

# Improving Operational Performance

*Intermediate Apprenticeship Level 2 - Business Improvement Techniques Pathway*



*“Harness the best ideas and support the implementation through education”*

## ***Introducing CLS***

### ***Our People, Your People, Your Business....***

Established in 2004, Complete Lean Solutions is a Lean training and Specialist support organisation providing services to clients across the globe. With offices in England and Australia and clients globally, CLS provides a standardised, well- proven model that enables our customers to significantly improve their operations. Our team of 35 Lean experts, all with first hand experience working at the home of Lean, Toyota, develop tailored Lean engagement programs to ensure maximum tangible benefits for our clients.



- Lean Manufacturing has been derived from the Toyota Production System.
- CLS only employs coaches who have “been there and done it,”
- Our coaches have extensive experience in implementing the Lean Tool Kit with people at all organisational levels, using a combination of simple examples, analogies, simulations and hands-on deployment, all done side-by-side with the process owner/operators.
- More importantly, our coaches understand how to communicate and reinforce the Lean mindset – the key to successful, sustainable improvement.

# ***The Qualification....***

CLS are accredited with City and Guilds to deliver **The Apprenticeship in Improving Operational Performance framework.**

- Intermediate Apprenticeship in Business Improvement Techniques – Level 2

The Improving Operational Performance framework pathway Business Improvement Techniques ensures that business processes are planned and executed as efficiently as possible, identifying and, minimising waste whilst ensuring the highest quality.

The qualification aims to help trainees make a positive contribution to improving business performance, and enable companies and organisations to reduce their waste/costs, improve their productivity and ultimately increase their competitiveness.

## ***Who is the qualification aimed at?***

To gain the most from the programme it is best to get as many people involved as possible.

The companies that have experienced the best improvement in business and culture have been the ones that have involved people from all levels and from all areas of the business.

The aim of the programme is to create a common language and a common approach to problem solving and business improvement. There is no barrier to who can be involved in this programme.

We don't want to create a few "specialists" who are responsible for business improvement, we want to give as many people as possible the knowledge, targets and accountability for driving a business forward.

Try to establish improvement teams that involve everyone from sales and design, through to finance and operations. The more people involved the bigger the potential improvement.

The types of people we have trained include, manufacturing operators, forklift drivers, Nurses, Heart surgeons, Managing Directors, cleaners, Supervisors, accountants, maintenance leaders, logistics specialists, warehouse operators and banking staff.

Whatever sector or level anyone comes from they all have a common target to improve and the only thing that changes is the type of improvement project they decide to work.

This program provides the knowledge and practical hands on support to embed business improvement into any business.

# ***We take the time up front to understand Your Business***



Before starting any training program we need to understand what is important to your business –

- **Your biggest challenges**
- **Your current understanding of business improvement / lean**
- **What good practice is already in place**
- **What lean tools are most applicable to yourselves**
- **What project areas we can focus on as part of the apprenticeship**
- **What the teams will look like**

It is important that we build on the good work you already have in place and keep a consistent message–

- **We dual brand the training material with your company logo**
- **We contextualise the delivery to be relevant to your type of work**
- **We incorporate your material and wording wherever possible**
- **We use the program to re-enforce important company information**
- **We plan the delivery and support visits around your company needs**

**You can chose if you want to work on a specific project or just take an area and implement Lean in that area utilising the training program**

# Apprenticeship Structure

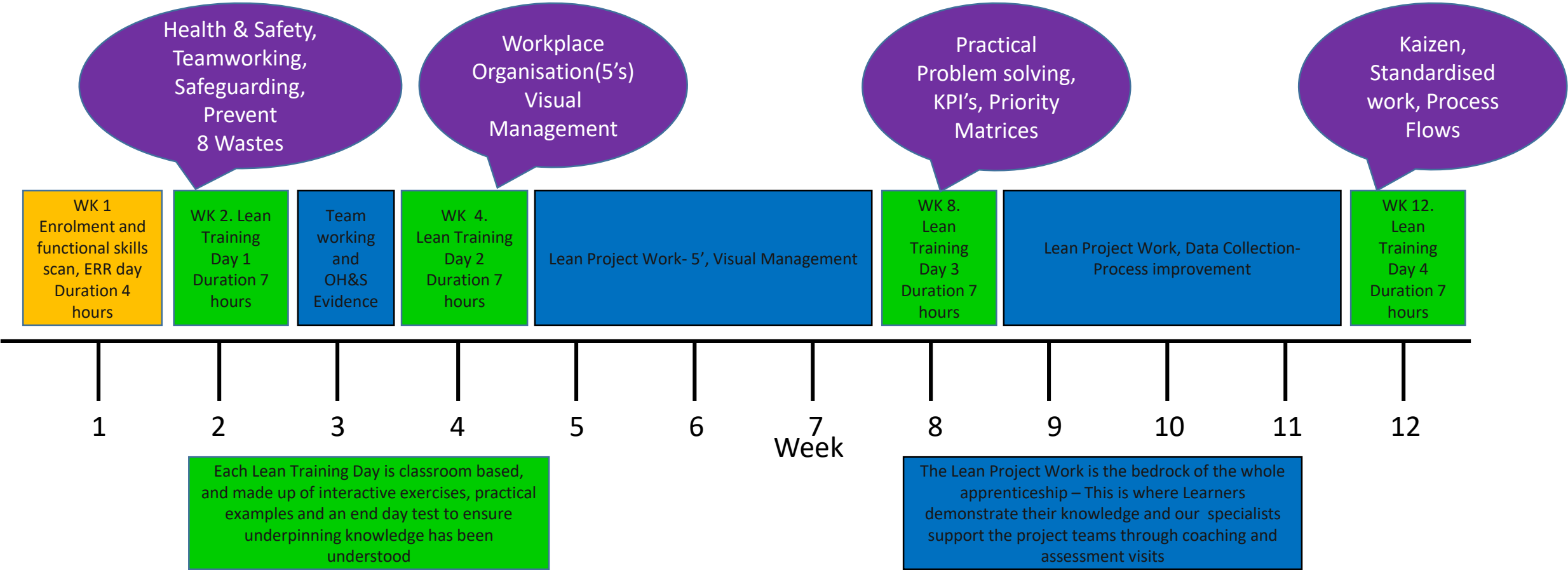
- The following pages describe how the program is typically delivered. HOWEVER the detail of the projects and make up of the training elements is tailored to the environment and needs of the trainees on the program.
- If you have Improvement projects, or specific targets to be met that could be supported through the use of Lean tools then you should make us aware at the information session so that we can take these into account
- Wherever possible, undertaking the training as part of a team is preferable. We recommend that around 5 / 6 people are involved from an area. If this is not possible we will try to design teams that are complimentary.



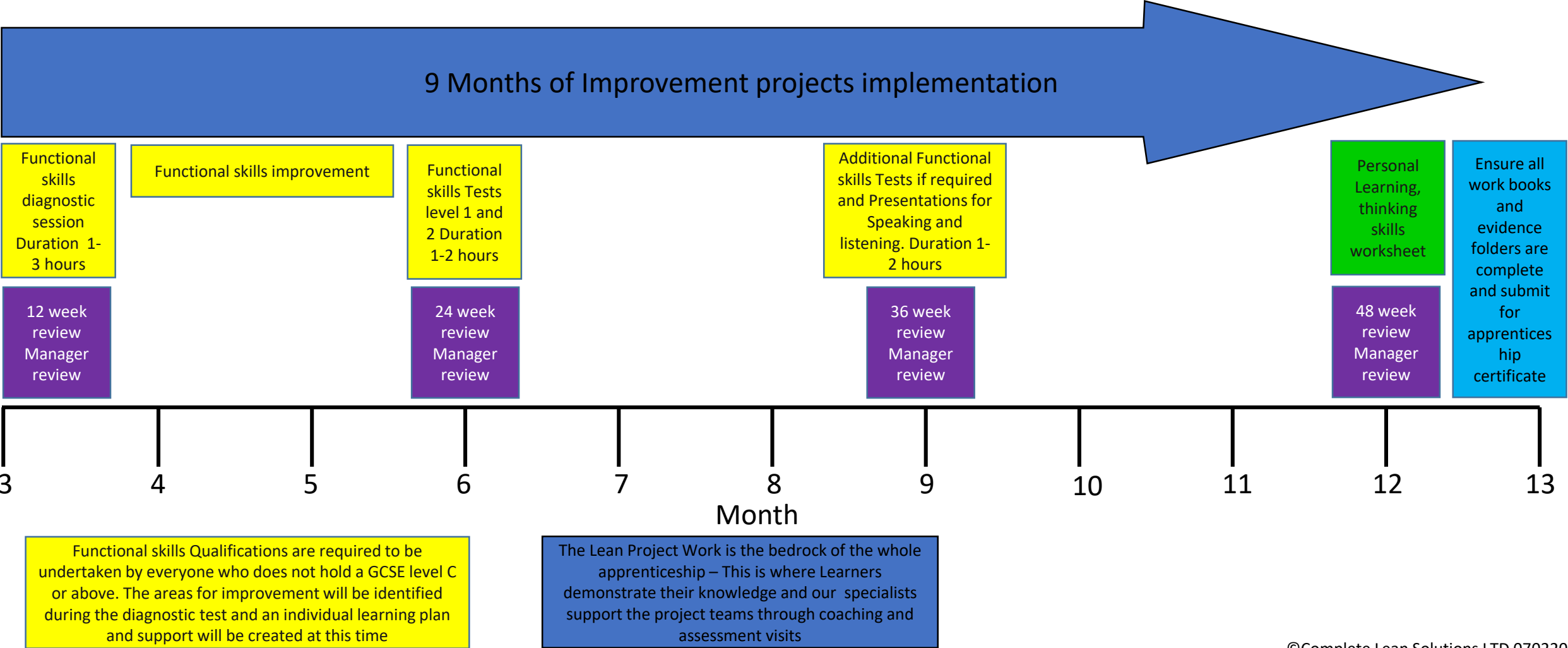
The first 12 weeks -



Three Month Underpinning Knowledge Training - providing the learners with the knowledge to be able to carry out improvements within the workplace, incorporating the Technical certificate qualification and some foundation project work



The Learners work in teams on the projects that give the most benefit to the business. The CLS coach supports and carries out on project assessments.





## Example of improvements made during one of our Improvement Programmes

These cost savings were made by an engineering company of around 100 employees



Project	Area	Detail	Savings (one off)	Savings (ongoing)
5S	Soft Machining	Excess Benches & Tooling	£1,478.00	
		Tooling replacement reduction		£2,000.00
		5% setting reduction		£4,400.00
	Flute Grinding	Tooling and materials returned to store	£192.00	
		Time saving from using new Setting Trolleys on the Bramac & ITM		£5,500.00
		Time saving from organising projections from a pile to a filing cabinet		£3,940.00
	Blank Finishing	Shortened setups due to not having to look for setting tools		£583.00
	Thread Grinding	Obsolete inventory sold as scrap metal		£900.00
Standardised Work	Soft Machining	5% reduction in Set Ups		£4,400.00
	Blank Finishing	11 min reduction time in set-up time		£1,283.00
7 Wastes	Soft Machining	Staggered lunch breaks		£17,600.00
		Spare set of Swarf bins - downtime reduction		£5,700.00
		M35 C8 Steel Rationalisation	£16,779.00	
	Flute Grinding	Transport of tools to store - trolley put in place & end of transport		£6,500.00
		pre-rough of grinding wheel off machine - reduce set-up time		£13,800.00
	Blank Finishing	5S WIP(reduction) & visual factory highlighting excess labour - redistributed		£69,160.00
		Grinding Wheel rationalisation & control - 17 reduction	£1,170.00	£350.00
	Heat Treatment	Inventory (WIP) reduced through implementation of a managed buffer	£45,448.00	£4,545.00
		Parts were being scrapped due to degreasing to early - rusting		£1,200.00
	Thread Grinding	Time saved by eliminating need for operators to calculate from imperial to metric - downtime reduction		£22,500.00
Visual Factory	Heat Treatment	5s, target setting & managed buffer - 20% increase in throughput		£36,800.00

# Example of improvements made during an LLA

These cost savings were made by an engineering company of around 100 employees



Capacity Improvement	Thread Grinding	Uptime increased by 27% through implementation of a visible & audio andon		£104,320.00	
Smart Changeover	Soft Machining	22% reduction in setup time on Miyano		£9,600.00	
	Flute Grinding	Wheel changeover - externalisation of prep tasks & standardisation = 26min/set-up		£9,660.00	
	Blank Finishing	Reduction in set-up time through externalisation of tasks and removal of need for manual crane		£1,166.00	
	Thread Grinding	Set-up time reduction of 34 minutes by externalisation of tasks		£41,328.00	
TPM	Soft Machining	25% Fewer breakdowns in section. Machine down for an average of 4 hours		£7,680.00	
A3 Reports	Conveyance	Walkway between plant 1 & 3 - reduce motion, inventory, scrap and heating	£75,000.00	£6,600.00	
	Flute Grinding	Purchase of additional grinding wheel spindles to aid smart changeover - reduced time		£7,300.00	
	Thread Grinding	Purchase of spare motors for the Drakes - loss in downtime		£25,390.00	
Value Stream Mapping	Drills	Lead time in Black Magic Drills reduced by 9 days - WIP saving & improved IFOT	£21,743.00	£2,174.00	
	Taps	Highlighted build up of inventory at inspection - new layout will almost eliminate buffer WIP reduction (17,606 components @ average cost £8.05 per tap)	£141,728.00	£1,473.00	
Training Matrix	Soft Machining	1 shift per month the Miyano doesn't run due to lack of skills coverage		£7,680.00	
	Blank Finishing	Skills coverage improvement freeing up 1 shift / week		£13,125.00	
PPS	Soft Machining	Band-aid identified for broken centres - scrap reduced by 0.1		£2,880.00	
	Thread Grinding	Scrap reduction through implementation of new flute to square measurement method		£2,186.00	
Pull System	Tips	Kanban re-ordering for Tips - Reduction in stock	£400.00		
	Grinding Wheels	Kanban re-ordering for wheels - reduction in emergency trips to Bunnings		£735.00	
		Kanban re-ordering for wheels - reduction in downtime		£12,864.00	
Poka Yoke	Thread Grinding	Poka Yoke implemented to prevent blowing of light on inspection kit - reduce downtime while using plant 1 kit		£1,368.00	Total
			£303,938.00	£458,690.00	£762,628.00

# *Elements of the Apprenticeship Framework....*

## **Competence - NVQ BIT Diploma**

The majority of the apprenticeship is made up of practical hands on project work. You may have projects to improve your area already allocated or clear targets in mind. The training delivered will support these improvement areas (as long as they are in line with the standards required for the qualification). You will be given underpinning knowledge training in the classroom and support at the project area from the your trainer. The assessment will be carried out on the tasks achieved and the evidence that you will gather and file in your portfolio. The target is to show that you have improved the operational performance of your area using the knowledge and learning you have gained during the apprenticeship. Your trainer will take you through the specific evidence required and the tools which should be applied.

## **Employee Rights and Responsibilities**

Employee Rights and Responsibilities (ERR) is part of all Apprenticeships. It must be assessed and clearly evidenced. You must understand your rights and responsibilities with regards to equal opportunities and health and safety. You will complete a workbook at the start of the program that demonstrates your understanding of this.

## **Technical Certificate**

The technical certificate covers the areas included in the BIT Diploma, but also includes some short answer questions that you will need to complete in classroom environment. Strict exam regulations do not apply, however this is designed to be a closed book test and will take place towards the end of the training sessions.

## **Personal Learning and Thinking Skills**

There are six Personal, Learning and Thinking Skills(PLTS) that provide a framework for describing the qualities and skills needed for success in learning and life. The assessment of these will be embedded within your apprenticeship.

## **Functional Skills Maths (Level 1 or 2) English (Level 1 or 2)**

You will complete Functional Skills in Maths and English. The initial assessment will determine your current level, diagnostics to identify support, where required, will be tailored to your requirements. Assessments are designed to measure the competent application of skills within real life scenarios. The final exams can be completed on line or paper based, these include reading, writing, speaking & listening assessment & Maths . **Completion of functional skills may not be required where evidence of a current transferable skill exists, such as Maths or English GCSE certificates.**

## **What Does The Company Get From The Program?**

Employees that have a common understanding of how business improvement works and the steps to take to solve problems

A clear cost benefit to the company through the projects that have been implemented

A legacy framework to operate the business in a Lean way

Access to world class business improvement specialists – who get their hands dirty and pass their knowledge on by getting involved

## **What Do The Apprentices Get From The Program?**

A nationally recognised Level 2 Apprenticeship Certificate awarded by City and Guilds

An opportunity to carry out improvement projects that directly affect themselves in their own workplace

A structured platform to showcase to management their achievements

12 months of access to world class business improvement specialists, who are real people and have “been there” and implemented lean activities in different environments all over the world

## **What Does The Program Cost?**

For LEVY paying companies (With a payroll in excess of £3m)

The cost per learner for the apprenticeship is £3500. This will be drawn down from the amount in your LEVY digital account monthly over a 13 month period. At the rate of £233 / month / apprentice with a month 13 payment of £700 based on completion – This will be done electronically

If in any month you do not have enough money in your Levy pot to cover the cost you will be charged 10% of any shortfall. As an example if the bill for the program that month is £6000 and you only have £3000 in your LEVY account then you will be invoiced for 10% of the shortfall – which in this example would be £300

For None Levy paying companies (With a payroll of less than £3m)

The cost per learner for the apprenticeship is £3500. This will be 95% funded by the Skills funding agency which CLS can access. You will pay a total of £175 per learner spread over 10 equal monthly payments of £17.50 / Month. This will be invoiced at the end of each month once the training program commences.

## **What Is the commitment required from you?**

Throughout the programme, 20% of the apprentices time should be spent training, working on projects or using the tools and techniques that they are learning as part of this apprenticeship.

This time must be directly relevant to the apprenticeship framework or standard and could include, but not limited to, the following;

- The teaching of theory (for example lectures, role play, simulation exercises online learning or job specific training)
- Practical training such as shadowing, mentoring (receiving and providing) and coaching sessions
- Improvement Project work
- Documenting improvements and re training of improved processes

## **Next Steps**

Select a minimum of 20 people to start a program and pass their details to CLS – There is no maximum number



Agree Start date



Apprentices undertake Enrolment and skills scan day – CLS are on site to explain the course to the apprentices and carry out an initial assessment of functional skills for anyone who does not hold a GCSE level E certificate or higher to confirm that they are eligible to undertake a level 2 apprenticeship. There is then some Health and Safety basic training



One week after the enrolment day we commence the lean training

## **To Contact Us**

Tel: 01283 553 105

Mob: 07979 228 869

Email: [info@completeleansolutions.com](mailto:info@completeleansolutions.com)

Web: [www.completeleansolutions.com](http://www.completeleansolutions.com)