MASTERCLASS ON EMERGING TECHNOLOGIES IN PROCUREMENT AND SUPPLY CHAIN



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Introduction

Procurement and supply chain teams sit on more usable data than ever and still make many decisions on experience. Emerging technologies change that balance, but only where the process, data, and governance exist to support them. This Masterclass on Emerging Technologies in Procurement and Supply Chain Training Course gives procurement, supply chain, and digital transformation professionals a working method for evaluating and applying these tools properly. Participants learn intelligent automation, predictive analytics, artificial intelligence in sourcing and spend analysis, blockchain and traceability, digital twins, and the governance framework that keeps them safe.

Masterclass on Emerging Technologies in Procurement and Supply Chain Course Objectives

- Apply intelligent automation and robotic process automation to procurement tasks.
- Use predictive analytics for demand, price, and supplier risk forecasting.
- Apply artificial intelligence to spend analysis and category classification.
- Build supplier risk scoring models from financial and external data.
- Apply blockchain principles to traceability and provenance.
- Use digital twin concepts to simulate supply chain scenarios.
- Apply IoT and sensor data to inventory and asset visibility.
- Apply natural language processing to contract review and search.
- Establish governance, ethics, and data quality controls for technology use.
- Measure technology value with cycle time, accuracy, and cost-to-serve gains.

Course Methodology

- Facilitated sessions built on real procurement data, category records, and process maps.

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- Case workshops on automation failures, data quality problems, and tool misjudgement.
- Spend analytics, forecasting, and risk scoring exercises with live data.
- Tool evaluation and business case drafting practice sessions.
- Group exercise on an emerging technology roadmap with measurable targets.

Who Should Take This Course

- Procurement and category managers.
- Supply chain and planning professionals.
- Digital transformation and innovation officers.
- Data and analytics specialists in procurement.
- Contract and supplier management staff.
- Finance and audit staff reviewing technology investment.

Masterclass on Emerging Technologies in Procurement and Supply Chain Course Outlines

Day 1: Emerging Technology Landscape

- Technology map for procurement and supply chain functions.
- Intelligent automation and robotic process automation basics.
- Artificial intelligence, machine learning, and their practical limits.
- Cloud platforms and integration architecture.
- Build versus buy versus partner decisions.
- Technology maturity assessment for the organisation.
- Value case construction and benefit tracking.

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Day 2: Automation and Spend Analytics

- Process discovery and automation candidate selection.
- Requirements-to-order and invoice processing automation.
- Master data quality and its effect on automation success.
- Spend cube construction and category classification.
- Artificial intelligence for spend and supplier classification.
- Tail spend analysis and opportunity identification.
- Measuring automation cycle time, accuracy, and cost per transaction.

Day 3: Predictive Analytics and Risk Intelligence

- Demand and price forecasting with predictive models.
- Supplier financial health scoring and early warning signals.
- External data sources: news, sanctions, and geo-economic indicators.
- Supplier risk dashboards and alert thresholds.
- Inventory optimisation with predictive models.
- Scenario planning and Monte Carlo simulation basics.
- Validating model outputs and avoiding false confidence.

Day 4: Blockchain, IoT, and Traceability

- Blockchain fundamentals: distributed ledger and smart contracts.
- Traceability and provenance use cases in supply chains.
- Provenance verification for regulated and ethical sourcing.
- IoT sensors for shipment, cold chain, and asset monitoring.
- Real-time visibility platforms and event data standards.

- Digital twin concepts for network and inventory simulation.
- Integration challenges between physical and digital systems.

Day 5: Governance, Ethics, and Value Realisation

- Data governance, quality, and ownership in procurement.
- Artificial intelligence ethics, bias, and transparency.
- Cybersecurity and third-party access risk.
- Contract review with natural language processing.
- Change management and workforce capability building.
- KPIs: cycle time, accuracy, savings realisation, and cost-to-serve.
- Building an emerging technology roadmap with phased investment.

Conclusion

By successfully completing the Masterclass on Emerging Technologies in Procurement and Supply Chain Training Course, participants will have acquired a working command of intelligent automation, predictive analytics and forecasting, artificial intelligence in spend and supplier analysis, blockchain traceability, IoT visibility, digital twin simulation, and the governance and data quality controls that make technology use safe and measurable. They will leave able to evaluate tools with evidence, build a credible business case, and show the value in cycle time and cost. Gentex Training Center delivers this programme with procurement, data, and digital practitioners working in live functions.

FAQs for the Masterclass on Emerging Technologies in Procurement and Supply Chain course

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Q1 What is the "Masterclass on Emerging Technologies in Procurement and Supply Chain" course about?

It is a five-day programme on evaluating and applying new technology in procurement and supply chain work. It covers intelligent automation, artificial intelligence and machine learning, predictive analytics, blockchain traceability, IoT visibility, digital twins, and governance and data quality.

Q2 What are the key benefits of the "Masterclass on Emerging Technologies in Procurement and Supply Chain" course?

Participants identify which processes genuinely justify automation instead of automating poor ones, use predictive models for demand and supplier risk rather than reacting late, and build business cases with measurable cycle time and cost outcomes. They also avoid the data quality and governance failures that make tools underperform.

Q3 What skills will I gain from the "Masterclass on Emerging Technologies in Procurement and Supply Chain" course?

You will gain intelligent automation and process discovery application, predictive analytics and artificial intelligence modelling for spend and supplier risk, blockchain, IoT, and digital twin application for traceability and visibility, and technology governance, data quality, and value realisation management.

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Q4 What tools, methods, or standards are covered in the "Masterclass on Emerging Technologies in Procurement and Supply Chain" course?

The course works with a technology map for procurement and supply chain functions, robotic process automation and intelligent automation platforms, machine learning models and their practical limits, cloud platform and integration architecture, process discovery and automation candidate selection, master data quality assessment, spend cube construction and category classification, artificial intelligence for spend and supplier classification, tail spend analysis, automation KPIs covering cycle time, accuracy and cost per transaction, predictive models for demand and price forecasting, supplier financial health scoring and early warning signals, external data feeds from news, sanctions and geo-economic indicators, supplier risk dashboards and alert thresholds, predictive inventory optimisation, Monte Carlo simulation and scenario planning, blockchain distributed ledger and smart contract principles, traceability and provenance use cases, provenance verification for regulated sourcing, IoT sensors for shipment, cold chain and asset monitoring, real-time visibility platforms and event data standards, digital twin concepts for network and inventory simulation, data governance and quality frameworks, artificial intelligence ethics and bias controls, cybersecurity and third-party access risk, natural language processing for contract review, change management and workforce capability building, and KPIs covering cycle time, accuracy, savings realisation and cost-to-serve.

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Q5 How is the "Masterclass on Emerging Technologies in Procurement and Supply Chain" course applied in real-world practice?

Teams apply it when selecting processes for automation, building a spend cube for category analysis, running a supplier risk scoring review, piloting blockchain provenance for a regulated commodity, deploying IoT sensors on a cold chain, and presenting a technology business case to a management board.