

Case study

Electronics Manufacturing

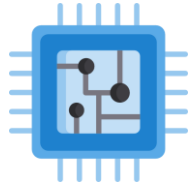
Learn how a UK electronics manufacturer transformed their operations using the 4-step FlowPlus transformation process

[Book an enquiry meeting](#)



SUMMARY

The client



The client is a UK based electronics manufacturer with roughly 350 employees. They produce highly precise photonics equipment for defence and research companies.

The problem



The client reached out with a specific problem – poor equipment reliability. They knew their output was being restricted by a high level of downtime and instability it created. They wanted to uncover other areas for improvement so opted for our [Discovery](#) service.

Our Solution



We introduced a Total Productive Maintenance (TPM) strategy that up-skilled operators to solve common and basic machine breakdowns and worked with the maintenance team to redesign their planned maintenance activities. We redesigned their workstations and production system to maximise value adding work.

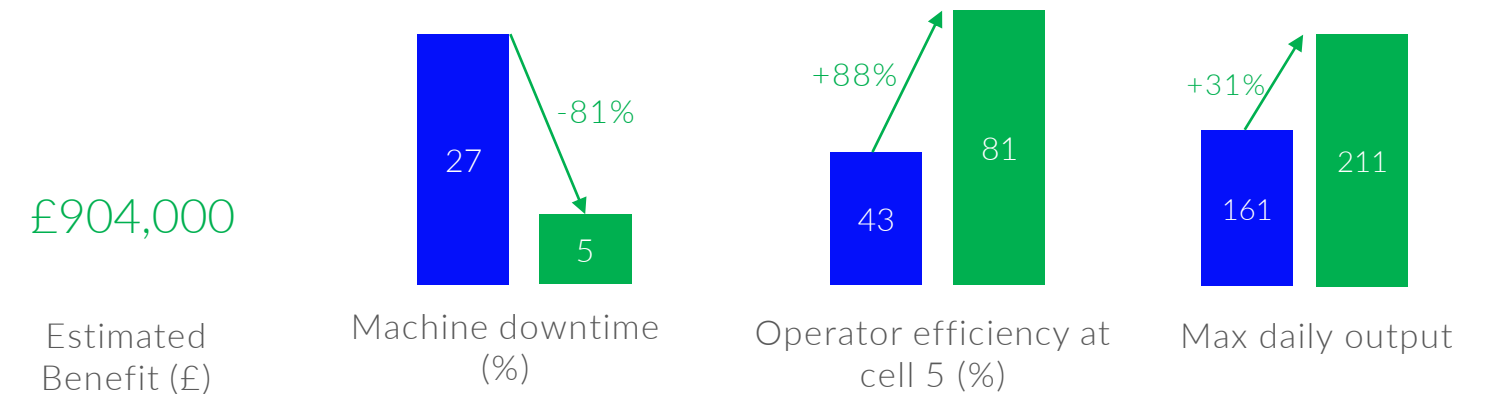
Implementation process



Following the [FlowPlus transformation cycle](#) we started by uncovering where and how they could improve. Once we had a clear improvement roadmap we worked as one-team with the client in workshop style to implement the improvements with the greatest ROI. Upon achieving the results, we trained their team how to follow a structured problem-solving approach and conducted Lean Six Sigma training. This training was followed by coaching to allow the Lean champions to put what they had learned into practice, helping them solve a problem within their department. Finally, we setup daily improvement huddles that empower shopfloor staff to spot and solve problems, instilling a continuous improvement culture.

Results achieved

We achieved a step-change in performance, transforming their operational performance and establishing a continuous improvement culture.



Client testimonial

“FlowPlus helped us unlock our potential and as a result of their input we have delivered significant business improvement.” Operations Director

Next Steps

If you would like to find out more about how we can achieve similar results within your business please get in contact to schedule a free 30-minute consultation:

[Book an enquiry meeting](#)



FLOWPLUS CASE STUDY

Introduction

Having helped multiple UK electronics manufacturers with their Lean & Continuous Improvement journey, we have selected one case study to demonstrate their transformation and showcase the results they achieved.

We understand that every business is unique, with different challenges and aspirations. For that reason, we don't use a 'one-size fits all approach', instead we follow our transformation cycle as a framework to create bespoke solutions that are tailored to each client.

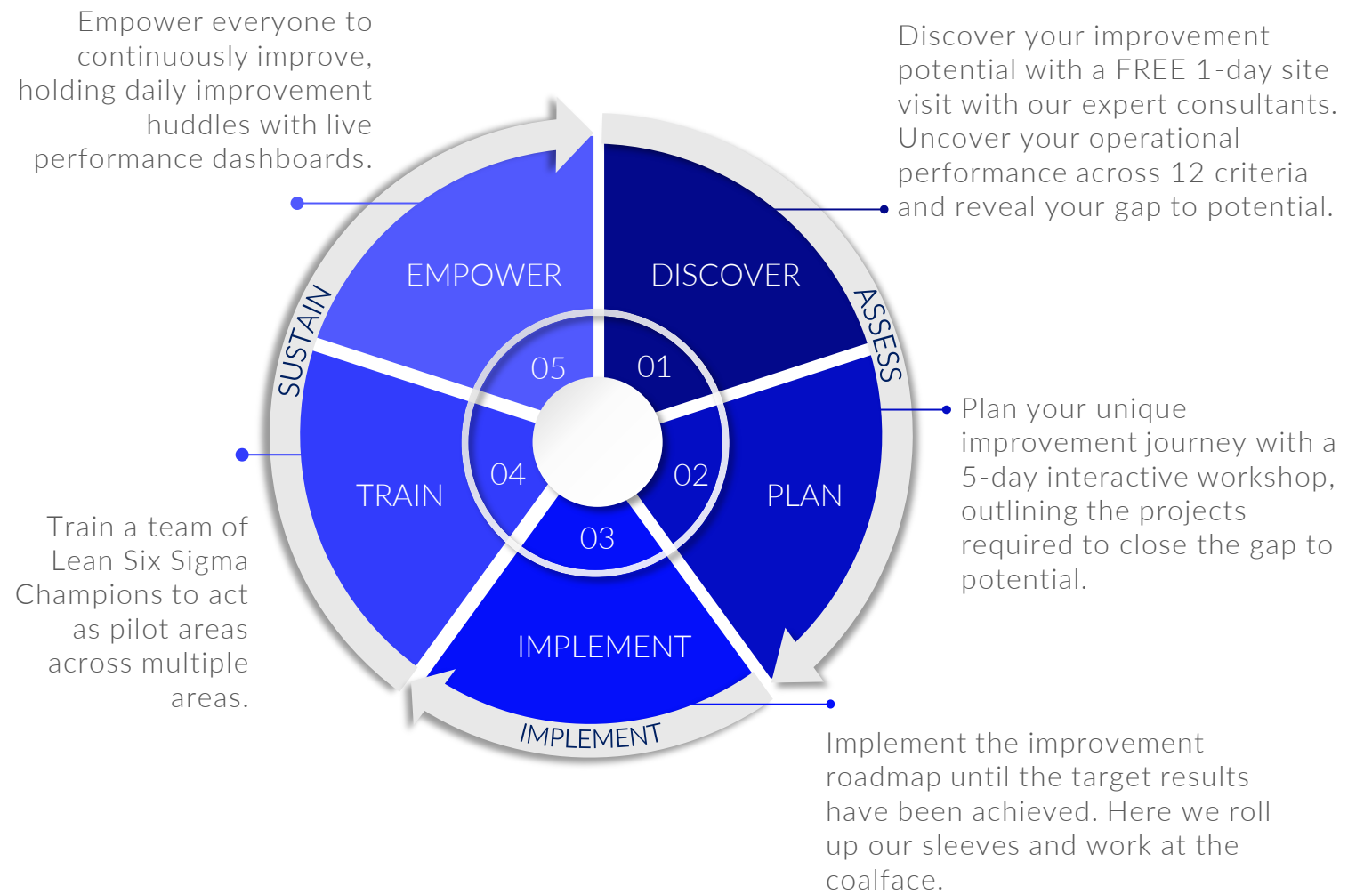
The client in this case study was a UK based site with roughly 350 employees, producing precision electrical equipment.

Some of the clients we work with:



The 5-step cycle has proven to deliver operational transformations that are sustainable and develop a continuous improvement culture that stands the test of time. By following the cycle, businesses have the chance to discover where and how they can improve, uncovering how their operational performance compares to best-in-class food & beverage manufacturers. Once an improvement plan has been developed, we help our clients make the changes and implement the improvements required to close the gap to potential. The final stage of sustain ensures the client is equipped to raise and solve problems long into the future.

The FlowPlus Transformation Cycle™

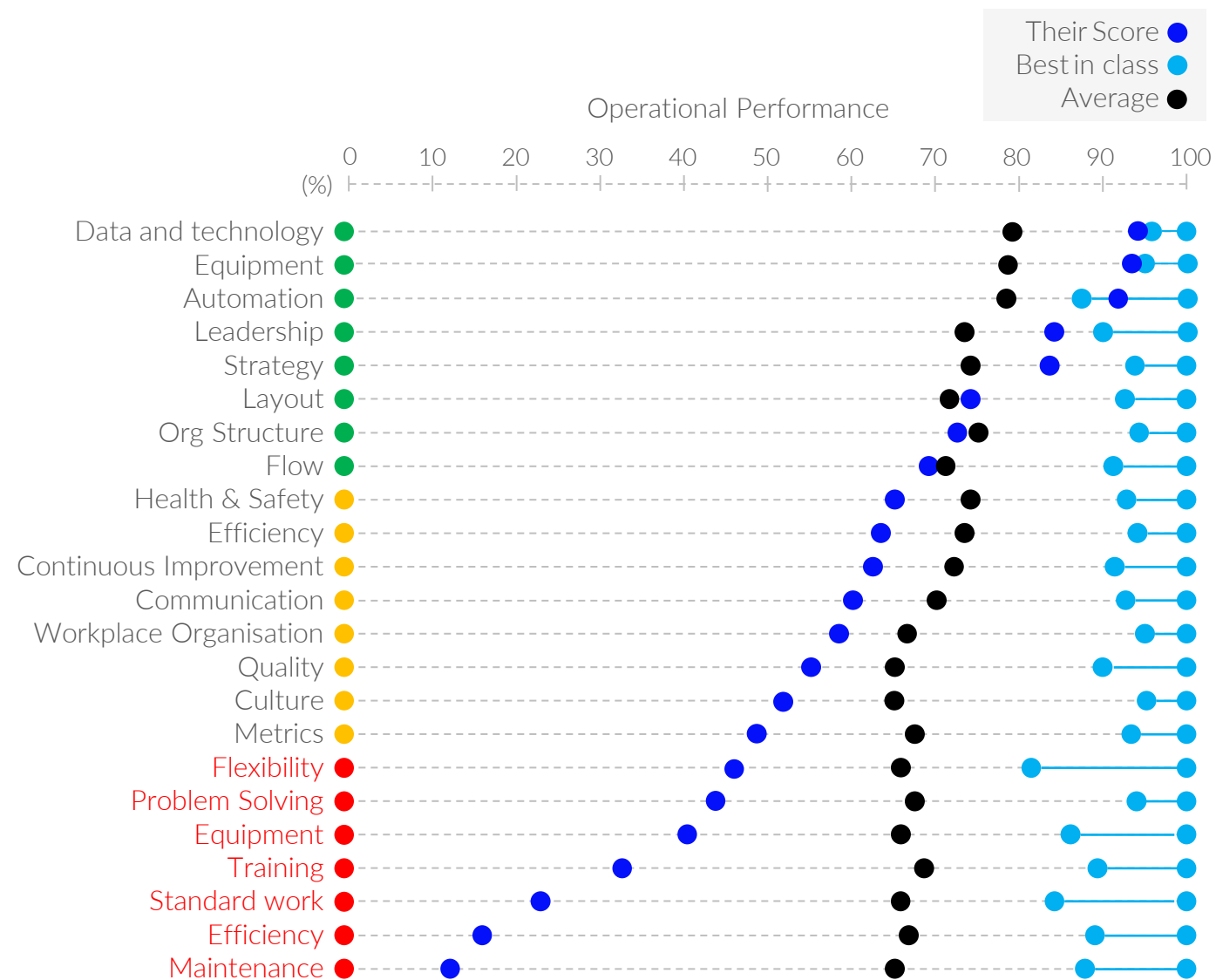


01. Discover

The client contacted us with an understanding that they had poor equipment reliability and a maintenance strategy that could be improved. The client wanted to gain a full picture of where they could improve.

Our first stage – DISCOVER did exactly that, it benchmarked their operational performance and uncovered their gap-to-potential (difference between current performance and best-in-class performance across 15 criteria).

We visited their production site, made observations on the shopfloor, spoke with supervisors/team leaders and collected data using our efficiency tracking motion technology. The results of the discovery report uncovered exactly where and how much they could improve. A summary can be seen below. ● Red (<50%), ● Amber (50-70%), ● Green (>70%).



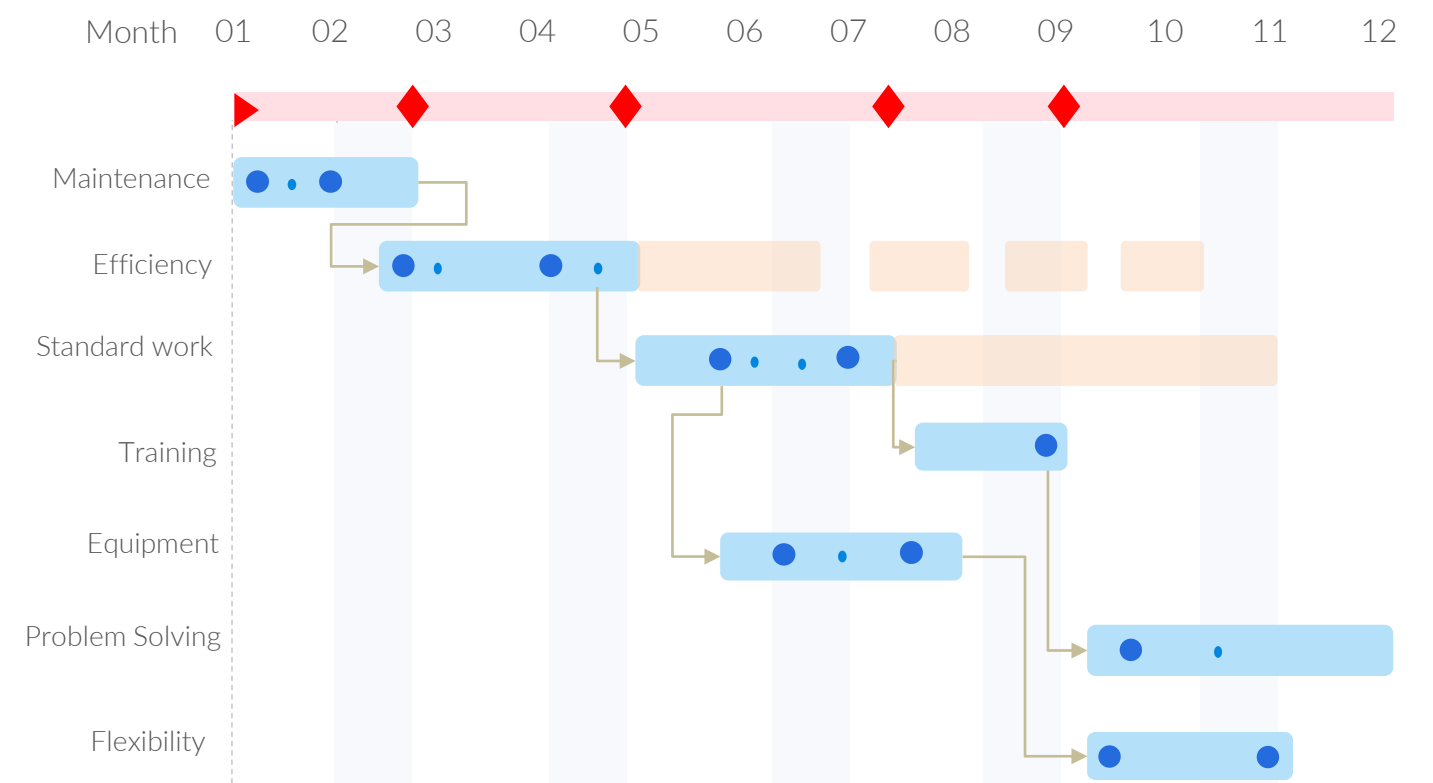
02. Plan

The findings of the discovery supported what the client originally believed - **maintenance** was a significant area for improvement, represented with a high level of machine downtime. The discovery also uncovered that **efficiency** was significantly below the average score compared to competition and far from the best-in-class score.

Through a collaborative 5-day workshop on site, FlowPlus worked with a multi-disciplinary team to dig deeper into each improvement area and devise a solution. Analysing production data to help quantify each improvement opportunity, a bespoke improvement roadmap was created – outlining the projects required to achieve their potential. The Plan stage involved a value stream mapping exercise, a future-state value stream design and a Return-on-investment analysis.

It was decided that all the red indicators, the worse performing 7 criteria would all have an associated project launched to help close the gap to best-in-class. Emphasis was originally placed on the first two projects focused on maintenance and efficiency.

The improvement roadmap can be seen below:

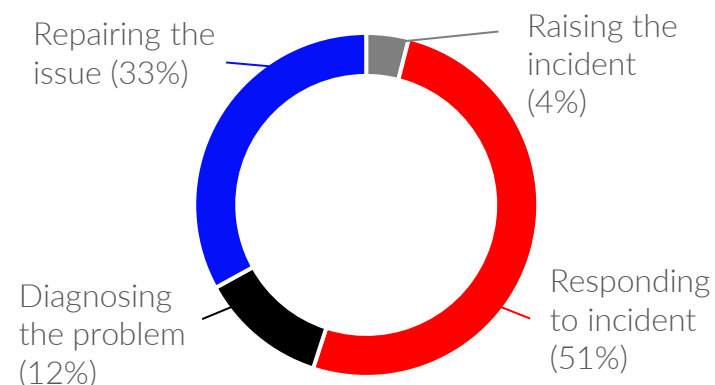


03. Implement

We started with the first project – reducing machine downtime.

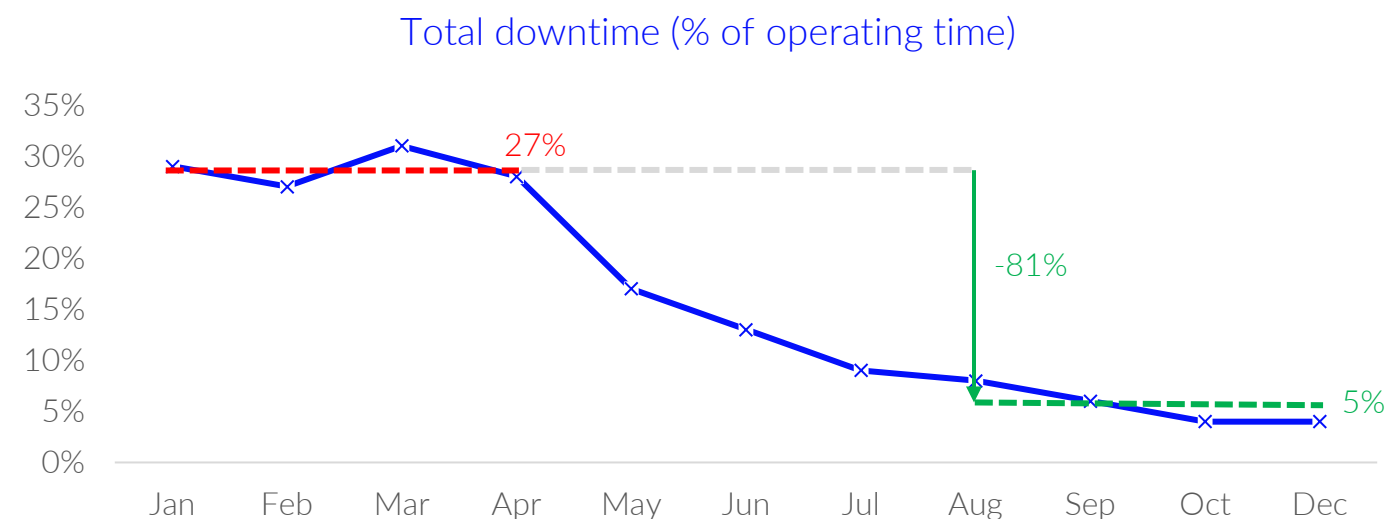
Working closely with both the maintenance and the production team, we selected a pilot area to begin the total productive maintenance (TPM) journey. The data highlighted that the greatest area for improvement was reducing the time to respond to a machine breaking down, contributing to 51% of total downtime, while the time repairing the issue was only 33% of total downtime.

To overcome this excessive time to respond, we reviewed all downtime incidents and assessed whether the operators could be up-skilled to resolve the incidents. We found that over 85% of all incidents could be resolved by operators with basic training – providing a responding to incident time of zero.



Coupled with this, we reviewed all planned maintenance activities to better reflect downtime incidents, adjusting the frequency and nature of planned activities to provide a more proactive and less reactive maintenance strategy. Finally we reviewed all spare parts and setup a kanban stock system with critical spares, with set replenishment levels.

The combination of these changes can be reflected in the total downtime metric from the baseline value at 27% to the new value of 5%.



The second project focused around improving efficiency. By analysing all activities and the time spent conducting them, we were able to redesign a new production flow and workstation design that improved operator productivity by 88%.

The new workstations provided each operator with the right tools, material and instructions to work within the golden zone – shown in figure 1B. A logistics train (water-strider) was introduced, collecting finished products and using kanban signals to replenish components when they reached a set level.

The result was a highly efficient system where operators could focus on adding value and not waste time collecting parts, waiting for work instructions or moving around. A summary of the results can be seen below:

Activity	Before	After
Removing component packaging	10%	5%
Waiting for work instructions	8%	4%
Collecting tooling	8%	3%
Motion: Moving products to inspection area	7%	0%
Motion: Movement around workbench (twisting/bending)	6%	3%
Awaiting assistance	5%	2%
Collecting consumable materials	5%	0%
Searching for components	4%	2%
Motion: Replenishing components	4%	0%
Productive work	43%	81%

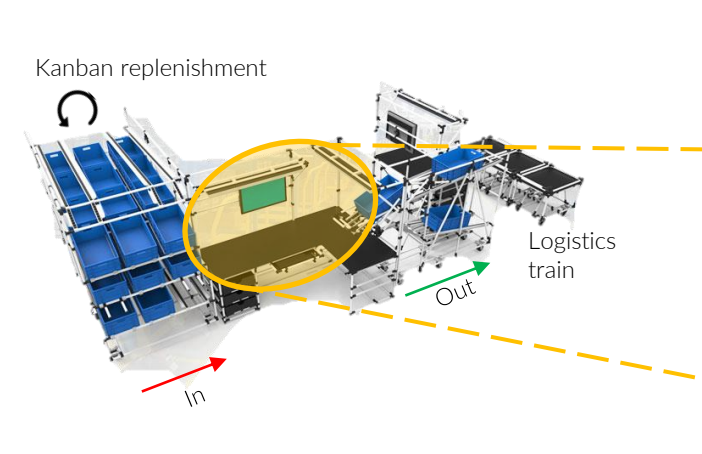
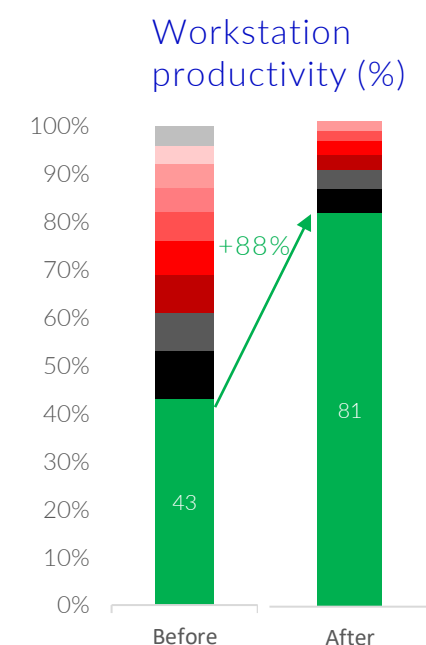


Figure 1A – The new production layout.

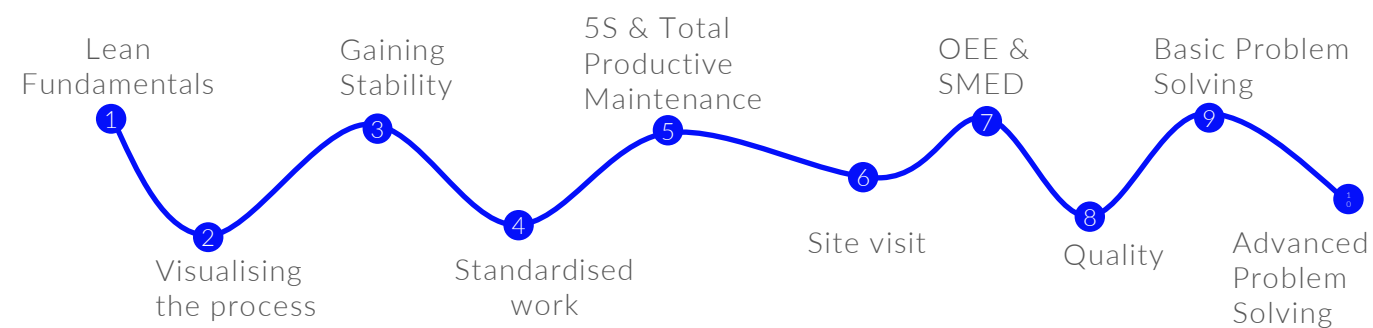


Figure 1B – The golden-zone of operation.

04. Training

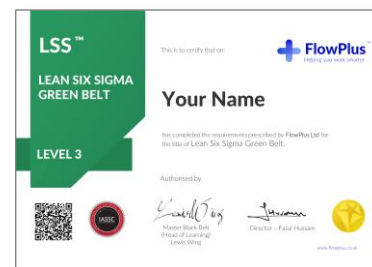
To ensure improvement is sustained and a continuous improvement culture is established, these 2 phases – Training & Empower are essential. It's very simple, to drive change and improvement in the long run you need a team of problem solvers. By driving the change internally, the Lean champions can solve problems throughout the business and empower team members/operators in improvement identification.

Over the space of 10 days, we trained 12 Lean Six Sigma Green Belt champions with practical problem-solving training, equipping the champions with the ability to drive improvement within their departments. The training included a site-visit to a FlowPlus client to see how they had progressed on their lean journey and the tools/techniques that worked for them, offering food for thought and a chance to see the practical techniques in place.



Our training is different for 3 main reasons:

- 1) It's Practical
- 2) It's Bespoke
- 3) It's Accredited



Practical – We do most of the learning on the shop floor, using exercises and case studies to provide real, usable skills that can be easily applied within their work environment.

Bespoke – We tailor each training to the clients unique business, providing training where the greatest scope for improvement has been identified and specific to their processes;

Accredited – At the end of the training, each Lean Six Sigma Champion is coached over 90-days to solve a problem within their department. This not only creates substantial tangible benefits but provides confidence that each student can practically apply what they have learnt. Upon completion of a successful project, each student will receive their globally recognised certification.

05. Empower

This final stage of the transformation cycle is what makes the transformation sustainable. We introduced 8 continuous improvement tracking boards and daily huddles throughout our client's site. These huddles act as a vital part of the continuous improvement journey, providing operators with visibility of their performance and the ability to raise any improvement ideas they have. Some of the key metrics measured include; output/day, quality faults identified, improvements made to SOPs & OTIF(%).

By holding continuous improvement huddles, each natural team became empowered to solve problems and improve daily. Team leaders/supervisors run the meetings and using their Lean Six Sigma training, solve problems that really matter.

Within the first 3 months of holding the improvement huddles, the client had identified 56 improvement opportunities and had already solved 21 of them – resulting in an estimated annual benefit of £195,000. The improvement huddles are still in place and have established the habits and culture needed to drive continuous improvement throughout the business.



56

Improvement ideas raised

21

Implemented improvements

£195k

Estimated benefit



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Caroline Grant - Production Director

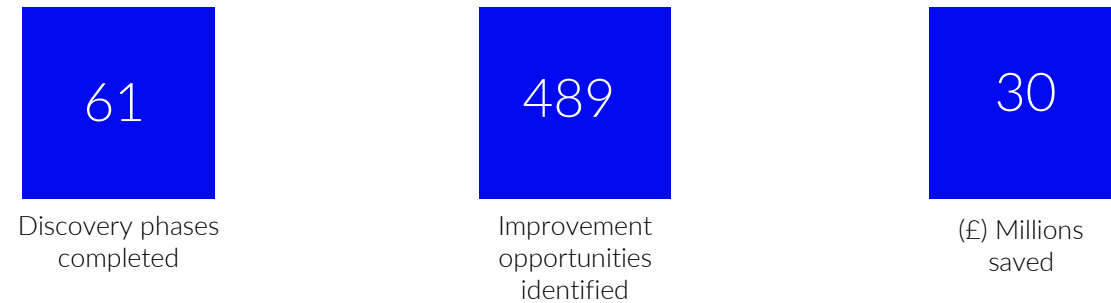


ABOUT US & NEXT STEPS

About FlowPlus

Having helped over 20 UK Electronics Manufacturers with their Lean & Continuous Improvement journey, we believe every organisation can improve, and that starts with a discovery.

We understand that every business is unique, with different challenges and aspirations. For that reason, we don't use a 'one-size fits all approach', instead we follow the transformation cycle as a framework to create bespoke solutions that are tailored to each client.



Our team of consultants are experts in continuous improvement and lean manufacturing. We help our clients to work smarter – not harder. With experience ranging from lean manufacturing and operations management, to artificial intelligence and finance, we provide a unique insight to improvement, tailored to your unique business.

We are headquartered in Surrey and were founded by two friends from the University of Warwick studying Physics and Engineering. All our consultants are Lean Six Sigma Black Belts and have 5+ years of experience within the industry.

We provide a wide range of consulting services based on your specific needs, ranging from Lean Six Sigma training to focused improvement projects.

Risk-free consulting

We only charge our clients based on the results we achieve. No traditional charging for days on-site, we believe we should be judged and rewarded only if/when we achieve the target. This means no risk for you, if we don't get tangible results, we won't charge.

Next Steps

If you are interested in achieving similar results or have any queries about how we work, our payment terms etc then please book a free 30-minute consultation with one of our consultants below:

[Book an enquiry meeting](#)

Or email:

enquiry@flowplus.co.uk with your request.

We believe every Organisation can improve.

Right now, within your organisation, there are complex and apparently insurmountable challenges to solve.

Equally, there's hidden opportunity to tap into. If you're going to overcome those obstacles, unearth that potential and keep on improving as an organisation – change is essential. But where to start? How do you make the right changes? And how do you make them stick?

That's where we come in...

Get in touch to book a free 30-minute consultation and accelerate your improvement journey.

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