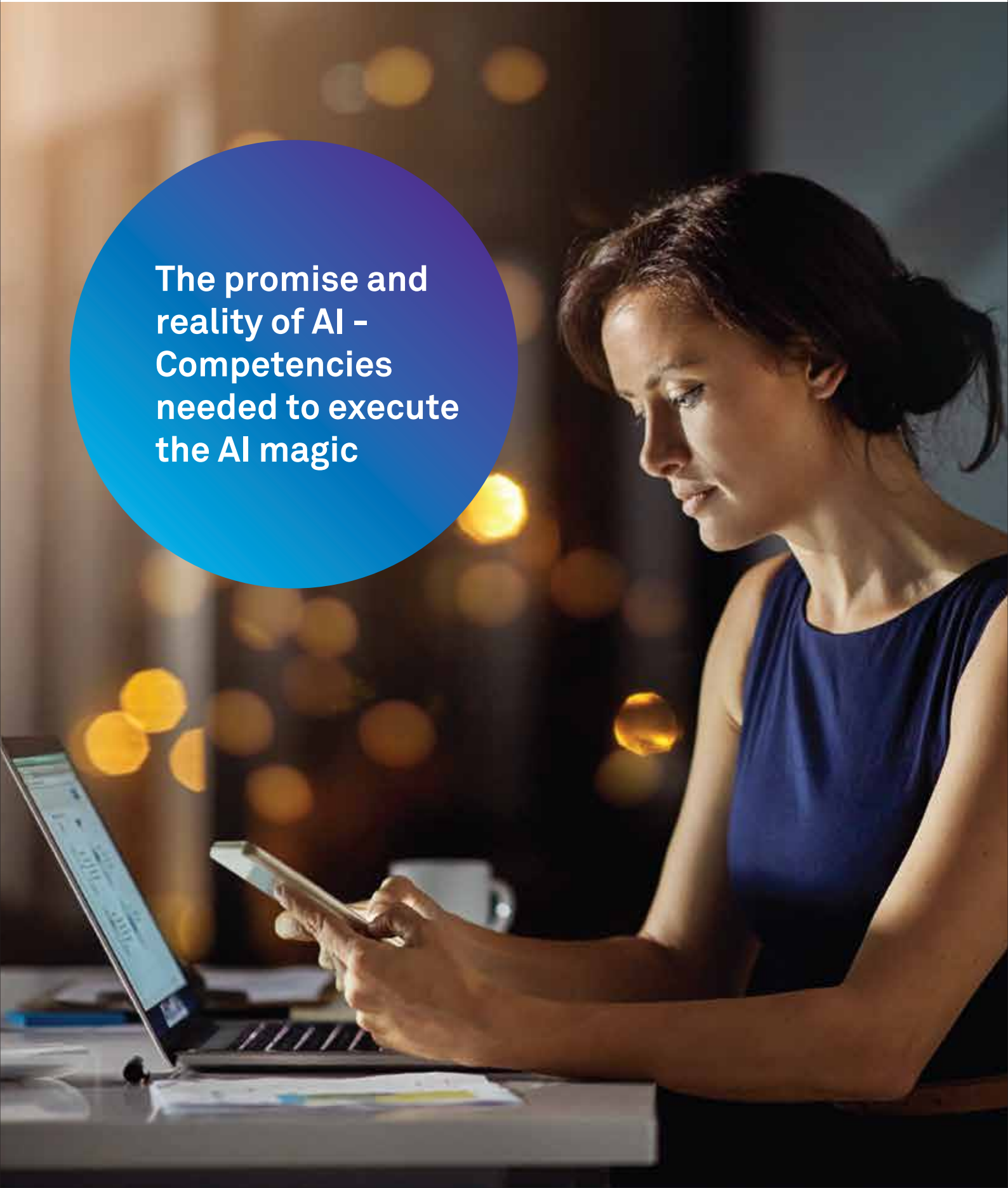




**The promise and  
reality of AI -  
Competencies  
needed to execute  
the AI magic**



**T**oday, AI to most businesses is a technology that aids in the automation of tasks and augments decision making by providing insights to key leaders and decision takers. There has been a rise in the use of AI technologies for data-driven decision making for numerous business goals revolving around customer experience and operational efficiency. For instance, profiling of customers for personalized marketing campaigns, faster and accurate detection of tumors in millions of EMRs, efficient maintenance of inventory and manufacturing plants, early detection of defaulters of loans, and development of smart cities and smarter infrastructures.

In all of these use cases, the role that insights play is crucial; be it in better campaign designs, quicker and timely detection of tumors to prevent late-stage complexities, huge amount of savings due to smart plants, or connected citizens for better citizen services. Companies are trying to become insights-driven organizations that can think better and act faster. Two technologies – Cloud and AI have risen to the fore as the go-to technologies for such organizational transformation.

Insights-driven organizations ‘Sense’ data from disparate data sources and assimilate that data into valuable data sets. They ‘Think’ and

contextualize the problem statement to derive an understanding of the environment. They then ‘Respond’ to the business problem with reports, actionable insights and recommendations, automatic interventions and finally, ‘Learn’ to optimize the entire journey based on feedback from the various units along the journey and the end-user reactions to the response provided. Consequently, by preparing the right kind of data and then driving insights through technology, these organizations are transformed into intelligent enterprises that can function autonomously or semi-autonomously for better benefits to key tracks such as customer experience, operational efficiency, governance and trust.

While for many people, AI is playing the role of an enigma that creates magic with everything it touches and promises an intelligent insights-driven solution, it is important to note that companies must work on certain pre-requisites and competencies for AI to fulfil this promise. The reality is that AI is one foundational element of the enterprise transformation journey apart from other elements such as data, talent, or ecosystem. It is imperative to address many of these elements, pre-requisites or competencies for successful AI implementations.





**Artificial Intelligence is the prime focus of enterprises as it is considered to be one of the foundational element of any organization's transformation journey. Equally important are data, talent and a holistic ecosystem. Addressing such competencies will be imperative for successful AI implementations**

## Barriers for successful AI

The adoption of AI has seen growth largely due to its ability to automate repeatable tasks and to process information of massive volumes in a matter of seconds but organizations have not quite grasped how to implement AI successfully for enterprise-wide effects. AI is comparable to a machine that needs maintenance at certain time intervals and has every reason to fail. The reasons for slow or unsuccessful AI implementations range from obvious to the ignored. Four key reasons are -

1. **Lack of awareness about the use cases:** It has not become truly clear the set of use cases that an organization can implement using AI. A clear understanding of the scope of AI and its limitations must be understood
2. **Lack of talent:** There is a dearth of talent to support AI implementation. The demand for the few talented people who can understand the use case, build and optimize models and translate them into functional solutions has soared, resulting in huge cost to the company.
3. **Lack of an end-to-end AI strategy:** AI uses a wide variety of data to provide insights. For projects to be successful, an end-to-end strategy and roadmap that captures the data pipeline and how it will be nurtured to support insights transformation must be developed. Often, this strategy is defined and executed in a silo-ed manner.

4. **Data availability and improvement:** AI algorithms need large volumes of data to achieve accuracy and efficiency. Often, there is a set of data points required for training, another one for testing, and yet another for feedback and consequently, for optimizations. Organizations are struggling to capture data due to stringent privacy laws, and lack the talent or products that will crunch the large volumes of data in the pre-processing stages of the data pipeline.

Understanding these reasons for failure, and bringing together several components of Data and Model Management requires a well-thought AI Strategy and Journey blueprint. The AI Journey blueprint will provide a high-level view of steps that an organization experimenting with AI can follow as a checklist to ensure all competencies needed for AI to fulfil the enterprise transformation promise are met.

What steps must an organization follow for successful AI implementation?

Organizations must develop an AI Journey blueprint that will call out the approach that they would follow for solution development. The journey blueprint could include a variant of the below steps that is best suited to that particular organization.

1. **Define the problem:** Identify the Business Problem and define realistic, pragmatic use cases with short term and long-term vision for the solution development.

2. Understand the user journey: Address the customer journey for the problem and then define the technology journey to address this problem statement. This will ensure maximum end-user satisfaction.

3. Create the data and AI strategy: Create the data strategy to address the type of data required and the data sources to be used. And also an AI strategy that will address the training set, the kind of algorithm to be used and the format for response – either report, recommendation, NLG/NLP narratives, visualizations etc. Awareness of the importance of data allows organizations to explore alternatives where data for every stage of AI development is not available. Synthetic Data is one upcoming solution that helps in the creation of artificial data that can help in model development. In order to support preprocesses such as Data Engineering and Data Preparation of the acquired data, there are Data Ops and AI-assisted Data Management that will ease up and speed up the data lifecycle. When different data sources must be brought together, effective integration is required to stitch up a good tapestry of data that can be used for Insights generation.

4. Set up a governance strategy: Prepare a governance strategy that conforms to data privacy and security rules and ensures the AI processes are ethical and humanized for consumption.

5. Build a dependable ecosystem: Develop the right process to deliver the solution that addresses the required use case, leverage the right technology with the appropriate set of tools and products, and nurture right people with the required skill and talent development. Where these resources are unavailable, build dependable and capable partner networks to supply the tools and models, such as Crowdsourcing to supply the skills.

6. Develop – Validate – Deploy - Redefine: Develop the solution with appropriate dataset and algorithms, test in similar environment or simulated environment and re-define the blueprint based on the feedback received from the machines as well as the business user. Deploy when a set of business outcomes defined in the problem definition stage are met.



7. Continuous Improvement: Continually optimize the models for enhanced consumption by re-defining, developing, validating and deploying better versions of the solution through feedback loops that accept feedback from the individual process units as well as feedback from the end-user.

#### Succeeding with an AI Journey blueprint

The challenge for business leaders is to ensure that the business has the right strategy to enable and support AI capabilities along with the right infrastructure to support AI implementation. Both AI innovators and adopters need to develop and use AI technologies in their business processes, as it will enable businesses to work smarter and faster.

AI blueprint is a template for businesses that allows them to systematically create the right infrastructure and ecosystem to build, train, and deploy machine-learning models for use cases while minimizing side effects on existing processes. While data is one of the most valuable assets for a business, when coupled with the power of AI, it can offer organizations a unique competitive advantage via AI-driven analytics.

The approach AI blueprint advocates is to observe, learn and experiment with AI, evaluate benefits and build core processes to scale up and drive efficiency – fuel AI engine with innovative pipeline, measure the impact, and, extend the scope as and when organizations mature for further transformation and thus, enable new offerings and change landscape.



## About the authors

### **Saurabh Aggarwal**

Managing Consultant,  
Data, Analytics & AI Consulting,  
Wipro Limited.

Saurabh is a data scientist involved in driving business value by using AI/ML techniques in diverse industry use cases. He is passionate about solving real business problems using data science and AI/ML techniques. Saurabh holds Professional Doctorate in Engineering from TU/e, Netherlands and Masters of Technology from IIT Kanpur, India.

### **Sravya Bharani M**

Senior Consultant for Strategy & Planning,  
Data, Analytics & AI,  
Wipro Limited.

Sravya provides advisory and thought leadership strategies with an understanding of the digital and analytics industry including market view, competition landscape and related ecosystems. She holds a Master's in Business Administration from Indian Institute of Technology (Madras) and B.E. in Electronics & Communication Engineering.



## **Wipro Limited**

Doddakannelli, Sarjapur Road,  
Bangalore-560 035,  
India

Tel: +91 (80) 2844 0011

Fax: +91 (80) 2844 0256

**wipro.com**

Wipro Limited (NYSE: WIT, BSE: 507685, NSE: WIPRO) is a leading global information technology, consulting and business process services company. We harness the power of cognitive computing, hyper-automation, robotics, cloud, analytics and emerging technologies to help our clients adapt to the digital world and make them successful. A company recognized globally for its comprehensive portfolio of services, strong commitment to sustainability and good corporate citizenship, we have over 175,000 dedicated employees serving clients across six continents. Together, we discover ideas and connect the dots to build a better and a bold new future.

For more information,  
please write to us at  
**info@wipro.com**

