INOESIS

TRUST: THE ROAD TO SUCCESS OR FAILURE IN THE DIGITAL ECONOMY

Reputation and credibility have always been values cultivated by companies, but in the digital-first era ahead, managing business, risk, and regulatory requirements in real-time will increase the challenge, expectations, and consequences around trust.

Case Study
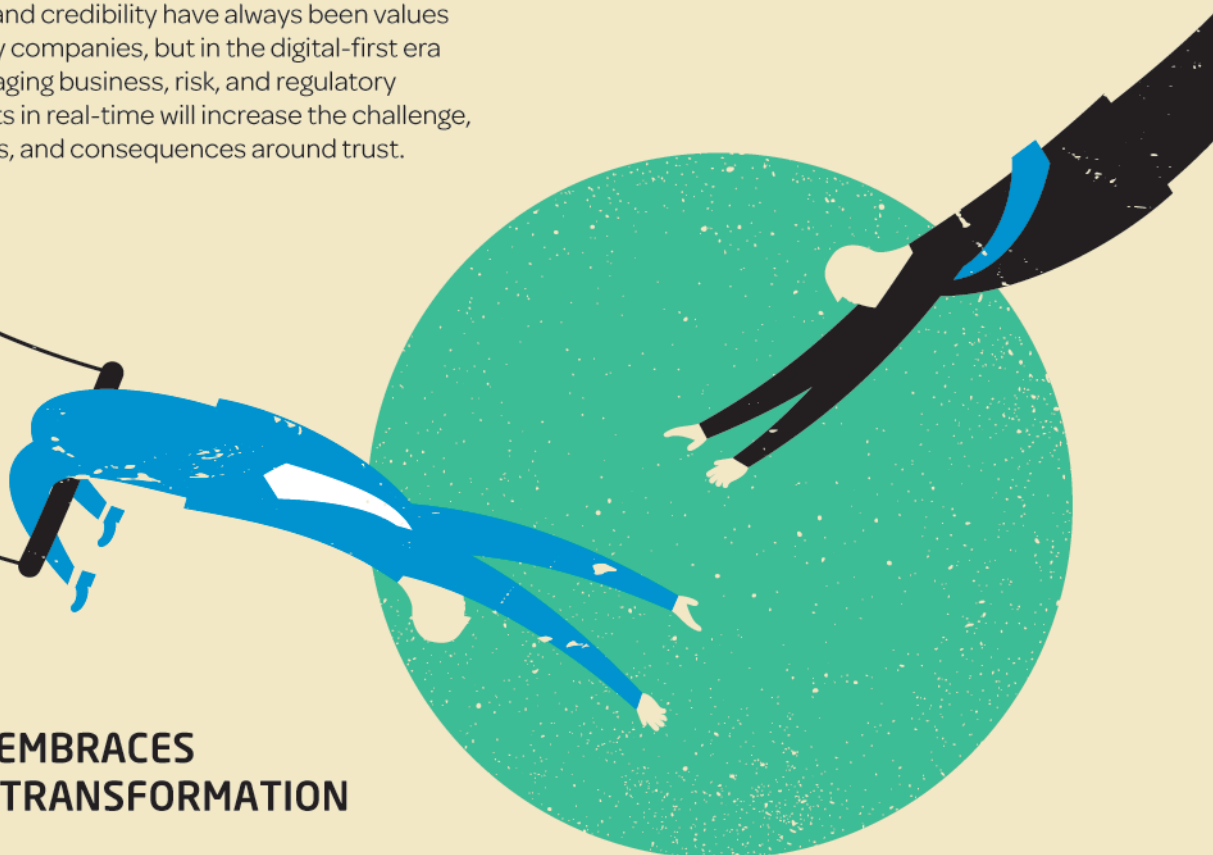## MILLENNIUM BCP BETS ON QUALITY ENGINEERING

Case Study
NAOS IS CLOSER TO CUSTOMERS

Case Study
VOPAK EMBRACES DIGITALTRANSFORMATION

Case Study
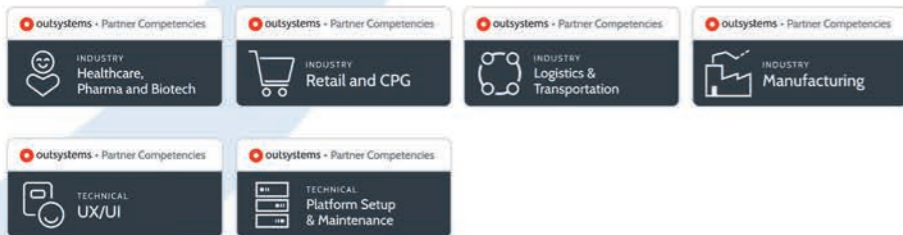## Mobi.E: MORE AND BETTER DATA CONTROL

noesis
an **Altia** Company

"At Noesis, we follow our DNA and seek to innovate in the portfolio of services and offers that we make available to our clients, to respond to all issues related to digital acceleration."

TRUST!
THE KEY TO DIGITAL ACCELERATION

Alexandre Rosa
CEO of Noesis

The year 2022 is marked by a key concept that is and should be increasingly on the agendas of all Organization Managers, from the CEO to the CIO/CTO, through the entire first line of business management: Trust. The insight that security should be a central concern for any business, especially in this digital-first era, added to the "reality shock" that we all witnessed and suffered, at the beginning of 2022, with the exponential increase in cyber-attacks and highly publicized cases of large organizations all being heavily affected by cyber-attacks all over the world.

In fact, in the post-pandemic context, a period where we had already registered an unprecedented escalation of attacks, the war that broke out at the gates of Europe made us face a reality never before experienced, that of **cyber war**. An additional layer of uncertainty, in addition to all the other impacts, economic and social, that any war causes.

It is in this context that this edition of iNoesis brings a reflection on the Future of Trust, as a great challenge for the future. An article by IDC brings us valuable insights on the subject and as mentioned in the article, in the digital economy, trust is a much broader concept than "just" the themes of security, prevention, and risk mitigation. Organizations need to have a holistic view, which should include topics such as **compliance, privacy, ethics, and quality of service**, even.

At Noesis, we follow our DNA and seek to innovate the portfolio of services and offers that we make available to our clients, to respond to all issues related to digital acceleration. We are aware of trends, close to our clients, and able to respond to these challenges. It was this vision that led us, in 2021, to restructure what we offer in the areas of IT Infrastructure and cybersecurity, with the creation of 2 specialized service lines – **IT Operations and Cloud & Security**. Basically, we have adapted our services, expertise, teams, and technology partnerships to better respond to market challenges. A winning strategic decision that enables us, for example, to ensure the entire **IT management and transformation roadmap of BEWI**, a Norwegian multinational and world leader in the production of packaging solutions, components, and insulation. One example among other relevant cases.

This is the path we have traced for the future of our organization, to continue to support our clients, invest more and more in the training of our teams, and internationalize our expertise. Three key pillars that are expressed in our 2021-2023 strategic plan, which we are implementing, with very encouraging results. **In 2021, we recorded a 12.1% turnover growth**, and the international market represented 35% of our revenue. Now that we are approaching the end of 2022, the prospects are that we will again meet the goals set, allowing us to face 2023 with great trust!

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MILLENNIUM BCP
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TRUST:
THE ROAD TO SUCCESS OR FAILURE IN THE DIGITAL ECONOMY

10 BUSINESS INSIGHTS . Cover Story

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18 BUSINESS INSIGHTS .
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VOPAK ERP system modernization, supported by OutSystems technology, is part of a comprehensive strategy to redesign business processes with information technology as a central requirement.

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In Brief

BIGGEST DATA & AI EVENT IN OCTOBER

On October 18th, the Lisbon Data & AI Forum (LDAIF) takes place at the PT Meeting Center. This sixth year marks the return to a face-to-face format and brings together professionals with different perspectives and experiences on Data & AI. At a time when the adoption of data-centric strategies is vital for the sustainability of any business, it has become even more crucial to know the trends and challenges for organizations regarding topics such as Data Analytics, Data Security, Big Data and Cloud, Artificial Intelligence, Process Mining, and Data-Automation. Ricardo Rocha, US Managing Director & Global Head of Marketing, believes that "LDAIF is the ideal event to demystify the noise that still exists on these topics and reinforce the importance of implementing technologies and solutions that are an asset to organizations, regardless of their size". In 2022 the agenda is full of excellent speakers, moments of debate, knowledge sharing, and success stories. More information and registration at www.noesis.pt.

NOESIS IS ONE OF THE BEST ORGANIZATIONS TO WORK FOR

Great Place to Work® unveiled Best Workplaces™ in Europe and Noesis was 7th place in the Best Large Workplaces category. In Portugal, Noesis came in second in the 501 to 1000 employee category. The award "renders a huge responsibility and a commitment to continue to be one of the best companies to work for", said Teresa Lopes Gândara, Human Capital Director at Noesis. The Best Workplaces Ranking defines the annual list of the Best Places to Work, distinguishing the companies that gather the highest scores in the Organizational Culture & Climate Study. Noesis' participation in this study proved to be a success. After achieving a Trust Index of 82%, the culture of high trust and the good working environment were recognized and given the Great Place to Work Portugal certification. The study includes an internal questionnaire for employees about their experience at Noesis, and a questionnaire addressed to the company, which assesses the quality of human resources policies used in people management.

NOESIS WITH NEW COMPETENCE CENTERS

Covilhã and Guarda were the places chosen for the creation of the new Competence Centers. During the opening ceremony, the Minister for Territorial Cohesion, Ana Abrunhosa, welcomed Noesis and the new talents selected to boost the organization. Alexandre Rosa, CEO of Noesis, announced the hiring of 40 talents in the region this year. "We want to be a leading employer, enabling the professional integration of young talents from the University of Beira Interior and the Polytechnic Institute of Guarda and contributing to the economic development of these cities". According to Nelson Pereira, CTO at Noesis, "the opening of the new offices follows a strategy started a few years ago that aims to create Competence Centers, made up of teams specialized in Low-Code Solutions, Quality Management, and DevOps & Automation which develop projects and provide services to our clients, on a Nearshore and Offshore basis, for the markets where we operate: Portugal, Spain, Ireland, the Netherlands, Brazil, and the United States".

OUTSYSTEMS RECOGNIZES NOESIS' EXPERTISE

The Portuguese unicorn launched the OutSystems Partner Competency Badge program to recognize the technical skills of its partners. Noesis, one of OutSystems' main partners, won six badges: four Industry Badges, which certify its experience in the Healthcare, Logistics, Transport and Retail, and Manufacturing industries, and two technical badges, which recognize its skills in UX&UI and in the area of platform Setup & Maintenance. For José Carlos Pereira, Low-Code Solutions Director at Noesis, "this is a significant milestone, which results from the proven experience of more than ten years in developing OutSystems applications of excellence for our clients throughout the world." In addition to this recognition, Noesis has already won 14 OutSystems Innovation Awards. These awards are usually revealed during NextStep, an event that this year will take place from November 15th to 17th and where Noesis will be present.
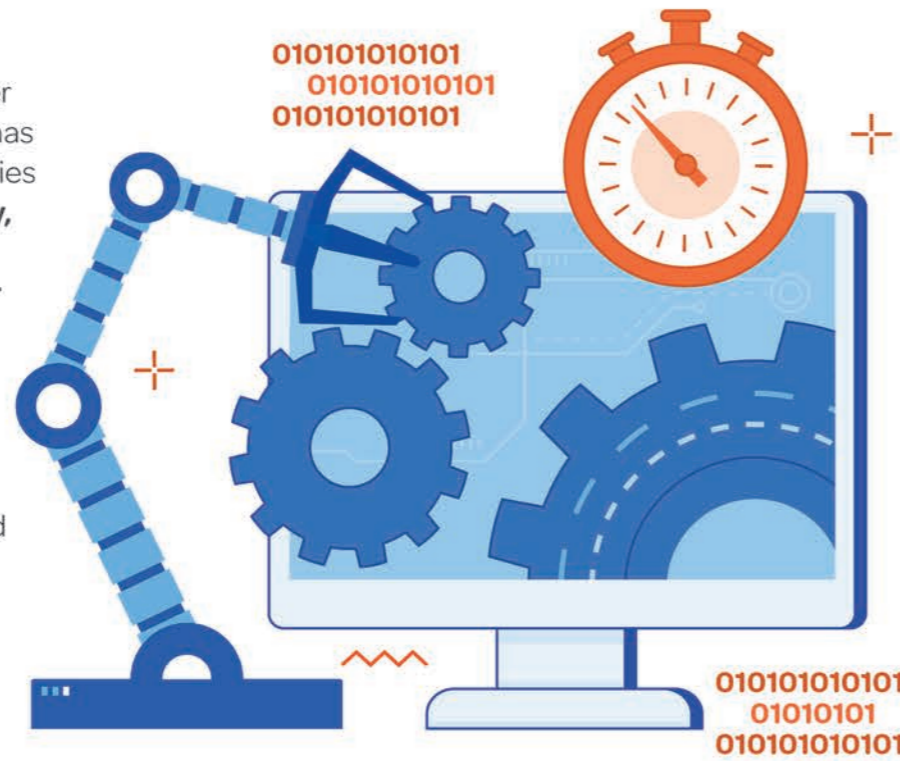
IT AUTOMATION
A REQUIREMENT FOR FUTURE IT!

In the context of digital transformation, automation refers to the use of technology to execute processes and tasks through software, minimizing human intervention.

In addition to automating business processes, IT automation with greater or lesser use of artificial intelligence has become a trend adopted by companies as a means **to increase productivity, reduce costs, and improve the experience of employees and their engagement.**

Automation is a top priority

An international IDC study concluded that CIOs consider automation to be the top area of IT transformation necessary to ensure a digital organization.

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TOP 5 PRIORITIES FOR IT TRANSFORMATION

1. Automation
2. Emerging Technologies
3. Software Innovation Factory
4. DevSecOps, NoOps
5. Pervasive Intelligence

54%

In a study of national organizations in Portugal, IDC identified that 54% plan to increase their budget in IT automation.

BENEFITS OF IT AUTOMATION

✓ Make IT more strategic;
✓ Develop greater responsiveness and agility to new business requirements;
✓ Ensure greater resilience, security, and sustainability;
✓ Strengthen the workforce;
✓ Improve the experience of clients, partners, and employees.

Automation frees employees from repetitive, tedious, and error-prone tasks to focus on higher-value assignments.

TOP 5 WHERE TO APPLY AUTOMATION
CIO preferences go to:

1. **58%** IT processes
2. **56%** IT infrastructure
3. **45%** Security
4. **31%** Hybrid cloud and multi-cloud
5. **31%** Company data management

As companies **gain maturity in automation,** the more elements of artificial **intelligence (AI)** they can apply, including **machine learning and deep learning.**

IDC predicts that by 2024, AIOps **(Artificial Intelligence for IT Operations)** will become the new normal for IT operations, with at least **50% of large companies adopting AIOps solutions to automate most systems management processes.**

IT infrastructure operations that can be automated by AI:

✓ Anomaly detection;
✓ Event correlation;
✓ Identifying the root cause of problems;
✓ Tracking volumes, scale, and complexity;
✓ Predictive intelligence and incident prevention.

Organizations should leverage automation with AI to increase speed, scale, and adaptability.

However, they must first ensure the fundamentals of AI, by improving data management, establishing KPIs and metrics and defining IT strategy and governance.

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Nuno Reis · *Director of the Architecture & Transformation and Data & Insights areas at Millennium BCP*
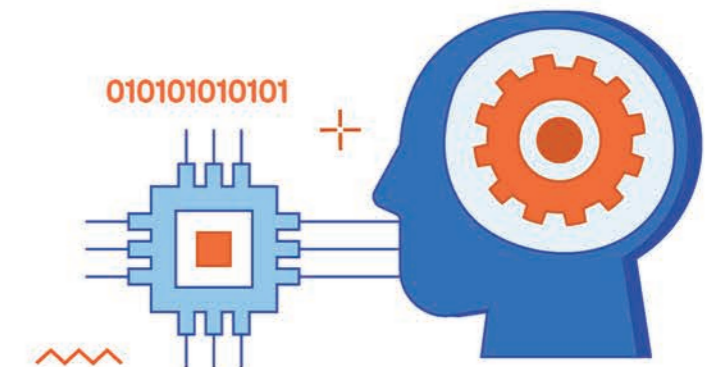
MILLENNIUM BCP BETS ON QUALITY ENGINEERING

The work carried out by this bank ensures the efficient performance of a battery of tests before the final delivery of new software, ensuring the permanent functionality of the services.

The basic concept that gives shape and form to Quality Engineering and supports the work developed at Millennium BCP is to optimize results using tools that allow a quantitative analysis of the quality and productivity of products or services.

As Nuno Reis, Director of the Architecture & Transformation and Data & Insights areas from Millennium BCP, explained, the Quality Engineering service "arises from the need to improve software certification processes to accompany more agile development models".

In this sense and taking into account the transformation program launched in 2019, Millennium BCP chose to "create a dedicated capacity, and respective area, called Quality Engineering". Its performance is focused on five main axes: Execution of Manual Tests – design, execution, registration; Automation – Creation of automated test batteries; Test Data Management, ensuring that both automatic processes and

manual tests are not blocked due to data scarcity; Static Code Analysis; NFTs - non-functional and performance tests.

Certification has come a long way
In fact, the concept itself is not exactly new in the bank as it has, "for many years, had the certification process coupled to the software development cycle". As stated by Nuno Reis, "this process, which persists and will persist, has a strong component of manual tests". However, it should be noted that the major paradigm shift that triggered the creation of this capacity and service "comes from the adaptation of the development process itself to a more flexible and agile model", especially in areas linked to digital "and from the creation of new architectural and technological foundations and pillars".

In an Agile context, he says, "the testing process and capacity must be thought out and structured so that they are iterative". And this may be "the great challenge and main difference to the "classic" certification process, which will

continue for waterfall developments", he said. Generally speaking, the bank runs tests across all developments "so all areas are covered and involved in testing and certification processes". The quality process that Millennium BCP has been working on most recently, in collaboration with Noesis, "is applied mainly in the areas of Digital, Transformation, Architecture, and Data, which, as they mainly use Agile, are the natural areas for the application of this process".

Noesis: a natural partner
And how did Noesis emerge as a service provider? Nuno Reis believes that there were two factors that positioned the technology company "as a natural partner to provide this service". If, on the one hand, "the bank was already working with Noesis on quality processes at the time, on the other hand, the market recognition that Noesis is a specialist in this type of service" was equally crucial.

Nuno Reis recalls that Noesis "has and brings to the field a holistic view of testing strategy, based on concrete experiences", which allows "pragmatic actions, but in the context of a more global strategy". In fact, in a context "where the demand is high and the challenges are shared by multiple organizations, it is important to have partners that act in this space in a transversal way and that can bring proposals for improvement and share potential challenges in a preventative way".

Pedro Luís, from Noesis, is the operational manager of the service, and explains that the test team "incorporates manual functional tests, automated functional tests and non-functional tests".

Visible results
And, although without stating internal bank figures, Nuno Reis adds that "the battery of automated tests already has several thousand test cases" which were, for example, "essential for the launch of new products and services on one of the bank's leading solutions – the APP".

Nuno Reis also adds that "the number of manual tests recorded is much higher than that of automated tests, not least because any test before it becomes automatized, goes through the manual test process concerning definition, execution, and recording of results". On the other hand, the volume of test data used via the Test Data Management platform "is also already very high, having become a very relevant part of test execution".

As for the type of technology used, it all depends on the quality axis in question. Therefore, "to create the test data management solution" we opted for the "bank software industrialization platform", which is composed of a solution for Front-End

and Back-End". The automation solution "is heavily based on Selenium, also using NTX [test automation tool developed by Noesis] as an accelerator".

For its part, the registration of test cases and evidence "is carried out in Azure DevOps, whether manual or automatic", he said. For the execution of (non-functional) NFT tests, we decided to use "various tools, perhaps the most relevant being JMeter". Finally, and for static code quality assessment, SonarQube is used.

Pedro Luís ascertained that, on the Noesis side, this project is seen as "a constant challenge that requires us to be constantly innovating, which is very positive".

And Paulo Carlos, from the Noesis Quality Management team, gives an example: "We did very focused work on the bank's mobile app, which is one of the most complete financial apps on the market, practically replacing a branch". With so many services to support, the challenge was to "have this application 99.9% available to users, forcing both Millennium and us to be very careful so that new software deliveries do not impact the end customer".

Sérgio Fernandes, Sales Associate Director at Noesis, emphasizes that "in a competitive and dynamic context such as the financial sector, the development of solutions that allow a better user interaction/experience requires a huge focus on quality assurance of the applications made available to customers. The bank's delivery of a set of services and features in a digital ecosystem promotes a more fruitful and interactive commercial relationship with their customers."

On balance

The balance of the work developed with Noesis in this area is recognized as "positive" by Nuno Reis, Director of the Architecture & Transformation and Data & Insights areas from Millennium BCP, and as "an evolutionary work, both in terms of quality and scope". "We now have a service that is important in the bank's agility in launching new solutions", he added. Additionally, Noesis has shown "great flexibility to adapt to the context and challenges of this type of service and transformation program". The two organizations are focused on the future and share the ambition to continually improve the current status of the projects they are developing together.

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THE ROAD TO SUCCESS OR FAILURE IN THE DIGITAL ECONOMY

Reputation and credibility have always been values cultivated by companies, but in the digital-first era ahead, managing business, risk, and regulatory requirements in real-time will increase the challenge, expectations, and consequences around trust.

Less than two years from now, in 2024, 80% of the world will be online, spending about 10.5 trillion dollars on digital services. And three years later, in 2027, 41% of company revenues will be achieved through digital products and services. In a world becoming digital-first, the pressure to maintain competitiveness and transform the business is as great as the opportunities that follow.

Preparing infrastructures, redesigning strategies, and orienting them to the customer, responding to regulatory requirements, and the increasing pressure of environmental and social factors, challenge the managers of organizations every day. In all these aspects, trust emerges as an increasingly central theme.
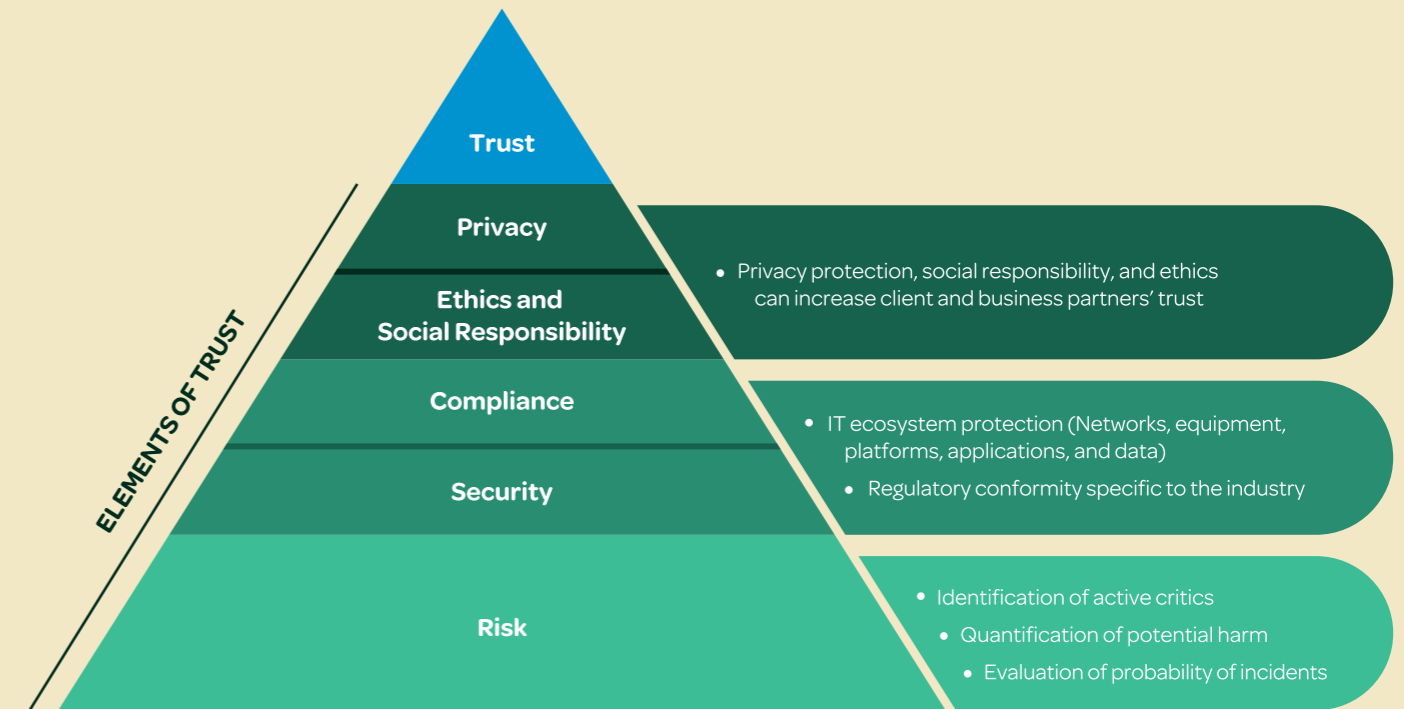
IDC estimates that digital trust programs will be one of the main topics on companies' agendas in the next five years. Generating trust is a consequence of assertive decision-making in organizations. It attests to the success of strategies to preserve fundamental values such as security or privacy in a digital economy and consequently generates business.

Working on multiple fronts is indispensable for fostering trust

Building trust is much more than preventing and mitigating risks in a digital economy. It's about following compliance obligations, which will directly impact a company's reputation and the level of trust its stakeholders can develop towards the organization. But it is also about promoting privacy, business ethics, and quality of service beyond what is required by the regulations. Stakeholders of any organization expect their confidential data to be protected, the company's values to be reflected throughout its value chain, and the expectations created around the provision of a product or service to be fulfilled.

These are undoubtedly premises that require an investment of time and resources, which are largely linked to technology, and are subject to several challenges. The ones most highlighted by managers are increasing regulatory complexity, cyber-attacks sophistication, and IT and infrastructure security fragmentation. These can undermine companies' efforts to promote trust in the five critical areas they must work in to leverage cross-cutting results: risk, compliance, security, privacy, social, and ethics.

HIERARCHY OF **TRUST**

ELEMENTS OF TRUST

- Trust
- Privacy
- Ethics and Social Responsibility
- Compliance
- Security
- Risk

- Privacy protection, social responsibility, and ethics can increase client and business partners' trust
- IT ecosystem protection (Networks, equipment, platforms, applications, and data)
- Regulatory conformity specific to the industry
- Identification of active critics
- Quantification of potential harm
- Evaluation of probability of incidents

Why are these the five big imperatives of trust in organizations?
They are interconnected; successes and failures in each are reflected in the others.
Monitoring progress in each area allows you to see if there is progress towards the larger goal.

Risk.
This is the cornerstone of trust. A company that cannot avoid or mitigate risks shows that it cannot protect its assets. The perception of risk conditions how you understand the company's ability to protect other values critical to trust, such as confidentiality, integrity, availability, and profitability.

Security.
Businesses are bound by a set of requirements to protect property and IT assets, data, applications, networks, and devices. Failure to meet these obligations can have financial consequences and lead to reputational damage and undermine the trust of clients, partners, and other stakeholders.

Compliance.
This area requires ongoing monitoring and reporting capabilities that should be viewed as more than a legal obligation. Compliance sends a signal to the market, in a language that everyone understands, that you are doing what is necessary to protect the different elements of the ecosystem.

Ethics and Social Responsibility.
They have become strategic elements for trust and true competitive advantages. They are the calling card of the company's culture and vision, especially at a time when purpose has become fundamental to attracting clients and investors.

Privacy.
In 2020, half of all companies still lost more than a thousand information records with personally identifiable data, and more than 60% were targeted by ransomware via endpoints. There is a strong distrust in the ability of organizations to protect their customer's most valuable asset, and the numbers show that there is much work to be done.

The efforts of companies to work on trust values, inside and outside the organization, inevitably involve these five areas, which are also visible in managers' action priorities for this year in this field. Ensuring data sovereignty and defending the organization from cybersecurity threats are the most highlighted by 86% of respondents in an IDC study. Diversity and inclusion, artificial intelligence and ethics, and sustainability are on the same list. Improving integrated risk management processes, promoting personal data security, and optimizing the organization's financial management and transparency, on the other hand, are among the actions considered most relevant for meeting those priorities.

These concerns are reflected in the investments made by companies over the past two years, focused mainly on identifying risk factors - current, new, and emerging; in specific actions to promote trust, inside and outside the company, and in technologies that can also foster trust. In two of the most critical axes of this work, security and privacy, the largest investments were for leveraging cybersecurity processes with analytics and artificial intelligence and for defining and implementing ethical models for data use.

These are signs that business intelligence is starting to gain traction in organizations as a way to accelerate the transformation journey to a data-driven company capable of truly extracting value and benefits for the business from the data it generates across multiple dimensions.

Investment in cybersecurity mirrors priorities in Portugal and Europe

In Europe, as in Portugal, between regulatory pressure and internal stimulus, the theme of trust is also imposing itself, and one of the most relevant work axes is cybersecurity, extended to the whole value chain. The evolution of the legislation is moving towards extending certification requirements to IT providers that allow auditing the resilience of companies to cyber-risks. In-house, it is estimated that by 2025, 30% of companies will replace current metrics with trust indices in their RFP (Request for Proposal) to align traditional security and risk solutions with values such as customer success, brand, and reputation.

By 2024, 90% of European organizations subject to complex regulatory requirements will increase their investment in automation by 35% to facilitate security compliance. And as early as 2023, a quarter of European companies intend to prioritize supply chain resilience and responsible sourcing.

In Portugal, security is also at the top of companies' priorities, with 73% of organizations expecting an increase in their cybersecurity budget, according to data from the National Center for Cybersecurity Risks & Conflicts 2021 Report. Cloud computing and artificial intelligence are the technologies perceived as most important for cybersecurity operations, which this year should absorb a total investment of 200 million euros in Portugal (IDC).

André Barrigas · Executive Committee and Information Systems Coordinator, Maisfarmácia Group

"For us, Maisfarmácia Group, the future vision we are working hard for is supported by the trust in established partnerships with pharmacies and the pharmaceutical industry. We have built a system that provides transparent information for all stakeholders, ensuring information privacy. Each medical information delegate only has access to their portfolio of pharmacies, allowing them to do a better job with less background noise. Our Qlik and QAP platforms collect information from the different players in our ecosystem, ensuring it is integrated and read by partners, and sometimes we get errors. This is where Qlik's Alerting system comes in to ensure that failures are resolved quickly so as not to impact our trusted relationships severely. Recently we have been following the evolution of blockchain and smart contracts, which will undoubtedly be the next "technological, industrial revolution". We need to ensure that we are prepared and confident in the technology when it is mature enough to take the next step in "digital trust certification" and "decentralization of computing". We believe that these developments will enable accelerated decision-making in a fully transparent and more secure manner in the future. The challenges of the digital age do not allow us to focus only on what we have now but on how we can evolve, strengthening this fundamental pillar of human evolution."

Sérgio Martinho · Chief Information Officer, Lusitania Seguros

"If we look at the common characteristics among successful organizations, there is one element that is common to all of them, and that element is trust, starting with their employees, their partners, suppliers, and customers, if applicable. For organizations embarking on the so-called digital transformation, obviously, they will have to continue to put trust at the top of their priorities, especially if they operate in insurance, as in Lusitania. Trust will have to be by design and by default, meaning that all reengineering and creation of new processes will have to take into account if what is going to be done again / transformed is in accordance with best practices, standards, laws, and, most importantly, with ethics. Is it an easy job? No, not at all, because focussing on trust, and thus on security, privacy, compliance, and ethics, means that you always have to focus on quality. Doing it fast is no good if it is not done well. The success of this approach requires the involvement of everyone in the organization, from internal to external resources, because it's useless if this approach is not shared by everyone involved."

José Ruivo · Director of Information Technology, Altice Portugal

"Digital interaction has become increasingly predominant due to the pandemic and the digital transformation we are experiencing. In Altice Portugal's ecosystem, the main focus is on applying the most advanced cybersecurity recommendations in digital interactions, as well as guaranteeing the confidentiality of the information exchanged and/or stored without ever neglecting transparency in the digital relationship. These are the three basic pillars for a trusted digital interaction, which, combined with quality and reliability, provide a simple and reliable user experience in accessing products and services".

Rui Ribeiro · General Director, IP TELECOM

"IP Telecom's priority is centered on the quality of its service. The reason is simple: we are primarily an infrastructure company, so we need to free clients from any underlying technical concerns, so they can focus on optimizing efficiencies and new business that digital transformation processes allow. Thus, we have explicitly invested in the resilience of our high-speed network infrastructures and the capacity of our three data centers in Portugal to function as one. This is essential for the services we provide, namely data security and privacy. Only by continuously investing in quality improvement and incorporating disruptive technologies can we give the confidence and ensure the credibility necessary for clients to invest more in their businesses".
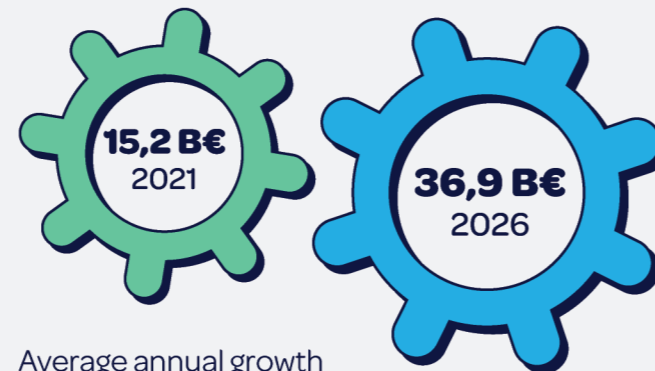
INTEGRATION AND MIDDLEWARE
A PILLAR FOR A MORE AGILE AND INTELLIGENT COMPANY

Integration tools, which allow you to automate processes, access data, and monitor business performance, are increasingly relevant for an agile and innovative company's response to market changes.

These tools can be used for:

- ☑ Connecting two or more applications to each other.
- ☑ Connecting applications to databases.
- ☑ Orchestrating the execution of multiple steps across multiple applications.
- ☑ Automating tasks and decision-making.
- ☑ Monitoring processes.
- ☑ Connecting with IoT equipment.
- ☑ Transferring large quantities of files.
- ☑ Connecting companies to each other to perform transactions.

INTEGRATION SOFTWARE AND MIDDLEWARE CATEGORIES

Integration SW
- > Integration Platforms
- > API Management
- > API Gateway
- > Connectors and Adapters

Event Processing SW
- > Messaging Middleware
- > Stream Processing
- > Functions Software
- > IoT Application Platforms

B2B Middleware

File Transfer (FTP)

Cloud / Non-Cloud

WORLDWIDE SALES OF INTEGRATION SOFTWARE AND MIDDLEWARE SOFTWARE WITH HIGH GROWTH.

15,2 B€ 2021

36,9 B€ 2026

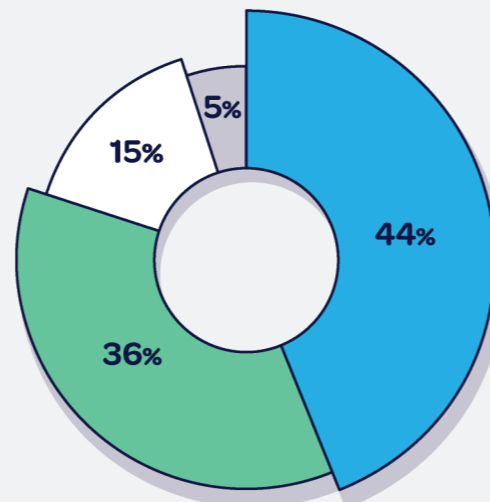Average annual growth 2021-2026 **20%** per year

SALES OF EVENT PROCESSING SOFTWARE ARE GROWING MORE THAN OTHER CATEGORIES

⬆ **3%** File transfer

⬆ **5%** B2B Middleware

⬆ **28%** Event processing software

⬆ **16%** Integration software

44%
36%
15%
5%

Share of sales of each category in 2021

FACTORS THAT ARE INCREASING THE NEED FOR INTEGRATION

- Acceleration of the journey to the cloud, leading to cloud-cloud or cloud-non-cloud integration
- Application renewal and modernization, which leads to the need for new and more modern integrations
- Need for access to real-time data to improve decision-making, improve customer experience, or streamline relationships with partners
- Use of integration tools that do not require programming by business profiles

AI

SALES OF INTEGRATION SOLUTIONS ARE GROWING MORE IN CLOUD VERSIONS

An international IDC study shows that **76% of companies have already implemented or plan to implement cloud integration platforms (iPaaS).**

30%
Cloud **50%**

4%
Non-cloud **50%**
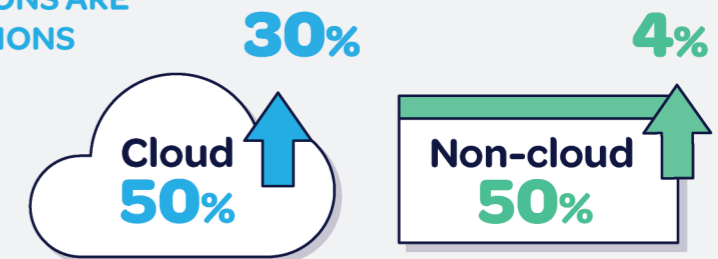
Share of sales of each category in 2021

Integration with automation and artificial intelligence

The same IDC study highlights the relationship between automation and artificial intelligence with the adoption of integration tools.

🏆 **TOP** OF COMPANIES' FUNCTIONAL CONSIDERATIONS WHEN CHOOSING INTEGRATION SOLUTIONS

1. Need for better integration to enable artificial intelligence initiatives and business automation.
2. Need for more modern and reliable integration that can be self-healing.
3. Support business users in engaging in self-service integration.

Artificial intelligence plays a **significant role** in the **development** of more stable and self-healing **integration**.

Integrated applications enable **AI technologies** to provide more insights for decision-making.

"
"We needed to improve the handling of all critical management information, whether internal or data about customers and consumers (...)"

António Piedade · *Finance & Administration Manager*, NAOS

Joana Ferreira Pinto · *Digital Manager*, NAOS

"
"CRM now allows for better focus, proximity, and attention to customers and has become one of the most effective analytical tools."

NAOS IS CLOSER TO CUSTOMERS

The implementation of online information, advice, and product sales platforms allowed the brand to aggregate information and adapt more easily to the needs of its consumers.

NAOS is a French multinational that aims to produce and sell products in the health and skin care area through BIODERMA, Institute Esthederm, and Etat Pur. These three brands derive from a scientific approach: Eco biology, or the art of preserving the skin's ecosystem while strengthening its natural mechanisms. Instead of over-caring for the skin, it must learn to function properly. In Portugal, the NAOS brand has achieved sustained growth in its ten years as a national subsidiary. Largely due to this overall upward trend, "we needed to improve the handling of all critical management information, whether internal or data about customers and consumers, with the ultimate aim of understanding needs and profiles better", explains António Piedade, Finance & Administration Manager at NAOS.

Therefore, the company was looking for a partner capable of supporting the work of developing and implementing a tool that would integrate "all our programs, to automate and simplify the organization's processes".

The truth is that, nowadays, with the exponential growth of digital, it has become increasingly important that brands can "be very close to their consumers", says Joana Ferreira Pinto, NAOS Digital Manager, to "understand their needs and motivations, in order to serve them better and maximize value creation". NAOS always seeks to offer its customers

and consumers a personalized, useful, healthy, and memorable experience.

Implementing online information platforms, skin diagnosis, and sales of Esthederm and Etat Pur brands also allowed, in the opinion of Joana Ferreira Pinto, "modernization and adapting to the consumers' needs".

Abel Espírito Santo, Senior Manager at Noesis and head of the NAOS project, states that another reason for the development of the project concerns "the need to integrate the NAOS Club" and the "option to aggregate information from different origins".

Customer-centered concerns

António Piedade says that, with the beginning of the pandemic, the brand "realized early on that the world was going to change and that we were facing a new reality". Thus 2020 became the starting point for "innumerable projects that would strengthen our customer-centric strategy", and all of the work developed with Noesis ended up taking on greater importance.

Abel Espírito Santo believes that using Microsoft Dynamics, "a loyalty management engine was developed based on customer preferences, skin type, age, experiences they had had, etc."

Even before the pandemic, the e-commerce portal project had been launched, whereby it was intended that "Microsoft Dynamics was the orchestrator of the processes so that the client was no longer seen in a biased way", he added.

On balance, Joana Ferreira Pinto reveals that with the NAOS Club data integration, "CRM can now have better focus, proximity, and attention to clients, and it has become one of the most effective analytical tools" ensuring "personalized activities" are carried out and enabling "precision marketing". She explains that the technology implemented by Noesis was not unknown, "but there was a need for training". The fact is that even today, the company is evolving "in order to make the most of this tool, which forces us to review the initial processes and to improve some aspects". Also, for this reason, there is "a continuous learning and improvement" with the involvement "of our partner Noesis".

The right partner

It is easy to explain why Noesis was chosen, "looking at the Portuguese market and given the project's complexity". We needed to develop many interfaces and integrate various partners' platforms, and, in this field, "from early on, Noesis seemed to us the ideal partner due to their knowledge and experience", reveals Joana Ferreira Pinto.

If we consider the added value that the IT company brought to the project, the preparation of employees, knowledge of the platforms, "as well as the availability and focus on the project to find ideas and solutions that bring results," should be highlighted.

Abel Espírito Santo states that this "project is a good example of how a loyalty site integrates easily with e-commerce through the work of five different partners".

Very positive feedback

Once the project was concluded, Joana Ferreira Pinto guarantees that "customers understood our ability to offer products/services that best meet their needs, making them loyal to the brands" and giving them "fast access to their purchases".

The project made it possible to improve and facilitate the management of relationships with customers, especially with the launch of the online sites. On the other hand, the automation achieved by using state-of-the-art technologies also allowed for a reduction in the time spent during the process, thus enabling NAOS to focus on "information analysis and defining new strategies and finally, taking advantage of new business opportunities".

With regard to adapting the IT infrastructure, António Piedade believes that, given the complexity of the platforms and interfaces that NAOS has, "its integration was a challenge that turned into a revolution".

However, currently "it's very gratifying to know that everything is connected and that there is a huge information flow, from the customer's first click on the online site, undergoing a skin diagnosis, sending the product and its order tracking number, complying with GDPR rules, sales registration, automatic bank reconciliation, to issuing and sending the invoice to the customer," said António Piedade.

Photography: VOPAK

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"The ERP system operates near real-time which makes developing it a challenging and interesting job.".

Wim Gerholt · Director of Software Development, Vopak

VOPAK EMBRACES DIGITAL TRANSFORMATION

ERP system modernization, supported by OutSystems technology, is part of a comprehensive strategy to redesign business processes with information technology as a central requirement.

Vopak is a Dutch multinational with a four-century-long history in the world market in the storage of chemical products, oil, gases, and biofuels, among others. Despite its long history, the company sees technology as an essential asset in its day-to-day work and adopted an important digital transformation strategy early on.

As part of this strategy, the need arose to renew an obsolete ERP system, as explained by Duarte Nuno Gonçalves, Associate Director at Noesis: "Vopak had an ERP system that was already obsolete and the challenge was to analyze several market packages, none of which satisfied their very specific business needs."

Therefore, the way forward was "building something from scratch or having a standard package and customizing it, and they opted for the first option," choosing "the OutSystems platform that offered fast and flexible development," said Duarte Nuno Gonçalves.

Nelson Pereira, CTO at Noesis, added that "the ERP was very large and complex, across many terminals and several countries, adapted to each country's legislation," so it was necessary to take all this into account.

Initially, this work was for one terminal, but others followed, "and eventually Vopak realized that it would be best to consider a much more comprehensive product," said Nelson Pereira.

A vast OutSystems portfolio

Wim Gerholt, Director of Software Development at Vopak, adds that his company currently has an OutSystems portfolio of forty-eight applications, which from the beginning have been worked on "together with the OutSystems development teams who were able to prove that the software really worked for everything that Vopak needed." Later, "our teams then started to work in partnership with Noesis," adds Wim Gerholt.

The own developed terminal management system - called MyService - manages all logistics at a terminal, such as customer's agreements and orders, and the planning & execution of the orders. For instance, moving a product from a vessel to a tank.

The system went live in 2018 and is currently working at 28 terminals, in areas such as Asia and America. The next steps are to focus on "the European terminals, 10 in total". Wim Gerholt says that "this system is the heart and soul of Vopak's core business."

Big project challenges

But what are the big challenges of a system like this in the Vopak universe? The company manager explains that it is something that "operates near real-time which makes developing it a very challenging and interesting job."

Furthermore, it is true that in companies, "there is always resistance to change, and it was no different here. If we have a new system, the teams feel a little withdrawn initially because everything is very different from usual way of working." But the truth is that they ended up realizing "that automation is fundamental in our system and the project progressed with great success."

All this work "is part of Vopak's digital transformation agenda and we are also carrying out other projects in other areas," says Wim Gerholt.

Noesis Partnership

Since Noesis has had the right people for this entire process, the director of Vopak says that "the work in partnership with Noesis has been very productive."

Wim Gerholt also pointed out the fact that the vast majority of the know-how about OutSystems is still in Portugal, "which turns out to be positive and brings advantages to this work with Noesis, which has the largest group of specialists in OutSystems technology in Portugal".

Wim Gerholt understands that working on a large project requires solid partnerships and at Noesis he ended up finding "continuity in work and very specialized professionals."

Regarding information technology (IT) as "fundamental in all the processes" developed in the company, Wim Gerholt says that, in the supply chain industry, it is necessary "to automate as much as possible and end with the paperwork, that was still dominant." This was the strategy that Vopak adopted and, therefore, "IT is essential." Moreover, this is what Vopak's clients are asking them for, and they seek to provide "as much information as possible about their products," namely, "how much they have stored in the tanks, at what temperature, when was that quantity moved to a truck, etc."

Wim Gerholt ends the conversation by saying that Vopak "has been in existence for 400 years because we are always on the move."

Luís Barroso · President of the Mobi.E network

Mobi.E:
MORE AND BETTER DATA CONTROL

Implemented by Noesis, Qlik technology makes it possible to have a set of indicators and control panels that reflect the status and evolution of the Mobi.E network at every moment.

Mobi.E is a public company that has a vast set of competencies dedicated to the development of sustainable mobility and performance in the regulated electric mobility market, as well as being the management entity for the Electric Mobility Network (EGME).

"It is responsible for the management and monitoring of the electric mobility network via the information and financial flows which ensure it operates", as well as "for the development and provision of information and communication systems and the appropriate services that allow the obligations and rights in this area to be implemented" explains its president, Luís Barroso.

The market in which it operates covers not only electric vehicle users (EVU) but also all electricity commercialization for electric mobility registration holders (CEME), Charging Point Operators (CPO), and Private Access Charging Point (DPC) holders.

Given the breadth of competencies, and in order to better fulfill its activity as an EGME, since it is not the owner of the IT platform used to handle the electric mobility network, Mobi.E "needed a tool that would give us the autonomy and flexibility to analyze

network data from different angles and perspectives" adds Luís Barroso. This tool should also have the ability to produce "a set of indicators and control panels that mirror the state and evolution of the network, streamlining the report production process for distribution to the various entities and partners". Finally, we had to bear in mind the "data and information availability" capability of the Mobi.E website itself.

Bruno Santos, Senior Manager in the Data Analytics & Artificial Intelligence area at Noesis, explains that the idea regarding the website was to "use the information that Mobi.E already had validated and provide it to the general public", such as the number of stations, growth, kW/consumed, energy, CO2 saved "and a series of other very relevant indicators, with the great focus on informing all consumers of what is happening in terms of electrical mobility". It is a project "that we cherish greatly because it is about environmental citizenship," he added.

Paulo Martins, Manager in the Data Analytics & Artificial Intelligence area, and project coordinator, explains that the internal data processing work "started at the end of the last summer", and "it was available externally in April of this year". Externally only

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"Mobi.E needed a tool that would give us the autonomy and flexibility to analyze network data from different angles and perspectives."

Luís Barroso,
Mobi.E network President

"the information considered most relevant to the end consumer" is provided, although internally, Mobi.E has "more analytical detail".

QLIK AND NOESIS ARE THE SECRET OF THIS SUCCESS

The development of the project is based on Qlik technology, and, to ensure the implementation work, Noesis was the chosen partner. As Luís Barroso explains, "some Mobi.E employees already knew about Qlik technology."

The company worked on this project with Noesis, "after a public procurement procedure which a company such as Mobi.E must have". "Noesis was the highest classified" in the bid, "and we are very pleased with this result", says Luís Barroso.

In fact, he considers that "Noesis is the people who work there" and "those who work with us, in addition to having a deep technical knowledge of the tool Qlik Sense" also had "capacity and competence in solving the problems of interconnection between different platforms" determinant "in the integration of Qlik objects on the Mobi.E portal." Another positive highlight is the "proactive and very positive, enlightened, committed and on-hand attitude" of all of the professionals, "which provided an excellent working environment between all of the people from the various entities involved", underlines Luís Barroso.

AUTOMATED WORK

The feedback on the project is "positive" as Mobi.E now has the ability to obtain and make available "data and information quickly and efficiently, both internally and to customers". The company has also "set up a system that allows for analysis authorship" while helping to "discover and detect anomalies more quickly and resolve them faster".

The truth is that some of the tasks "are no longer manual as the bulk of the work is automated". This ability to automate work makes it "easier and quicker to answer new questions or do new analysis and publish this information" says Luís Barroso. The project led to the growth of Mobi.E's technological infrastructure:

"We were already using the IaaS model, and we added a new block to support the installation of the Qlik Analytics Platform and data storage."

Mobi.E made a very strong bet on this project, and during its development, "more than 50% of our workers worked together on it, and the "hard" core, at cruise speed, is three employees for part of their time, based on current needs".

The Mobi.E network in numbers

- The Mobi.E network exceeded the barrier of a million uploads in the first six months of this year, registering a growth of 67% compared to last year;

- In 2021, this amount was only exceeded in October;

- The number of charging stations, increased by 46% compared to the same period in the previous year;

- At the end of the first semester there were about 2,700 stations across the country, including the Azores and Madeira, which corresponds to about 5,600 outlets;

- The month of August was the best month ever, with about 233.700 charges;

- With regard to network users, more than 54.700 were registered in the first semester, an increase of 53% compared to 2021;

- The month of August had a total of 27.549 users and April was the best month so far of 2022 with 28.853 users;

- The average consumption per charge was 14 kWh and the average time per charge was 1h29m08s.

Gabriel Coimbra
Group Vice President & Country Manager, IDC Portugal

> "...in today's hyper-connected world, trust in ecosystem partners cannot be an afterthought; it must be a key component of creating and managing ecosystems from the very beginning to ensure that risks are minimized."

MANAGEMENT OF RELIABLE ECOSYSTEMS

The concept of business ecosystems is less than 30 years old, but it has already gained an important strategic dimension in businesses all over the world. Amazon, Apple, Google, and Alibaba are just a few examples in this field; in its 2014 IPO files, Alibaba used the word "ecosystem" 160 times. Many business models are based on ecosystem partners who provide products, services, and customer experiences that extend, enhance, or complement the core business.

As a result of this reality, customers have access to many integrated products and a wide range of services. The downside is that the core business takes on new types and levels of risk associated with the networks of partnerships established in the ecosystem.

Due to the level of integration involved, the partners become part of the business - for better or worse. Any failure or transgression by partners has a direct impact on the organization's core business. And because their fates and fortunes are inextricably linked, business and IT leaders must look to their partner ecosystems as extensions of their own businesses. These same business and IT leaders must create trusted ecosystems that help protect the core business from an increasing number of potential risks.

Trust is important because of the simple fact that people do business with other people they trust. Trust is the lifeblood of business, and companies that do not present an image of trust will not succeed. The question is, how can CIOs and their business colleagues take the concepts of trust, implicit and abstract, and make them tangible and quantifiable?

The answer is to rely on trust metrics, based on customers, compliance, security, and ESG **(Environmental, social, and governance)** considerations. IDC predicts that by 2025, 35% of organizations will replace Net Promoter Score metrics with trust indices in RFPs, to align traditional security and risk solutions with issues such as customer success, brand, and reputation.

CIOs have technology that pinpoints potential risks to the business, as well as tools to avoid or mitigate them. They also play a vital role in business resilience, security, data protection, and other critical facets for businesses. This means that they must play a key role in establishing and managing trusted ecosystems.

How can organizations create and manage reliable ecosystems?

Modern ecosystems can be understood as complex multi-tiers, and the inherent risks can be many layers away from the core business and first-line partners. In this context, CIOs must be able to ensure a pragmatic and structured approach, including the following actions:

• **Understanding the ecosystem and its risks:** The COVID-19 pandemic has made it clear that many organizations are still unable to fully understand their supply chains and partner networks, with many consequences. The management and maintenance of safe ecosystems require a clear understanding of the ecosystem itself, through mapping the network of partners and the value chain, its risks, and active flows of information exchange.

• **Ensuring that the company lives up to its own standards of trust:** CIOs and business leaders cannot expect their partners to be trusted without following the same rules and standards themselves. Along with complying with trust measures, organizations must demonstrate competence in all key functions, possess unique and valuable knowledge, as well as practice ethical governance. They must also communicate clearly and have transparent policies.

• **Make the ecosystem a priority and build a culture of trust:** Because establishing and maintaining trust across the enterprise and its ecosystems is imperative, CIOs and business leaders must act to establish an internal culture that values security, compliance, and privacy. Protecting corporate systems and data is everyone's responsibility and must be part of an organizational culture that values security as a differentiating factor. Regulatory compliance must be up to date and based on an understanding of all reasons for compliance. The board of directors and business leaders must always be up to date, informed, and understand the reality of the ecosystem in depth.

• **Making trust tangible and concrete, using trust metrics:** Trust is often perceived as something that is intuited, based on interactions with people or companies. But establishing a reliable ecosystem involves defining concrete measures, relating to all aspects of a given partner.

• **Prioritize and assess cascading trust:** It is virtually impossible to assess each partner for every facet of risk they may present. Instead, CIOs should focus on a subset of partners and risk factors, given the magnitude of the risk, the likelihood of occurrence, and the potential consequences for the business. A more comprehensive and positive business outcome can be achieved through creating awareness, and trust metrics, and encouraging partners to do their own cascading trust assessment across their ecosystems.

• **Implement tools and processes to monitor trust metrics:** Measuring trust is not a one-time exercise, as partners are subject to continual change and may lose their ability to maintain trustworthiness. However, ensuring continuous checking is cost-prohibitive without resorting to automation. Validation of the ecosystem's trust requires investments in technologies to monitor:
  • News and social networks;
  • Regulatory and legislative changes;
  • Geopolitical changes and events;
  • Risk management by third parties;
  • Climate risk;
 • Identity and access management;
  • Vital business statistics.

• **Use scenario planning to model risks:** CIOs and business leaders must use machine learning and AI-based test scenarios to continually detect emerging scenarios through external events and understand how these may increase partner risk and reduce trust levels.

Therefore, and to conclude, in today's hyper-connected world, trust in ecosystem partners cannot be an afterthought; it must be a key component of creating and managing ecosystems from the very beginning to ensure that risks are minimized. Partners that are part of the ecosystem but have not passed through the security/reliability test process must be evaluated using trust metrics, and, whenever partners with scores below average are detected, measures must be taken to correct the problems or, as a last resort case, ban these partners from the ecosystem. However, setting metrics and thresholds that are too rigid will quickly become cost prohibitive, leading to contention from partners. Instead, CIOs must be able to focus on the trust metrics that really matter and that make a difference to the business. Finally, CIOs and business leaders must create an effective culture of trust across the enterprise, as managing and monitoring complex ecosystems requires continuous vigilance by many workers, using automation and machine learning.

Geo Noesis
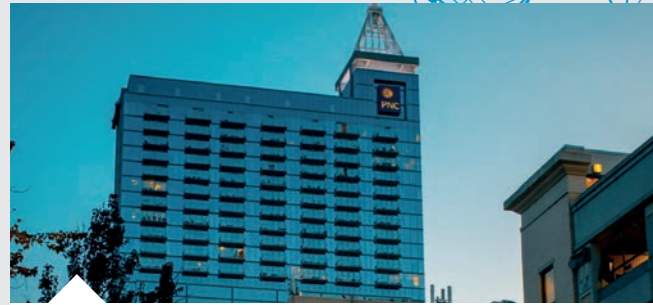
1 USA

### NOESIS REINFORCES LOCAL STRUCTURE IN THE UNITED STATES

The appointment of a US Managing Director, the reinforcement of the local commercial team, and the Tech Lead relocating to the United States is a clear bet on this market.

Ricardo Rocha, previously Marketing & Communication Director at Noesis, takes on the role of Managing Director for the United States. This appointment, which required relocation to the USA, aims to reinforce the local presence in the market and take over the management of the whole operation in the region.

Besides this appointment, the team in the United States will be reinforced with a Tech Lead from the Low-Code Solutions area at Noesis, who will move from Lisbon to the offices based in Raleigh, North Carolina, to ensure a better follow-up of North American clients and the management of projects developed with OutSystems technology. The local commercial team will also grow, with the hiring of one more person to develop business in this market.

According to Alexandre Rosa, CEO of Noesis, "This is an important step in the strategy to strengthen our international activity, foreseen in the strategic plan 2021-2023. We want to reach the goal of 40% of revenue coming from international markets, and the United States is a fundamental part of that goal".

As for Ricardo Rocha, "it's a huge challenge, in a market where we already have relevant history and a significant track-record of developed projects, with clients from different sectors. The mission is to strengthen our presence in this market and accelerate the pace of growth that we have experienced in recent years in this region".
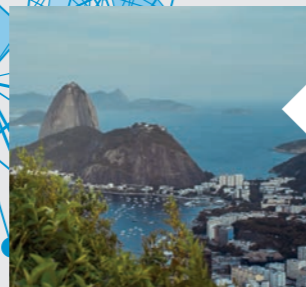
2 BRAZIL

NOESIS BETS ON THE BRAZILIAN MARKET

Brazil is one of Noesis' main markets, and their investment in this region is growing. The strategy includes boosting the management structure to respond to business growth and expanding the services offered.

The Noesis Quality Management team guarantees the quality of a 100% digital insurance company's application. Based on artificial intelligence, the solution allows the calculation of insurance prices by cross-referencing information such as driving type, driver behavior, and market data. Also, in the insurance area, an application has been developed that uses the speed and results of NTX. The insurance company, which has more than thirty years of experience, launched this application to simplify drivers' lives and bet on the test automation solution Noesis created.

One of the largest Human Resources companies trusted Noesis to improve the performance of its applications in Brazil. The partnership includes executing an improvement plan for IT Operations and Low-Code Solutions.

Noesis' collaboration with a Spanish editorial group with a strong presence in Spain and Latin America began with the partnership with Altia. The project covers the departments of Educational Technology and Information Technology. It includes Noesis' expertise in the areas of Quality Management, DevOps & Automation, Enterprise Solutions, and Data Analytics & AI.

## 3 SPAIN

CONSOLIDATION IN SPAIN

Noesis continues to strengthen its strategy in the Spanish market. The focus has been on Quality Management, DevOps & Automation, Low-Code Solutions, and Data Analytics & AI, allowing the expansion of the organization's activities in new sectors.

In the tourism market, the Quality Management teams won a project with one of the biggest leading hotel chains in Spain, the Caribbean, and the Mediterranean, because they saw Noesis as the ideal partner to implement a quality management model. Constant market evolution has forced the company to raise the quality level of its products. The main goals are to implement quality processes, improve the final quality of the delivered product and increase the trust of the end users.

Also, in the tourism area, Noesis is working with a hotel group on a project to implement quality processes and pilot projects in the area of e-commerce and optimization of internal processes. At the same time, a set of technical improvements in the DevOps area of this group is being implemented.

RPA (Robotic Process Automation) technology has been gaining ground in Spain. Noesis' DevOps & Automation teams are focused on developing and maintaining RPA processes and developing Load Testing, and providing training and support for RPA processes in projects for one of the leading wholesale distribution companies, as well as an educational institution in Catalonia. Our Low-Code Solutions area has also collaborated with this institution. This business unit, which specializes in application development with the OutSystems platform, continues to work on several projects in Spain, in collaboration with Altia, with emphasis on the digital transformation and simplification strategy of the public administration of the Government of Andorra.

The Data Analytics & AI area is also expanding its operations in Spain, with one project highlighting Process Mining technology.
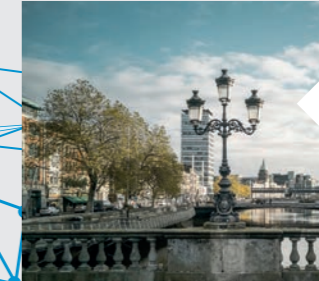
4 UNITED KINGDOM

RANGE OF SERVICES GROWS IN THE IRELAND & UK REGION

With a stronger focus on internationalization in the UK and Ireland market, Noesis has been consolidating and increasing its client portfolio.

Among the new projects, we highlight the licensing and implementation of future services in a legal sector organization in Ireland using Sitefinity technology, one of the most secure Content Management Systems in the market and comes under the Enterprise Solutions area. The IT Operations & Infrastructure area won a license with a Microsoft migration project in an energy company. The DevOps & Automation area is responsible for implementing Flexdeploy, a Deployment tool, in an Irish state body.

The expertise in our Quality Management teams was trusted by an Irish fashion retailer to manage a cutover process, and by a road safety organization, also Irish, in a test management project.

According to Ricardo Batista, Head of Ireland & UK, this is "an auspicious start to the year and represents good prospects for the year ahead in this region".

5 NETHERLANDS

NOESIS SHARES AI EXPERTISE AT HIGH TECH CAMPUS

The High Tech Campus in Eindhoven is an ecosystem of 260 technological organizations and aims to be one of the leading tech hubs in the world. To do this, it wants to attract outside companies, such as Noesis, and their expertise. "It is crucial to support our mission," reveals Paul van Son, Innovation Manager of the Dutch hub. Companies are moving to a business model based on software, AI and Data Science. To respond to this strategy, the High Tech Campus has been supporting organizations in the adoption of these technologies.

Paul van Son recognizes that the hub "doesn't have all the knowledge in the world, so it wants to bring in knowledge and talent from outside". "Noesis has a lot of experience in these areas," and there will be "many opportunities to work together" and promote AI in organizations, through knowledge sharing, an ecosystem that facilitates networking, and workshops. More information about the hub initiatives at **www.aiinnovationcenter.nl**

Nelson Pereira
Chief Technology Officer (CTO), Noesis

DIGITAL TRUST AT THE HEART OF ORGANIZATIONAL STRATEGY

If until now, during and after the Covid-19 outbreak, the watchword was "Resilience", little by little, organizations have been migrating everything they could to the digital world, safeguarding themselves from a possible similar crisis and taking the opportunity to move forward with a true digital transformation of their business.

What was once seen as "just" the digital channel is now increasingly a digital business, often implying the creation of a new type of business in the virtual world distinct from the business done with customers in the physical world. So, in the last two years, we have witnessed this exponential growth in digital business, accompanied by alarming news about the lack of security and the proliferation of cyber-attacks. Some with worse consequences than others for the end customer, but always with huge reputational damage to the organization in question. In the coming years, Digital Trust will be in the spotlight. Firstly, focused on the concept of cybersecurity, but, in fact, the vision has to be much more comprehensive and involve a series of systems, processes, and behaviors that will result in greater or lesser customer trust.

An organization that already ensures compliance with standards such as ISO 9001, ISO 27001, and RGPD, has implemented a set of requirements, processes, and controls that ensure that its customers can count on a series of actions to prevent and mitigate the risks that potentially affect them, such as data theft or other damage.

By respecting these norms, it is possible to cover the necessary steps. However, we must take into account the way they are implemented. Many companies follow these procedures in a manual and unsynchronized way. The authors of the most recent attacks took advantage of this weakness to cause damage precisely during the time needed to carry out prevention and/or contingency measures manually.

As an IT solutions implementer, Noesis has increasingly trained its teams to help the market make all these tasks less complex, automated, and evolutionary, resulting in greater overall security for companies and more efficiency.

Identity Governance is one of the key solutions in this process. Many people, rightly associate Identity Management with the implementation of centralized accesses recognized by the organization, so that there are no individual accesses to separate systems within the company. The concept of Identity Governance is the next level ahead. Today, adopting Identity Management solutions is not enough. Different accesses are required for each user profile, for each system, and for regular hours of use.

Add a behavioral pattern analysis layer so that whenever a pattern is found that does not conform to the normal pattern for each user, the Identity Governance system can quickly track the actions and prevent any destructive action. Guaranteed 24/7 analysis of the behavior of all users in a company.

Likewise, to ensure compliance with the safety regulations of an organization (compliance), where the manual weight of collecting, recording, and keeping information requires substantial effort from all employees involved, it is essential to bet on an application system dedicated to Identity Management, at least, to ensure the automatism of all the processes developed.

Noesis is also committed to the active security of its clients' information systems, through strategic partnerships with **Darktrace and Dynatrace**. These technologies are implemented by our teams worldwide, protecting systems in an intelligent and evolving way. These solutions use advanced Artificial Intelligence engines that, on the one hand, ensure that the operation of the systems is constantly monitored in terms of performance, stability, and access, among others, and, on the other hand, act in the prevention, detection, response and automatic correction of any intrusion or anomaly in the monitored systems.