Report 2021

TOWARDS THE FULLY AUTOMATED ENTERPRISE™

THE EMERGING CIO IMPERATIVE

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01 EXECUTIVE SUMMARY

What once seemed possible is now probable – by embracing intelligent automation, enterprises can create a technology-led step change in performance and productivity. In order to make that shift, CIOs must demonstrate the value of automation and help the rest of the business to turn intelligent automation into a competitive advantage.

In this 2021 survey of leading European CIOs in partnership with UiPath, we examine how digital leaders are applying intelligent automation to evaluate where technologies such as robotic process automation (RPA), artificial intelligence (AI) and low code/no code can accelerate the reinvention of business and the redesign of work. We also consider the responsibilities of the CIO in helping to orchestrate this revolution in intelligent automation.

While our discussions suggest the implementation of intelligent automation is still at an early stage of maturity, they also indicate it already heralds a fundamental change in the way businesses operate. IT organisations will provide the platforms, education and orchestration for automation, process mining and associated technologies, while the various functions across the rest of the business will adopt a 'citizen's development' charter based on low code/no code.

However, this pattern we describe above is far from set in stone. The area of intelligent automation will continue to evolve rapidly. CIOs have an urgent duty to inform their peers of the huge potential of this technology and to provide the necessary governance and test environments to evaluate and guide its development over the next five to ten years.

Our findings suggest that CIOs should establish centres of excellence for RPA, process mining and associated methods to evaluate their full potential and adopt a suitable platform to enable rollout at scale. The establishment of these centres will enable organisations to proceed in a coordinated manner as they exploit the new era of intelligent automation and to achieve transformational outcomes in operational efficiency, customer experience and product innovation.

WHAT IS INTELLIGENT AUTOMATION?

Medium and large enterprises face ever-growing pressures to reinvent their business models due to increasing competition from digital-native organisations. Help in dealing with this pressure comes in the form of new tools and technologies that could facilitate a revolution in business redesign.

At CIONET, we call this revolution the era of intelligent automation, which embraces RPA, AI, and low code/no code. Some digital leaders are applying these tools already. These early forays into intelligent automation mean their businesses are enjoying first-mover advantage.

However, many organisations are struggling to embrace this new era. Senior managers in slower-moving enterprises continue to grapple with legacy issues, such as aging systems and processes, that could take several years to modernise. CIOs' current agendas are often dominated by operational programmes, such as cloud-first, mobile-first, legacy modernisation and cybersecurity.

This overbearing focus on the present means there is often little room for new initiatives. Yet our report suggests that CIOs must – as a matter of urgency – make space to consider the potential impact of intelligent automation.

What's more, implementing RPA isn't complex or expensive. First-mover companies are already generating significant value from automation. Take the example of Orange Spain, which has saved 34M euros in a little more than two years, and DHL, which achieved ROI from a pilot RPA project in just a month.

In this report, we summarise feedback from 15 leading European organisations at CIO level on the following aspects of intelligent automation:

1. What are the imperatives to accelerate business automation?
2. What are the different approaches to intelligent automation?
3. Where does intelligent automation sit within the CIO's agenda?
4. How are RPA and associated tools being applied today?
5. What is the CIO's role in intelligent automation?

Figure 1 – Intelligent Automation

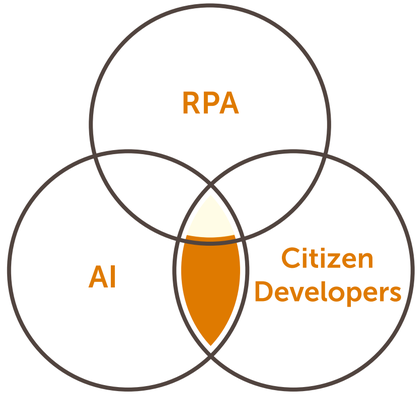


Table – List of interviewees

Kurt de Ruwe	CIO	Signify
Adam Marciniak	CIO	PKO BP
Dimitris Bountolos	CIIO	Ferrovial
Sanjay Patel	Group CIO	Tate & Lyle
Mark Foulsham	COO	Kensington Mortgage Group
Carsten Trapp	CIO	Zeiss
Michal Paprocki	CTO	Euroclear
Annick Faes	VP IT & CIO	J&J - Medical Devices
Nino Messaoud	CDO	Barry-Wehmiller
Michele Carmina	Head of Digital	Generali
Ricardo Gomez Fernandez	COTO	WiZink Bank
Vanessa Escrivá	Corporate CIO	Mapfre Group
Andrzej Grochowalski	CIO	INPOST
Andrew Morris	Group CIO	Affinity Water
Anonymous	CDO	Automotive

02 WHAT ARE THE IMPERATIVES TO ACCELERATE BUSINESS AUTOMATION?

An existential battle is raging globally between incumbents and digital natives. The explanation is simple – both want the biggest possible portion of the digital economy. In every sector, the battle lines are being drawn. VW faces off against Tesla in automotive. Walmart faces off against Amazon in retail. Disney faces off against Netflix in content streaming and PayPal faces off against Checkout.

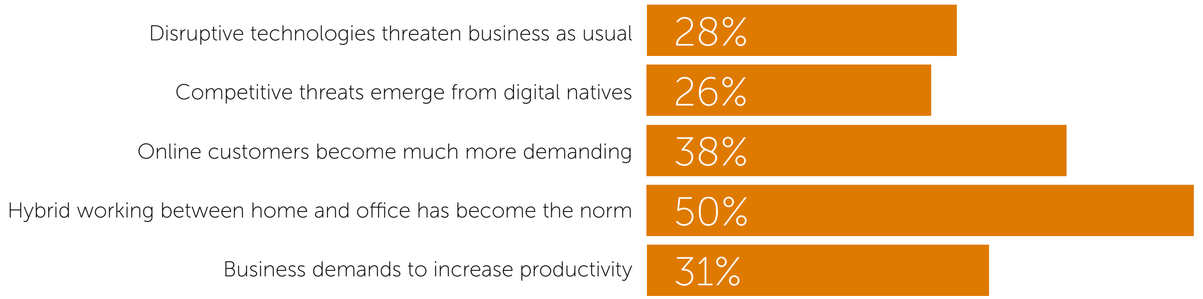
The battle is assuming a radically different form. In the pre-digital era, market leadership could be achieved by outperforming the competition in one of three areas: operational excellence, customer intimacy, product and service innovation. Today, digital natives have shown that market leadership is gained only by being world-class in all three areas. In this battle, the winner takes all.

Yet, in many ways, we are in the initial stages of confrontation. In Europe and beyond, the hard reality is that productivity has flatlined during the past two decades, corporate revenues have barely kept pace with inflation and stock markets have stagnated. While some have struggled, others have boomed: Apple is now worth more than the entire FTSE 100. In the new digital economy, incumbents are becoming ever-more vulnerable to fleet-of-foot digital competitors, who don't face the constraints that hold back incumbents, such as legacy processes, and are instead setting new performance benchmarks.

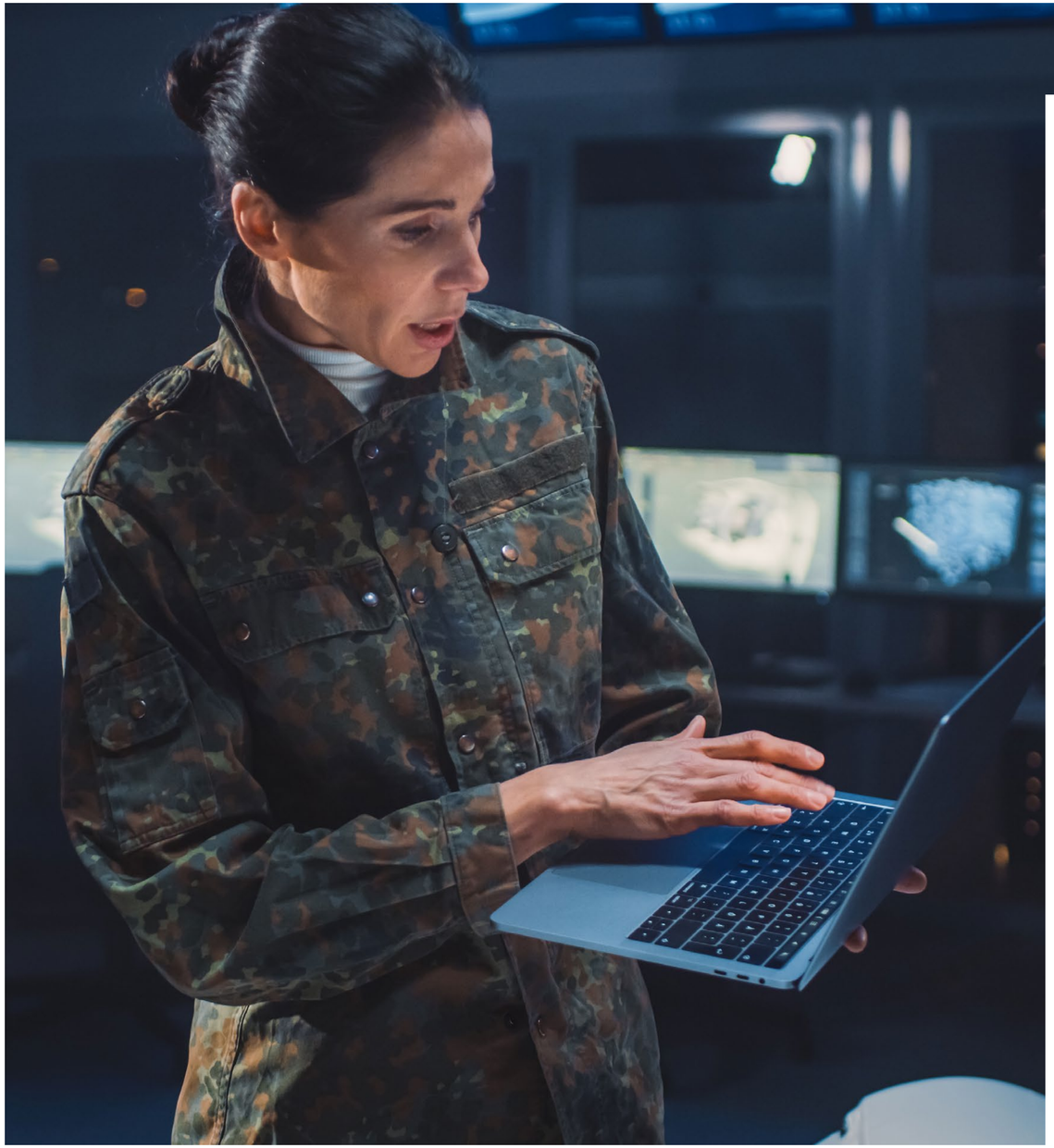
For leading companies, what might once have seemed an impressive target – such as a 5% annual revenue growth – is no longer enough to stave off digital competitors. Instead, our belief at CIONET is that these companies will need to target 50% improvements across all areas of operation to survive the onslaught. These businesses need to take a fundamentally different approach.

Boards and CIOs in traditional enterprises must employ more radical methods and tools to achieve stretched targets. According to our discussions with leading CIOs across Europe, intelligent automation will play a key role in levelling the playing field between incumbents and digital leaders during the next five years.

Figure 2 – What are the two most compelling reasons to reinvent your business post COVID?



Source: CIONEXT 'Reinvent Business, Reinvent Work' May 5, 2021

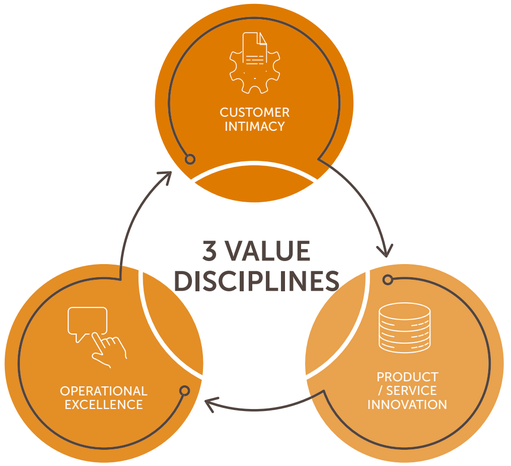


WHAT ARE THE THREE WAYS TO ACHIEVE DIGITAL LEADERSHIP?

Incumbents large and small that want to tackle digital natives head-on will need to apply intelligent automation across all three value disciplines (operations, customer experience and product and service innovation). We believe that excellence in these three value disciplines will allow companies to achieve digital leadership in their respective sectors:

- To achieve benchmark levels in operational excellence, our interviewees described how they are using software robots to assist or remove humans from low-value, repetitive tasks; redesigning critical business processes and in some cases adopting entirely new business models.
- To strengthen their relationships with consumers and business customers alike, these same CIOs are applying software robots to assist in analysing vast amounts of data that is emerging from online channels and connected products and services.
- To accelerate product and service innovation, some of the interviewees are transforming their organisations into software businesses, where open platforms, ecosystems and new development tools can reduce the time to market dramatically.

Figure 3 – Three value Disciplines



HOW ARE COMPANIES ACHIEVING OPERATIONAL EXCELLENCE?

Our discussions with leading CIOs provide many compelling stories of how they are transforming their operations to improve performance and to compete directly with digital natives. For example:

- Providing better visibility across the entire supply chain to be more responsive to customer demands, as in the case of Barry-Wehmiller, a global supplier of manufacturing technologies and services.
- Adopting standard processes across geographic regions to achieve group-wide efficiencies, as in the case of Generali Insurance Group.
- Outsourcing non-core aspects of operations to become more agile, such as in the example of WiZink, a digital bank that provides a wide range of services, including credit cards, savings and loans.

NINO MESSAOUD

Nino Messaoud, the CIO of Barry-Wehmiller, sees immense value in improving collaboration across the entire value chain. This focus on collaboration can speed up the delivery of spare parts, allow employees to undertake more predictive maintenance and help reduce overall costs. Messaoud summed up the benefits by stating that this kind of integration is to the advantage of all stakeholders – internal and external.

HOW ARE COMPANIES ENHANCING CUSTOMER EXPERIENCE?

The coronavirus pandemic has been a powerful catalyst for change. The challenges associated with lockdown and social distancing have forced a radical rethink of how organisations engage with their customers, both internally and externally. All organisations had to embrace digital transformation to carry on operating. This dramatic shift to 'online everything' has forced companies to strengthen their digital channel capabilities to serve employees and end customers. This process of digitisation is the continuation of a trend that was already underway but accelerated quickly in the pandemic.

Examples from the survey include:

- Using cloud and mobile platforms to provide a frictionless experience, as is the case at PKO, the leading Polish bank.
- Providing customers with more insight into product and service performance, as with Tate & Lyle, a leading supplier of ingredients to the food industry.
- Delivering solutions rather than products to focus on outcomes, as is the case at healthcare specialist J&J Medical Devices.

ADAM MARCINIAK

Adam Marciniak, group CIO of PKO, says his bank has undergone a fundamental transformation from a focus on products to customers during the past three years, employing digital (cloud) and mobile platforms to provide a 'frictionless experience' that gains the customer's attention and enables more services to be sold (for example, insurance and ticketing).

HOW ARE COMPANIES INNOVATING ACROSS PRODUCTS AND SERVICES?

The quest for new sources of revenue has never been higher, especially given the context of flatlining growth across many enterprises during the past two decades. Innovation has now moved towards the top of many boardroom agendas, with major investments being made to upgrade current products and introduce new ones.

According to our interviewees, a range of different approaches are being pursued:

- Using product data to generate new sources of revenues, as in the case of Signify, a global leader in lighting.
- Using transactional data to generate new service revenues, as demonstrated by Euroclear, the leading firm in the financial transaction sector in Europe.
- Partnering across industry platforms to develop new services, as in the case of Ferrovial, a global leader in construction.

Kurt de Ruwe, CIO of Signify, says 'Lighting is now an intellectual language'. Signify has adopted digital technologies for many of its products (both consumer and professional), opening exciting possibilities for new revenues relating to 'product in service', such as monitoring activity within a building. Such is the scale of this activity that de Ruwe talks now about 'Li-Fi' as well as Wi-Fi, with innovation around lighting seen as the perfect entry into smart homes, buildings, and cities.

DIMITRIS BOUNTOLOS

According to Dimitris Bountolos, group CIO of Ferrovial, the onset of new technologies means the construction industry is heading for a revolution. Historically, this sector has been slow to adopt new techniques and has a poor productivity record. However, Bountolos believes that Wave II technologies – such as IoT sensors, 5G, AI, blockchain, drones, augmented and virtual reality, and 3D printing – could lead to a tech-led revolution in construction processes from 2024 and beyond.

03 WHAT ARE THE DIFFERENT APPROACHES TO INTELLIGENT AUTOMATION?

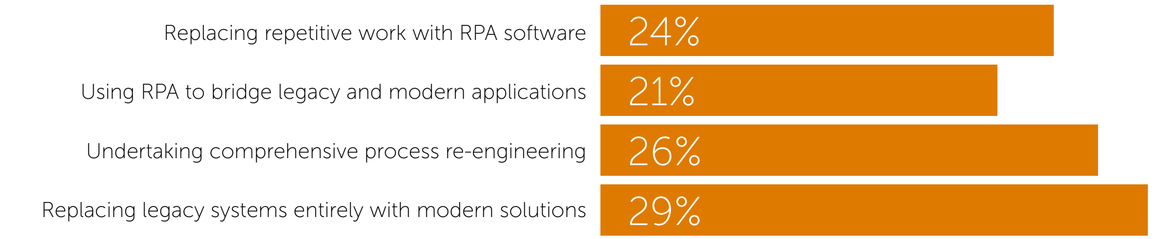
Over the past decades, fruitless paths have been trodden on the journey towards the fully automated enterprise. Think, for example of the following techniques: re-engineering in the nineties, workflow automation in the noughties, and lean thinking and total quality management. And yet, despite the application of all these techniques, productivity in Europe has flatlined during the past 20 years. In addition, real wages have declined for most Western workforces.

These failings are becoming ever-more pressing. As we enter the new era of 'winner takes all' that has been pioneered by fleet-of-foot digital natives, CIOs at incumbent organisations need an innovative approach to boost productivity and sponsor growth. So, how will they escape from the productivity and innovation traps that have haunted business leaders for decades?

Avoiding these pitfalls will not be straightforward. Our interviews suggest that there are many barriers to be overcome, such as legacy systems and processes, fragmentation of vital data assets, ponderous decision cycles and a lack of skills. However, it is crucial to recognise that our interviewees are adamant that none of these obstacles are insurmountable.

In the organisations we interviewed, a range of initiatives are already in place to help modernise systems and streamline processes. These include short-term, tactical fixes and longer-term redesigns. In short, what we have discovered is that how you approach automation depends on where you start. Early-stage pilots suggest that these initiatives can lead us directly to the 'fully automated enterprise.' Let's find out how.

Figure 4 – What is the most suitable pathway to enterpise automation?



Source: CIONEXT 'Reinvent Business, Reinvent Work' May 5, 2021

MICHELE CARMINA

Michele Carmina, head of group data and digital at Generali, recognises that there are hundreds of processes that need to be automated. At the beginning of his firm's automation journey, the philosophy was to identify those work activities within the processes that could be automated using robotics without radically changing the way work is done. This approach had the benefit of reducing disruption to current workflows. In the tactical phase, the group focused on simpler processes where immediate returns could be achieved – especially around cost reductions. This focus reduced risk to the business units, while demonstrating potential benefits.

After this phase, Generali has moved to a new stage of automation to unleash the collaborative potential of "Human + Machine". Using a combination of technologies, such as intelligent OCR, machine learning, NPL and RPA, Generali can now avoid repetitive tasks, offer swift and efficient references to past work, and eliminate bottlenecks, thus freeing up time for employees to invest their skills into more rewarding business activities.

PATHWAYS TO AUTOMATION – (1) APPLYING SHORT-TERM FIXES

A more fundamental redesign of business processes can take years to complete. However, the pace of change continues to quicken. Companies must find short-term fixes to reduce costs and speed up critical processes to both satisfy ever-more demanding customers and stave off competition from digital natives. Here are some tactical approaches that our interviewees are taking:

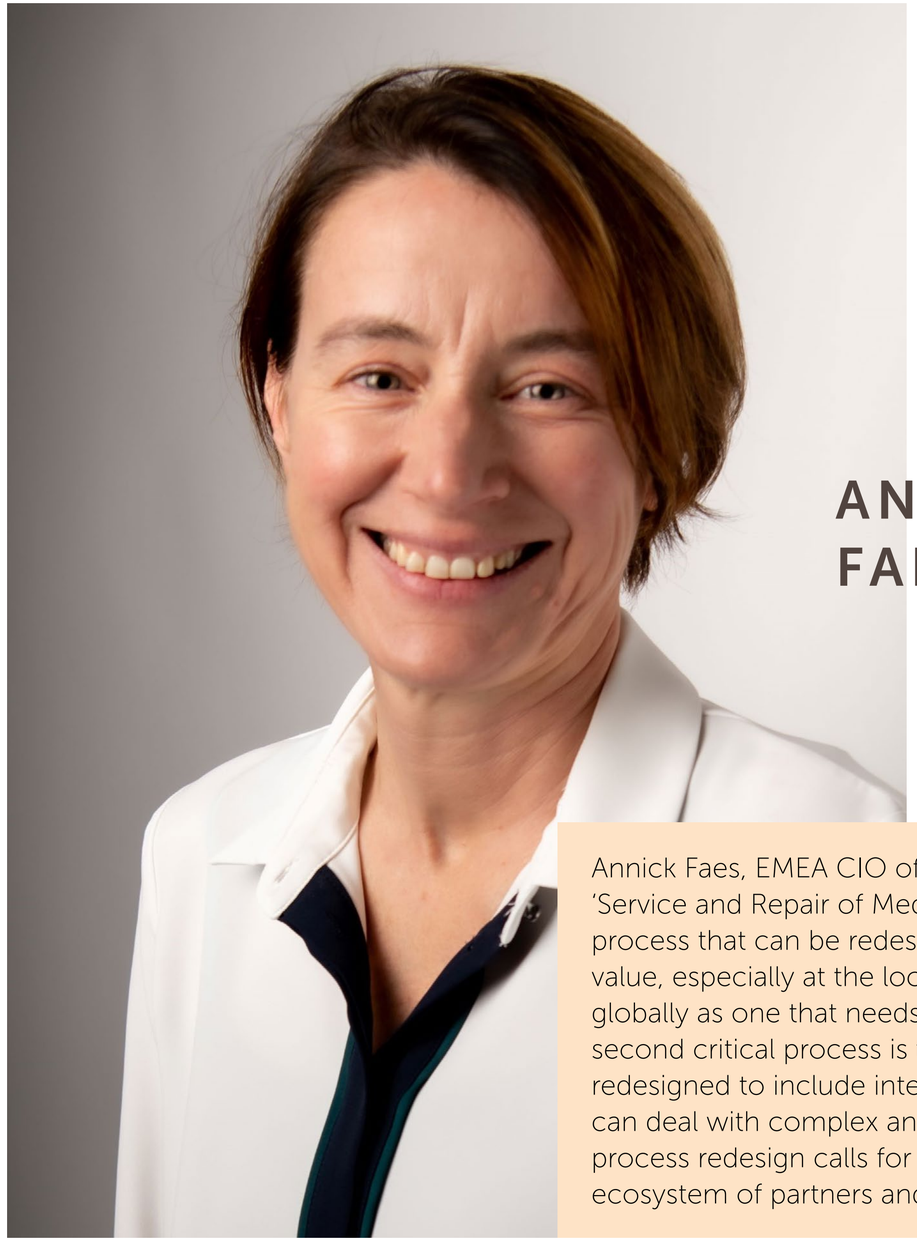
- Using robotic process automation (RPA) to eliminate repetitive, manual tasks in current processes, such as data entry and data manipulation (as in the case of Generali Insurance).
- Overlaying a data integration layer across fragmented systems to create transparency across supply chains (what Kurt de Ruwe of Signify describes as 'tomato sauce on spaghetti').
- Bridging legacy, on-premise systems, such as from monolithic ERP systems to modern applications resident in the cloud, using robotic software.

According to an Automotive CDO, there is always a dilemma for enterprises around whether to preserve the current ERP backbone and associated business processes or opt instead for a fundamental re-platforming. His view is that legacy systems such as ERP can evolve by adding overlays to meet fast-changing customer needs. There is ample evidence from his company to suggest that an evolutionary approach can save major disruption and produce business benefits.

PATHWAYS TO AUTOMATION – (2) USING STRATEGIC APPROACHES TO PROCESS REDESIGN

All interviewees recognise that their core systems and critical business processes are not designed to compete with digital natives. Fundamental change is required, but this will take years to complete. Incumbents, therefore, need to take a staged approach to automation. Our interviewees suggest the main pathways to modernisation include:

- Selecting two to three critical processes from the many hundreds that exist in large organisations and undertaking a complete redesign.
- J&J Medical Devices and their optimisation of patient pathways; WiZink and its development of frictionless customer on-boarding (see next page for details).



ANNICK FAES

Annick Faes, EMEA CIO of J&J Medical Devices, has selected ‘Service and Repair of Medical Devices’ as a crucial end-to-end process that can be redesigned to deliver far greater business value, especially at the local level. This process is recognised globally as one that needs to be mapped and automated. A second critical process is the ‘patient pathway’, which can be redesigned to include integrated solutions. No single vendor can deal with complex and individual patient issues. This process redesign calls for broader orchestration across the ecosystem of partners and vendors.

According to Ricardo Gomez Fernandez, COTO at WiZink Bank, the business redesign task is complex, with hundreds of processes to tackle. However, it is crucial to focus on a few critical processes – and for WiZink, that means addressing how the digital bank on-board new customers. This process cuts across various parts of the organisation and redesign involves substantial change. In the case of on-boarding, this includes dealing with customer credit validation, and card delivery and activation.

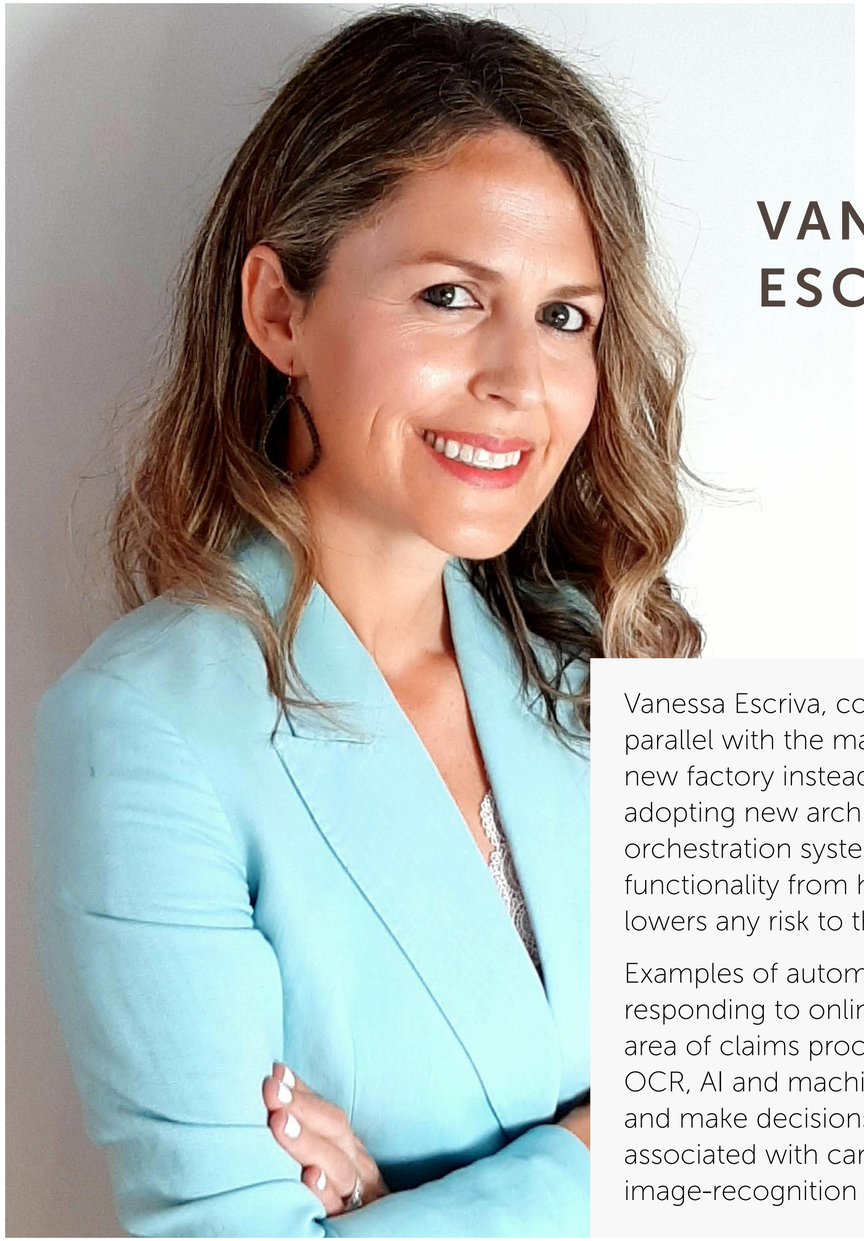
PATHWAYS TO AUTOMATION – (3) ADOPTING MORE HOLISTIC APPROACHES

An attempt to modernise the processes associated with today's factory might not be sufficient to help incumbents compete with digital natives that operate entirely different business models. In these cases, incumbents might need to take radical action, replacing their legacy systems entirely or adopting entirely new models. Examples include:

- Migrating applications to the public cloud and adopting Software as a Service (SaaS) opens possibilities for new organisational designs and associated services (see Euroclear, Michal Paprocki).
- Building entirely new processing factories based on digital business models and microservices can take place without disrupting current business flows (see MAPFRE, Vanessa Escriva).

MICHAL PAPROCKI

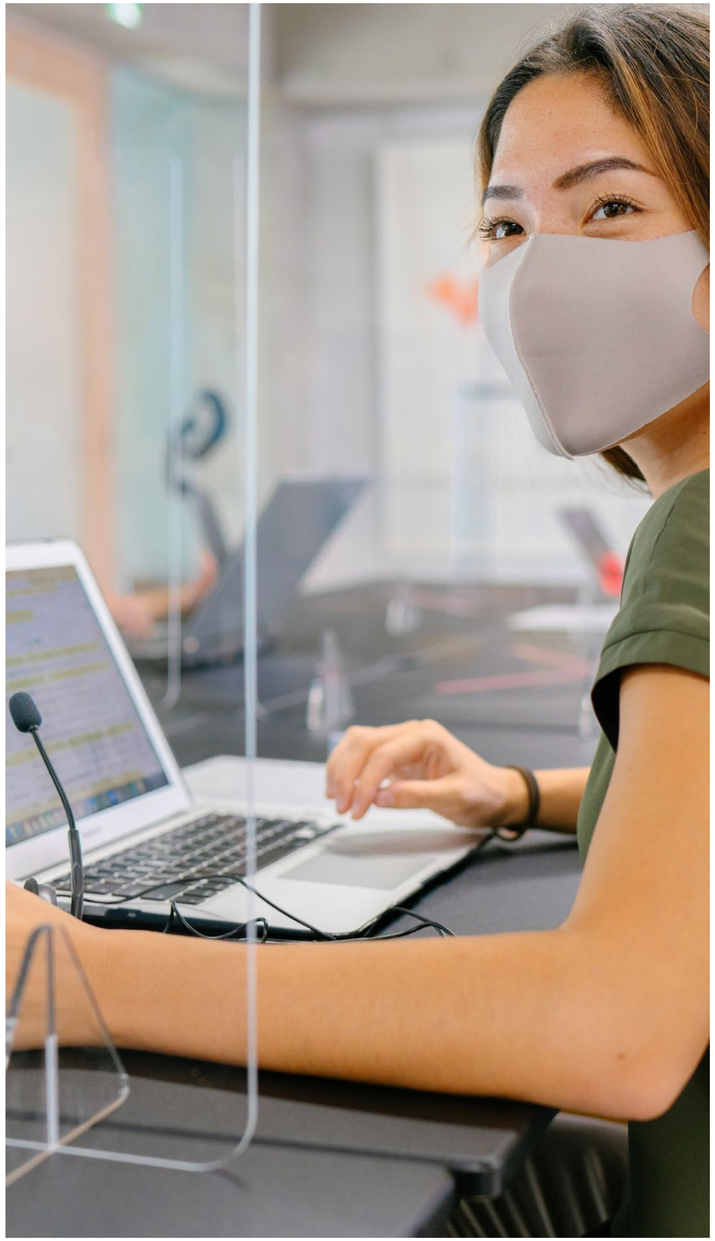
For Michal Paprocki, CTO of Euroclear, the essential ingredient for successful transformation is to decompose systems using open application programming interfaces (APIs) and de-risk new initiatives. Use of Agile development methods may prove difficult due to the rigidity of core platforms. For this reason, Paprocki is adopting a hybrid approach, with more extensive use of SaaS and software packages that 'wrap around' existing platforms.



VANESSA ESCRIVA

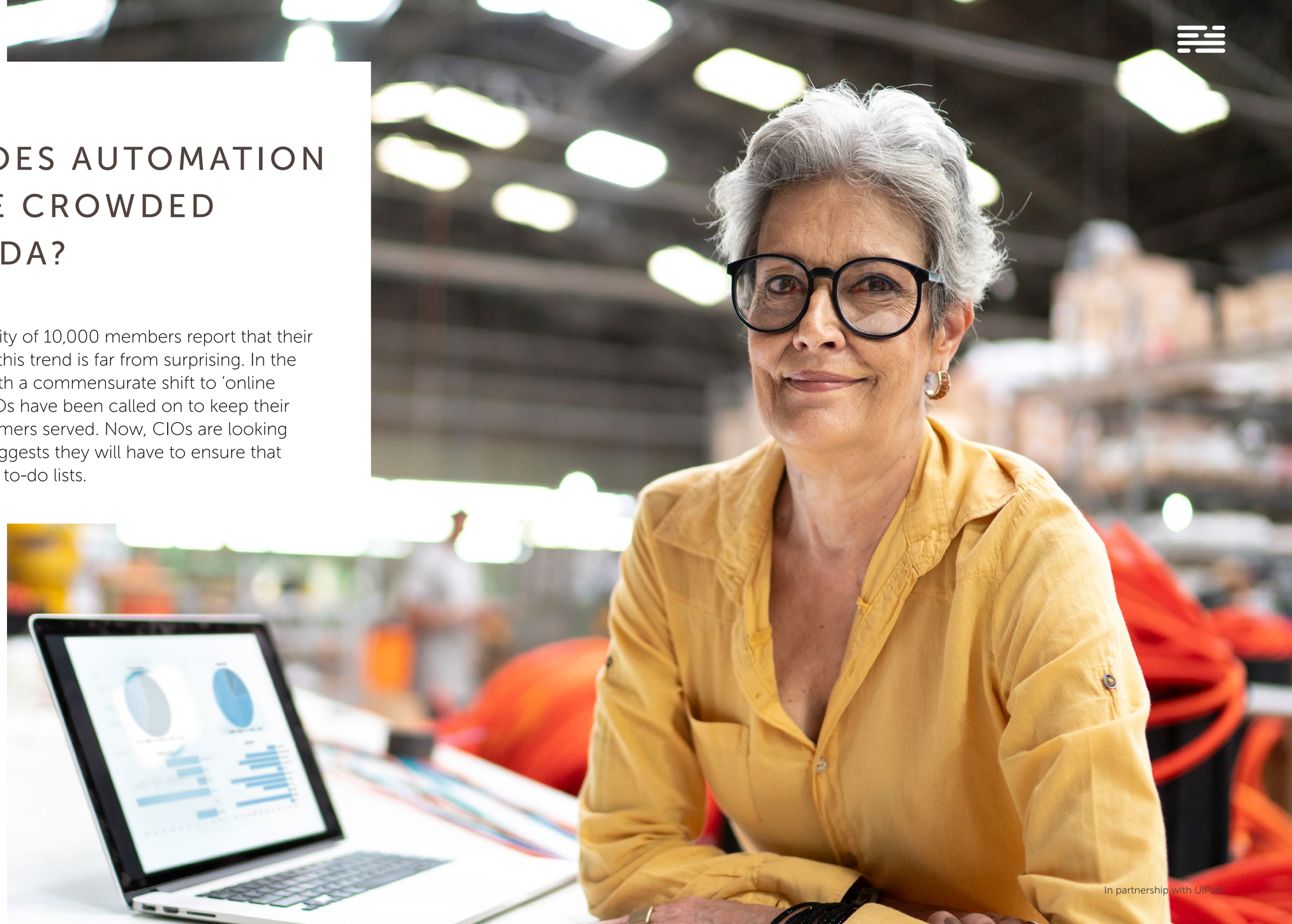
Vanessa Escriva, corporate CIO of MAPFRE, is redesigning processes in parallel with the maintenance of existing ones (for example, building a new factory instead of modernising current operations). Here MAPFRE is adopting new architectures based on microservices and the open-source orchestration system Kubernetes. The aim of this work is to extract the full functionality from heritage processes to build new ones. Working in parallel lowers any risk to the business.

Examples of automation include policy generation, where MAPFRE is responding to online insurance quotations via comparison websites. In the area of claims processing, innovative technologies – such as intelligent OCR, AI and machine learning – can be used to read incoming documents and make decisions for the business automatically. The capturing of images associated with car crashes, for example, can be automated by using image-recognition technologies.



04 WHERE DOES AUTOMATION FIT IN THE CROWDED CIO AGENDA?

CIOs across our CIONET community of 10,000 members report that their agendas have never been busier – this trend is far from surprising. In the wake of a global pandemic, and with a commensurate shift to 'online everything' and hybrid working, CIOs have been called on to keep their businesses running and their customers served. Now, CIOs are looking to the future – and our research suggests they will have to ensure that automation rises to the top of their to-do lists.



CLOUD-FIRST AND MOBILE-FIRST HAVE DOMINATED THE CIO AGENDA FOR THE LAST DECADE OR MORE

The interviewees in our research report that their decade-long transformation of organisational structures and customer (internal and external) services has focused on cloud-first and mobile-first strategies. However, the requirement for creative solutions to business challenges means CIOs continue to seek out emerging technologies:

- The move to cloud has been accelerated by hybrid working, data analytics and Agile software development.
- Competition with the companies that are pioneering developments in digitisation – who we refer to as digital leaders – has accelerated migration to mobile applications and platforms.
- IT is applying modern technologies to foster the innovation of business models and processes.
- IT is also helping businesses to pursue common approaches to process automation across different regions.

Examples of these kinds of initiatives were apparent in our research, including:

Signify started its cloud journey five years ago. Today, most of its applications are cloud-based. The company has also reduced the number of applications it uses from 4,000 to 1,000 since spinning off from the lighting division of Philips in 2016. ERP applications (now 23 years-old) remain located in two major data centres and might move to the cloud soon. CIO Kurt de Ruwe was emphatic that the IT organisation needs to understand the nature of Signify's target business models before re-platforming its ERP applications.

In the case of PKO, the widespread availability of cloud services in Poland enabled the bank to transition 13,000 staff to home working within days of the outbreak of COVID-19. The bank adopted Microsoft Teams as its collaboration platform. CIO Adam Marciniak commented that this technology was helpful in supporting collaboration within a virtual work environment. Cloud is now being used for data analytics and other functional applications such as HR. Cloud also enabled the rapid development of a COVID-19 app in just six weeks to support 50,000 health workers.

Having achieved successful cloud and mobile platform migrations, many CIOs are now looking to the future and are eager to place innovation higher up the business technology agenda. Our respondents believe that automation will be the next big thing because of a series of critical business imperatives, including:

- Reducing the cost base by 50% or more to keep pace with digital leaders
- Transforming critical processes that deliver world-class customer experience
- Enabling rapid innovation of products and services in weeks rather than months

For CIOs to deliver these quantum gains in performance improvement, they will have to find radical solutions – and intelligent automation could prove to be the key emerging technology.

Figure 5 – CIO's Agenda

05 HOW ARE RPA AND ASSOCIATED TOOLS BEING APPLIED TODAY?

According to interviewees, RPA and associated technologies – such as AI, machine learning and process mining – are still in the early stage of maturity. Our research suggests 20 to 100 robots are typically installed within large organisations. Those kinds of numbers don't look huge in the context of a business that employs thousands of people. However, these deployments highlight how pioneering business leaders are already exploring how automation can boost performance and productivity. Interviewees are actively exploring applications in three key areas:

- Creating further internal efficiencies by automating repetitive tasks and focusing staff on value-based activities.
- Offering new and effective ways to interact with customers by applying chatbots and natural language processing in call centres.
- Accelerating modernisation by providing an interim bridge between heritage and modern applications while organisations replace legacy systems.

STEPS TOWARDS ENTERPRISE AUTOMATION – (1) RPA CAN HELP REMOVE REPETITIVE TASKS

A CIO of an automotive specialist, described RPA as a "task engine" that can automate an increasing range of repetitive tasks. Here is where RPA is making a difference:

- Robots can help automate functional tasks, such as internal ticketing, tax submissions and document processing.
- They can also help to eliminate manual work within critical business processes, such as claims processing and construction.
- They can assist with data ingestion and manipulation between different applications.

Ricardo Gomez of WiZink has deployed software robots in areas of the business where repetitive tasks can be automated. One of the primary areas for automation has been internal ticketing. Employees often had difficulty accessing external services from external partners from their desktops. WiZink has sought to automate ticket resolution by introducing software robots that can monitor operational issues and learn through experience.

STEPS TOWARDS ENTERPRISE AUTOMATION – (2) RPA ENCOURAGES MORE EFFECTIVE INTERACTIONS WITH CUSTOMERS

When the pandemic hit, and social-distancing regulations meant companies had to rush to adopt online channels, chatbots and natural language processing (NPL) helped organisations to overcome customer-enquiry bottlenecks. In addition, RPA and AI have proven to be effective tools in assimilating and interpreting customer data. This deployment of automation is giving organisations greater insight into customer behaviour. As a recap, here is where RPA is helping improve customer interactions:

- Chatbots and NLP have assisted human operators in coping with quantum increases in traffic volumes at call centres during the pandemic.
- Robots and AI are helping to generate new customer insights by processing large volumes of data.
- Combinations of sensors and robots enable organisations to monitor product performance, such as in devices and buildings.

For PKO, the highest returns from smart automation (including RPA, AI and machine learning) will come from data analytics – an area of exploitation that he says is expanding rapidly across the bank. Automation will also change the way the bank interacts with its customers, encouraging active dialogue through NLP and intelligent robots. PKO recorded over one million tech-enabled conversations in 2020.

In construction, Ferrovial is using software robots to constantly monitor data from sensors on buildings, roads, and other physical structures, and to generate alerts about potential issues automatically. Sensors will become ubiquitous due to the networking capacity enabled by 5G, which demands much less battery power than 4G.

STEPS TOWARDS ENTERPRISE AUTOMATION – (3) RPA CAN HELP MODERNISE BUSINESS STRUCTURES

MARK FOULSHAM

Companies such as Kensington Mortgage (Mark Foulsham, COO, pictured above) and Ferrovial have experienced rapid corporate expansion during the past few years. In this respect, automation of repetitive tasks is a critical imperative in helping to create additional capacity. These companies also recognise the need to break down silos between functions and divisions – and RPA can have a strong impact here.

ANDY MORRIS

For Andy Morris, CIO of Affinity Water, the cost and potential disruption of replacing heritage systems is encouraging organisations to postpone their legacy-replacement programmes. Instead, Affinity is using RPA as a means of bridging the gap between on-premises core systems, such as enterprise resource planning (ERP), and modern applications that are developed and then operate in the cloud.

06 WHAT IS THE CIO'S ROLE IN INTELLIGENT AUTOMATION?

The case for automation is clear – large organisations need to reduce costs and improve speed to market to compete with more agile and streamlined digital natives. As they begin to enter maturity, RPA and an associated range of AI tools will provide the means for action. There is no room for complacency. CIOs must prepare for a fully automated enterprise. Key tasks will include:

1. Review and upgrade critical business process design to achieve high performance outcomes.
2. Introduce standardisation across organisations to reduce complexity and increase efficiency.
3. Pilot and scale RPA applications to support all mainstream processes and functions.
4. Implement effective guard rails to ensure that robots can interwork effectively and securely across functional and regional silos.

Interviewees are establishing centres of excellence to evaluate and test RPA and AI. Many are re-examining their enterprise architectures to accommodate robotics on a global scale by using orchestration platforms.

THE CIO'S SUPPORTING ROLE IN ENTERPRISE AUTOMATION – (1) UNDERTAKING BUSINESS PROCESS REDESIGN

Although many past attempts have been made to use technology to improve the critical processes that businesses undertake, interviewees describe modern process-mining tools as a step change when it comes to uncovering bottlenecks and modelling innovative solutions. From our interviews, here are some of the key processes that are being redesigned:

- For manufacturing companies, process redesign is focused on product innovation and in-service maintenance.
- For banks, process redesign focuses on customer on-boarding and loan authorisations.
- For insurance companies, process redesign focuses on claims processing and policy management.

Adam Marciniak, CIO of PKO Bank, stressed that his firm focuses on a few critical processes, including on-boarding new customers. Fulfilling these critical processes cuts across various parts of the organisation and will involve substantial change and redesign. In the case of on-boarding customers, this included credit validation, and card delivery and activation.

Vanessa Escriva, group CIO of MAPFRE, is applying new techniques to claims processing. In addition to RPA, the technologies being applied include intelligent OCR, AI and machine learning. These technologies are being used to read incoming documents and make decisions automatically. The capturing of images associated with car crashes, for example, can be automated by using image-recognition technologies.

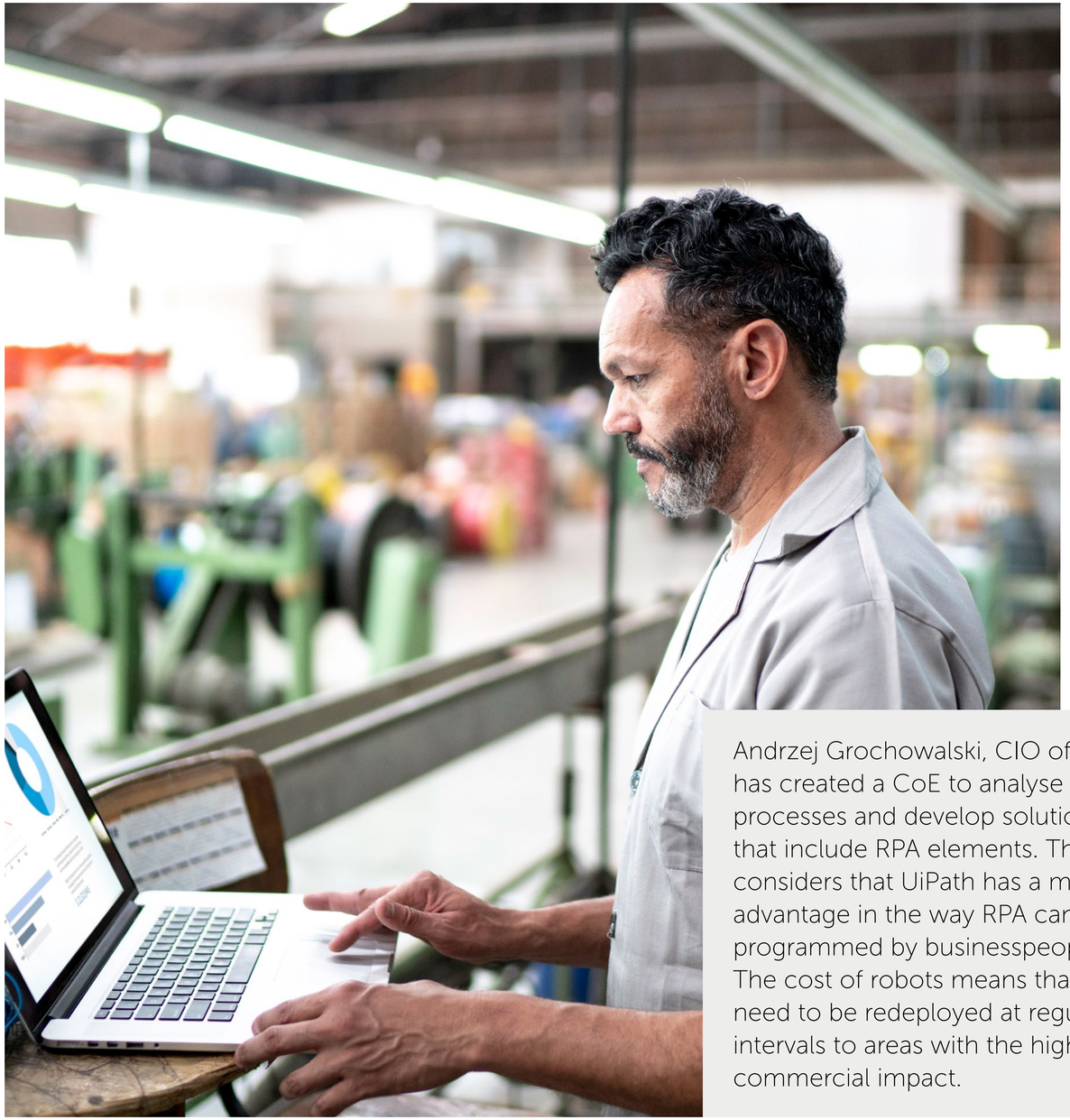
THE CIO'S SUPPORTING ROLE IN ENTERPRISE AUTOMATION – (2) INTRODUCING STANDARDS TO SUPPORT SCALE EFFICIENCIES

Organisations with complex structures that reach across multiple business lines and territories see process redesign as an ideal opportunity to increase standardisation of business processes and operating procedures. Several CIOs mentioned that they had set up group boards to oversee such activities and were looking for further scale efficiencies:

- Adopting common process designs between national affiliates in the case of global organisations such as Generali and MAPFRE.
- Harmonising processes within functions, such as finance and HR, at organisations including Ferrovial.
- Adopting open platform standards to accelerate post-merger integration, as in the case of WiZink Bank.

A CIO commented that RPA can be the best or worst thing that has happened in the world of IT. RPA is a powerful hammer, but you need to find the right nail. This implies strong governance around the deployment of RPA within the business. Given the broad distribution across 34 different national markets, it is crucial to ensure central control is maintained so that standards remain in place across the group. This centralised control makes it easier for the company to retain its scale advantage.

WiZink emerged from a tripartite merger in credit cards and loans. To enable integration, an open-banking platform was built completely from scratch when the digital bank was created. However, from the operations side, many of the acquired operating processes were not suitable for a fully digital bank. The first step in the merger was to harmonise the different processes within the new structure. CITO Ricardo Gomez recognised that there was no time to begin from nothing.



Andrzej Grochowalski, CIO of InPost has created a CoE to analyse critical processes and develop solutions that include RPA elements. The CIO considers that UiPath has a major advantage in the way RPA can be programmed by businesspeople. The cost of robots means that they need to be redeployed at regular intervals to areas with the highest commercial impact.

THE CIO'S SUPPORTING ROLE IN ENTERPRISE AUTOMATION – (3) PILOTING AND SCALING RPA SCHEMES

Organisations are deploying RPA and AI in a range of application areas right now to assess the potential benefits and build cases for full-scale rollouts. Here are two examples of organisations that are employing Centre of Excellence (CoE) approaches to piloting and scaling RPA:

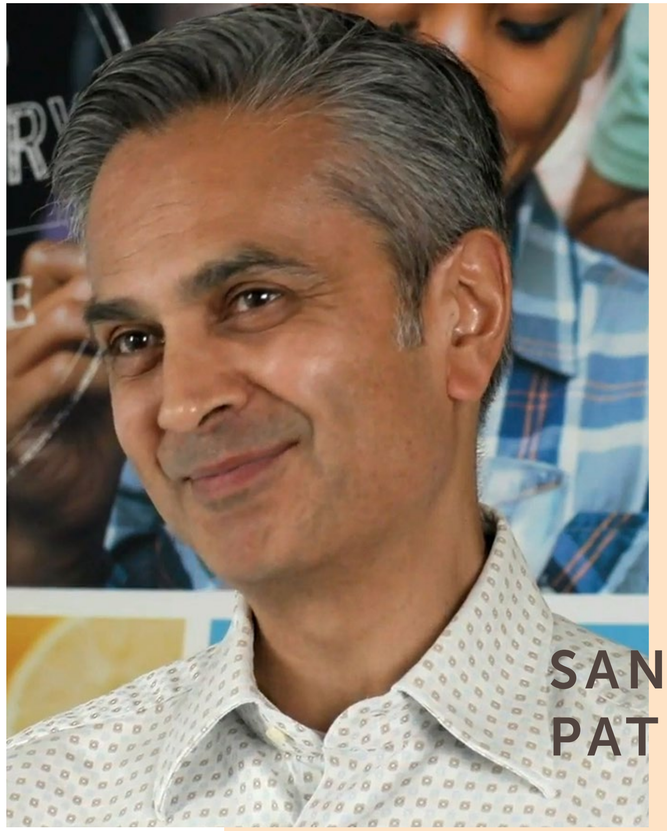
Generali has established a CoE at group level to help its business units to undertake automation. The CoE is also working closely with the Italian business to co-develop new techniques. The role of the CoE includes:

- Developing and applying a structured approach to process mapping that can quantify benefits, including cost reduction and improved responsiveness.
- Providing people and training to the business units to help them become more self-sufficient. Also, providing staff to support project management and implementation.
- Helping to finance local projects to encourage the business units to start on the automation journey.
- Forming global agreements with vendors and associated automation technologies to obtain pricing discounts and consistency of usage across the group.
- Building a library of assets such as APIs that can be accessed and applied by local businesses.

THE CIO'S SUPPORTING ROLE IN ENTERPRISE AUTOMATION – (4) IMPLEMENTING GUARD RAILS TO ENSURE THAT ROBOTS CAN WORK SECURELY AND EFFECTIVELY

Interviewees recognised that RPA and AI will bring in a new era of citizen development. Although this era should help to accelerate the development of new applications, it also brings inherent risks that IT will need to mitigate. Technology teams will play a key role in helping to educate the rest of the business about automation. They can also mitigate potential shortcomings.

- The cost of purchasing and maintaining thousands of semi-autonomous robots, each engaged in different tasks across the organisation. There are limitations to interworking if open standards and interfaces are not implemented early in the adoption cycle.
- The possibility of pockets of grey IT, as users develop their own applications and data sets away from the gaze of the technology department.
- The necessary response by IT is to establish suitable guard rails to enable interworking and improve economic returns from RPA. A key aspect here is for CIOs to ensure that their businesses adopt a cross-organisation automation platform upon which RPA developments can take place. Such platforms will increase interworking and enhance overall security.



SANJAY PATEL

Tate & Lyle's CIO, Sanjay Patel, wishes to avoid further bouts of shadow IT, where people across the business adopt their own standards and tools. He makes a sharp division between anything that touches code is IT's responsibility; and end-user applications, where the businesses should have the freedom to adopt their own solutions. IT should focus on managing the whole approach, whereas business units require insights and agility to address their local needs.

07 WHAT ARE THE NEXT STEPS TOWARDS THE FULLY AUTOMATED ENTERPRISE?

Our interviews with leading CIOs across Europe suggest that RPA and associated technologies offer a new and effective pathway towards the fully automated enterprise. While these technologies are at an early stage of maturity, some companies are already generating value from RPA. These successful implementations highlight how intelligent automation can make a dramatic difference to how enterprises operate, but only if IT organisations become involved as early as possible.

Automation will need careful governance to ensure beneficial outcomes. CIOs should be custodians of intelligent automation. They should make active efforts to assess and deploy automation tools, and provide governance, education, and platform support to their business partners. In such a situation, CIOs should undertake the following actions:

1

Evaluate RPA, AI, and process mining through controlled pilots, sponsored where possible at group level. Examine appropriate platforms that will enable the scaling up of RPA as and when value is proven.

2

Inform peers in the C-suite of the potential opportunities and benefits that automation brings. Agree to an appropriate roadmap.

3

Work with lines of business to explore and test low code/no code approaches towards intelligent automation.

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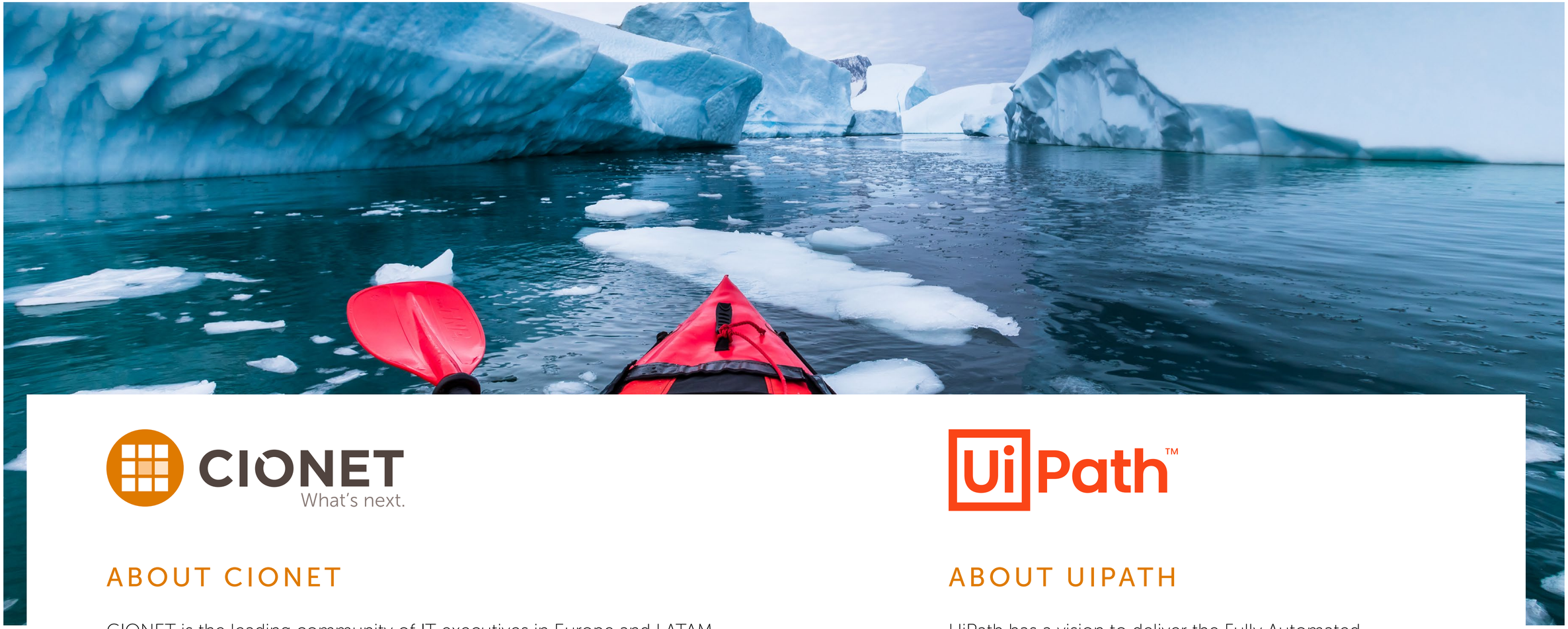

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