Quantum Leap

*Pegging **You** Ahead*

Operational Excellence and IoT

- Commitment to Quality,
  Dedication to Excellence

Current Industry Challenges

Operational excellence is a crucial goal for many organizations, aiming to maximize efficiency, quality, and overall performance. However, achieving and maintaining operational excellence presents several challenges in today's fast-paced and complex business environment.

Complex Data Analysis:
Difficulty in managing and interpreting complex data can obstruct informed decision-making and limit process optimization.

Disconnected Management Systems:
Isolated management systems can create information gaps and inconsistencies, preventing a unified approach to continuous improvement.

Production Bottlenecks:
Inefficient processes and unbalanced workloads create bottlenecks in production, slowing down overall output and reducing efficiency.

Failing to Adapt:
Inability to respond to technological advancements, market changes, and evolving customer expectations can threaten competitiveness and operational effectiveness.

Why Choose Us?

▷▷ **Proven Track Record**

▷▷ **Streamlining operations to eliminate waste and add value.**

▷▷ **Specializing in optimizing performance and efficiency.**

▷▷ **Customized strategies to meet unique challenges.**

About Us

Qltc is a Management Consulting & Training firm providing a portfolio of Structured Services for the Manufacturing Industry across diverse Verticals. Established in 2012 with a Vision of Transcending the Best Practises, we have been successful in Pegging our Customers firmly in their Growth Trajectory.

We always engage with an exit plan and endeavour to ensure our Clients gain a self energising momentum that constantly drives them to achieve & sustain customer-focused competitive advantage. Quantum increase in Revenue & Profits are given results.

Over the years Qltc has grown to be a Valued Partner for Small, Medium & the Large Industries alike, providing World Class Solutions at Optimal Cost. Backed by a formidable Team of Seasoned Professionals who Build and Deploy Solutions, Qltc is your pillar of support at all times.

Our portfolio of Clients across the Verticals are a Testimony of our Services.

Operational Excellence

- Benchmarking Performance

Encyclopedia Britannica defines Philosophy as "the rational, abstract, and methodical consideration of reality as a whole or of fundamental dimensions of human existence and experience". An Organisational Philosophy is the similar with just the word Human replaced with Organisation. Operations Excellence is all about living up to this Philosophy

The Organisational Leadership has to encourage a paradigm shift from the Run-of-the-Mill work Attitude towards Benchmarking Performance in every activity it's Team Members are engaged in.

An Organisation has to reach a certain level of Maturity to deploy the Operational Excellence Tools. Over the Years, these Tools have evolved and are well tested for its purpose. However, the challenge lies in the identification of the right Tool and the Right Time for Deployment.. Organisations rush to implement on an ad-hoc basis and loose steam quite early, ending this initiative prematurely or at most painfully drag due to Customer insistence.

We help you to put together this Program in a Structured Order for Sustenance and Measurable Success.

The Team at Qltc has expertise in Conducting Operational Excellence Studies, Select the appropriate Tool, Prepare a Project Charter, Guide the Team Members and arrive at Root Cause with recommended Solutions. Contact us to hear our Success Stories.

Our Approach to Roadmap

Business Strategy
What are the growth plans, and how competitive must operations be.

Operational Excellence Strategy
Productivity, New value stream, New facility, Quality, Delivery & Cost improvement.

Area of Focus
Quality, Delivery, Cost, Employee engagement.

Performance Improvement
To deploy targeted improvement tools, techniques and the appropriate behaviours

Employee Engagement
Engage the people in the area and create an emotional connection for your people.

Standard
What is the performance in the area versus objective.

Set New standard
New standard has to be created for the area.

Sustainment
Leadership behaviours to ensure new standard is sustained

Continual Improvement
Team continues to drive continuous improvement aligned to business goals.

Our Sevices Includes

01   **Lean Implementation**

02   **Six Sigma Studies**

03   **Value Stream Mapping (VSM)**

04   **Kaizen Culture**

05   **Statistical Process Control (SPC)**

06   **Design of Experiments (DOE)**

07   **IoT-Driven Real-Time Performance Monitoring & Optimization System**

Lean Management

Lean Implementation focuses on identifying and eliminating waste within an organization's processes. The goal is to create more value with fewer resources by optimizing workflows, reducing lead times, and enhancing overall efficiency. Lean principles encourage continuous improvement and involve every employee in the process of identifying inefficiencies and implementing solutions.
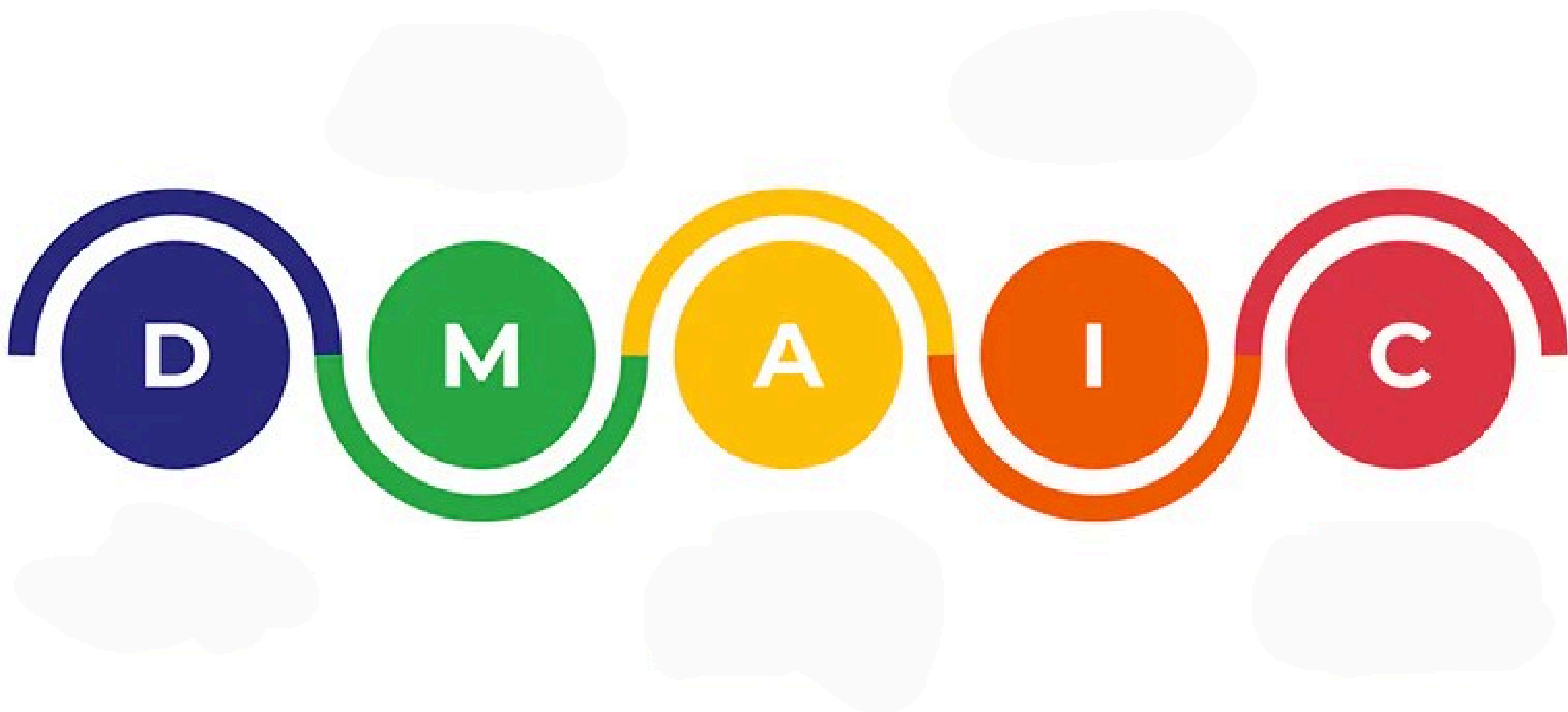
Our Approach:

▶ **Proactive Waste Reduction:**
Predict and prevent inefficiencies with real-time data.

▶ **Empowered Workforce:**
Foster innovation by equipping your team with Lean tools.

▶ **Sustainable Lean Solutions:**
Enhance efficiency while reducing environmental impact.

Six Sigma Studies

Six Sigma is a data-driven approach used to eliminate defects and reduce variability in processes. By applying rigorous statistical methods, Six Sigma aims to achieve near-perfect quality levels, leading to improved performance and customer satisfaction. This service involves in-depth analysis and the application of Six Sigma tools like DMAIC (Define, Measure, Analyze, Improve, Control) to address specific process challenges.
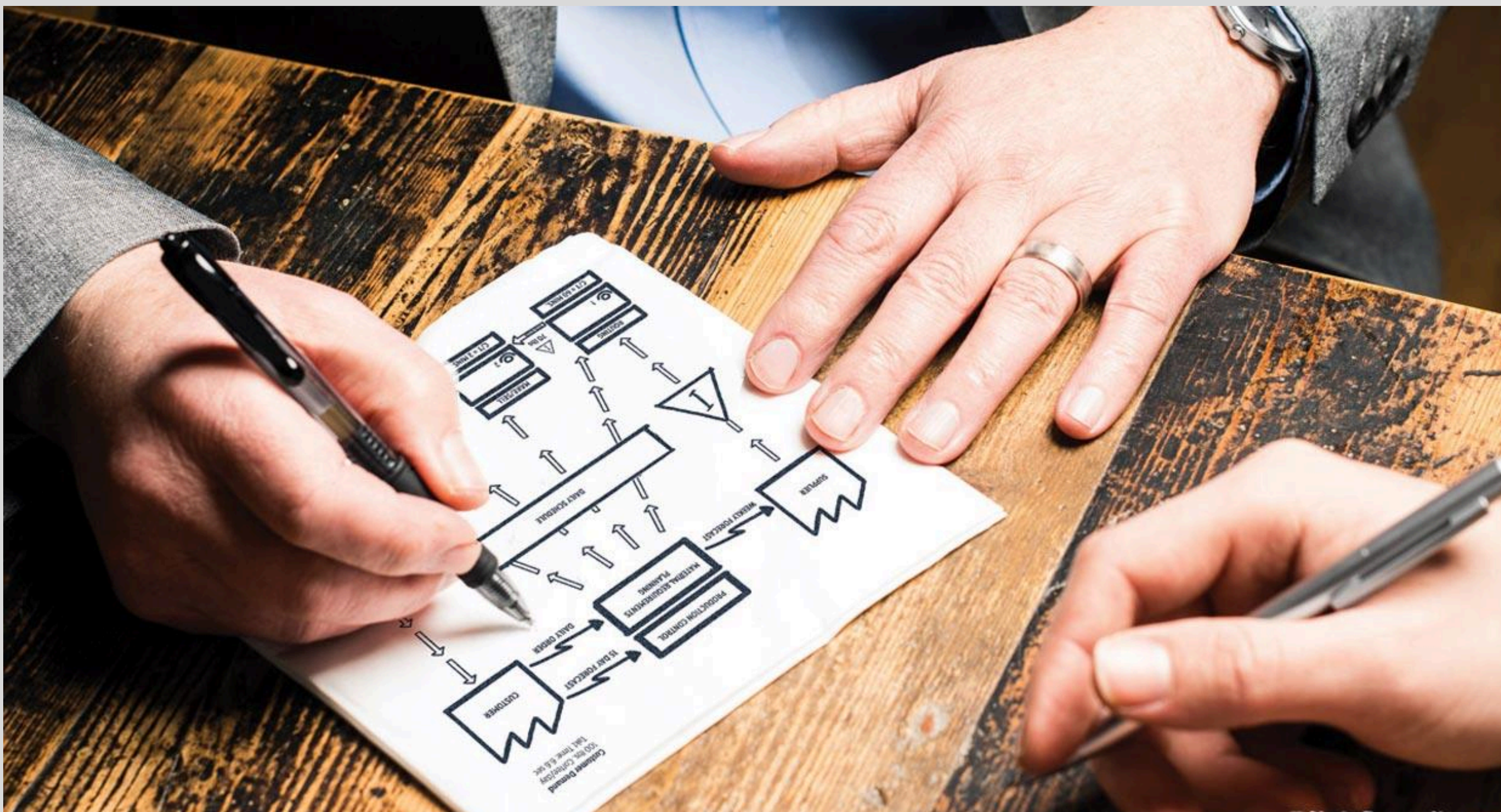

Our Approach:

▶ **Define:**
Align project goals with your business objectives.

▶ **Measure:**
Collecting data to identify improvement areas.

▶ **Analyze:**
Uncover root causes using statistical tools.

▶ **Improve:**
Implement solutions to optimize processes.

▶ **Control:**
Maintain improvements with ongoing monitoring.

Value Stream Mapping (VSM)

VSM is a visual tool used to analyze and design the flow of materials and information required to bring a product or service to the customer. By mapping out the entire process, from raw material to finished product, organizations can identify bottlenecks, waste, and opportunities for improvement. VSM provides a comprehensive view of the process, enabling targeted improvements that enhance overall efficiency.

Our Approach:

▶ **Current State Mapping:**
Document existing processes.

▶ **Identify Bottlenecks:**
Find delays and inventory issues.

▶ **Redesign Processes:**
Propose efficiency improvements.

▶ **Identify Bottlenecks:**
Find delays and inventory issues.

▶ **Redesign Processes:**
Propose efficiency improvements.

Kaizen Culture

Kaizen, meaning "continuous improvement," is a philosophy that focuses on small, incremental changes that result in significant long-term improvements. Establishing a Kaizen Culture within an organization involves encouraging employees at all levels to contribute ideas for improving processes, reducing waste, and enhancing productivity. This cultural shift leads to a more engaged workforce and a commitment to ongoing improvement.

Our Approach:

▶ **Assess Current Practices:**
Evaluate existing processes and identify areas for improvement.

▶ **Define Improvement Goals:**
Set clear, actionable goals for continuous enhancements.

▶ **Train and Engage Employees:**
Train staff on Kaizen principles and encourage their input for improvements.

▶ **Implement Changes:**
Apply small, incremental changes based on feedback and goals.

▶ **Monitor and Evaluate:**
Track changes, gather feedback, and measure progress.

Statistical Process Control (SPC)

SPC is a method of quality control that uses statistical techniques to monitor and control a process. By analyzing process data, SPC helps organizations detect and prevent deviations before they result in defects, ensuring that processes remain stable and produce high-quality outputs consistently. SPC is essential for maintaining process standards and achieving long-term quality control.

Our Approach:

▶ **Process Analysis:**
Identify critical control points.

▶ **SPC Implementation:**
Customise tools for your workflows.

▶ **Real-Time Monitoring:**
Track performance and act quickly.

▶ **Workforce Empowerment:**
Train and support your team.

▶ **Continuous Improvement:**
Provide ongoing support for optimisation.

Design of Experiments (DOE)

DOE is a systematic method used to determine the relationship between factors affecting a process and the output of that process. By carefully designing and conducting experiments, organizations can identify the key factors that influence outcomes and optimize processes accordingly. DOE is particularly useful in complex processes where multiple variables need to be managed simultaneously.

Our Approach:

▶▶ **Process Understanding:**
Deeply understand your processes, challenges, and goals.

▶▶ **Strategic Experiment Design:**
Carefully select factors and interactions for impactful, resource-efficient experiments.

▶▶ **Advanced Analysis:**
Use statistical tools to uncover patterns and optimize conditions.

▶▶ **Iterative Optimisation:**
Refine processes based on insights for continuous improvement.

IoT-Driven Real-Time Performance Monitoring & Optimization System

Develop an IoT-based system to monitor, analyze, and optimize key performance metrics in real-time across the operational processes. The system uses IoT-enabled sensors to collect data on various parameters (such as machine performance, energy usage, environmental conditions, and product quality) and uses cloud-based analytics to generate actionable insights.

Benefits:

Increased Efficiency:
Optimize production workflows and reduce waste.

Cost Savings:
Predictive maintenance and energy optimization lead to reduced operational costs.

Improved Quality:
Automated quality checks ensure higher product standards.

Enhanced Decision-Making:
Real-time insights empower faster, data-driven decision-making.

Proactive Safety Measures:
IoT sensors enhance operational safety and compliance with regulations.

IoT-Driven Real-Time Performance Monitoring & Optimization System

Key Features:

Real-Time Data Collection:
Deploy IoT sensors on machinery, tools, and production lines to capture real-time data on operational performance (e.g., machine uptime/downtime, temperature, speed, pressure, energy consumption).

Predictive Maintenance:
Use IoT data to predict equipment failures or potential issues before they occur, enabling preemptive maintenance scheduling and reducing unexpected downtimes.

Quality Control:
Monitor production quality through IoT sensors that detect variations in product characteristics (e.g., dimensions, weight, texture). Automatically adjust processes to maintain high-quality standards.

Energy Optimisation:
Leverage IoT to track energy consumption in real-time, identifying inefficiencies or wastage. Implement smart systems that adjust energy usage based on production needs.

IoT-Driven Real-Time Performance Monitoring & Optimization System

Process Automation:
Automate workflows based on IoT sensor data, such as adjusting machine settings to optimize production speed or alerting operators when certain thresholds are exceeded.

Safety and Compliance Monitoring:
Install IoT-enabled safety sensors to monitor hazardous areas, compliance with safety standards, and emergency situations. Real-time alerts for potential risks help ensure operational safety.

Inventory & Supply Chain Management:
Use IoT to track inventory levels and automatically reorder materials when thresholds are met, ensuring smooth supply chain operations. Also, track material movement and asset utilization across facilities.

Operational Dashboard & Analytics:
Develop a central dashboard for managers to visualize real-time data, KPIs, and trends from across the operations. Use AI-driven analytics for continuous process improvement by identifying bottlenecks or areas of inefficiency.

Our Core Team

KP Rao is a dedicated professional with over 30 years of experience across various industries. Holding a Mechanical Engineering Degree and an Executive Post Graduate from IIM Kozhikode, he specializes in Operations Excellence, Finance, TQM, and ERP, with certifications in multiple Management Systems and as a Six Sigma Black Belt. KP Rao has led successful Lean Six Sigma projects, delivering significant cost savings and productivity gains. Known for his data-driven approach and strong problem-solving skills, he has coached numerous Green Belt and Black Belt candidates.

Lingaraju leads the Business Development and Operations at Quantum Leap. He holds a Mechanical Engineering Degree and an Executive Post Graduate in Operations Management with over 30 years of experience in established organisations. He is specialised in setting up Green filed projects and brown field projects with an expertise in the areas of Operations & Engineering having certifications on several Management Systems.

Anirudh leads ERP and cloud deployment at Quantum Leap. He is a functional and technical consultant with extensive experience in deploying SAP applications across various industries. He combines his engineering background and proficiency in multiple programming languages to customise and optimise SAP solutions to meet client needs. As a certified Cloud Solution Architect and DevOps professional, Anirudh ensure seamless integration between SAP and cloud environments.

Our Core Team

Rajagopal leads the Program Management at Quantum Leap. An Electrical professional with over 10 years of experience, he has expertise in risk assessment and focuses on strategy deployment through the concept of theory of constraints and moving bottlenecks. Rajagopal is among the few professionals holding the prestigious NEBOSH DIP certification for Occupational Health and Safety.

Dikshith leads the development at Quantum Leap. As a qualified engineer, he is responsible for innovative and user-friendly IT solutions on web and mobile platforms. He actively explores new technologies to enhance the efficiency and usability of our applications. Dikshith's user centric approach has earned positive feedback from clients, boosting our reputation in the industry.
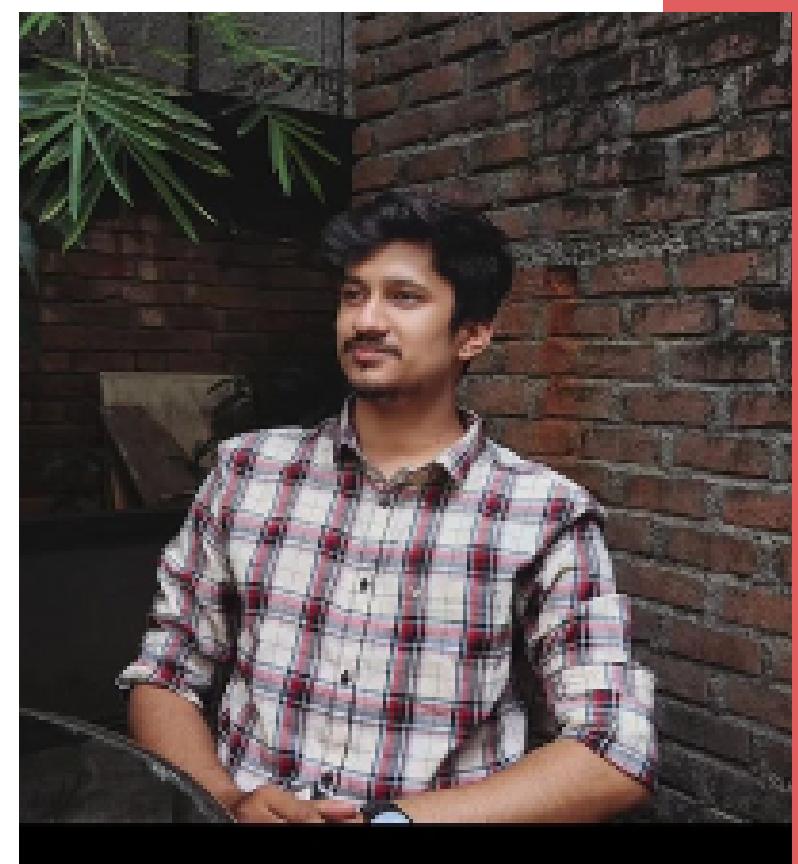
Reshma leads the training wing at Quantum Leap, playing a key role in structuring, developing and delivering courses. She guides a cross-functional team of domain experts, presenters, and content writers, ensuring effective training delivery

Client Testimonials

Quantum Leap has been our knowledge partner in deploying Management Systems, Solving Customer Complaints through Six Sigma Studies & developing Competencies across all our Manufacturing Units in India. Their structured & modular approach is simple yet effective in implementing & sustaining the solutions. We continue to engage them for all our Operational Improvements - **Surrya Karriapa, General Manager – Operations, Tata Global Beverages**

Krishna Praveen is mobile idea bank, because he will give new ideas at that time of critical situations and his nature is servent leadership. He made so many achievements in Terex, like KANBAN implementations, new machine build in short period, better walk sheet systems, better safety systems, two bin systems, better inventory, most powerful actions for eliminating non value activity. **- Nallachetty Vadivel, Terex India Pvt Ltd**

Krishna was a great combination of technical skills and leadership to drive changes. He was also open to new ideas and deserves great credit for the results in our operations. Krishna's team also recognised his acumen and were loyal followers. It was a privilege to have worked with Krishna. I learnt a lot from Krishna and he can be a great asset to any organisation. **- Kiran Gurumurthy, Global Executive , Board Member, Author**

Our Other Verticals

Balanced Scorecard - Translating Strategy into Action
The Balanced Scorecard is a strategic planning and performance review tool. It aligns operational initiatives with the organization's vision and goals.

SAP - Integrated and Risk Based Approach
Organisations adopt ERP to streamline operations, freeing resources from repetitive tasks and enabling focus on value-added work.

Management Systems – Integrated and Risk Based Approach
A five-step methodology based on ISO 31000, starting with establishing the organisation's context, then identifying, assessing, treating, and reviewing risks. This approach ensures comprehensive assurance and confidence in addressing risks and seizing opportunities.

Amazon Web Services – Cloud hosting and Security Management
Qltc is Proud to Partner with you for AWS Cloud Managed Services. With already Over 50 Sites under our preview, we are one of the preferred Partners for Managed Services. We have a Team of AWS Solutions Architects and AWS DevOps who are Qualified and Experienced in Providing Complete Cloud Managed Services.

People Development - Blending the Right Skills to Develop People
Qltc has developed an exclusive online portal for Skill Development. Specific and Customised Learning Modules are de-signed to guide in acquiring the required Competencies and develop Proficiency. Con-tact us to enroll for the Courses.
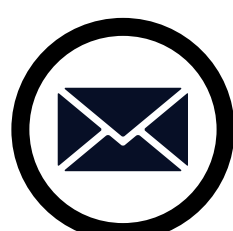
+91 8147135973

www.qltc.in

info@qltc.in

Shree Durga Arcade
#578,2nd Floor,18th
cross,6th Block
Banashankari III Stage,
Bangalore - 560 085