Reshaping Industries Globally with **AI/ML**

A Guidebook for Enterprise Leaders

Overview

It's remarkable how conversations around integrating AI/ML into processes have evolved. Merely months ago, discussions in the corner office primarily focused on distinguishing between hype and reality. However, now the scenario is a lot different. C-suite leaders have advanced to more nuanced conversations. Survey findings reveal that nearly one-third of companies are integrating generative AI (GenAI) into at least one business function. This highlights the growing recognition and acceptance among companies that GenAI holds substantial viability in business operations.

Read this whitepaper to gain detailed insights into the impact of AI/ML on various industries and how these modern technologies are driving significant changes within different sectors.

In 2023, the global AI market was valued at over $196 billion.

Source: (GrandViewResearch)

Human Intelligence	VS	Artificial Intelligence
Weight		**Weight**
3 pounds (1.4Kg)		150 tons
Space		**Space**
1/6 basketball (80 cubic inches or 1,300 cm^3)		Basketball court (cabinets over 4,350 square feet, or 400 m^2)
Processor Speed		**Processor Speed**
Up to 1,000,000 trillion operations per second		93,000 million operations per second
Energy Efficiency		**Energy Efficiency**
20 Watts		10 million watts

Source - https://www.educba.com/artificial-intelligence-vs-human-intelligence/

Exploring Key Reasons Behind the Growing Popularity of AI/ML

The increasing adoption of AI/ML across industries is apparent, with numerous contributing factors driving its popularity.

Better Customer Service

AI-powered chatbots and assistants are everywhere, making customer interactions smoother. These smart assistants leverage ML capabilities to instantly respond to customer questions and offer personalized help, making the whole experience better

Smarter Decision-making

AI is empowering organizations to process massive volumes of data at a fast speed. This certainly enables business leaders to predict market trends and spot opportunities for growth. With this knowledge, they can make informed business decisions, boost workforce productivity, cut costs, and do all of this while staying current and competitive
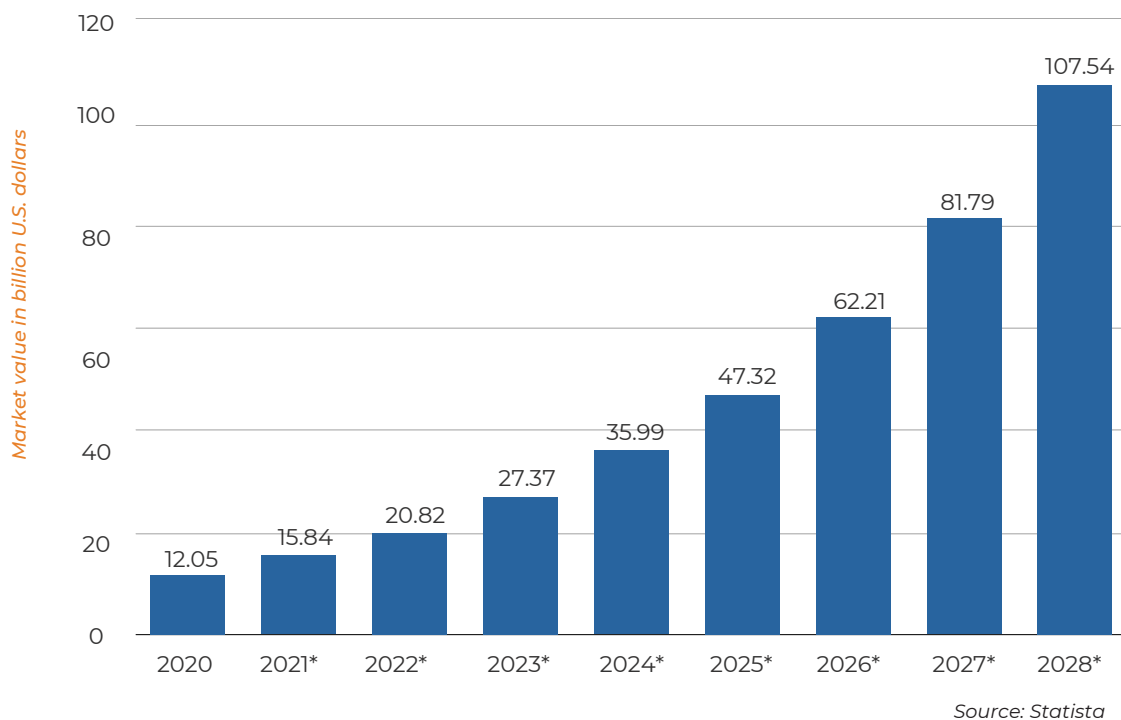
Automating Tasks

AI excels at handling repetitive tasks with precision and efficiency. With AI, business leaders are automating mundane and repetitive tasks, including data entry and process documentation, freeing up knowledge workers' bandwidth to align their efforts to perform value-added tasks. This not only saves time but also minimizes mistakes and expedites processes, making businesses efficient and cost-effective

The integration of AI and ML is extremely important for staying competitive and driving continuous innovation across industries. Thanks to cost-effective computing power and tons of data available, AI is more accessible than ever. This makes it essential for businesses looking to thrive in today's fast-paced world.

2024 AI
Business Predictions

The adoption of AI has been significant in the past few years. According to Statista 2024 report, the use of AI globally will surpass $107 billion by 2028.

Market value in billion U.S. dollars

Year	Value
2020	12.05
2021*	15.84
2022*	20.82
2023*	27.37
2024*	35.99
2025*	47.32
2026*	62.21
2027*	81.79
2028*	107.54

Source: Statista

Did You Know?

▸ By 2025, as many as **97 million people** will work in the AI space

▸ Netflix makes **$1 billion annually** from automated personalized recommendations

▸ **38% of medical providers** use computers as part of their diagnosis

▸ The US AI market is forecasted to reach **$299.64 billion by 2026**

▸ The AI market is expanding at a CAGR of **38.1% between 2022 to 2030**

Source: Statista

Where Lie the Challenges, Though?

At a broad level, the challenge lies in dealing with increasingly demanding customers who want everything in the here and now. What else prevents organizations from becoming agile?

Disjointed and Siloed Functions/Processes

The traditional departmental structure comes in the way of smooth functioning. These siloes reside in inter-departmental hand-offs, communications, unintegrated systems, and ivory tower ways of doing things

Manual and Paper-based Processes

Despite years of systemic development over the years, many crucial processes in organizations are still manual and paper-driven, causing overheads and delays at every step

Rigid Legacy Systems and Technological Adaptation

Many organizations are constrained by legacy systems that lack the flexibility and scalability to accommodate the needs of newer technologies and modern customers. Upgrading these systems to align with contemporary demands without disrupting regular operations poses a significant challenge. The pace of technological change demands substantial considerations and investments in digital capabilities to meet customer expectations

Trust and Technology – The Weak Integration

Major organizations across industries are incorporating advanced technologies, including AI/ML, to modernize operations. However, maintaining trust amidst these changes is crucial. Transparency, security, and ethical use of technologies like AI and ML are key to building customers' trust. Effective communication about the benefits of these technologies can ease worries and help build trust
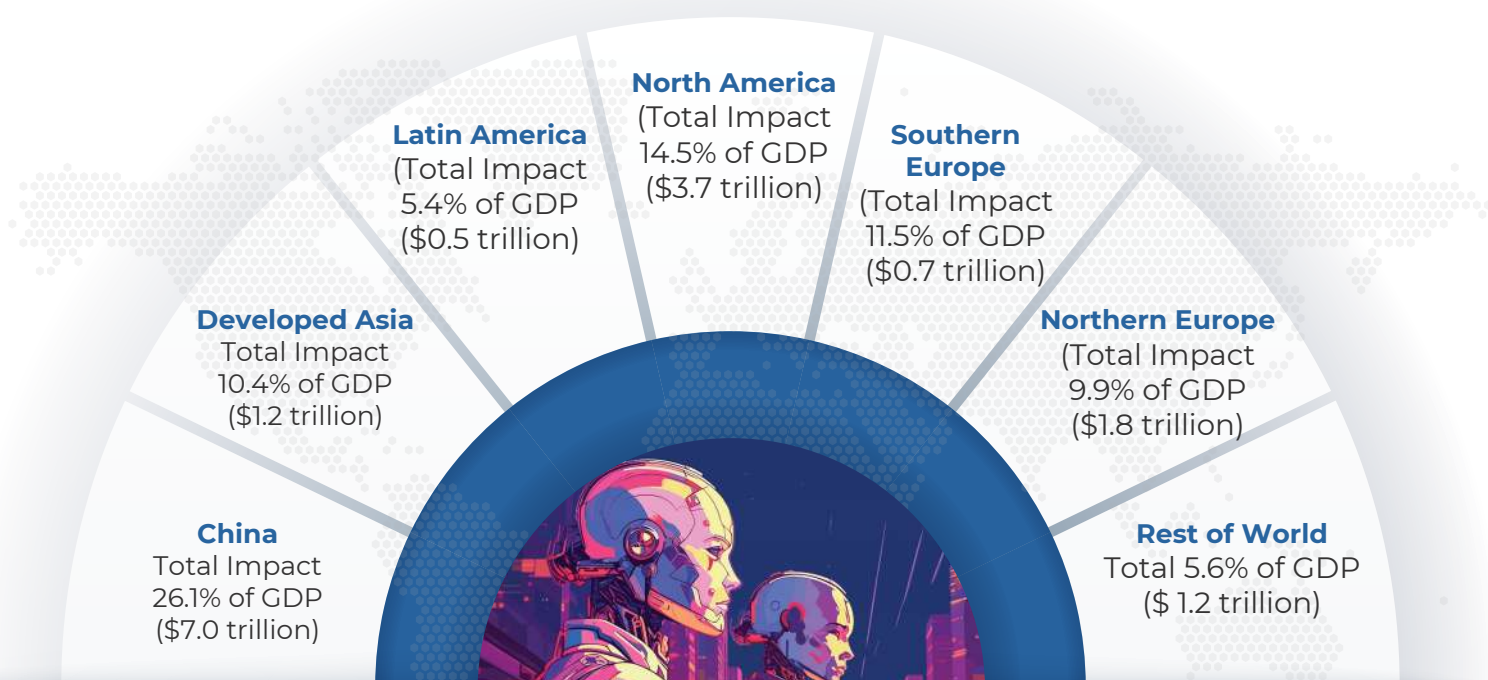
Information Overload

Organizations generate piles of information daily, adding to an already unmanageable data deluge. Add to that the variety of unstructured information in the form of documents, media, images, and videos. If left unmanaged, this constantly pouring data becomes a key headache for compliance-related activities

In short, organizations have to deal with the challenge of updating their technology to keep up with the needs and demands of customers. At the same time, they need to make sure that using AI and ML doesn't make customers worried. Instead, it should make them feel even more confident, even as things change in different industries.

Sizing the prize - Which regions gain the most from AI?

Latin America
(Total Impact
5.4% of GDP
($0.5 trillion)

North America
(Total Impact
14.5% of GDP
($3.7 trillion)

Southern Europe
(Total Impact
11.5% of GDP
($0.7 trillion)

Developed Asia
Total Impact
10.4% of GDP
($1.2 trillion)

Northern Europe
(Total Impact
9.9% of GDP
($1.8 trillion)

China
Total Impact
26.1% of GDP
($7.0 trillion)

Rest of World
Total 5.6% of GDP
($ 1.2 trillion)

Source: PwC-Sizing the Price

Solving the Compliance Conundrum

Despite companies' best efforts, regulatory compliance remains a moving target. And the rapidly evolving risk and compliance landscape keeps leaders on their toes, calling for a more responsive and flexible approach. Across all industries, regulations and requirements are constantly evolving. Enterprise leaders adhere to governance and compliance needs when:

- *They can identify and manage risks on an ongoing basis – system-identified exceptions and escalations are a great way to minimize such risks*

- *Their companies' values and ethics are clearly defined and communicated to all the employees*

- *They stay on top of the continuously changing regulatory requirements – configurable business rules can take away the complexity of managing such changes*

- *They have end-to-end visibility and control of operations – real-time reporting from their digital platform is just the start*

- *They can ensure complete data security for their internal users and customers – security, permissions, and access hierarchy are all an integral part of their digital platform*

Applicability of AI/ML Across Industries

Healthcare: Predictive Disease Diagnosis

- The integration of AI/ML for predictive disease diagnosis holds immense potential for enhancing healthcare outcomes, marking a significant advancement in medical practices

- Through the utilization of AI/ML technology, healthcare professionals can achieve earlier disease detection, personalized treatment plans, and improved patient care, ultimately leading to enhanced overall health outcomes

- Leveraging ML algorithms and patient-specific data, healthcare providers can accurately forecast the probability of various diseases occurring in individuals

- This application entails the comprehensive collection and analysis of diverse data sources, encompassing patient medical histories, genetic profiles, lifestyle factors, and results from diagnostic tests

Media & Entertainment: Personalized Content Recommendation

- AI/ML can enhance the entertainment industry by leveraging advanced algorithms to deliver personalized content recommendations tailored to individual users

- By analyzing users' preferences, viewing history, and behavioral patterns, AI/ML algorithms can generate highly customized suggestions for movies, TV shows, music, and other forms of entertainment content

- This personalized approach enhances user satisfaction and engagement by presenting them with content that aligns closely with their interests and viewing habits

- Furthermore, AI/ML-driven content recommendations can help streaming platforms increase user retention and loyalty by continuously delivering relevant and engaging content experiences

Service Providers: Predictive Maintenance

- In the service provider industry, AI/ML finds valuable application in predictive maintenance of equipment and infrastructure

- By analyzing historical performance data, sensor readings, and maintenance records, organizations can accurately forecast potential equipment failures

- This predictive capability enables proactive maintenance interventions, reducing downtime and optimizing operational efficiency

- By leveraging AI/ML for predictive maintenance, service providers can minimize disruptions, enhance equipment reliability, and ultimately deliver better service to customers

Retail: Predictive Customer Behavior Analysis

- Retail organizations can make each customer experience special. They can group different customers in different ways and send them special offers that match what they like based on their spending capacity

- Utilizing ML algorithms and customer-specific data, retailers can accurately anticipate consumer actions and preferences, facilitating targeted marketing and personalized experiences. This requires thorough data collection and analysis across various touchpoints, including transaction history, browsing patterns, demographic information, and feedback, enabling retailers to optimize their offerings and foster lasting customer relationships
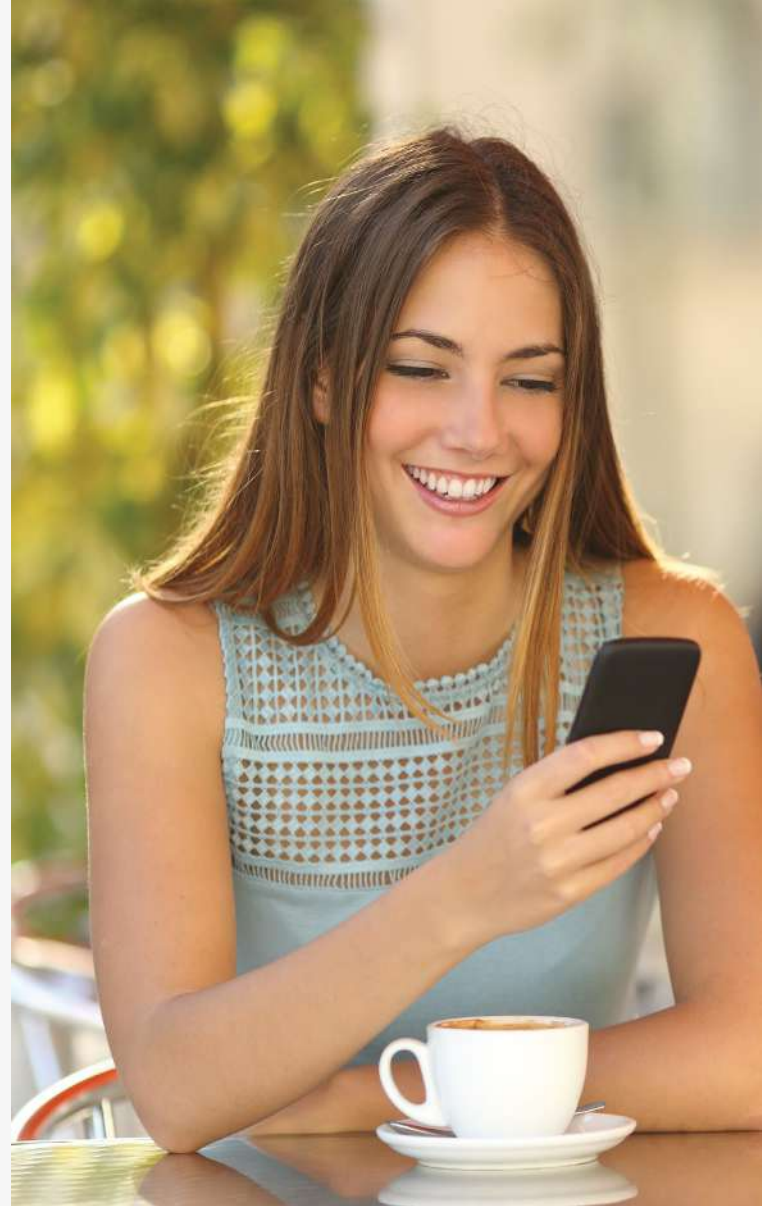
All these real-world examples illustrate the extensive reach of AI/ML applications across different industries. Whether it's predicting equipment failures, optimizing service delivery, or personalizing content recommendations, AI/ML turns out to be a transformative force, reshaping industries and setting new standards for innovation and effectiveness.

Currently, the UK AI market is valued at over $21bn, and is estimated to grow to over $1tn by 2035. The UK is the third largest AI market in the world after the U.S. and China.

Strategic Implementation of AI/ML into your Organization

Organizations that show preparedness and adaptability to navigate through abrupt shifts in the market are well-positioned to mitigate potential risks and emerge as leaders in their respective industries. The pace of transformation within various sectors is largely driven by the integration of AI/ML and related technologies.

This integration allows organizations to get detailed customer insights, enabling the infusion of AI/ML into every aspect of their offerings. Organizations must strategically invest in both promoting and embracing modern technology. This strategic investment is essential for winning trust and maintaining transparency with customers. Such a dual commitment not only aligns organizations with evolving consumer expectations but also positions them as innovators in adapting to the dynamic landscape of their respective industries.

Strategists believe that 50% of strategic planning and execution activities could be automated. Currently, only 15% of such activities are automated. (Gartner, 2023)
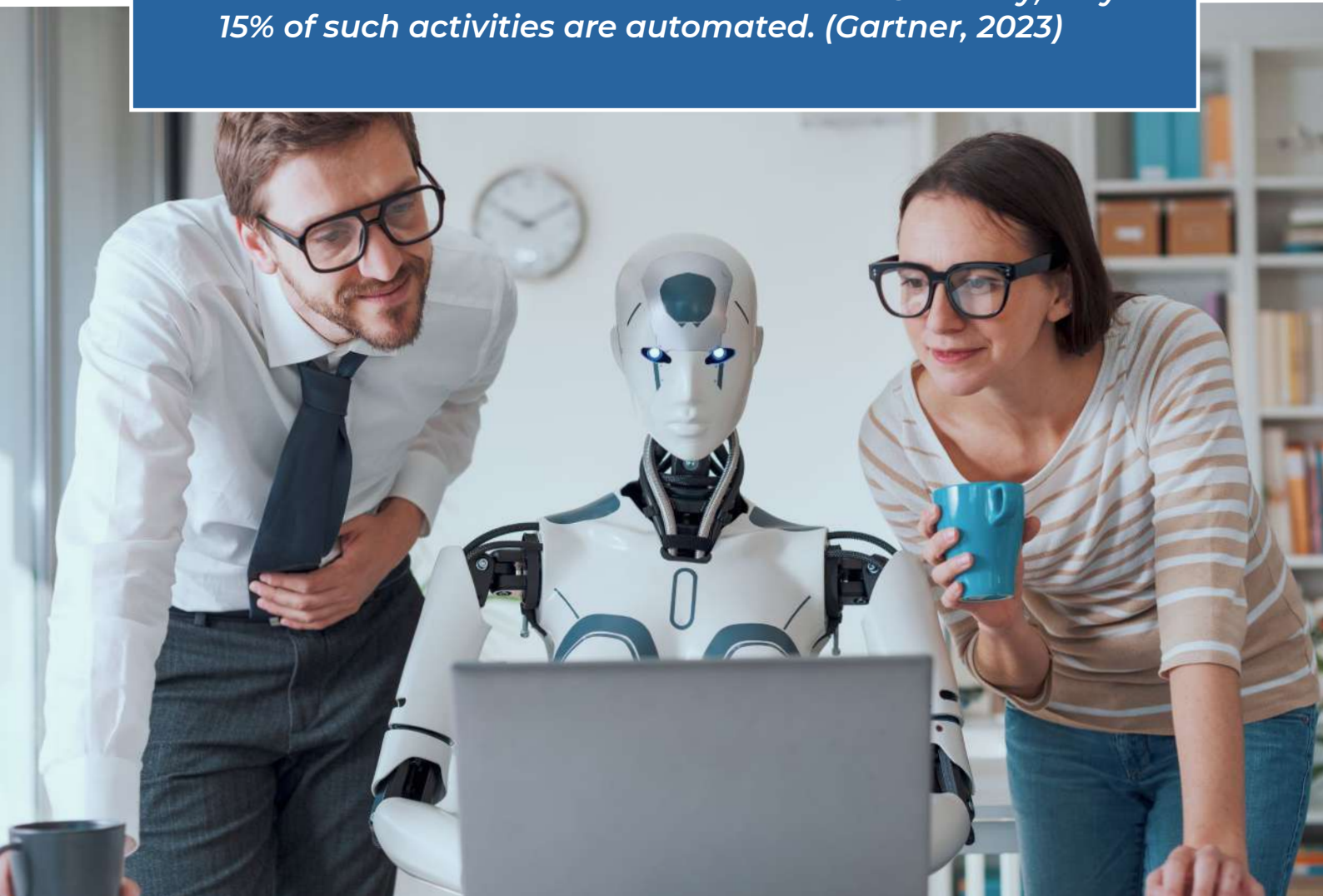
How Newgen Can Help?

Newgen's AI/ML Data Science Platform has been purposefully designed to address the diverse challenges that come along the way while creating enterprise-wide AI/ML solutions, tailored for various industries. Let's dive deep into how Newgen's platform can transform the way businesses approach AI/ML:

End-to-End Integration

Seamlessly integrates the entire lifecycle of AI/ML solutions within a visually intuitive interface. From data preprocessing to model deployment, every step of the process is seamlessly connected, eliminating the need for disparate tools and ensuring a cohesive workflow

Comprehensive Functionality

Offers a wide range of functionalities, including data pipelines, workflows, and analysis pipelines

User-Friendly Interface

With a drag-and-drop low-code interface, the platform makes it effortless for users to create components without the need for extensive technical expertise. This intuitive interface empowers users to focus on the creative aspects of AI/ML development without being bogged down by complex coding requirements

Enhanced Accessibility

Increases accessibility and usability across industries, catering to users with varying levels of technical expertise. Whether you're a seasoned data scientist or a novice AI enthusiast, Newgen's platform is designed to accommodate users of all skill levels, ensuring everyone can leverage the power of AI/ML

Promotes Collaboration

Fosters collaboration across teams to deliver robust machine learning capabilities

Facilitates Key Processes

Enables deployment, monitoring, retraining, and model selection based on specific requirements. With automated workflows and advanced analytics capabilities, businesses can efficiently manage their AI/ML projects and adapt to changing needs with ease

Efficient Development

Streamlines the AI/ML development process, making it more efficient and collaborative for industries. With accelerated development cycles and reduced time-to-market, businesses can quickly realize the benefits of AI/ML and gain a competitive edge in their respective markets

About Newgen

Newgen is the leading provider of a unified digital transformation platform with native process automation, content services, communication management, and AI/ML capabilities. Globally, successful enterprises rely on Newgen's industry-recognized low code application platform to develop and deploy complex, content-driven, and customer-engaging business applications on the cloud. From onboarding to service requests, lending to underwriting, and for many more use cases across industries, Newgen unlocks simple with speed and agility.

AMERICAS:	AUSTRALIA:	UK:	APAC:	MEA:	INDIA:
+1 (202) 800 7783	+61 290537174	+44 (0) 2036 514805	+65 3157 6189	+27-11-461-6497	+91 11 40773769

info@newgensoft.com

www.newgensoft.com