



# Lean Six Sigma Green Belt Programme

QQI (HET) Certificate in Process Engineering  
Level 7 Special Purpose Award, 15 ECTS Credits

## Contact Us



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# Introduction to SQT<sup>1</sup> and Our Approach

Lean Six Sigma is a proven approach for improving quality, speed and cost across every industry. It helps teams reduce waste, cut defects, shorten cycle time and improve the customer experience. At SQT, we make Lean Six Sigma practical and results-focused so learners can apply it immediately in the workplace.

Building on Yellow Belt foundations or operational experience, our Green Belt programme equips learners to lead a workplace project from definition to sustained control. Green Belts learn by doing through hands-on workshops and coached project work, with ongoing guidance from experienced Tutors who have delivered major improvements across hundreds of organisations.

What makes SQT different is our focus on measurable impact. Green Belt projects deliver on average **€69k+** in annualised benefits per project, depending on scope and context. Since **2008**, our Tutors have mentored close to **2,000** Green Belt candidates to successful QQI certification, with projects delivering over **€130m** in annualised savings for organisations

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## Why Choose SQT

### Hands-On, Practical Learning

- Engage in real-world projects that deliver measurable results.
- Apply Lean Six Sigma tools directly to workplace challenges.
- Learn through interactive exercises, case studies, and simulations.

### Expert Mentoring & Support

- Assistance and guidance with project selection to ensure you choose the right project
- Ongoing one-to-one mentoring from experienced tutors to ensure project success.
- Access to a wide range of resources via our Moodle learning platform

### Industry-Recognised Accreditation

- QQI Level 7 Certificate in Process Engineering.
- 15 ECTS credits for professional and academic recognition.



### High ROI for Companies & Individuals

- Achieve significant cost savings and efficiency improvements.
- Equip teams with skills to sustain a culture of continuous improvement.
- Enhance career prospects with a globally recognized certification

### Flexible Learning Options

- Onsite, virtual, and blended learning formats.
- Tailored training to fit your organization's needs.
- Access to digital resources and eLearning support.

### Experienced Industry Practitioners

- Learn from tutors with real-world experience in deploying Lean Six Sigma.
- Gain insights from professionals who have led transformative projects.
- Our tutors will be with you throughout your journey, until your project is delivered.



# Programme Overview



## At a glance

- QQI Special Purpose Award at Level 7 (Certificate in Process Engineering – 15 ECTS Credits)
- 5 days tutor-led learning over 4 months
- Blended, Classroom or Live On-Line delivery
- Highly interactive and practical project-based learning methodology
- Final certification contingent on completion of a project
- Available as a public or in-company programme

Each learner will select a project and work on it throughout the training, applying Lean Six Sigma methodology and tools in real time. Between sessions, learners apply the tools to their project and receive feedback to maintain momentum and results. Throughout this process, learners are supported by their tutor, who provides ongoing guidance and mentoring, helping them apply the tools correctly, overcome project challenges, and ensure their improvements deliver real value to their organisation.

On completion of training learners will then have a further six months to complete their project and submit it for assessment. Throughout this period, learners actively work on a live project to drive real improvements within their organisation. Our tutor is available to support the learner through the project delivery phase.

**Flexible formats:** Available as a Public programme, ideal for individuals who want to learn alongside peers from diverse industries and share practical insights, and as an In-Company programme, which can be tailored to address an organisation's specific challenges and goals



# What You Will Learn

Through project work and practical workshops, you will build the skills to lead a scoped DMAIC project and deliver measurable improvements.

You will develop the capability to:

- Lead a scoped DMAIC project from problem definition to sustained control.
- Select and apply Lean tools to remove waste and improve flow.
- Use data to describe performance, verify causes and confirm improvements.
- Engage stakeholders and facilitate team problem-solving.
- Document benefits and establish a control plan to sustain gains.

Throughout the programme, you will work on a real-life project, applying these tools and concepts in real time, with support from your tutor, ensuring that learning is immediately put into practice.

## Versatile, Scalable, Effective - No Matter the Industry

Lean Six Sigma is often associated with manufacturing, but its principles and tools are equally powerful in a wide variety of sectors. Whether you're in services, construction, finance, or the public sector, Lean Six Sigma provides a structured, data-driven approach to improving processes, reducing waste, and delivering measurable results. The methodology is highly adaptable, enabling organisations across all industries to solve complex problems, enhance customer satisfaction, and drive efficiency. Below are examples of successful Green Belt projects delivered in different sectors:

### Financial

A large financial institution used Lean to reduce loan approval times by 40%, improving customer satisfaction and freeing up time for employees to focus on more value-adding tasks.

### Public Sector

A government agency applied Six Sigma to its application processing system, reducing errors in forms and ensuring better compliance with regulations. This led to faster service delivery and improved public trust.

### Retail

A global retail chain implemented Lean principles to cut down checkout times and simplify returns processes, leading to a 20% boost in customer satisfaction scores.

# DMAIC Framework<sup>7</sup>

## Define

The Define phase establishes a clear focus for the project by identifying the problem, setting measurable goals, and aligning stakeholders on scope and expectations, ensuring everyone starts with a shared understanding

## Measure

The Measure phase builds a clear, data-driven picture of the current process by combining observation, mapping, and measurement, enabling teams to identify quick wins, uncover inefficiencies, and establish a reliable baseline for improvement

## Analyse

The Analyse phase uses critical thinking and statistical tools to uncover the root causes of process issues, helping teams focus their improvement efforts where they'll have the greatest impact.

## Improve

The Improve phase guides participants through the development and implementation of optimal solutions. Creative thinking, risk evaluation, and testing ensure that improvements are robust and practical.

## Control

The Control phase ensures improvements are maintained. Participants will create control mechanisms, document standards, and build accountability among process owners to embed improvements into daily operations

# Lean Six Sigma Toolkit

Throughout the programme, participants will gain hands-on experience with key Lean & Six Sigma tools that drive process efficiency and improvement. These tools include:

## Lean

- **Process Mapping** – Visualise workflows to identify bottlenecks and inefficiencies.
- **8 Process Wastes (Muda)** – Identify and categorize process waste.
- **Fishbone Diagrams** – A structured approach to identifying problem causes.
- **5 Whys Analysis** – Root cause analysis to uncover drivers of waste.
- **Pareto Analysis** – Prioritising issues based on impact.
- **Standard Work, 5S & Visual Management** – Standardise and simplify the process.
- **Error Proofing (Poka-Yoke)** – Introduce error prevention and detection enhancements.
- **Takt Time** – Understand how to assess whether processes are properly balanced

## Six Sigma

- **SIPOC** – Ensure a common understanding of the key process inputs and outputs.
- **CT Tree** – Capture and evaluate all critical customer and business requirements.
- **Process Statistics** – Assess process stability and capability.
- **Measurement Systems Analysis** – Evaluate the accuracy of measurement systems.
- **Cause screening** – identify high-impact causes that can be addressed by the team.
- **Creative Thinking** – Use innovative techniques to look for solutions in new ways.
- **FMEA & Control Plan** – use risk management tools to highlight and action latent weaknesses in processes and solutions.
- **Change Management** – Align people, processes and leadership so improvements stick and deliver lasting results.

# Who Should Participate?

The Lean Six Sigma Green Belt Programme is designed for professionals seeking to enhance their ability to improve processes, reduce waste, and drive measurable results.

Whether you are an emerging leader, a seasoned manager, or a hands-on problem solver, this programme provides the tools and methodologies needed to make a lasting impact within your organisation.

This programme is ideal for:

- Individuals who will lead improvement projects and mentor Yellow Belt teams.
- Team leaders, supervisors, engineers, analysts and professionals in operations or service roles.
- Organisations seeking to build internal capability to deliver tangible, data-driven improvements.

The methodologies taught in this programme are highly adaptable and applicable across a wide range of industries, including services and manufacturing, as well as both public and private sectors. Organisations of all types can apply Lean Six Sigma

## What our Learners Say

*"Good course, knowledgeable presenters. Lots of materials and guides on Moodle. Sigma XL is a good tool to have"*

Brian B

*"Enjoyed the learning and discussions. Breakout rooms allows for some self-guided learning and templates are quite handy and will be used going forward for new projects."*

Nicolaas G

## Entry Requirements

To enroll in the Lean Six Sigma Green Belt Programme, applicants should meet the following requirements:

- **Educational Qualification:** Level 6 Advanced/Higher Certificate **or** Lean Six Sigma Green Belt Special Purpose Award (Level 6) or higher qualification (Ordinary or Honours degree in any discipline). Alternatively, individuals can demonstrate equivalent achievement through accredited prior experiential learning (APEL).
- **Project Requirement:** Participants must have a suitable project to complete during training to ensure practical application of Lean Six Sigma principles.
- **Technical Competence:** Proficiency in Microsoft Office suite is required.
- **Software Requirement:** A laptop with the most recent version of SigmaXL software. (On public courses, this software is supplied by SQT and included in the course fee. On in-company programmes, SQT can provide software licences if required, or participants may use an alternative software package such as SPCXL or Minitab.)
- **Language Proficiency:** Applicants must demonstrate a high level of competence in English. International students whose first language is not English must provide evidence of equivalent proficiency at B2+ level in the Common European Framework of Reference for Languages (CEFR).
- **Essential Skills for Success:**
  - Willingness to learn (reading, research)
  - Strong communication skills
  - Ability to self-direct

# Assessment and Certification <sup>7</sup>

Assessment is designed to ensure learners can apply Lean Six Sigma tools effectively in real-world scenarios. Each participant will be required to complete a project using the DMAIC methodology, demonstrating measurable improvements in their organisation.



## Assessment Components

The assessment is broken down as follows:

- **Project Proposal (20%)** – Consisting of a Project Charter (An initial draft of the Project Charter must be submitted to SQT prior to commencement of training. Comprehensive guidelines on project selection and a sample Project Charter will be supplied in advance to all course delegates) and a Project Plan.
- **Written Project Report (80%)** – Includes a Project Story Board.

## How Much Work is Involved?

This course consists of five days of training spread over a two-month period. Learners will also complete an individual Lean Six Sigma Green Belt project using the DMAIC methodology, ensuring that they apply their learning to real-world scenarios and drive tangible improvements in their organisations.

Beyond the structured training days, learners are expected to dedicate regular time each week to progressing their project and applying the concepts from the programme. Following the training, learners have up to six months to complete and submit their final written project report, providing sufficient time to implement improvements and reflect on the outcomes in their organisation.

While this represents a significant effort, it is important to remember that your work-based project will make a substantial contribution to your organisation. Projects may deliver financial savings of strategic business benefits. In our experience over 70% of projects have a targeted saving of at least **€30k per year**. In our experience, **the average saving for an SQT Green Belt project is €69k+ per year**, representing a considerable return on investment. Strategic project deliverables are often valued even more by organisations, despite not having a tangible financial value assigned.

## Project Requirements

Prior to commencement of training, each learner must identify a suitable project aligned with their organisation's objectives. The project should be scoped to deliver business benefits, with expected annualised savings of at least €30k.

SQT will provide comprehensive guidelines and a sample Project Charter to assist in project selection and preparation



## Completion Timeline

The full assessment cycle spans approximately six months, allowing time for project selection, implementation, data collection, and final submission. Upon successful completion, participants earn a QAI Level 7 accreditation, equipping them with industry-recognised certification.



# How Do We Train and Support You?

We provide extensive resources and support to help learners succeed. Our learning materials draw on over 20 years of delivering Lean Six Sigma programmes and are designed to be practical and effective. Learners have full access to these resources throughout training and project work.

Our programme is distinguished by hands on mentoring from our expert Tutor team. These industry practitioners have over 100 years of combined experience leading and supporting major Lean Six Sigma initiatives. Their direct guidance helps learners navigate challenges, refine projects and achieve measurable improvements. Tutor support continues until successful completion of the project.

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## Company Support & Champion Training

Additional training includes a 1-day 'Introduction to Lean Six Sigma' and a 2-day 'Champion' programme for decision-makers and project sponsors.

## Access to Online Learning Resources

SQT's online platform provides:

- Course notes, templates, case studies and video content.
- Additional learning materials such as links to useful external resources.
- Assessment submission and Tutor feedback via our online platform (Moodle).

## Customised In-House Courses

Programmes can be tailored to your organisation's needs, ensuring exercises and content are aligned with internal processes and objectives.

## Mentoring and Tutor Support

Personalised mentoring and feedback throughout the programme to keep projects on track and deliver meaningful results

## Lean Six Sigma Network

Graduates can join SQT's Lean Six Sigma Network for ongoing learning, peer collaboration and best practice sharing.



# 「Apply the tools, Drive Real Improvement」

Gain hands-on experience and the confidence to lead meaningful change

## Contact Us

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