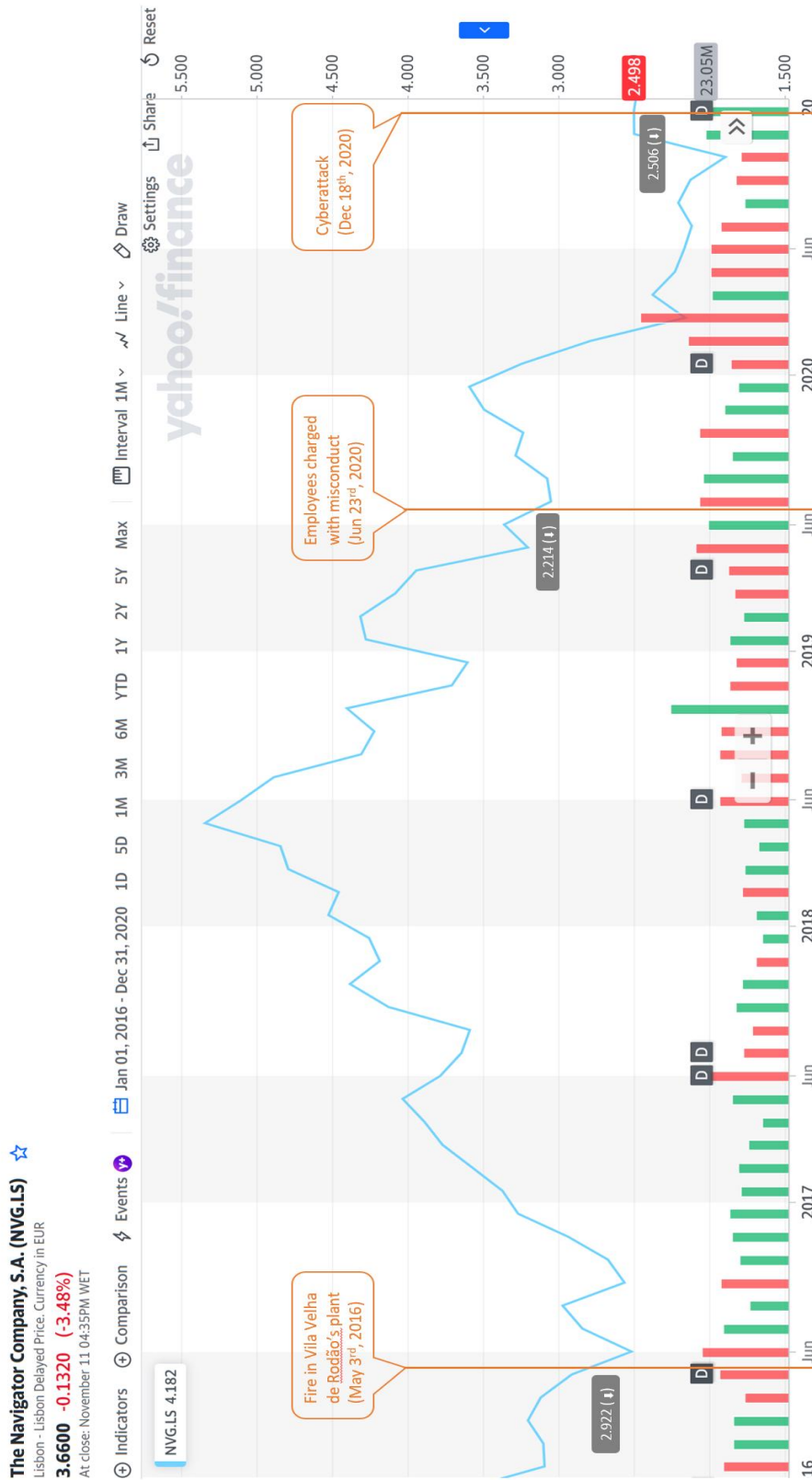


EXHIBIT 7 | CRISIS COMMUNICATION PRACTICES

7.1. PROPOSAL FOR EFFECTIVE CRISIS COMMUNICATION STRATEGIES, ACCORDING TO THE NATURE OF EACH CRISIS

EFFECTIVE CRISIS COMMUNICATION PRACTICES			Crisis communication management		
Crisis Assessment		STEP 3: Evaluate accountability of the organization	Crisis Communication / Response Strategy	Key messages/ actions	Priority target audience media/ communication channels
STEP 1: Identify trigger event	STEP 2: Define type of crisis		Outcome		
<ul style="list-style-type: none"> » Terrorist attack » Product tampering » Cyberattack » Mistaken Identity » Rumours (false information) » Workplace violence 	Attack	<ul style="list-style-type: none"> » Low 	<ul style="list-style-type: none"> » Safety » Protect reputation » Avoid churn/ loss of purchase intention 	<ul style="list-style-type: none"> » Be stakeholder centric... » ... while including your role as a victim » Denial (to separate the organization from the crisis) 	<ul style="list-style-type: none"> » Victims or their families (typically employees, customers, suppliers) Personal contact » Board Email, message » Authorities Call for emergency, note with complaint » Investors Note, voice conference » Employees Message from CEO » Regulators Press release » General public Social media, media, press announcement from CEO
			<ul style="list-style-type: none"> » Industrial, transportation accidents » Product harm » Loss of key personnel » Lay offs 	Accident	<ul style="list-style-type: none"> » Low/ Mid (lack of intention, sometimes lack of control or competence)
<ul style="list-style-type: none"> » Ignoring/lack of proactivity addressing known risks » Improper performance » Intentional legal & regulatory violations 	Misconduct	<ul style="list-style-type: none"> » High (broken trust, often lack of integrity) 	<ul style="list-style-type: none"> » Protect reputation » Economic/ stock price defence 	<ul style="list-style-type: none"> » Acknowledge responsibility from parties before others (stealing thunder strategy***) » Apologize to those affected (if applicable) » Show evidence of new control mechanisms 	<ul style="list-style-type: none"> » Victims (typically, employees, customers, suppliers) Note with a complaint » Investors Note, voice conference » Employees Message from CEO » Regulators Press release » Customers Note from CEO, VP Comms » General public Social media, Press announcement from CEO

* redress strategies: use of positive actions towards victims to offset negativity from the crisis (Coombs, 2015)

** stealing thunder strategy: being the first to address a weakness reduces damage (Williams, Bourgeois & Croyle, 1993)

*** bolstering strategies: add positive information to help offset negativity from the crisis (Coombs, 2015)