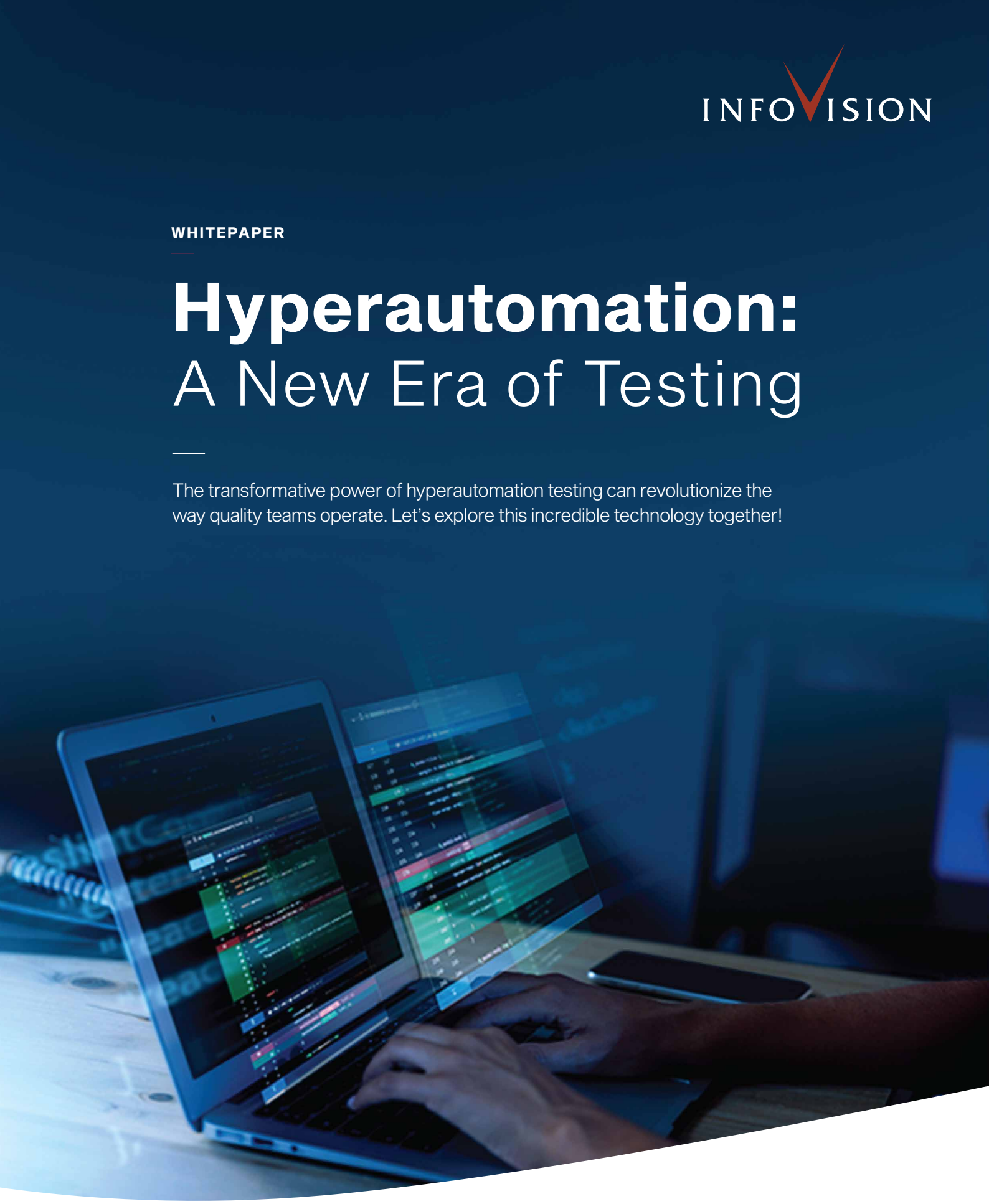
INFOVISION

WHITEPAPER

Hyperautomation: A New Era of Testing

The transformative power of hyperautomation testing can revolutionize the way quality teams operate. Let's explore this incredible technology together!



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Evolution of Hyperautomation

Introduction

The term "hyperautomation" was first introduced by the research firm Gartner in 2019, and since then, it has become a much sought-after topic in business and technology communities.

Gartner defines hyperautomation as "the combination of multiple machine learning, packaged software, and automation tools to deliver work."

Hyperautomation started gaining popularity in the last few years, with the rise of artificial intelligence and machine learning technologies. The increasing demand for automation solutions to handle complex and repetitive tasks, combined with the availability of advanced technologies, has led to a surge of interest in hyperautomation.

The COVID-19 pandemic also accelerated the adoption of hyperautomation, as businesses scrambled to find ways to remain productive while coping with the challenges posed by remote work and social distancing.

Today, many organizations are exploring how they can use hyperautomation to

- streamline their operations,
- improve their efficiency
- gain a competitive advantage

80%

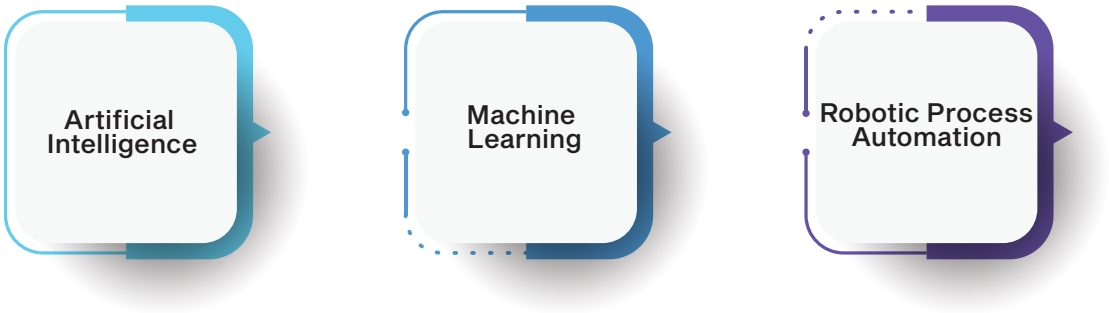
of organizations plan to have hyperautomation on their technology roadmaps by 2024.

A Global Survey By Salesforce and Vanson Bourne

Additionally, hyperautomation can also help organizations to improve customer experience by automating processes that are customer-facing, such as chatbots for customer service, and virtual assistants for personalization.

What is Hyperautomation?

Hyperautomation is a term used to describe the use of advanced technologies, such as



to automate complex and repetitive tasks across multiple business processes.

Hyperautomation goes beyond traditional automation, which is typically focused on automating individual tasks, to encompass a broader range of automation solutions that can be used to automate entire business processes. It aims to achieve high-level automation that can handle the most complex and challenging tasks, while also leveraging advanced technologies to improve decision-making and drive business outcomes.

Hyperautomation solutions can range from simple RPA bots to complex AI-powered systems that can learn, adapt and make decisions on their own. These solutions can be used to automate a wide range of tasks, from simple data entry to complex business processes, such as financial reporting and customer service.

According to Gartner, hyperautomation involves the orchestrated use of multiple technologies, tools or platforms, including:

- Artificial Intelligence
- Machine Learning
- Event-driven Software Architecture
- Robotic Process Automation
- Business Process Management

- Intelligent Business Process Management Suites
- Integration Platform as a Service
- Low-Code/ No-Code Tools
- Packaged Software
- Other types of decision, process and task automation tools

Automation Vs Hyperautomation

Automation and hyperautomation are related but distinct concepts.

In simpler words, if there was a process that was carried out by a human, automation will render robotic arms (capabilities), to do the same thing, in the exact same way. On the other hand, hyperautomation would not only replace the human with a robotic alternative but also deploy that robot with a brain so that it can do the same thing in a smarter and more efficient way. Essentially, hyperautomation is a way of "automating the automation".

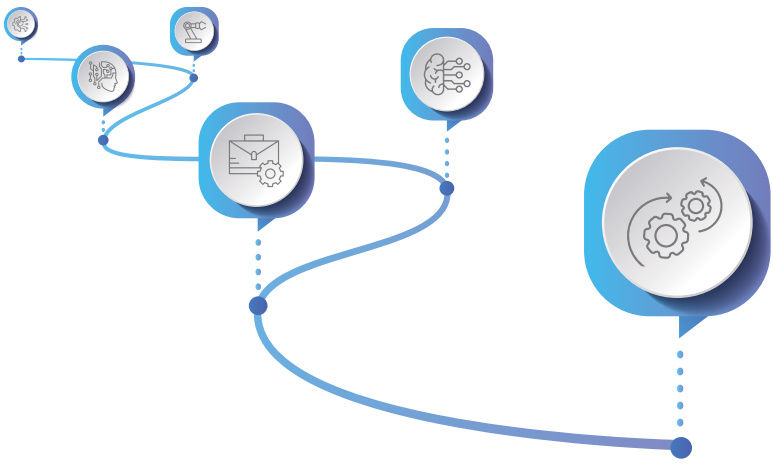
	Automation	Hyperautomation
Technologies required	Performed by automation tools	Performed by multiple ML, packaged software and automation tools
Sophistication of technology	RPA and task-oriented automation	Sophisticated AI-based process automation
Scope	Conducted from one platform	An ecosystem of platforms, systems and technologies
Coverage	Where relevant: What process can we automate?	All-encompassing: "Everything that can be automated will be automated"
Outcome	Efficient operations	Smart & efficient operations

The Road to Hyperautomation

Automation evolved into hyperautomation as a result of technological advancements and the increasing demand for automation solutions. In the early days of automation, the focus was primarily on automating simple, repetitive tasks, such as data entry, using technologies such as scripts and macros.

As technology advanced, RPA emerged as a more sophisticated automation solution, allowing organizations to automate more complex processes and interact with other software systems.

However, with the advent of AI and ML, it became possible to automate even more complex and challenging tasks. These technologies allowed for the creation of hyperautomation solutions that could learn from data, adapt to new situations and make decisions on their own.



As a result, hyperautomation emerged as a new type of automation that leverages a wider range of automation solutions and advanced technologies, with the goal of achieving high-level automation across multiple business processes.

The Hyperautomation Ecosystem

Key Pillars of Hyperautomation
There are four key pillars that come together to build the hyperautomation ecosystem:

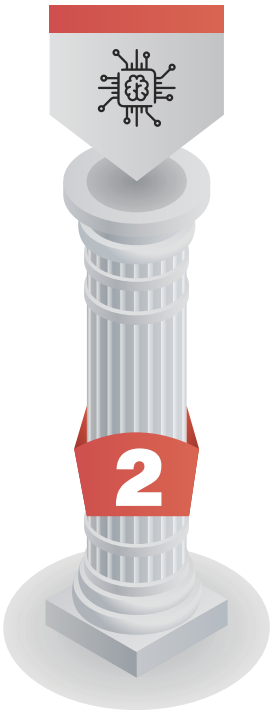
Robotic Process Automation

RPA is a technology that allows organizations to automate repetitive, manual tasks that are typically performed by humans. These tasks can range from simple data entry to complex business processes, such as behavioural analytics.

RPA works by using software bots to simulate the actions of a human user, interacting with other software systems to complete tasks. The bots can be programmed to follow specific rules and procedures, ensuring that tasks are performed consistently and accurately.

In the context of hyperautomation, RPA is just one of the key automation solutions that can be used to achieve high-level automation across multiple business processes. RPA is often used in conjunction with other advanced technologies, such as AI and ML, to provide a more comprehensive and intelligent automation solution.

Artificial Intelligence



AI is a key component of hyperautomation, providing the intelligence and decision-making capabilities necessary to automate complex and challenging tasks. AI is an umbrella term that encompasses a range of technologies, including ML, natural language processing (NLP), and computer vision.

Moreover, AI can be used to automate and optimize complex business processes. For example, an AI-powered system might be used to monitor a supply chain and automatically reroute shipments to avoid delays and minimize costs.

Additionally, AI can also be used to enhance the capabilities of other automation solutions, such as robotic process automation. For example, an RPA bot might be used to extract data from a database, while an AI-powered system might be used to analyze that data and make recommendations for future actions.

Essentially, AI provides the intelligence and decision-making capabilities necessary to automate complex and challenging tasks, improve efficiency, and reduce the workload for human employees.

Business Process Management

BPM provides a framework for automating and optimizing complex business processes when it comes to hyperautomation. BPM is a set of tools and techniques used to manage business processes, from design and implementation to monitoring and optimization.

In hyperautomation, BPM is used to identify areas for improvement in business processes, streamline operations, and automate tasks that would otherwise require human intervention. For example, a BPM system might be used to analyze a supply chain and identify bottlenecks that could be addressed through automation.

BPM also provides a framework for integrating different automation solutions, such as RPA and AI. If we take the previous example forward, an RPA bot might be used to extract data from a database, while an AI-powered system might be used to analyze that data and make recommendations for future actions. These solutions can then be integrated into a single BPM system, providing a unified and automated approach to BPM.

Advanced Analytics

AA delivers the insights necessary to make informed decisions and drive business value in hyperautomation. AA encompasses a range of technologies and methods, including big data analytics, predictive analytics, and ML.

In hyperautomation, AA is used to analyze large and complex data sets, uncover hidden patterns, and make predictions about future outcomes. For example, an AA system might be used to analyze customer data and make predictions about which customers are most likely to make a purchase in the near future.

The Booming Adoption of Hyperautomation Across Industries

Hyperautomation is being adopted rapidly across business processes to increase efficiency, reduce errors, and improve overall business performance - and for good reason. It allows organizations to optimize their operations and improve decision-making by providing real-time data and insights. It also helps in reducing manual effort, freeing up employees to focus on high-value tasks that require human intervention. We're not saying it - data is.

Hyperautomation: The Booming Business Frontier

Present Popularity

56% of organizations have already implemented four or more hyperautomation initiatives.

[Source: Gartner]

73% of enterprises are either in the process of implementing or have already implemented hyperautomation to some degree.

[Source: Deloitte]

Manufacturing leads the adoption of hyperautomation with **28%** of companies employing it, followed by healthcare at **23.2%**, and the banking sector at **15.6%**.

[Source: Analytics Insight]

Proven Sucess

Hyperautomation can help businesses achieve cost savings of up to **40%.**

[Source: Accenture]

Hyperautomation can reduce the processing time by up to **90%** and increase productivity by up to **60%**.

[Source: Deloitte]

88% of organizations using RPA and hyperautomation have experienced a positive return on investment.

[Source: UiPath]

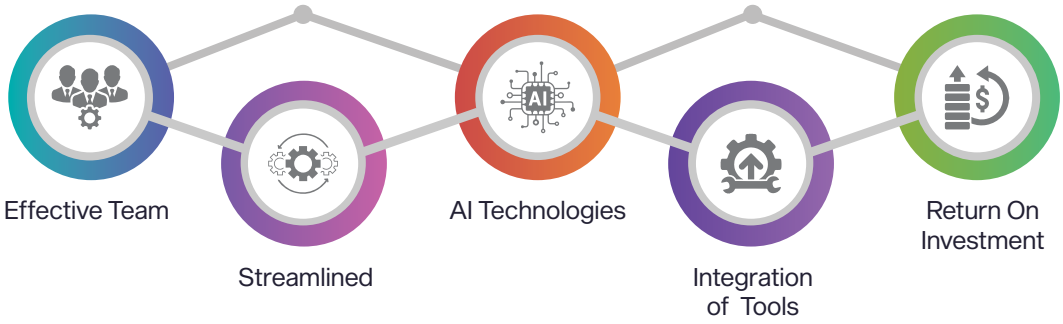
Hyperautomation can reduce error rates by up to **99%**.

[Source: Forrester]

Hyperautomation can help businesses achieve productivity gains of up to **20%**.

[Source: McKinsey]

Hyperautomation benefits Business Users



Inevitable Future

By **2025**, hyperautomation will be the top strategic technology trend for organizations world-wide.

[Source: Gartner]

By **2024**, organizations that have adopted hyperautomation will see a **30%** reduction in their operational costs.

[Source: Gartner]

The global hyperautomation market size will grow from **$6.71** billion in **2020** to **$12.98** billion by **2025**, at a Compound Annual Growth Rate (CAGR) of **14.1%** during the forecast period.

[Source: MarketsandMarkets]

The 3Es of Delivering Excellence: InfoVision's Approach

In today's fast-paced and highly competitive business world, companies must innovate and fast-track their product testing and release cycles to stay ahead of the competition and accelerate go-to-market processes. However, most quality teams face the challenge of resorting to "Adequate Regression Testing," resulting in lesser value-add, efficiency or effectiveness. To address this challenge, InfoVision has developed a comprehensive opinionated **Regression Optimization Model.**

At InfoVision, we leverage our opinionated model to optimize regression testing and for optimum test coverage. Our approach combines traditional and statistical techniques using AI algorithms that include NLP (Natural Language Processing), NLG (Natural Language Generation), and knowledge graphs. Our approach allows us to deliver high-quality products with faster release cycles, reducing overall costs and improving user satisfaction.

At the core of our approach are the three cornerstones of excellence: experience, expertise, and evaluation to ensure successful product testing and release cycles.

Experience

We are backed by a wealth of experience in hyperautomation testing, having successfully implemented our opinionated model for test coverage assurance and regression optimization across customers. During the first stage of testing, our model generates the optimal number of test case combinations to test what is important. As the test suite matures, the defect heat map identifies the most vulnerable areas for regression testing. This has resulted in a **35%** reduction in the regression cycle. Our team of experts help achieve the testing goals with a significant reduction in time-to-market for our customers.

For example,

- For a major financial institution, our hyperautomation solution automated over **70%** of their regression testing, resulting in a **32%** reduction in testing time and significant cost savings.
- A leading enterprise gained a **30%** reduction in overall costs by reducing regression testing cycle by **50%** using our solution
- A healthcare platform company achieved a notable improvement in quality by implementing an optimized regression suite for each hot-fix

Expertise

With our deep expertise in hyperautomation testing, domain-specific knowledge and our commitment to delivering customized solutions for our clients, we have become a trusted partner for leading brands across industries. Our hyperautomation team includes technologists, architects, and engineers with a combined experience of over 100+ years, who bring the latest innovations, emerging technologies, and customized solutions to our clients.

We have a proven track record of delivering successful hyperautomation projects for clients across a range of industries. For example, we recently worked with a global telecom company to develop a hyperautomation solution that automated their consumer group platform resulting in significant cost savings and increased efficiency.

Our access to the latest tools and technologies, thanks to key technology partnerships enables us to design and customize optimal solutions for our customers. Our teams are certified in the leading industry test automation standards and hyperautomation technologies and tools.

Whether it's developing a hyperautomation strategy, implementing a hyperautomation solution, or providing ongoing support and maintenance, we have the skills and experience to help our clients achieve their goals

Evaluation

At InfoVision, we understand that every client's needs and challenges are unique. That's why we offer a no-obligation complimentary audit of your current approach to hyperautomation testing. Our team of experts will use their experience and expertise to identify the gaps and opportunities for improvement in your approach and provide a customized solution that fits your needs and helps you get closer to your goals.

Our no-obligation complimentary audit is a key part of our commitment to delivering excellence to our clients.

Whether you're looking to develop a hyperautomation strategy, implement a hyperautomation solution, or optimize your current approach, our team of experts is here to help.

If you're ready to take the first step towards efficiency, write to us at **digital@infovision.com** and let us help you achieve your hyperautomation goals.

The Way Forward

In the future, hyperautomation is likely to become more widespread and accessible, allowing organizations of all sizes to automate a greater number of tasks and processes. The integration of new technologies and the increasing availability of data are expected to drive further advancements in hyperautomation, leading to the development of more sophisticated and intelligent automation systems.

As it evolves, hyperautomation is likely to become an increasingly critical component of digital transformation strategies. The ability to automate complex processes, make data-driven decisions, and improve overall efficiency will give organizations a competitive edge in an increasingly digital world.

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About InfoVision

Infovision, founded in 1995, is a leading global IT services and solutions company offering enterprise digital transformation and modernization solutions across business verticals. We partner with our clients in driving innovation, rethinking workflows, and transforming experiences so businesses can stay ahead in a rapidly changing world. We help shape a bold new area or era of technology-led disruption accelerating digital with quality, agility and integrity. We have helped more than 75 global leaders across Telecom, Retail, Banking, Healthcare and Technology Industries deliver excellence for their customers. InfoVision's global presence enables us to offer offshore, near shore and onshore solutions for our customers.

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[3] Forrester: The Path To The Automation Fabric