

tcs MasterCraft™



# AI-agent powered enterprise application modernisation



# Why do enterprises need to modernise their IT applications?

Organisations continue to depend on complex legacy applications with limited documentation and fragmented knowledge, making modernisation efforts difficult and risk-prone. These challenges slow decision-making, increase reliance on subject matter experts, and affect transformation timelines.

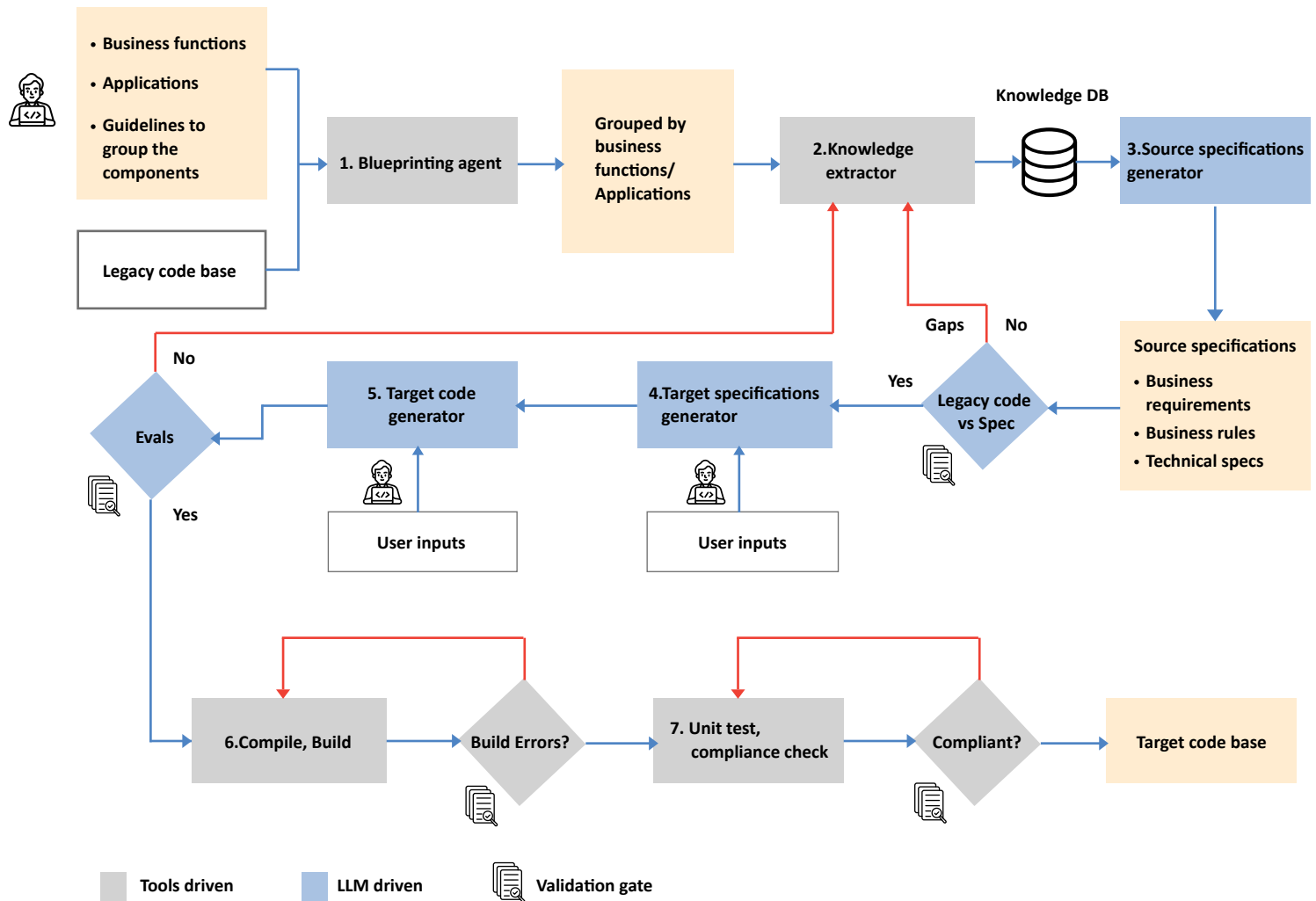
Enterprises today require a structured, scalable approach to understand application behaviour, assess risks, and execute modernisation initiatives with confidence.

TCS MasterCraft™ for modernization provides an intelligent, integrated platform that enables enterprises to analyse, interpret, and transform legacy applications into modern systems. By combining advanced AI techniques with deterministic processing, the platform ensures consistent outputs, traceability, and faster transformation outcomes.

## What core capabilities drive AI-agent-led application modernisation?

- **Intelligent knowledge extraction:** Automatically derives structural, functional, and dependency insights from legacy applications, ensuring a consistent and comprehensive understanding across artefacts.
- **Unified knowledge repository:** Maintains application intelligence in graph and vector-based models, enabling contextual insights, dependency mapping, and interactive exploration.
- **Insight-driven user experience:** Provides an integrated interface with code navigation, specifications view, and conversational interaction with application knowledge and modernisation agents.
- **Automated documentation and analysis:** Generates detailed application documentation and analysis reports, including structural views, dependency insights, and hotspots to support informed decisions.
- **AI-assisted code modernisation:** Transforms legacy applications using a combination of AI-assisted generation and deterministic conversion techniques for accuracy and consistency.
- **Agent-driven transformation pipeline:** Orchestrates specification generation, validation, code transformation, and quality checks through structured workflows powered by specialised AI agents.

# How does TCS MasterCraft™ orchestrate end-to-end transformation?



TCS MasterCraft™ leveraging AI agents in the modernisation journey

## What business outcomes can enterprises achieve with TCS MasterCraft™ ?

- **Faster understanding:** Accelerates application comprehension by 40–60% through automated knowledge extraction
- **Higher reliability:** Ensures consistent outcomes with end-to-end traceability across transformation stages
- **Reduced effort:** Cuts documentation effort by 50%+ with automated, standardised outputs
- **Quicker decisions:** Enables 2–3x faster impact analysis using dependency-driven insights
- **Improved productivity:** Delivers up to 2x efficiency with agent-assisted transformation workflows
- **Accelerated programs:** Reduces overall modernization timelines by 20–30% with integrated automation



# What makes TCS a trusted partner for large-scale modernisation?

- **Proven transformation expertise:** Extensive experience in delivering complex enterprise modernization programs
- **Engineering-led approach:** Combines AI innovation with structured transformation frameworks
- **Integrated platform capability:** Single environment covering analysis, documentation, and transformation
- **Scalable execution model:** Supports large-scale application landscapes with consistent outcomes
- **Continuous innovation:** Ongoing investments in AI, automation, and modernization technologies



# Awards and accolades



## Contact

Visit the <https://www.tcs.com/what-we-do/products-platforms/tcs-mastercraft/solution/tcs-mastercraft-modernization> page on <https://www.tcs.com>

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## About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services (BSE: 532540, NSE: TCS) is the technology partner of choice for industry-leading organizations worldwide. Since its inception in 1968, TCS has upheld the highest standards of innovation, engineering excellence and customer service.

It has set an aspiration to become the world's largest AI-led technology services company and is enabling its clients to transform themselves across the full AI stack, from infrastructure to intelligence.

Rooted in the heritage of the Tata Group, TCS is focused on creating long term value for its clients, its investors, its employees, and the community at large. With a highly skilled workforce spread across 56 countries and 194 service delivery centers across the world, the company has been recognized as a top employer in six continents. With the ability to rapidly apply and scale new technologies, the company has built long term partnerships with its clients. Many of these relationships have endured into decades and navigated every technology cycle, from mainframes in the 1970s to artificial intelligence today.

TCS sponsors 14 of the world's most prestigious marathons and endurance events, including the TCS New York City Marathon, TCS London Marathon and TCS Sydney Marathon with a focus on promoting health, sustainability, and community empowerment.

TCS generated consolidated revenues of over US \$30 billion in the fiscal year ended March 31, 2026.

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