INTELYGENZ

ACHIEVING EFFICIENCY_

A GUIDE TO INTELLIGENT PROCESS AUTOMATION

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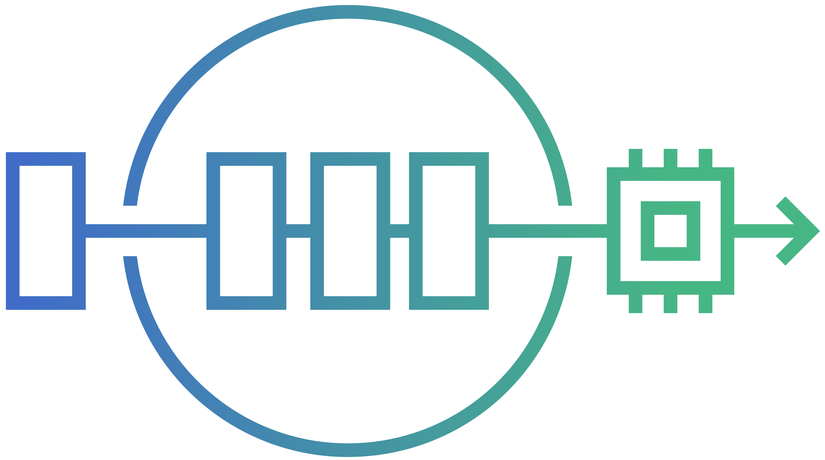
INTRODUCTION

A key priority for many businesses is to successfully streamline their processes, reduce their costs, and become more efficient.

Within the past few years, the way businesses achieve these goals has changed dramatically, including their approach to the automation of key tasks.

Automation technology promises to change the fundamentals of how businesses around the world operate. By automating key processes, businesses can free up their people and resources to focus on more creative and productive areas and increase their efficiency.

In this e-Book, we'll be covering the benefits of Intelligent Process Automation, the many ways it can be applied, and how to get started with an Intelligent Process Automation solution.



INTELLIGENT PROCESS AUTOMATION DEFINED_

WHAT IS IPA?

For years, the automation of processes has helped businesses to reduce costs and increase capacity, speed and scale within repeatable actions.

This couldn't be more true today: using Intelligent Process Automation, organizations are able to not only automate their tasks, but also the complex decisions that have previously only been achievable using human cognition.

Intelligent Process Automation is the evolution of a series of automation techniques. To clearly understand it, we need to know what each of those techniques are, what they allow and how they make up the concept as a whole.

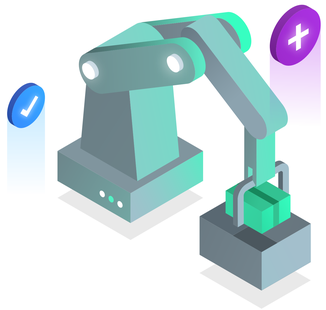
Though many combinations of automation techniques could be considered Intelligent Process Automation, there are two key elements that are always present. The first is a standard method of automation processes, which could be either Process Automation (PA) or Robotic Process Automation (RPA). The second is Artificial Intelligence (A.I.), which could involve a range of specialized tools and techniques.

THE IPA FORMULA

PA (Process Automation)

OR

RPA (Robotic Process Automation)



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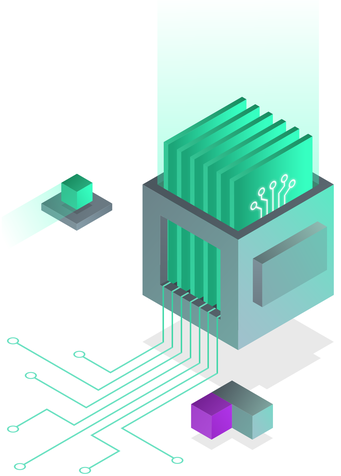

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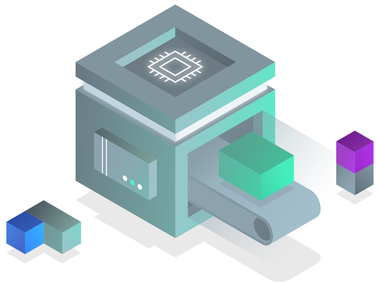


AUTOMATION OF PROCESS

ARTIFICIAL INTELLIGENCE

INTELLIGENT PROCESS AUTOMATION

INTELLIGENT PROCESS AUTOMATION DEFINED_

THE IPA FORMULA

AUTOMATION OF PROCESS

Process Automation (PA) – a mature concept focused on the automation of any type of repetitive task within a process using programming, requiring application integration at a database level. Partial automation is another element of process automation that assists the work actions performed by humans to facilitate their processes, but does not fully automate them.

Robotic Process Automation (RPA) – a concept that mimics human actions to capture data, run applications, trigger responses, and communicate with other systems to perform a variety of simple tasks.

ARTIFICIAL INTELLIGENCE

A.I. – a range of technologies and techniques that allow machines to perform actions such as decision making, image recognition, anomaly detection, and more.

WHAT MAKES IPA DIFFERENT?

Intelligent Process Automation differs from conventional automation in its ability not only to imitate human activities, but to imitate human decision-making at key stages as well.

Intelligent Process Automation can also learn from the decisions it makes and improve them over time. With Intelligent Process Automation, the A.I. mimics human cognition, making decisions much faster and with fewer errors. In many cases, it reduces the need for human intervention to a minimum, while still allowing humans to take control when needed.

As a result, this allows for the end-to-end automation of a wide range of incredibly complex processes.

Standard methods of automation (PA and RPA) have been a popular area of focus in the world of tech within the last few years because of their many benefits and clear demonstration of value. But while they are effective solutions in some cases, there is a limit to the types of processes that can be automated with these methods.

Standard automation is often unable to impact workflows involving unstructured content, which makes up over 80% of data in most enterprises[1].

This is where Intelligent Process Automation comes in. It has the ability to perform tasks requiring cognitive processing and complexity, making it ideal for the tasks that are too complicated for standard methods, but too repetitive and time-consuming for humans. The automation of these sophisticated processes also allows highly predictable and measurable results, meaning businesses can accurately calculate the ROI of their solution.

[1] https://www.globenewswire.com/news-release/2019/01/03/1680266/0/en/Five-Predictions-for-AI-and-Intelligent-Process-Automation-in-2019.html

Standard automation is often unable to impact workflows involving unstructured content, which makes up

80%

OF DATA

in most enterprises

THE VALUE OF IPA

When implemented effectively, Intelligent Process Automation enables businesses to achieve new levels of efficiency and unlock further value.

Intelligent Process Automation allows businesses to:

DID YOU KNOW?

Companies have used IPA to automate 50-70% of tasks, with ROI percentages reaching triple digits.[2]

[2] https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/intelligent-process-automation-the-engine-at-the-core-of-the-next-generation-operating-model

REDUCE COSTS

By increasing efficiency, optimizing back-office operations, and decreasing processing times, Intelligent Process Automation can drastically reduce costs.

INCREASE CAPACITY

When even the most complex and time-consuming tasks are fully automated, businesses are able to scale up their overall output without increasing the sizes of their teams.

IMPROVE QUALITY

Intelligent Process Automation can vastly improve the quality of outputs by removing the scope for human error, and ensuring tasks are executed with absolute consistency.

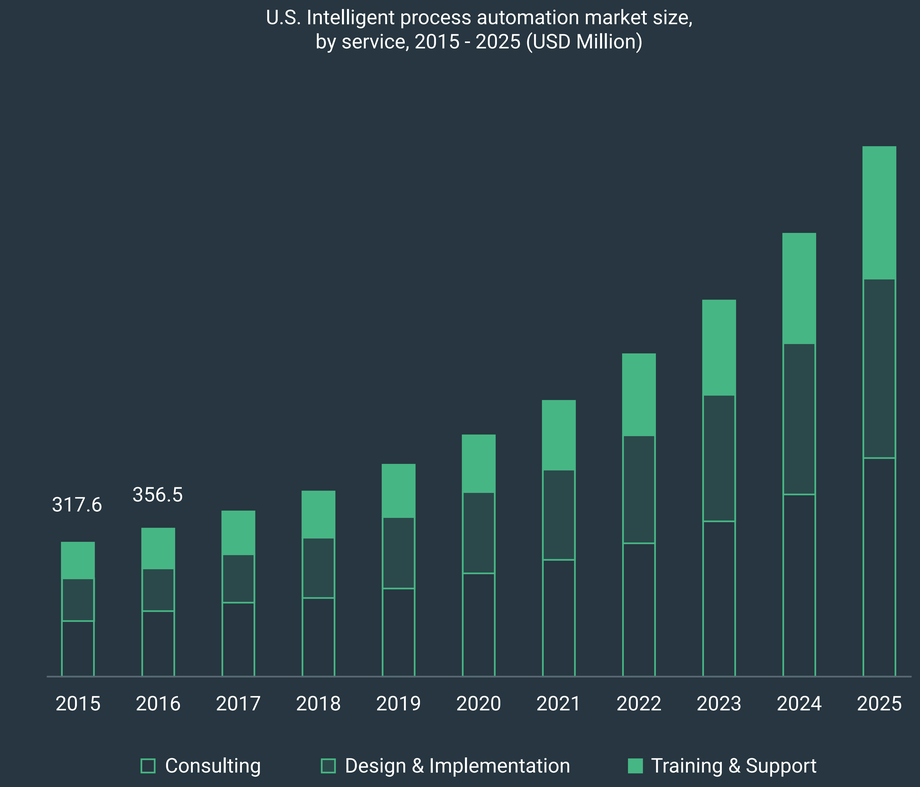
THE AUTOMATION REVOLUTION_

THE IPA MARKET

Forward-thinking organizations are now using Intelligent Process Automation to invest in and develop new platforms, win over investors, and engage further with their customers at a much lower cost.

A Brookings report predicts that those able to harness the power of A.I. technologies such as Intelligent Process Automation will be the first to launch their business further forward. Realizing the advantages of automating business processes will put businesses at the edge of a technical revolution.

While these organizations accelerate past competitors, many are still standing on the sidelines, unwilling to adapt. Companies that underestimate the impact of A.I. will be left behind.



Source: www.grandviewresearch.com

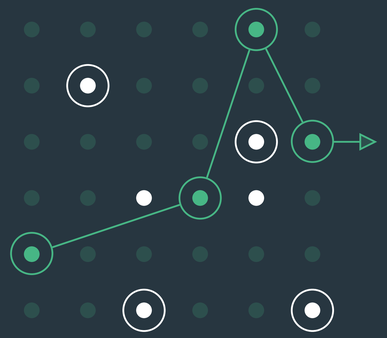
A look at the Intelligent Process Automation market over the past five years reveals the continued growth of the sector and the impact this technology is set to have on the world.

The global Intelligent Process Automation market is expected to reach $15.8 billion USD by 2025. North America accounted for the largest market value of **$2624.6 million USD in 2018**, and the market is forecasted to register a CAGR of 10.83% within the next five years.

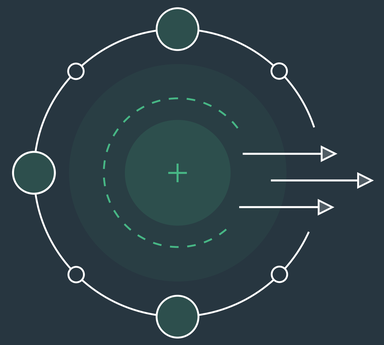
In the coming years, the impact of Intelligent Process Automation is set to significantly grow, as it becomes less of a strategy of early adopters, and more an essential element of business across multiple industries. But how will widespread Intelligent Process Automation use change our world?

The widespread implementation of Intelligent Process Automation has the capacity to transform our workplaces. The new possibilities that Intelligent Process Automation creates allows companies worldwide to have more time and resources to spend on big-picture projects - those that require more creative input from their human workers. This means more fulfilling work lives, much higher output capacities, and an even faster rate of innovation, as companies find more ways to differentiate themselves and compete.

The time and resources saved through Intelligent Process Automation, allows businesses to focus on:



Solving problems and increasing outputs.



Finding new ways to enhance customer value.

Learning and development within workplace practices.

Engaging their teams with more creative projects.

WHICH INDUSTRIES STAND TO GAIN THE MOST?

Thanks to the almost limitless ways Intelligent Process Automation technology can be applied, the benefits can be accessed in almost any industry or sector.

Any business with repetitive, time-consuming tasks that usually require humans to execute, are the best candidates for Intelligent Process Automation. So a future in which almost every business implements some form of Intelligent Process Automation isn't so inconceivable.

That being said, there are several industries who seem to be prime candidates for today's early adoption of both standard and intelligent automation technologies.

THE FINANCIAL INDUSTRY

The financial industry is one of the largest industries poised to gain the most from automation.

In fact, one recent Capgemini study found that Intelligent Process Automation could add **up to $512 billion USD** to the global revenues of financial services firms by the end of 2020.

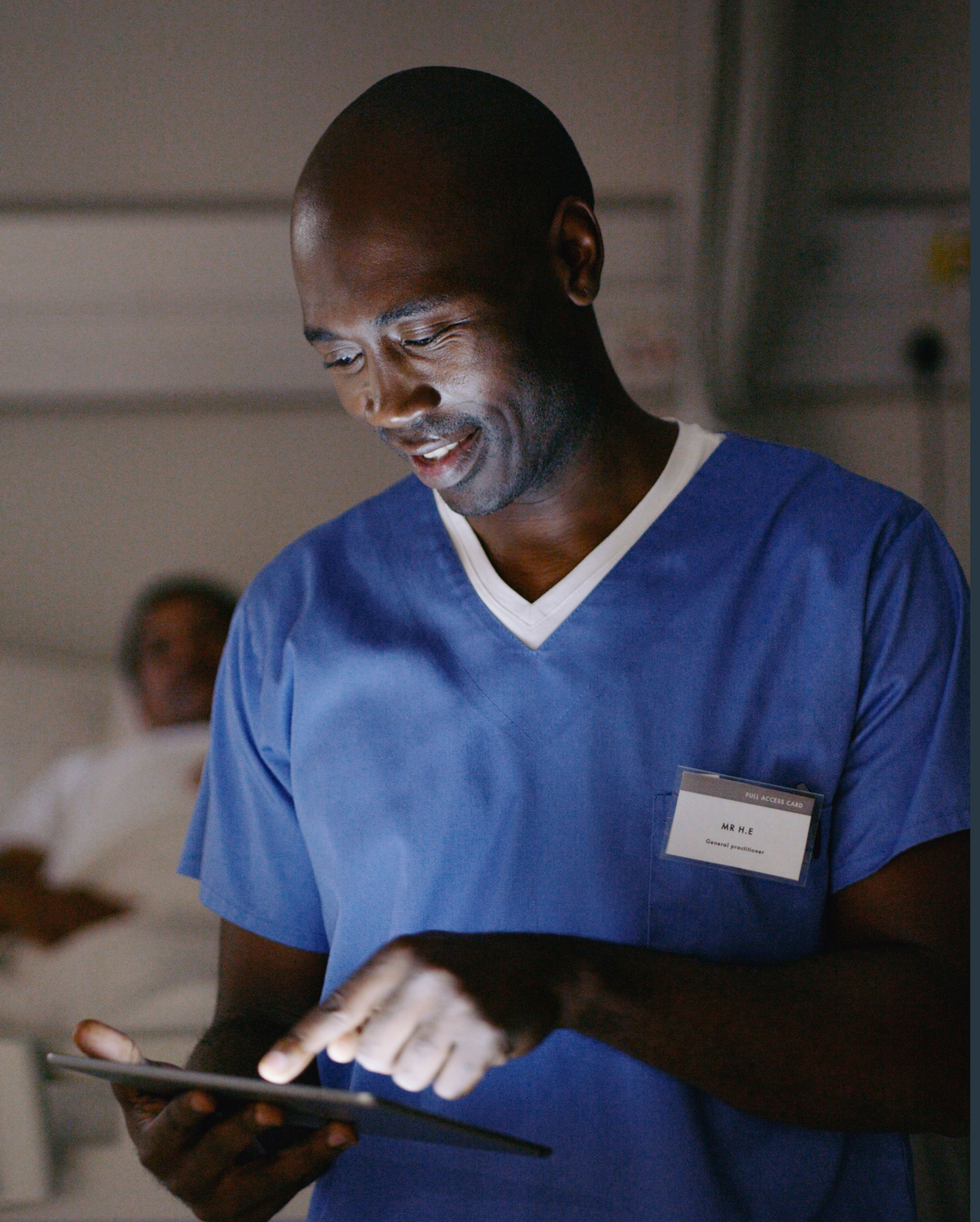
And according to Business Insider, the banking end-user segment shows the highest acceptance rate of Intelligent Process Automation in the entire market.

The Capgemini report also found that **55% of financial businesses** aim to use automation to increase customer satisfaction, and on average, **35% of financial services firms** have already seen up to **a 5% increase** in revenue from automation, with quicker time-to-market and better cross-selling as major contributing factors.

In the case of Goldman Sachs, implementation of Intelligent Process Automation was able to answer complex financial questions posed in plain English in real-time. As a result, this enabled the streamlining and automation of tasks which were once intensive for human workers, allowing them to focus their skills on other areas of the business.

Top IPA uses in finance:

- Improving the accuracy of procedures and greatly assisting with compliance and regulatory reporting.
- Controlling and monitoring various interfaces to enable smooth transactions and overcome bottlenecks in workflow.
- Automating data collection across multiple source systems and format data into templates or reports, reducing investigation time.



THE HEALTHCARE INDUSTRY

The healthcare industry is another sector which stands to reap more than just commercial gain from the use of Intelligent Process Automation.

An Accenture survey found that **94% of healthcare executives** reported that innovation had rapidly accelerated over the last three years due to emerging automation technologies.

Top IPA uses in healthcare:

- Analyzing and extracting actionable insights from multiple sources of patient data to provide a better understanding of costs, risks, and individual patient needs at a glance.
- Automating routine record-keeping and administrative tasks, such as scheduling patient appointments, cancellations, and managing accounts.
- Automating patient discharging procedures and providing instructions such as issuing prescriptions, scheduling outpatient follow-ups, and supplying medical recommendations.

Automating areas such as these helps to lessen the strain on current healthcare providers, freeing up time to spend on more patient care and leading to higher patient satisfaction overall.

KEEP UP WITH INDUSTRY TRENDS?

To stay up to date with how other industries are using the latest automation techniques, as well as the latest insights on A.I., custom software and more, subscribe to the Intelygenz newsletter.

Subscribe

APPLYING IPA

Process Automation can be applied to processes in almost every business area. While this is by no means an exhaustive list, here are a few examples of key areas where it can be applied.

Intent detection
This happens when a system predicts the intention of a human message using Natural Language Processing. This can be used in a number of ways, such as automating customer requests, correctly routing a message to the right department, or even responding to queries.

Predictive analytics
When a machine makes future predictions using existing data, it can assist with sales or other types of forecasting models. This accurate foresight can help you make data-driven strategic decisions.

Image recognition
A.I. technologies such as computer vision enable the recognition and assessment of images based on historical data. This can be applied in a range of industries, from fault detection in manufacturing to medical diagnosis.

Document generation
Intelligent Process Automation can automatically create consistent, compliant and up-to-date digital documents.

Call centre operations
Intelligent Process Automation can consolidate customer information onto one single screen, giving customer care agents all the information they need to help customers with queries.

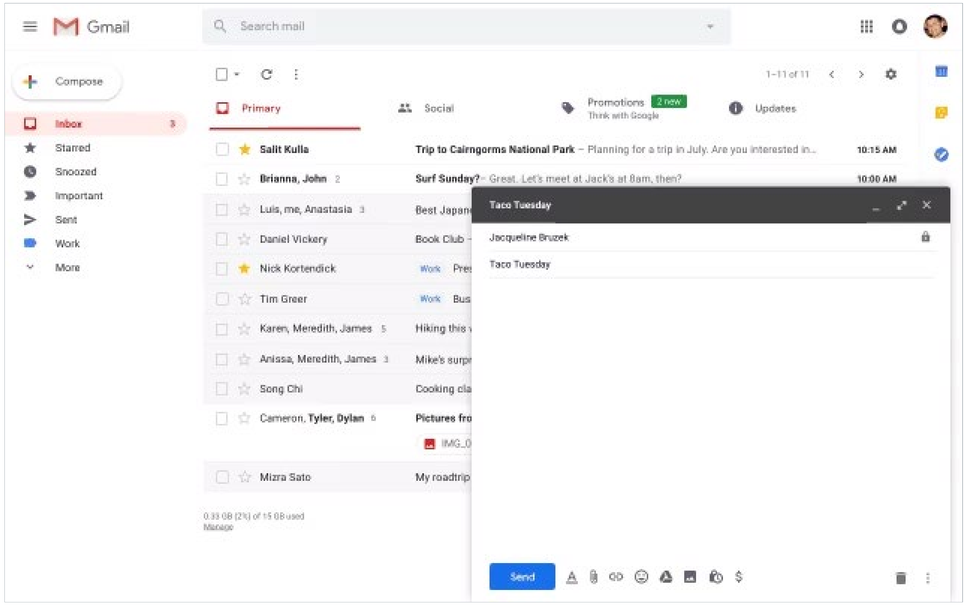
Empowered security
Intelligent Process Automation can be used to detect security breaches and intrusions, as well as automate new types of security alerts.

AUTOMATION IN ACTION

As mentioned earlier, partial automation is a part of the process automation journey that assists the manual work processes of humans.

This may include tasks such as scanning documents, data entry, and as seen here, even writing emails.

This is a case of partial automation, rather than full process automation. Partial automation is a key element of the automation journey as it is the stage that many projects begin at. It is used to automate a part of the business's processes - assisting the work actions performed by human workers. As demonstrated here, Gmail doesn't already know what the user is thinking before they write, but when a user starts writing a message, it is able to automatically complete the sentence with a high success rate using partial automation, helping users save more time and work more efficiently. Overall, **partial automation helps to facilitate, rather than automate,** the work carried out by humans.



AUTOMATION IN ACTION_

TRACKING SERVICE OUTAGES

MetTel

Communications company MetTel were looking for a way to improve the quality, accuracy, and efficiency of how they responded to customer queries and resolve service issues (such as SD-WAN outages) through their existing issue resolution system.

Using Intelligent Process Automation, they were able to amplify their processes and accelerate business value.

Working with them, we built Ticket Next Best Action (TNBA) – an Intelligent Process Automation solution that automates the repetitive stages of this process, including some complex decision-making using existing data from decisions previously completed by operators and engineers. As a result, TNBA was successfully applied to a subset of ticket actions.

AUTOMATION IN ACTION_

METTEL IN NUMBERS

75%

Correct Next Action
Predictions Of Tickets
(SD-WAN Outage)

52%

Fully Automated

23%

Suggested

45%

Reduction in resolution time

AUTOMATION IN ACTION_

IMPROVING EFFICIENCY

Within these process chains, the solution was able to accurately identify the next task stage of the ticket 75% of the time. All triage of SD-WAN is now fully automated and 52% of corrective maintenance operations are now completely solved by A.I.

A further 23% of the time, the automation solution could correctly suggest the next stage of the process to an operator to help save time and boost efficiency.

Get the full story. View the MetTel case study in full:

Learn more

AUTOMATION IN ACTION_

INSTANT SALES FIGURES

entradas.com

Event ticketing company Entradas were looking for a way to automate and streamline one of their most important weekly tasks.

Each Monday, they needed to configure a number of queries within their database and send their partners a CSV document containing their latest sales figures. At the start of each season, this task didn't take long to complete, but towards the end it could take between 2 to 3 hours – time that human workers could better spend in other, more creative areas.

To improve overall operational efficiency, we decided to implement process automation. We studied the process, mapped the data, reworked the query, and developed a process that, by taking advantage of one of the partners' APIs, sent the required information every 5 minutes automatically.

For the first stage in this process alone, over 130 hours of manual processing were saved through automation. As automation is applied to more stages, these time savings will be amplified even further, exponentially reducing the human labour required throughout the process.

AUTOMATION IN ACTION_

ENTRADAS IN NUMBERS

130 HOURS

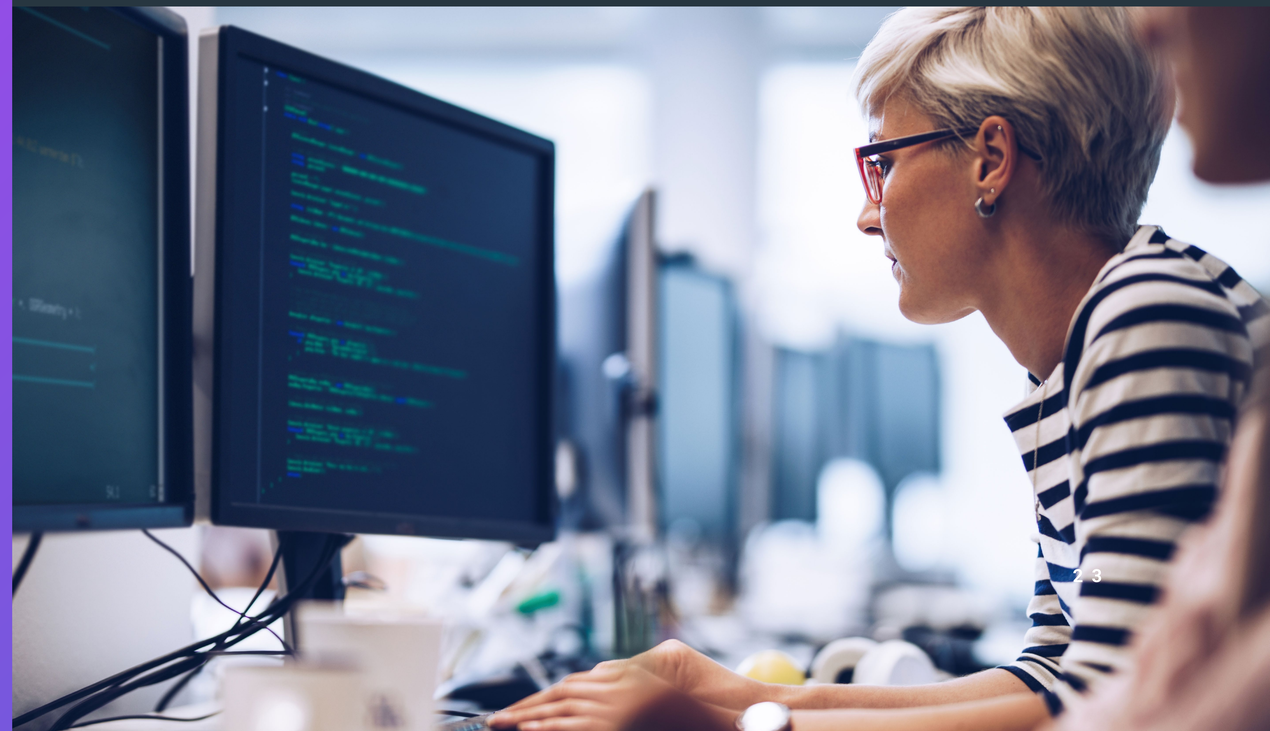
saved for each task in the process.

0 HOURS

are now dedicated to completing this task.

70 HOURS

of development time was required to get to this point.



AUTOMATION IN ACTION_

INCREASING EFFICIENCY

As a result, the task has now been automated, and partners can access the information in near real-time. Automating this process has allowed for the complete removal of the need for human interaction, resulting in significant time and cost-savings for Entradas and their partners.

This project has the potential to be transformed into an Intelligent Process Automation solution if Entradas decided they wanted to apply A.I. decision-making to their processes in the future.

View the Entradas case study in full here:

Learn more

HOW TO GET STARTED_

HOW TO GET STARTED

The capabilities and potential ROI that can be achieved with Intelligent Process Automation can make implementing a solution an exciting prospect for technical and operational leaders within organizations.

But as with any project that looks to improve business processes, getting started with Intelligent Process Automation requires careful planning, education and consideration.

Only **14.6% of A.I. projects globally** are actually deployed into production. Many simply sit in the research phases – mainly due to a lack of understanding, misconceptions about the technologies and techniques used, or an inability to accurately anticipate project scope.

Following these best practices will help businesses before, during and after implementation to ensure their Intelligent Process Automation solutions not only make it into production, but also continuously deliver value.

PRE-IMPLEMENTATION

Before approaching a potential technology partner or initiating a new Intelligent Process Automation project, considering these best practices will help you maximize the chance of success.

Do your research
Research areas where Intelligent Process Automation would have a high impact on the business and grab the attention of stakeholders.

Be specific about the process you want to solve
Cognitive technologies aren't made to suit all kinds of processes and must be carefully considered. For example, Intelligent Process Automation is most suitable for processes that rely on vast amounts of unstructured data and expertise, have enough scale to justify the investment, and are strategic to the business.

Understand the benefits
Consider and prioritize the key benefits you want automation to provide and how they can impact your business. This will help measure the overall success of your first automation project.

Select the easiest and most profitable processes to start with
For your first automation project, select the most simple process with the highest predicted ROI to begin with.

Engage your employees
Automation is likely to bring significant changes to processes, so engage your employees from the beginning and be transparent about the project objectives to avoid any misunderstandings. Make it clear that the goal is to increase process productivity, not reduce staff.

Process Mapping
Working with an expert, they will be able to map the stages of your processes to gain a further understanding of how they work in order to improve them with automation.

Start with Process Automation
Getting started with Process Automation is often the first step on the automation journey. It's easier to start with an automation solution that doesn't require cognitive A.I., and it can be upgraded to Intelligent Process Automation further down the line to amplify the benefits even further.

HOW TO GET STARTED_

3 STEPS FOR SUCCESSFUL IMPLEMENTATION

When it comes to implementing Intelligent Process Automation, it's important to remain predictable and methodical in your approach to extract its true value.

Sticking to a clear and structured approach is key to ensure the success of your Intelligent Process Automation project. This approach to implementation can be broken down into three stages.

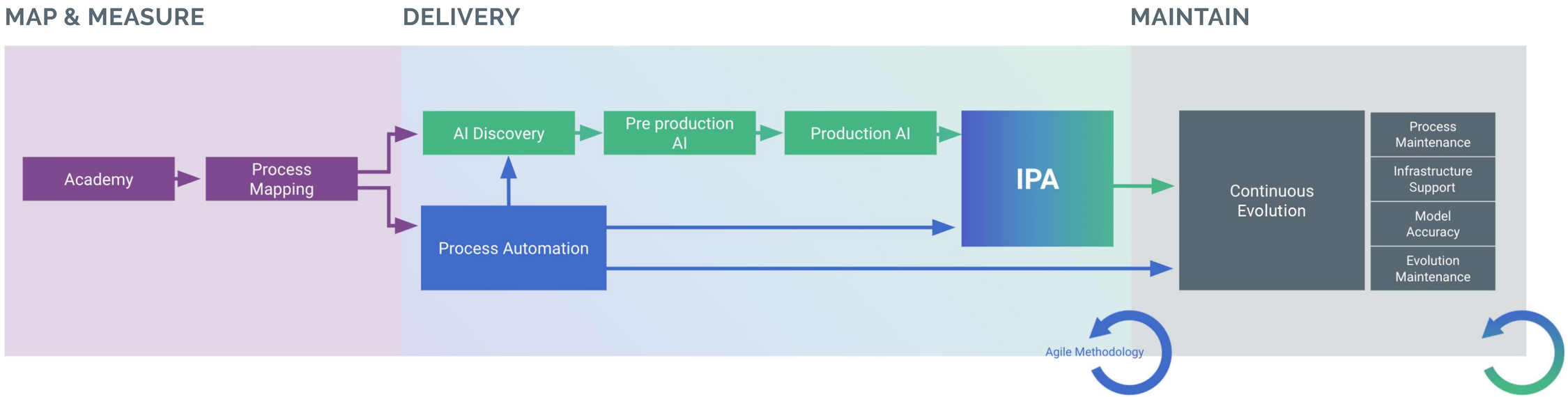
MAP & MEASURE — DELIVERY — MAINTAIN

01. MAP & MEASURE

First, you must find a way to identify which areas have the potential to be automated. A good automation partner will help you to do this.

Once you've prioritized which task(s) automation offers the most value to you using structured process mapping, you will gain a clearer understanding of the existing processes in place and the systems driving them, as well as the human interactions needed to perform these tasks.

This stage will also highlight which interfaces are central to the process, such as APIs, audio files, emails etc. Using all this information and working with your partner, a roadmap should be created that includes the timings, costs, and the expected returns of the automation project.



02. DELIVERY

Throughout the delivery process, it's important to track whether the automation process is in fact a Process Automation project, or an Intelligent Process Automation project.

This will let you determine which steps need to be implemented next. Either way, having access to key data is vital to the success of the project, as this drives both the actions and decisions the solution will automate.

03. MAINTAIN

Once the automation project has been completed and deployed, it is critical for it to be continually maintained and improved as time goes on.

Data is always changing and processes evolve, which means that the Process Automation or Intelligent Process Automation solution must be tweaked and improved so that it can continue to streamline processes in the long term.

Having the right partner to help you automate your processes is key to executing these steps successfully. They will be able to help you identify which processes can and should be automated, and they'll be there to ensure that your automation solution reaches its true value potential.

HOW TO GET STARTED_

7 SIGNS OF A GOOD IPA PARTNER

If you’re looking to team up with a specialist partner to implement your next Intelligent Process Automation project, doing some research and assessing your options will be invaluable to not only the development, but the long-term maintenance of the solution.

But if you’re not already an expert on Intelligent Process Automation, how do you go about finding the right partner?

When sourcing a supplier, look out for these 7 signs of a good IPA partner:

01
THEY HAVE AN ESTABLISHED METHODOLOGY

This will highlight their level of experience with Intelligent Process Automation to ensure positive results and avoid making mistakes.

02
THEY CAN TEACH YOU THE FUNDAMENTALS

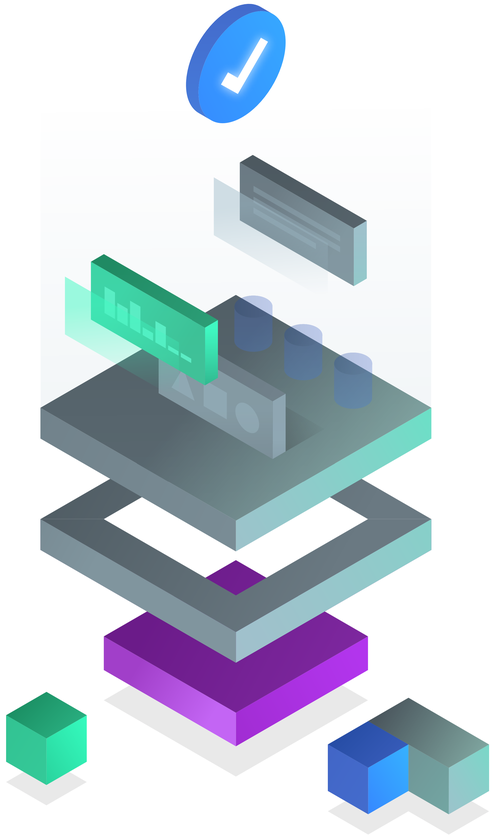
Within their established methodology, they should be able to teach you what Intelligent Process Automation can do, outline the requirements needed for it to be successful, and help you choose the most promising processes to automate.

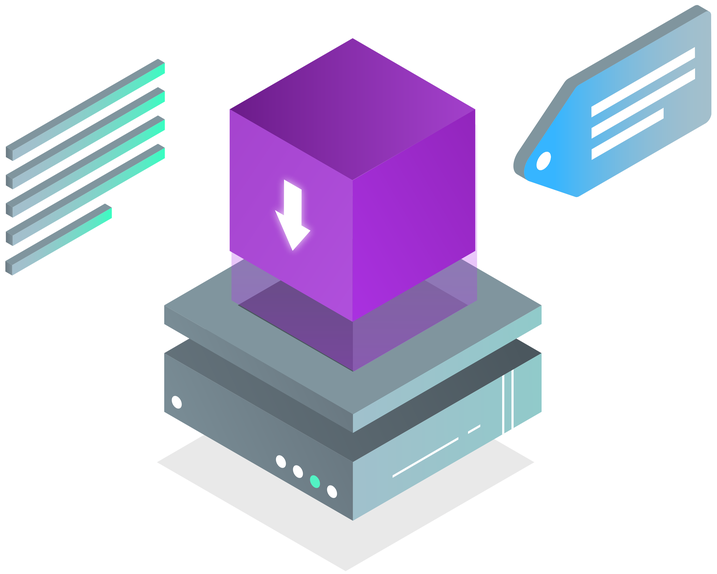
03
ENSURE THEY HAVE EXPERIENCE WITH PROCESS MAPPING

This will help to determine which are the best processes to automate, and which processes aren't good candidates for Intelligent Process Automation.

04
THEY HAVE EXPERIENCE DEVELOPING A.I. SOFTWARE

This will highlight their level of experience with Intelligent Process Automation to ensure positive results and avoid making mistakes.





05
THEY CAN VALIDATE THEIR A.I. PROCESSES

In their methodology, the partner must be able to define whether or not it is possible to continue with the Intelligent Process Automation project. They may need to determine whether the process can be fully automated, partially automated, or if it is impossible for the project to go ahead at an early stage.

06
THEY CAN HELP IMPROVE THE SOLUTION OVER TIME

Make sure they have experience with A.I. development, not just generic A.I. product integration. They must be able to develop custom-made solutions for your business.

07
THEY CAN PROVIDE YOU WITH AN EXAMPLE OF THEIR INTELLIGENT PROCESS AUTOMATION IN PRODUCTION

This is not just a proof of concept. A good partner should provide you with an example where they have automated a process similar to yours, have helped businesses solve challenges and achieve goals similar to your own.

To get started on your Intelligent Process Automation journey, get in touch for a consultation.

Get in touch

HOW TO GET STARTED_

SUMMARY

Intelligent Process Automation has enabled organizations worldwide to reach new levels of innovation and efficiency.

Due to the fact that Intelligent Process Automation is highly predictable and measurable, businesses can also expect accurate results and a high ROI once implemented. Within the next few years, we can expect to see an increasing number of organizations invest in automation technologies to streamline their processes, eliminate the need for humans to carry out manual and repetitive tasks, and free up their workers to focus on more valuable aspects of the organization. As a result, we can expect Intelligent Process Automation to change the way we work forever.

Before you implement Intelligent Process Automation within your own business, it is important to remain predictable and methodical in your approach. Making sure that you do your research into which processes to automate, and following a structured approach, is key to ensuring a successful automation project.

A final key element to any automation project is to seek the help of outside experts. Finding the right Intelligent Process Automation partner that can help research, develop, and ensure the long-term maintenance of your solution will help you on your way to a successful future with automation.

Visit our Insights page for more resources such as ebooks, whitepapers, and videos.

Learn more

ABOUT US_

ABOUT INTELYGENZ

Intelygenz is an enterprise software company founded in 2002 with offices in San Francisco and Madrid serving our major markets in North America and Europe.

Whether we are automating processes or building products, we fully believe in the power of automation. Our expertise in Process Automation and Intelligent Process Automation allows us to help our customers reduce costs, increase capacity, and enhance quality through the automation of core processes.

Our team consists of skilled professionals and is growing, with 95% actively involved in customer projects, including our four founders.

We know our strengths and place a heavy focus on them. We are a technical company with an expertise in automation that has worked for many years on projects such as UI/UX design or product definition, market research, and more.

Learn more

OUR APPROACH TO IPA

Part of what makes Intelygenz unique is the clear, structured methodology we've defined and refined with our experience over the past two decades to ensure the success of our Process Automation/Intelligent Process Automation projects.

We deliver automation and products to our customers, elevating their value through the incorporation of production deployed A.I.

We've worked with some of the earliest adopters of Intelligent Process Automation, including companies within the Banking, Telco, Insurance, and Healthcare sectors. When we work with a client to implement Intelligent Process Automation into their organization, this is the process we follow:

MAP & MEASURE

Using lean-enabled automation analysis, we identify automation candidates and define clear deliverables.

SOLUTION DESIGN

Our approach addresses these critical aspects for every process: reusability, integration with other systems, humans in the loop, failure recovery, notifications and alerts, configurable elements, and reporting and logging. This detailed approach helps ensure that the process delivers the expected results.

AGILE IMPLEMENTATION

Our Agile approach speeds up the creation and deployment of automation solutions to building the automation backlog and implementation. Then, our maintenance and management teams ensure continued optimal performance.

DEVELOPMENT ACCELERATORS

Our experienced consulting and technical team will help you realize the full potential of automation.

CONTINUAL SUPPORT

We know that as time goes on, your processes will evolve and your data will change, which means your automation project will need to adapt. That's why we will continue to support your automation solution as your business grows.

Get in touch

LOOKING TO IMPLEMENT INTELLIGENT PROCESS AUTOMATION INTO YOUR BUSINESS?

Our team of automation experts will guide you through the entire process to create a solution that delivers the results you need to help your business grow.

Let's talk

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