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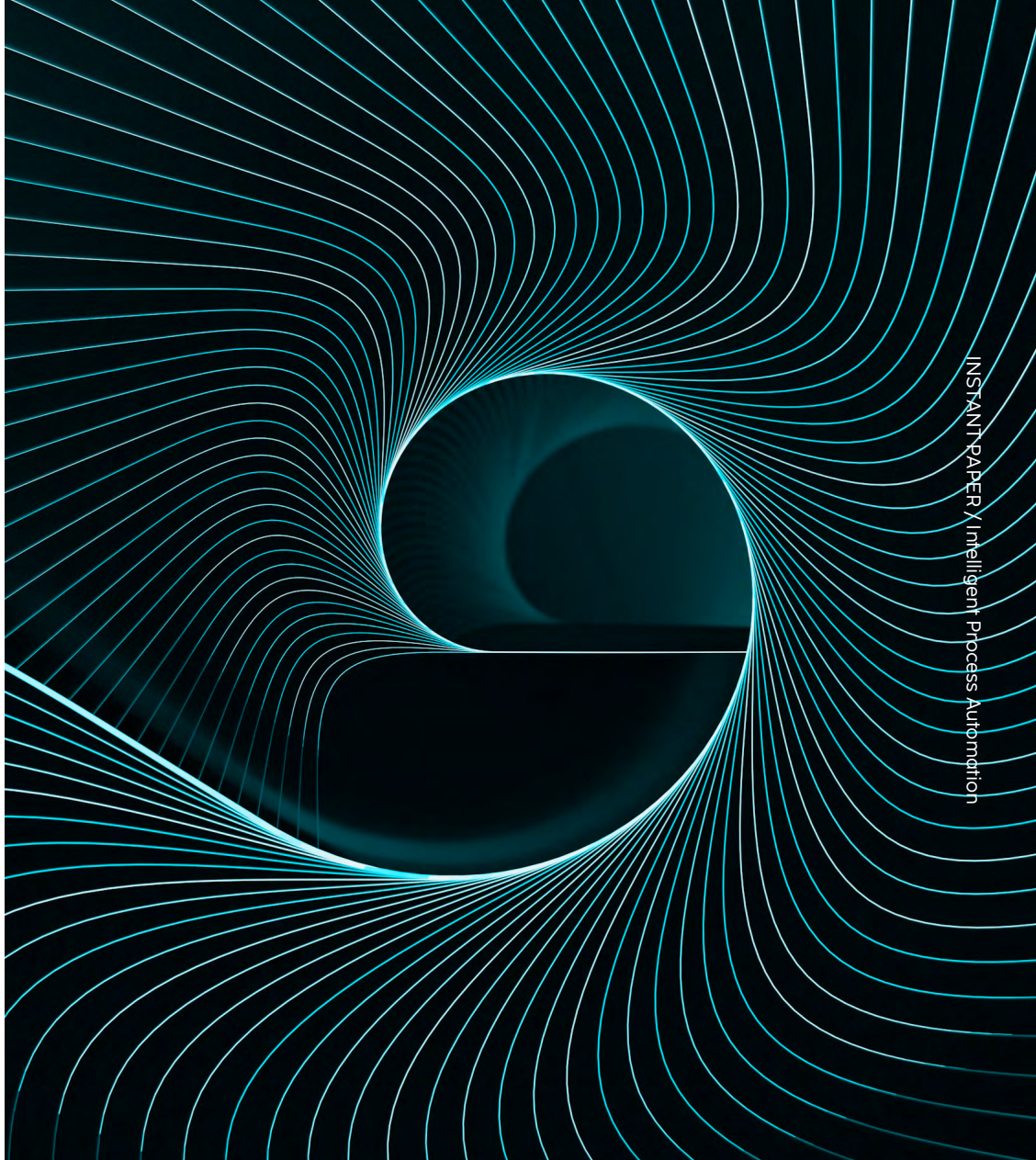
INSTANT PAPER

Intelligent Process Automation



Authors

Luca Bassignani
User & Business Services Senior Director

ENGINEERING
luca.bassignani@eng.it
in Luca Bassignani

Davide Luigi Tonso
RPA Service Delivery Manager

ENGINEERING
davide.tonso@eng.it
in Davide Tonso

Emanuele Cacciatore
Offering, Innovation & Deal Management Director

ENGINEERING
emanuele.cacciatore@eng.it
in Emanuele Cacciatore

Massimo Canducci
Cloud & Infrastructure Offering Manager

ENGINEERING
massimo.canducci@eng.it
in Massimo Canducci

Giulio Franco
Cloud & Infrastructure Offering Manager

ENGINEERING
giulio.franco@eng.it
in Giulio Franco

Roxana Oana
Strategic Marketing & Content Senior Manager

ENGINEERING
roxana.oana@eng.it
in Roxana Oana

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01 IPA: from RPA to Next-Gen Automation

Intelligent automation represents a natural evolution, seamlessly combining the processing power of AI with the operational strength of RPA.

The world of automation is constantly evolving, and the shift from traditional Robotic Process Automation (RPA) to integration with Artificial Intelligence is redefining the landscape of enterprise business process management. Initially linked to the simplification of routine tasks, RPA has paved the way for a more advanced and dynamic approach: **intelligent automation**.

In recent years, **the automation landscape has undergone a radical transformation**, evolving from the early rudimentary forms of screen scraping to the

advanced development of RPA technologies.
This evolution is not merely a matter of technological innovation; it is driven by established trends that promise to have a significant impact across all industries, redefining how companies operate and interact with their customers.

The integration of Artificial Intelligence (AI) technologies such as Machine Learning (ML), Natural Language Processing (NLP), and Optical Character Recognition (OCR) represents a significant step forward toward cognitive automation - automation enhanced by AI technologies. Cognitive Automation **solutions go beyond executing pre-programmed tasks; they continuously learn from data and performance**, constantly improving business processes. Unlike traditional automation, intelligent automation can handle unexpected errors and address exceptions, making it particularly suited for complex and dynamic operations.

Real-time handling of customized customer requests significantly **enhances the self-service experience**.

However, it is essential not to underestimate the crucial role of humans in business processes. While robots can manage both front-office and back-office tasks, the human workforce remains indispensable for addressing more complex, high-value challenges. The interaction between Artificial Intelligence and human capital is the key to effective and sustainable transformation.

In parallel with the growth of cognitive automation, SaaS-based RPA and Intelligent Process Automation solutions are rapidly gaining traction. These cloud-managed platforms offer unprecedented economic flexibility and immediate scalability, enabling companies to adapt swiftly to the ever-changing demands of the market.

In today's global and complex environment, these innovations empower businesses to become more agile and responsive. Enhanced cognitive intelligence also allows chatbots to evolve, enabling them to manage increasingly sophisticated customer interactions and further solidifying their role in driving organizational agility and efficiency.

Artificial Intelligence and Real Process Automation, working in synergy, can optimize business activities and generate Intelligent Process Automation (IPA) solutions.

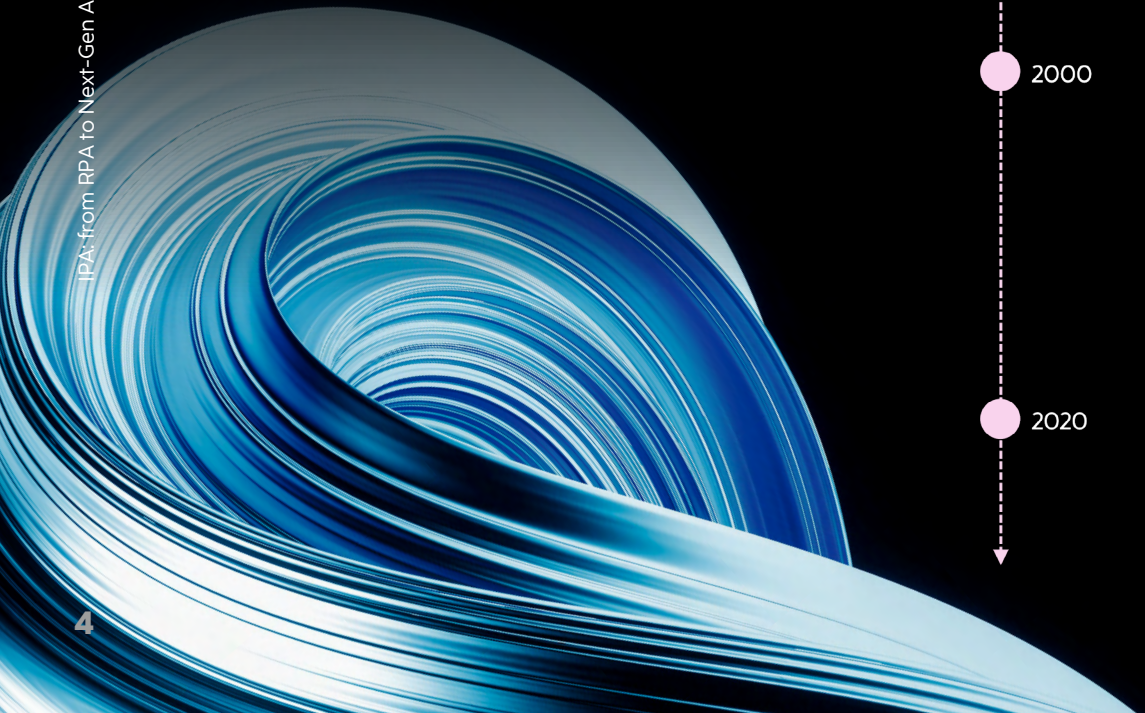
These technologies not only adapt based on past actions and experiences but, unlike traditional automation, enhance visibility, transparency, and communication across the entire value chain.

The emergence of large language models (LLMs) and Generative AI is driving significant advancements in the field, enabling virtual assistance scenarios.

These models allow tasks to be triggered through interactions with virtual agents powered by conversational engines, opening new frontiers for process automation.

The advent of IPA, coupled with the rapid advancement of smarter technologies, is ushering in **a new era of cognitive automation** - set to transform the nature of work and reshape business interactions.

RPA has advanced from merely retrieving information from user interfaces to automating complex processes, empowered by the capabilities of AI.



1990

Screen & Web Scraping

Scraping tools emerge as solutions to extract data from websites, applications, and documents, making them available for other applications. Visual data is acquired as text through the search and recognition of elements in the user interface. Screen scraping focuses on collecting unstructured data in full-text format, natively or through Optical Character Recognition (OCR) from images. In contrast, web scraping extracts structured HTML data directly from websites.

2000

Workflow Automation & Management Tools

Workflow Automation tools are designed to execute a series of automated actions that reduce the workload of human labor. These actions must be repetitive so their steps can be defined precisely. Workflow automation uses rules to determine when a step is complete, triggering the start of the next one.

2020

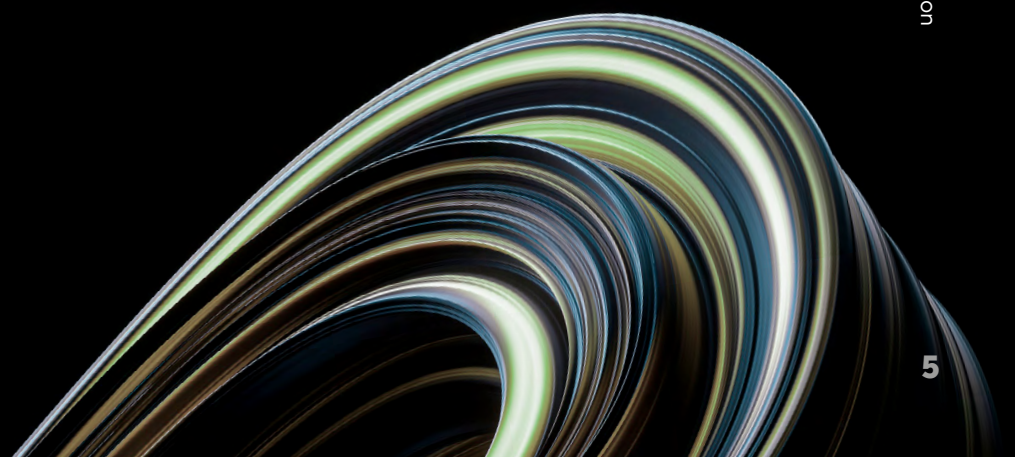
Intelligent Automation con AI

AI represents a significant advancement, enabling machines and robots to perform tasks traditionally reserved for human intelligence. AI programming relies on three fundamental techniques: learning, reasoning, and self-correction. This technology can be integrated into workflow automation tools, allowing decisions to be made on how best to execute tasks, based on data and knowledge acquired over time.

The integration of AI with RPA expands the possibilities of process automation, enabling the management of complex and unstructured operations through advanced cognitive capabilities.

AI and ML technologies can enhance traditional RPA by improving the analysis and management of complex processes involving large volumes of data.

This approach enables informed decision-making while also optimizing workflows through continuous learning powered by ML.



02 Key Market Trends

Key Trends

$13 Bln

THE GLOBAL ROBOTIC PROCESS AUTOMATION (RPA) BY 2030

+12 bln compared to 2020

$1,2 bln
GLOBAL COGNITIVE RPA MARKET REVENUE IN FINANCE BY 2026

8 out of 10
BUSINESS LEADERS PLAN RPA IMPLEMENTATION IN THE COMING YEARS

+10%
ESTIMATED SAVINGS FROM AUTOMATION

$ 77 mln
ARTIFICIAL INTELLIGENCE DRIVEN ROBOTS MARKET SIZE BY 2030

3,6 h / week
SAVINGS THROUGH AUTOMATION ON A WEEKLY BASIS

CAGR 26.1%
THE HEALTHCARE RPA MARKET ANNUALLY GROWTH FROM 2023 TO 2032

The main challenges come from:

Process/technical complexity and siloed automation, enterprise-wide intelligent automation strategy

TOP 3 BUSINESS BENEFITS

Efficiency boost

AI-powered insights

Agile scaling

RPA and AI synergize for efficient automation and intelligent decision-making.

Data displayed represents our elaboration of data coming from multiple sources.

03 Automation in action and application models

Robotic Process Automation (RPA) is a suite of technologies designed to automate repetitive, large-scale, and error-prone business processes through BOT software. These bots emulate user interactions with applications while upholding stringent data security standards.

RPA solutions can function autonomously to execute predefined processes or collaborate with users to complete workflows. Key features include dynamic messaging to guide user actions, dashboards that consolidate process data, and simplified workflows for approvals.

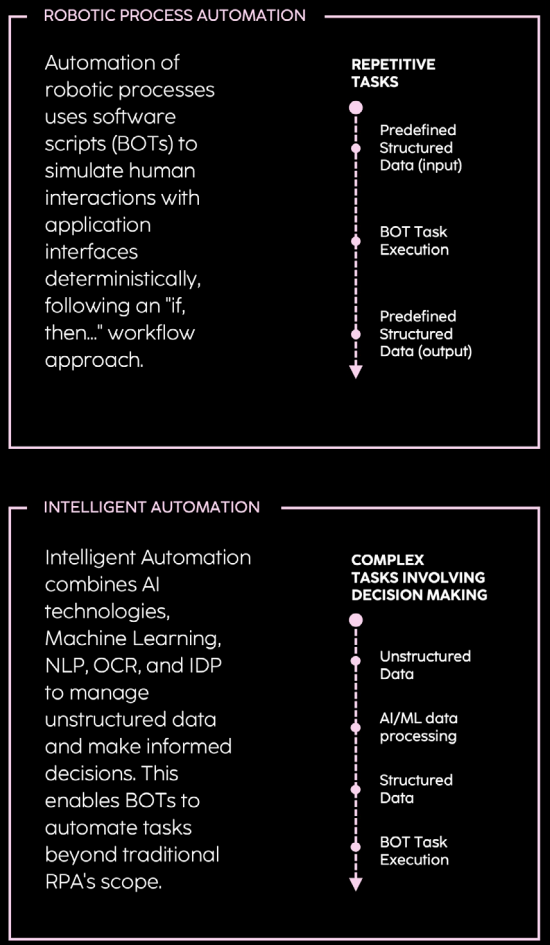
Intelligent Process Automation (IPA) takes automation a step further by combining advanced data analytics, natural language processing, and AI-driven decision-making with RPA. This integration enables the autonomous management of complex business processes that involve decision-making tasks.

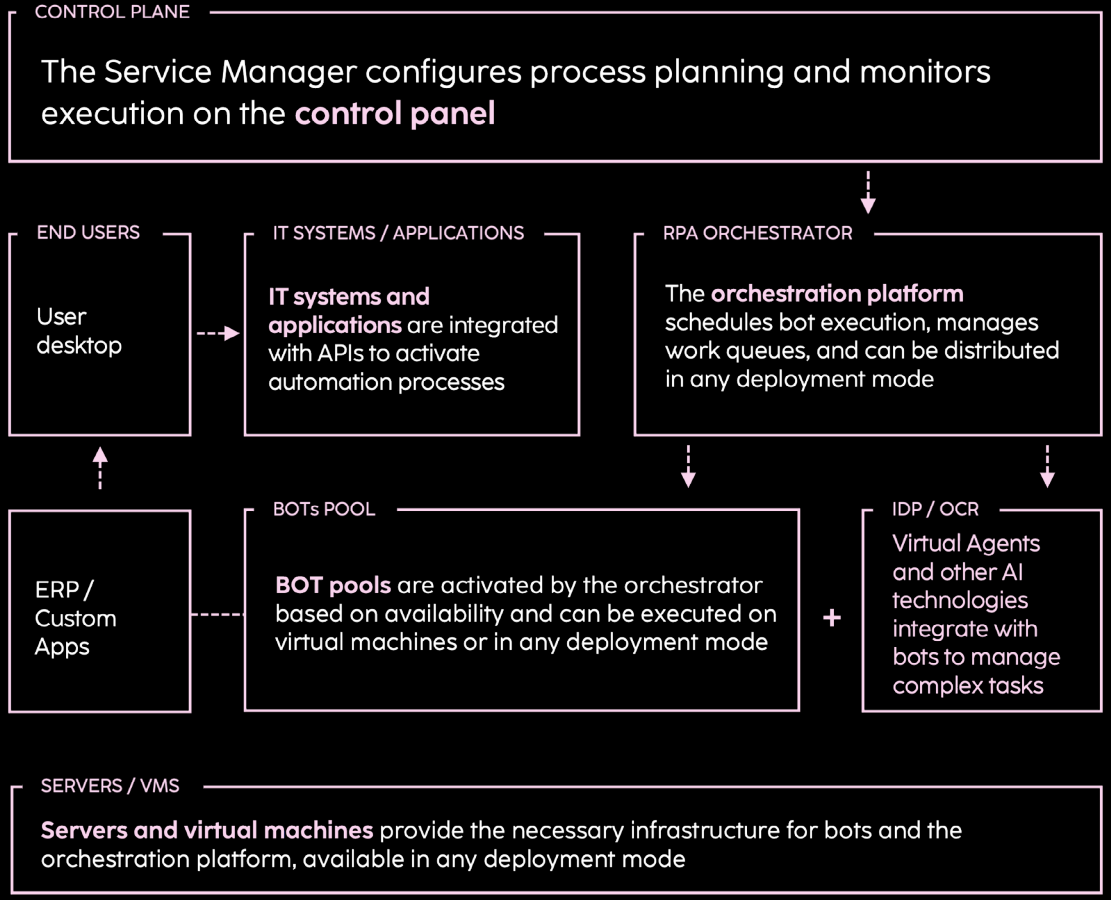
The synergy of AI and RPA broadens the scope and amplifies the impact of process automation, addressing intricate scenarios that demand advanced cognitive capabilities.

Unlike traditional RPA, which is rule-based and deterministic, **advanced automation leverages AI technologies** such as Intelligent Document Processing (IDP), Natural Language Processing (NLP), and Optical Character Recognition (OCR). These tools analyze and extract unstructured data, automate tasks requiring synthesized data in specific formats, and incorporate capabilities like Generative AI (GenAI) through Large Language Models (LLMs), Deep Learning (DL), and Data Analytics.

This combination enables the automated resolution of both structured and unstructured processes, with continuous optimization and autonomous decision-making.

While traditional RPA excels in handling repetitive, rule-based tasks, **Intelligent Process Automation interprets unstructured data**, makes informed decisions, and adapts in real-time to evolving business contexts.
This results in enhanced operational efficiency and productivity, allowing organizations to extend automation capabilities beyond traditional boundaries and address more complex processes.





The architecture of the Real Process Autiomation solutionis based on an orchestration platform that manages the collection, planning, and assignment of tasks and processes across a pool of BOTs, regardless of the type of infrastructure used.

The components of a Robotic Process Automation or Intelligent Process Automation software typically include a control panel with dedicated access for the service administrator.

Through this panel, it is possible to **configure and monitor automated processes**, such as scheduling tasks and automatically dispatching them to available bots. This follows a FIFO (first in, first out) logic, ensuring

that tasks are executed in the order they are received.

In unattended automation scenarios, processes can start automatically when predefined events occur, triggered through the control panel on specific systems or applications.

For example, clicking "Submit" in a form might initiate a data processing and extraction process for tracking in internal systems. In this case, the system recognizes the action and begins processing the data without the need for human intervention.

Bots can operate on physical servers (on-premise) or cloud infrastructure, whether private or public, to ensure greater scalability.

They execute automation tasks according to predefined schedules, interacting directly with various business systems and applications involved in the processes.

Once the bots have completed their tasks, the automation results are displayed on the end user's screen, allowing the user to confirm or modify the operation's outcome, ensuring final control over the processed data.

The automation of repetitive and error-prone work processes leverages a set of advanced technologies, including tools with "intelligent" workflows.

In this context, **RPA and IPA play a pivotal role** within the IT infrastructure of organizations by automatically interacting with existing software applications and emulating human actions with equivalent access rights.

This enables organizations to quickly and efficiently implement new technologies without the need to modify existing systems and processes, while simultaneously ensuring greater speed and quality in operations.

This flexibility allows organizations to address a wide range of automation scenarios, identifying the most suitable types for each context. Specifically, it is useful to analyze two main approaches:

- **Attended Automation**: in this model, a human operator supports the execution of specific tasks and manages any escalations by activating a bot through a desktop interface. This approach ensures active supervision and the ability to intervene directly when needed.
- **Unattended Automation**: this model involves a human operator assisting in the execution of specific tasks and handling any escalations by initiating a bot via a desktop interface. It provides active supervision and enables direct intervention whenever necessary.

Traditionally, unattended automation focuses on easily replicable and repetitive processes.

However, in recent years, there has been a growing interest in attended automation, particularly in scenarios like service desks, where operators actively collaborate with bots to manage process activities.

In such cases, human interaction not only facilitates task execution but also contributes to the training of AI models, further enhancing operational efficiency.

Considering the various types of automation and their areas of application, along with the presence of intelligent automation, it is possible to outline four main service models for the implementation of RPA.

Depending on the nature of the process and the level of interaction required between robots and users, various automation models can be outlined.

Traditional RPA

DESKTOP AUTOMATION

Rule-Based and Human-Assisted RPA in which humans and bots collaborate on the same desktop to execute shared tasks.

The bot works alongside the user directly on the desktop through an agent, residing on the same virtual machine/server. The operator supervises the bot's activities in real time and intervenes if necessary. For instance, the bot can perform screen scraping to extract data from web pages or legacy systems and assist the service desk's back office in searching for information and completing fields, such as updating ITSM tickets, pre-filling emails/PEC, and providing operational guidance through dynamic pop-ups. Additionally, the bot can structure data to generate reports and manage administrative processes.

PROCESS ORCHESTRATION

Rule-Based and Unattended RPA involves process automation without human interaction, except for supervising results or managing escalations.

Unattended automation, driven by events and scheduled tasks, relies on a dedicated orchestrator without the use of AI in this scenario. Bots are instantiated on dedicated servers or virtual machines and are activated based on availability and scheduling managed by the RPA orchestrator. Applications of this system include: creating and periodically updating master data, automatically searching for and sending files and documents across different systems, managing invoicing, monitoring task queues in various systems (e.g., ticketing), triggering processing workflows.

IPA

COLLABORATIVE AUTOMATION

Hybrid Automation (Attended and Unattended) model in which people perform specific tasks while bots automatically execute activities and send results to users.

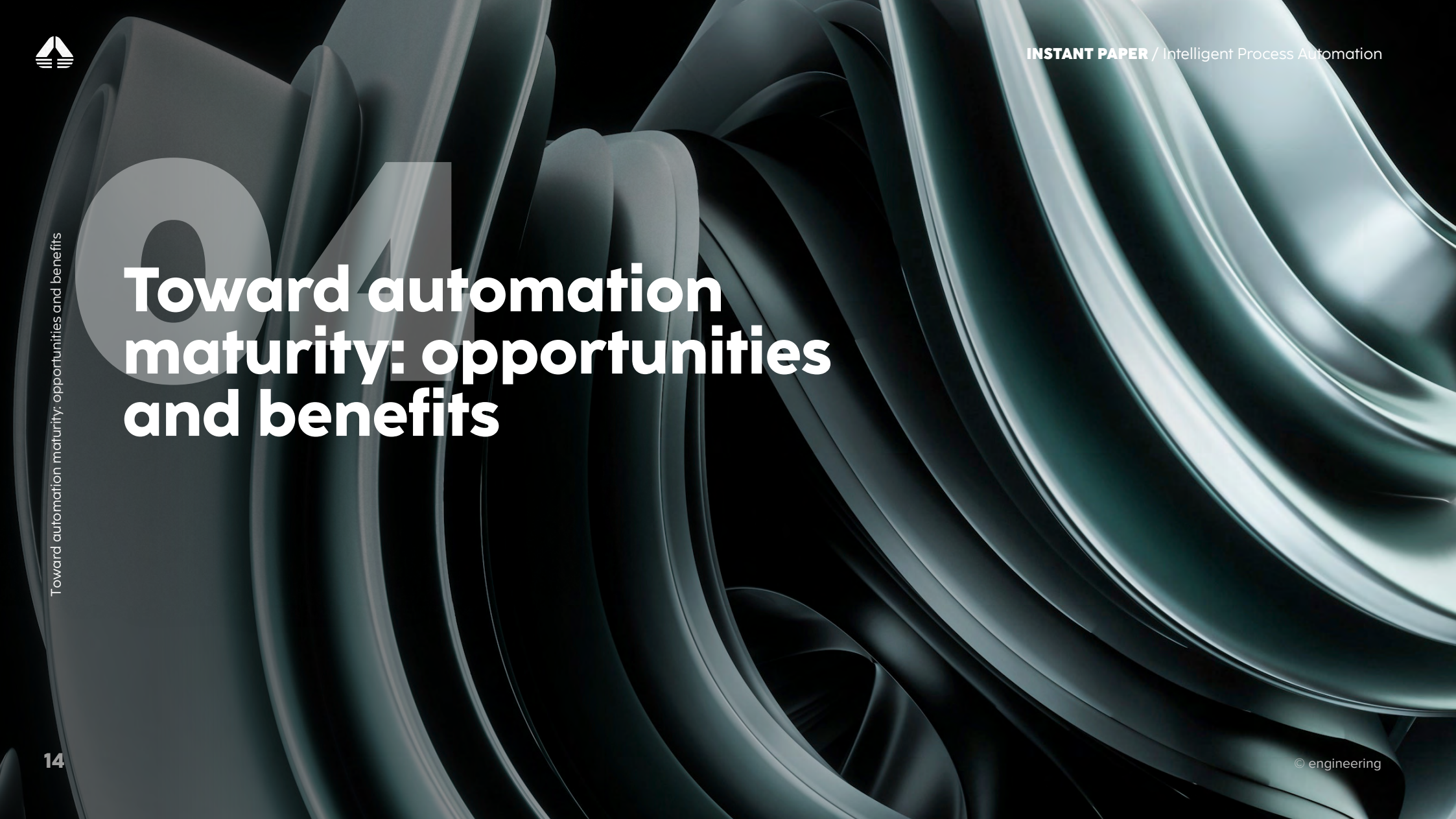
This setup may optionally include AI, such as chatbots, for tasks that require decision-making and in-depth document analysis. Users can interact with a robot dashboard to validate data or manually handle unforeseen exceptions, all from their desktop. Robotic tasks are executed in unattended mode on a dedicated virtual machine based on the input provided by the user. Examples of applications include account closures, succession and foreclosure management, HR onboarding, intelligent order processing, loan initiation, and closure procedures.

INTELLIGENT AUTOMATION

AI-Driven Unattended Automation model leverages cognitive AI for process orchestration, with human supervision for escalations and result validation.

Starting from process orchestration, this approach integrates Artificial Intelligence technologies such as Machine Learning, Generative AI, and Intelligent Document Processing to handle decision-making tasks and perform intelligent data and attachment analysis. This enhances process optimization and accelerates task execution.
An example application is the intelligent service desk, which integrates virtual agents powered by Large Language Models (LLMs) for tasks such as managing and unlocking user credentials, alongside predictive reporting and order management capabilities.

Attended ---------- Unattended



04

Toward automation maturity: opportunities and benefits

In an automation project, each implementation path is defined by the organization's strategic priorities. Timelines, equally unique, vary depending on the complexity of the process, available resources, and compliance requirements.

We have identified three key phases that characterize every process automation project, designed to facilitate the adoption and spread of automation across all business areas.

Organizations are increasingly intensifying efforts to identify automatable processes, recognizing this as a significant opportunity to enhance operational efficiency.

Ideal candidates for automation implementation exhibit several distinctive characteristics. First and foremost, they involve **consistent and repetitive actions** performed across various systems, making them ideal for automation.

Additionally, these processes involve **data models that are systematically entered into specific fields**, ensuring precision and uniformity.

Another crucial aspect is **the presence of well-defined rules that allow decision flows to adapt dynamically** to various situations, facilitating responsiveness to business needs.

Finally, a **high time consumption** in the search and collection of data and information further highlightsthe need for automation.

Once the target processes that meet these criteria are identified, companies can follow an i**mplementation roadmap for automation, structured into three main phases**.

This gradual approach not only facilitates easier technology adoption but also ensures that organizations can maximize the benefits of automation.

1. PILOT: evaluate the impact of automation on the digitalization of business processes

The first step towards automating business processes involves assessing the impact that automation can have on a defined set of operations. This phase includes identifying the most suitable technologies and partners, selected based on **specific requirements** and the type of process to be automated. A crucial element in this context is the creation of an internal sponsor, a key figure responsible for promoting the new **automation culture within the organization**.

Next, the analysis of activities to be automated takes place, directly involving the users who will be impacted by the changes. The goal of this analysis is to **identify repetitive processes and activities** that require excessive time consumption. In this phase, processes and the operational area where automation will be applied are clearly defined, setting priorities and identifying target processes for the pilot project.

The performance of the pilot is monitored based on the criteria established during the design phase. It is also essential to **engage all stakeholders** through targeted interviews to gather useful and accurate feedback. These inputs are crucial for documenting and drafting a detailed report of the pilot phases, thus preparing the ground for subsequent implementations.

2. RAMP UP: expand the opportunities of automation

During the ramp-up phase, organizations **begin to unlock the potential of automation** through pilot processes. This phase not only helps identify additional IPA opportunities within the company but also highlights the successes achieved so far. The primary goal is to optimize the management of the newly implemented virtual workforce, establish best practices, and **initiate the automation of new processes** based on a clearly defined priority scale.

A key aspect of this phase is **measuring the effectiveness** of automated processes. By conducting this analysis, companies can pinpoint areas for improvement and implement strategies for continuous enhancement. In this context, it is crucial to form a team of specialists with strong analytical skills and the ability to identify processes suitable for automation, working closely with the company's internal automation sponsor. The main objective is to **select the best automation candidates** to maximize the impact of the initiative.

This team will be responsible for designing and testing bots, as well as managing delivery and operational activities. With a strategic approach and continuous focus on innovation, companies can **maximize the benefits of automation** and radically transform their operational processes.

3. INSTITUTION: integrate automation into the corporate culture

This final step aims to establish best practices for automation within the organization, **making them an integral part of the corporate culture**. It is essential that these practices are not only documented but also disseminated and adopted at all levels, ensuring they can be easily implemented and replicated in the future.

Creating an environment that promotes the adoption of automation technologies requires a constant commitment from all members of the organization, who must be educated on the principles and benefits of automation.

Additionally, this phase should include a **strategic communication initiative** aimed at fully understanding the benefits of the automation already implemented.

Effective communication not only highlights the results achieved but also strengthens support for automation initiatives among employees and stakeholders.

By promoting process automation as a key performance goal across all lines of business, the organization can ensure that automation is not viewed as an isolated initiative, but as a **fundamental element for improving efficiency, productivity, and innovation**.

THE MAIN BENEFITS OF AUTOMATION

Focus On

Cost Optimization

Process automation enables significant reductions in costs and management time, thus limiting the need for outsourcing repetitive tasks. With IPA, companies can **manage and optimize processes without relying on expensive offshore services**, while maintaining high-quality operations.

Increased Efficiency and Accuracy

Robots can operate continuously, 24/7, without the need for breaks. This operational capability allows a single robot to perform tasks that would typically require up to five full-time employees (FTEs), improving the ability to complete work faster and with 100% accuracy, ensuring **maximum efficiency during operational peaks**.

Process Traceability and Analytics

Process automation allows for **end-to-end workflow management**, tracking all automated activities and providing detailed analytics. This support facilitates monitoring, ensures compliance with business regulations and requirements, reduces compliance risks, and enhances transparency in business processes.

Intelligent Management

Through the integration of **AI/ML models**, IPA can not only optimize processes automated by bots but also **identify new patterns and processes** that can be further automated (process mining). This continuous improvement of operational flows helps companies discover and implement new automation opportunities, further streamlining processes.

Increased User Satisfaction

Automating repetitive tasks allows users to focus on more complex, creative, and productive tasks, **enhancing their overall productivity and improving their experience** with business systems.

Error Reduction

When processes are correctly mapped and optimized during the design phase of automation, RPA bots can help eliminate manual human processing errors. The accuracy ensured by bot execution, combined with testing, training, and governance, **minimizes or eliminates the risk of human errors** while maintaining the quality of operations and critical processes.

Reduced Time-to-Market

The cognitive capabilities of IPA, such as real-time information processing through Intelligent Document Processing (IDP) and Optical Character Recognition (OCR), enable **real-time execution of tasks**, including decision-making in complex and detailed processes. This allows companies to offer real-time services to customers, improving accuracy and reducing waiting and response times.

Support for Decision-Making

Every task automated by bots generates valuable process data for strategic analysis. IPA facilitates decision support through process mining tools and "**Process Intelligence**", providing deep insights into business processes, exceptions, and processing times. This enables businesses to implement process optimizations based on concrete data.

05 Our approach

We support our clients in the development of IPA through an integrated approach that includes leadership, best practices, research, support, and training. Thanks to our Center of Excellence, Engineering D.HUB, certified for Advanced Process Automation solutions and services, we create agile, robust, and scalable automations.

We are partners with market leaders in the field of Robotic Process Automation tools, integrating these solutions with the most advanced technologies, including Artificial Intelligence.

With extensive experience in managing RPA and IPA projects, we have refined a working methodology divided into five key phases for effective project managementi:

- **Discovery & Assessment**
  By involving the business and all necessary stakeholders, we analyze the "AS IS" processes, identifying the best candidates for automation, prioritizing the development of bots, and defining an implementation roadmap.

- **Design & Planning**
  We design the IPA architecture based on the selected tool, which will support the automations. We define in detail the "TO BE" automation scope (inputs, outputs, execution methods of the automated process, and KPIs to measure results), including any integrations with AI/ML components.

- **Set-up & Development**
  We implement the robotic infrastructure and the automations identified within the defined scope of action, as outlined in the corresponding process analysis documents shared with the business.

- **Roll-Out & Testing**
  Unit tests are conducted to verify the functionality of the environment and the implemented automations, followed by User Acceptance Testing (UAT) for validation by the users. The release to the production environment is planned after any necessary fine-tuning phases.

- **Continuous Optimization**
  Work reports allow us to assess the performance of the bots and identify areas for improvement. The success in terms of effectiveness and efficiency of the bots will drive the expansion of IPA usage by users, even in other business lines.

Engineering's IPA Portfolio / At a Glance

We leverage a consolidated set of best practices to provide Intelligent Automation services

We transform business processes from their current state to a fully automated future.

8+
Years of experience

350+
Managed Robots

180+
Robotic solution developed

Key strategic Partnerships & Collaboration

NICE · UiPath · Microsoft

OUR MAIN **PILLARS**

- End-to-end and personalized approach
- Holistic approach to automation
- RPA-as-a-Service model

+ STRATEGY & OPTIMIZATION
+ AI & CLOUD EXPERTISE
+ FLEXIBILITY & SCALABILITY

AI-POWERED AUTOMATION • PROCESS MINING • TASK MINING
END-TO-END AUTOMATION • AI-ASSISTED RPA • HYPERAUTOMATION
AUTOMATION AS-A-SERVICE • COGNITIVE PROCESS AUTOMATION
INTELLIGENT AUTOMATION • END-TO-END AUTOMATION

We enable the automation of specific processes across a wide range of industries, perfectly adapting to the business needs of companies.

Organizations that require more automation are characterized by integrated IT systems, complex and repetitive processes, and specific regulatory constraints, such as in credit verification for loans or anti-money laundering in the financial sector.

In the Financial Services, Industry, and Public Administration sectors, the adoption of RPA has grown rapidly due to its ability to optimize the automation of key processes.
The shift towards **intelligent automation** represents an opportunity to evolve and radically transform the way businesses operate.

Anti-money laundering (AML) verification and the completion of subject profiles require significant effort from analysts. With automation through RPA, we can streamline the research and documentation download phases, allowing analysts to focus on the final review of the results. Additionally, by integrating artificial intelligence technologies, these operations can evolve, making the process not only faster but also smarter, enabling predictive analysis and real-time data-driven decision-making.

In the industrial sector, and beyond, managing both accounts receivable and payable requires the daily recording of data into information systems.

With the implementation of RPA, we can fully automate these activities, creating an unattended automation that handles invoice downloads, data entry, and notifications of any discrepancies.
By integrating machine learning capabilities, we can also predict anomalies in invoices, further improving accuracy and reducing the risk of errors.

In the case of Public Administrations, the process of uploading expense reports, though composed of simple actions, involves large volumes and high repetition, exposing the risk of "copy/paste" errors. The application of RPA eliminates these errors and enables large-scale, efficient uploads.

As we evolve towards IPA, we can implement systems that learn from past data, continuously improving the process and adapting to changing needs.

06 Our projects

CASE STUDY / FINANCIAL SERVICES

A new ally in the fight against money laundering: automation.

The anti-money laundering verification process requires massive and time-consuming activities.
For a major Italian private bank, we implemented an automation that, upon receiving the minimum subject data through a user dashboard, proceeds with searching and downloading the necessary anti-money laundering documentation from various service providers.

Once the data is retrieved, the automation fills out the subject profile and makes it available to the bank analyst for the final review.

CASE STUDY / FINANCIAL SERVICES

Intelligent Automation: RPA and Chatbots for User Credential Management.

For a major Italian bank, we redesigned the user credential management process (service desk) to integrate it with automation.

This new approach involves using a virtual agent that provides specific data as input for the IPA. We implemented an unattended automation solution, triggered by an external chatbot that supplies the necessary input data.

Our solution, based on NICE's bot technology, integrates with the client's virtual agent and allows for "near real-time" management of user requests.

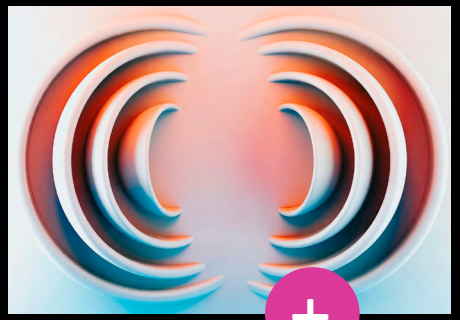
CASE STUDY / INDUSTRY

Robotic Process Automation to Optimize Billing Processes.

For a leader in the air emergency sector, we automated the data verification process between SAP and the reports submitted by pilots, reducing time, errors, and repetitive tasks.

We implemented a solution based on NICE Advanced Process Automation that, in unattended mode, acquires files, verifies data, flags compliant routes, and generates exception reports.

The management was outsourced to our Data Center in Pont-St-Martin with dedicated infrastructure support.



CASE STUDY / INDUSTRY

Automation of the Tender Management Process.

We optimized the tender management process for an international construction company by structuring a complete workflow from the purchase request (RDA) through SAP to the issuance of purchase orders (ODA). We defined criteria for supplier selection, created quotation forms, and developed tools for comparing offers and identifying the best bidder. The generated documents are stored on Microsoft Cloud, ensuring global access and automated notifications that assist staff during key moments. The project improved efficiency and transparency at an international level.

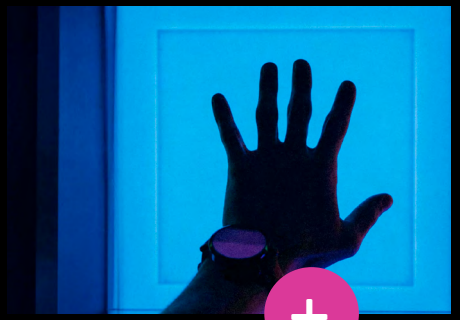
CASE STUDY / FINANCIAL SERVICES

Stopping Routine Operations.

To optimize the management of 40 million payment cards through automated solutions, ensuring efficiency, speed, and performance monitoring, we developed a solution on the NICE platform to automate the entire credit card fraud management process.

We digitized data entry, sent complaint letters, suspended cards with notifications about expirations, and documented cases, sending reports to agents for outcome verification.

The solution introduces a virtual workforce with software robots to autonomously manage repetitive processes.



07 The future of automation

© engineering

Automation platforms are undergoing an evolutionary leap due to the increasing integration of AI technologies such as Machine Learning / Deep Learning and Natural Language Processing.

These developments pave the way for more effective business process management, leveraging advanced decision-making algorithms capable of integrating data from multiple sources and optimized process mining tools to **identify new processes to automate in real time**. The integration between legacy systems and modern applications continues to expand, providing businesses

with greater operational flexibility. At the same time, implementation methodologies are adopting **agile and iterative strategies**, supported by rapid prototyping frameworks and advanced governance models.
These tools allow for precise monitoring of performance and return on investment, promoting scalable and accessible automation.

AI as the Driving Force of IPA Adoption

An emerging trend is the integration of advanced AI capabilities, such as Machine Learning and Natural Language Processing, into RPA platforms to **enable modern IPA solutions**. These technologies allow for the automation of complex processes, from document management to decision-making, making automation smarter and more adaptable. The growing demand for AI-based solutions reflects an increasing need for tools that can radically optimize and automate the most complex business operations, particularly those with numerous decision-making steps.

Towards Autonomous and Resilient Automation

Automation platforms are becoming increasingly autonomous through the integration of advanced analytics and Machine Learning.
Capable of continuously monitoring performance, identifying improvement opportunities, and implementing solutions without human intervention, these technologies promise to make business processes more resilient and efficient. Dynamic adaptation will help prevent and resolve bottlenecks, enhancing responsiveness and productivity.

Democratic Automation with Low-Code / No-Code Platforms

The adoption of low-code and no-code RPA or IPA platforms is democratizing access to automation for all users. Even non-technical users can now develop and modify automated processes, reducing dependency on IT teams and accelerating implementation. This approach paves the way for broader adoption, enabling businesses to fully leverage the potential of IPA.

Advanced data analysis to evolve process mining

Process and task mining technologies are emerging as **essential tools for optimizing business processes in a data-driven way**.
They help organizations identify automation opportunities, improve workflows, and monitor activities in real-time. Through advanced analysis, companies can ensure continuous improvements and operational efficiency, quickly adapting to market changes and evolving business needs.

Quantum Computing as the New Fuel for Intelligent Process Automation

To enable IPA (Intelligent Process Automation) to automate increasingly complex, industry-specific, and integrated business processes involving real-time transactions on big data, it will be essential to enhance the underlying infrastructure of IPA platforms with the required computing power to support and optimize even the most complex automation scenarios.

In this context, adopting quantum computing technologies will be key to **unlocking new automation possibilities**. With superior computational power, quantum computing can handle data-driven tasks, solve problems in real time, run simulations of complex business processes, and boost process and task mining capabilities aimed at identifying and optimizing new business processes.

Towards Hyperautomation

Looking to the future, Intelligent Process Automation platforms will standardize advanced functionalities such as machine learning models for automated decision-making and natural language processing for complex communications, as well as analysis and understanding of unstructured data by automation platforms.
Hyperautomation will emerge as a fundamental approach, combining RPA, AI, process mining, and advanced analytics in unified systems. This evolution will enable the implementation of end-to-end automation, autonomously optimizing processes and rapidly adapting to business changes, with decreasing human intervention in the management of business processes.

Extended Reality: Automation Enters the Future

Another significant development is the integration of extended reality (XR), which includes virtual, augmented, and mixed reality. These technologies will transform human-machine interaction, enabling the visualization and monitoring of processes in virtual environments, creating immersive training scenarios, and controlling operations through advanced interfaces. XR will offer new opportunities for more intuitive and collaborative management of business processes.

BPM and IPA: Synergies for Business Management

The ability of IPA platforms to integrate natively and instantly with all major business platforms used in customer processes (e.g., SAP, ServiceNow, Salesforce) is increasingly becoming a differentiating factor in the market. Modern IPA platforms will integrate predefined API sets with major ERP, CRM, or ITSM systems to manage automation in a **seamless mode** and ensure **secure access** to business systems.
Additionally, given the growing need to identify, trace, monitor, and control all internal and external processes, Business Process Management Platforms (BPM) are rapidly gaining traction. These platforms allow businesses to **map, analyze, and optimize** business processes.
While these platforms currently offer some automation features to optimize processes, they will increasingly integrate full RPA or IPA management capabilities to enable unified and centralized management of business processes and their automation.
In today's increasingly complex global markets, this will provide businesses with the opportunity to become more agile and responsive, autonomously adapting their business processes to market demands, thanks to the contribution of these innovations and technologies. It will also enable them to manage almost all the decision-making tasks within business processes autonomously, while ensuring continuous optimization and real-time analysis.

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1

With the anticipated growth of the AI-based robotics market by 2030, businesses must adopt advanced solutions for a future where intelligent automation will be essential to their strategies. Organizations recognize that RPA alone is not sufficient and that integrating AI is crucial to manage complex processes and improve operational efficiency.

Thanks to its versatility, Intelligent Process Automation can be applied across various industries, optimizing workflows and reducing costs.

2

Business process automation is growing rapidly, transforming the way organizations operate and manage their daily activities. By using APIs and cloud platforms, Intelligent Process Automation solutions become more scalable and efficient, enabling bots to perform not only repetitive tasks but also advanced cognitive operations.

This allows businesses to handle unstructured data, increasing agility and the ability to adapt to ever-changing scenarios.

3

IPA allows businesses to improve user experience, offering personalized responses and faster management of requests, making services more agile and accurate.

This combination of automation and AI drastically reduces error margins and enhances organizational competitiveness, enabling companies to meet the demands of a dynamic and innovative market. In an increasingly globalized context, IPA is becoming a key resource for adaptability and learning capabilities.

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4

The adoption of a structured approach, which stems from the analysis of existing processes and continuous optimization, demonstrates a strategy that effectively ensures scalable automation.

This methodology, supported by consolidated best practices and greater solution robustness, guides companies in extending the adoption of RPA towards IPA, improving operational efficiency in measurable ways and simultaneously facilitating the transition towards a broad and integrated digital transformation.

5

The human role is crucial in intelligent automation, bringing significant value by offering simple task execution.

The integration of cognitive intelligence into chatbots, supported by back-end systems, optimizes real-time management of an increasing number of requests, evolving into self-service for customers. Additionally, the synergy between Artificial Intelligence and RPA enables companies to optimize processes and tackle challenges more effectively, accelerating the digital transformation journey.

6

The technology partner plays a strategic role in adopting low/no-code platforms, guiding the company towards scalable, secure, and tightly integrated solutions aligned with business objectives.

Thanks to intuitive tools and low/no-code platforms, companies can create and manage automations that optimize daily processes. This inclusive approach not only increases efficiency and reduces manual workload but also fosters a culture of innovation, where every member of the organization can be an agent of change.

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