Continuous Improvement Business Transformation Model 'T15' ¹

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Introduction - Benefits of the T15 Model

HISTORY

'T15' is a benefits-driven transformation business model that helps create, build and maintain sustainable businesses and organisations through continuous improvement.

It is the result of my career experience across many different business sectors and is based on the mathematical square where the numbers 1-9 are arranged in a 3x3 grid that when read; either vertically, horizontally or diagonally the numbers total 15. Hence the name T15. This thinking, overlaid with the key requirements for running any business provides the basis to create and maintain a successful organisation that is demonstrably, a financial, environmental and social organisation. It is a 'Business in Balance' with a 'Balance in Business'

As a result of Covid 19, this coming decade, will see a marked shift in how local, national and international businesses conduct themselves and will result in supply chain and operational reviews to mitigate against any future epidemic or pandemic.

Operational resilience and continuity will be reviewed across many business sectors and the T15 model is a simple and effective generic model to enable businesses to review their current operations, understand their weaknesses and develop strategic and tactical plans to mitigate a repeat of their 2020 experience brought on by Covid 19.

The T15 model has been designed as a continuous improvement enabler as the benefits from each change become the new baseline from which the organisation can build and develop a more resilient and profitable business and be better prepared to face future disruptions and developments in the market place.

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¹ How to cite this article: Mackie, P. (2020). Continuous Improvement Business Transformation Model 'T15', *PM World Journal*, Vol. IX, Issue VIII, August.

The rest of this paper explains the bedrock and use of the model. To keep this paper to a reasonable length, case studies in the logistics, health and utilities sectors are available within the introductory video to the model at www.pmbp.co.uk

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The Value of the T15 Model

The model has been developed to <u>'create, build and maintain sustainable</u> organisations'.

'Business in Balance, Balance in Business'

In order to achieve this objective, specific principles and standards have been set to ensure the integrity of the model with much thought invested in the worth and importance of the words used to describe the activities within the model.

The vertical and horizontal framework for the model within which the 3x3 grid sits has been constructed to reflect the basic requirements of any business. (*see diagram below*)

The vertical columns contain 'Management (£)', 'Infrastructure (Kwh/Co2)', 'Performance (Social)' and are the given requirements for any business to deliver a service or product to their customers. 'Management' to provide direction and focus, 'Infrastructure' to make the product or service and 'Performance' to measure how well the customer requirements are being delivered.

The horizontal columns contain 'Capital (£)', 'Operational (£), 'Reporting (£/Kwh/Co2/CSR) and are the given requirements for any business to invest in to deliver a service or product to their customers. 'Capital Investment' to provide the latest technology and keep pace with competitors, 'Operational Investment' for the normal running of the business and 'Reporting' to keep all those in the value chain appraised of the companies' health.

©	Management (£)	Infrastructure (Kwh/Co2)	Performance (Social)
Capital Investment Cost Revenue/Profit (£)			
Operational Operating Cost Revenue/Profit (£)			
Reporting (£/Kwh/Co2/CSR)			

T15 Model – the 3X3 grid words and 8 initial questions

Having established the grid principles and standard, the next challenge was to identify key words that succinctly described the 'key' action to provide the user with a clear understanding of the activity that is expected within each segment of the model. Again, after many hours of reflection and discussion 9 key words were identified that have proven to reflect accurately the nuance for each box.

©	Management (£)	Infrastructure (Kwh/Co2)	Performance (Social)
Capital Investment Cost Revenue/Profit (£)	Vision	Solution	Location
Operational Operating Cost Revenue/Profit (£)	Compliance	Measurable Activity	Resource
Reporting (£/Kwh/Co2/CSR)	Communication	Baseline	Risk

For example, 'Vision' describes well the activity of Management (vertical column) with Capital (horizontal row) because it is the job of executives to decide upon the direction of the business to meet customer demand and therefor the financial investments required and the expected profits or benefit from the decisions they make.

On one level, the model is now ready to be used, from which we can ask 8 salient questions.

1. Reading from left to right starting with the Capital (horizontal row) across the (vertical columns) Management, Infrastructure, and Performance.

- 'Is by business VISION and my SOLUTION keeping pace with the needs of my customer/s in relation to my LOCATION and is my revenue/profit secure?'
- 2. Reading from left to right starting with Operational (horizontal row)....... 'Is my business COMPLIANCE providing the best governance guidance for my MEASURABLE ACTIVITY and RESOURCE to deliver my customer needs and my immediate revenue/profit requirements?'
- 3. Reading from left to right starting with Reporting (horizontal row)...... 'Do I demonstrate the best COMMUNICATION experience to my staff, customers, suppliers and other stakeholders in terms of my BASELINE data and information to mitigate any business RISK?'
- 4. Reading from top to bottom starting with Management (vertical column) down the (horizontal rows) Capital, Operational and Reporting. 'Is my VISION aligned to my COMPLIANCE guidance and have I employed the best COMMUNICATION policy and strategy to keep my staff, suppliers, customers and other stakeholders fully informed?'
- 5. Reading from top to bottom starting with Infrastructure (vertical column)....... 'Is my SOLUTION performing consistently in a business and environmentally responsible way through the effective use of my MEASUREABLE ACTIVITY against the BASELINE data and return on investment expectations?'
- 6. Reading from top to bottom starting with Performance (vertical column)....... 'Am I making the most of my business performance taking into full consideration the social impact of my LOCATION and RESOURCE requirements in relation to any business RISK?'
- 7. Reading diagonally down across the model from left to right we can ask this question.....
 - 'Am I instilling a high value, performance focused, low cost, improvement culture within my business through the alignment of my VISION/MEASUREABLE ACTIVITY/RISK objectives?
- 8. Reading diagonally up across the model from left to right we can ask this question.....
 - 'Am I influencing and improving my staff, customer, supplier and other stakeholder attitude in a positive manner towards my business through the alignment of my COMMUNICATION/MEASUREABLE ACTIVITY/LOCATION objectives?'

Addressing these questions is the starting point for an organisation to becoming a 'Business in Balance' and having a 'Balance in Business' enterprise and some may choose to stop there, but in doing so the major benefit in the use of the model has not been realised.

The real benefit and balance of the model materializes when we apply the numbers 1-9 in the boxes of the model providing a route map though the model in a structured and methodical manner.

By doing so, we are attempting to park or remove any preconceived ideas and thoughts we may already have as to a solution and avoid the possibility of missing any data or information that may help us in identifying the best solution to resolving or improving our business situation.

T15 Model – applying the defined structure

As previously mentioned, the model is based on the mathematical principle that the numbers 1-9 can be arranged in a 3x3 grid format where the total, when any 3 consecutive numbers are added up either vertically, horizontally or diagonally total the number 15. It is one of these mathematical models I have used to create the T15 Model (as shown below).

©	Management	Infrastructure	Performance
	(£)	(Kwh/Co2)	(Social)
Capital Investment Cost Revenue/Profit (£)	Vision 4	Solution 9	Location 2
Operational Operating Cost Revenue/Profit (£)	Compliance 3	Measurable Activity 5	Resource 7
Reporting	Communication	Baseline	Risk
(£/Kwh/Co2/CSR)	8	1	6

So for example, taking the first column (*Management*) we have Vision, Compliance and Communication which have the numbers 4,3,8, which equals 15 and taking the diagonal from left to right down the model we have Vision, Measurable Activity, Risk which have the numbers 4,5,6, respectively which again totals 15 and to complete the scenario taking the (*Reporting*) row we have Communication, Baseline and Risk giving the numbers 8,1,6 which again equal 15.

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To complete the 15 total thinking, adding the 9 subject boxes to the 6 frame boxes also gives 15

It is in following the structure of the steps 1-9 that the real power of the model materializes and it can be used for delivering strategic and tactical business projects, efficiently and effectively, saving money, time and effort and encourages individual growth and upskilling of staff whilst complementing existing project management, manufacturing resource planning (MRP) and business systems already employed within the organisation.

So, why have I chosen this particular 1-9 format *(others are available)* for the T15 Continuous Improvement Business Transformation Model?

The answer is, 'because it is an iterative process'. Businesses face problems and challenges every day that can materialize from any source, be they customer driven, market lead, process failures, lack of expertise, the weather, Covid 19, I could go on. The point is that they can start for any reason and it is very easy to look for quick solutions and make decisions that in the long term are either more costly to correct or cannot be sustained resulting in more failure and harder work to resolve.

Using the T15 model as a 'way' of working can help manage day to day issues or unexpected issues when they arise as it is a methodical and well thought through stepped process to reach decisions that are good for one off tactical decisions, strategic investment decisions whilst facilitating a culture of continuous improvement.

Applying the structure.

- 1. **Baseline**. This box sits at the junction of Reporting and Infrastructure. Why? Because if you don't measure what you are doing on a day to day basis how can you possibly solve problems or make improvements as needed. Baselining is all about DATA and measures.
- 2. **Location.** This box sits in the Capital and Performance intersection. Why? Because you need facilities and a place for your people to perform their tasks and that takes investment. The reason it is number 2 in the process is because you need to know

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your numbers (baseline) in relation to where you are working and this can vary considerably from one place to the next.

- 3. **Compliance.** This box sits on the Operational cost line and the intersection with Management. Compliance is critical because it covers legal, health and safety standards requirements, etc and it comes after location because it is directly linked to local requirements and is therefore linked directly to the baseline numbers.
- 4. **Vision.** This sits at the junction of Management and Capital investment which for obvious reasons is where it should be. Developing a strategy for any business is dependent on many inputs but it must take into account Compliance requirements now and in the future in relation to the Location of the business and plans for the future which is derived from baseline numbers.

Experience to date has shown that going round points 1-4 on a regular basis is a very worthwhile iterative process because as more data is understood or confirmed, decisions are reviewed, refined and changed and progress is ultimately quicker and accountability for decision making is better recorded and managed.

Steps 1-4 are all about setting the scene – understanding the definitive requirements (as much as possible)

So, reading the model by the vertical column we have 1 - Baseline ensuring the Infrastructure of the business is sound. 2 - Location which is ensuring the Performance of the business will not be compromised. 3 - Compliance making sure everything is legal and meets the required Management standards and 4 - Vision meaning that those making decisions are basing those decisions on good solid reliable data that is based on a clear understanding of the business.

Reading the model by the horizontal row we have 1 - Baseline on the Reporting row so we can be sure the numbers are accurate. 2 - Location on the Capital cost row making sure that any decisions are based on investment and expected profit returns. 3 - Compliance on the Operational cost row making sure the business will be able to meet its obligations and 4 - Vision on the Capital cost row as management will be wanting to ensure return on investment decisions are sound.

5. **Measureable activity** – this defines the actual 'work' that needs to be done. It sits in the center of the model as it should because it is here that the hard work is done ensuring that all other activity is completed on time and within cost. That is why it sits on the Infrastructure and Operational intersection.

- 6. **Risk** This box sits on the intersection between Performance and Reporting and it is also interesting to note that this is first time in the model that you can total 15 by linking Vision, Measureable Activity and Risk. Risk is all about understanding and identifying any opportunities for errors and what needs to be done to mitigate against them in relation to what the business is trying to achieve, hence it sits on the Reporting line.
- 7. **Resource** Sitting on the intersection of the Operational cost row and business Performance column this is all about understanding the resource the business has in terms of people, facilities, systems etc. This stage is critical because it brings 2 lines that total 15, The Operational cost row with the Performance column and it brings together Compliance, Risk and Location all key areas where failure could be costly to any change the business is trying to effect.
- 8. **Communication** sits in the Reporting and Management intersection and completes the Reporting row of 15 with Baseline and Risk as well as the Management column with Vision and Compliance and also the diagonal bottom to top linking Measurable Activity and Location. Communication to all stakeholders is important and using appropriate language and media is also critical in ensuring that there is one version on the truth for all to know.
- 9. **Solution** The final box sitting on the Capital cost row and the Infrastructure column linking Vision, Location and Baseline. Whether the solution is a physical product or a service it must deliver the needs of the customer and the business and it becomes the starting point, the new baseline for continuous improvement. It is precisely because the solution becomes the new baseline that this model becomes an iterative model and is why it is called the 'Continuous Improvement Business Transformation Model.

Steps 6 -9 are all about delivering the optimum solution and ensuring all the hard work of step 5, Measurable Activity and all the hard thinking and decision making that went into steps 1-4 were worthwhile.

The strap line for the T15 model is, 'Business in Balance, Balance in Business'.

Having read how the model works at a very practical level my hope is that you will appreciate the sentiment, meaning and hard work that has gone into its creation and you may be starting to consider how it may be applied within your own organisation.

T15 Model - breaking down silo thinking and working

There is a further level to which the model can be taken to ensure all projects are handled in the same way and that projects are set up for holistic reasons rather than as pet projects or to satisfy one group or another.

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Many projects I have been involved with over the years had specific aims and objects and only collected data that was relevant to them at the time. Hindsight is a wonderful thing and the T15 model has been created to identify and allocate data easily to those who can make the most of it when required.

For example, in my experience, Business Projects, Engineering Projects, Customer Focused Projects, Environmental Projects, Financial Projects, Cost Reduction Projects, Lean Projects, have all been created as standalone initiatives.

What struck me when involved with these projects was that data was never kept or shared across disciplines and as a result data was not used to its full potential. When working on lean projects we would focus on the time and effort to improve reductions in cost or activity levels, but we never thought of identifying the carbon footprint or the Kwh involved with the output. If we had done, there would have been no need to set up other projects to specifically deliver carbon or environmental improvements etc. Many opportunities were lost as we did not capitalize on the hard work and data findings we made.

As a result of this learning, the T15 model also facilitates the breaking down of this silo thinking and I hope you will have noticed the (£, Kwh, Co2 and CSR) markers on the grid framework in each of the 6 outer boxes. This is deliberate and is where I believe this data should sit and who would report on it. During any T15 project it is possible to identify any number and allocate it to the correct area of the business so they can report it in the most appropriate language be it Financial, Carbon, Co2, Kwh, or Social responsibility. The result of working this way is a reduction in overall projects as they will no longer be required and subject area experts can focus on assisting the delivery of a T15 project as they will be both the provider and recipient of data pertinent to their discipline and silo barriers are reduced or removed.

Thank you for taking the time to read this white paper on the T15 model. I trust you will have found it of interest and thought provoking. Should you require any further information please do visit the PMBP website www.pmbp.co.uk for videos and please do not hesitate to contact me to discuss how I could help you use the T15 model in your organisation to:

- apply the T15 model to a project of your choice
- improve profit or reduce cost/waste
- receive coaching and learn from my experience

About the Author



Peter Mackie
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After completing a 4-year Business & Technical Apprenticeship with Land Rover in 1982, Peter's first job was as a Project Timing Planner, controlling and reporting on the development and implementation of major product development plans. An opportunity to join a newly formed after sales support business, Land Rover Parts Ltd, saw Peter join the sales and marketing division to support the development of the dealer network and their customers in the UK and Europe.

From 1991 to 1994 Peter was a Project Manager on a strategic European project to implement a customer order and warehouse management control system into 3 national centres in Metz - France, Bologna - Italy and Guadalajara - Spain to supply the western European aftermarket for the Rover car group.

Upon returning to work in the UK, Peter created a personal 10-year career development plan and proceeded to deliver it within 7 years. As a result of this plan, which included obtaining a distance learning degree in Business Administration from Buckingham University, Peter gained experience and held senior positions in Client and Customer Service as well as becoming a Continuous Improvement (Lean) Manager enabling him to become a well-respected General Manager within the organisation.

2002 saw Peter set up his first consultancy firm, AMPM Logistics Ltd, as an interim project-programme manager, continuous improvement consultant working for clients as diverse as an insurance company, a metropolitan council, a pharmaceutical retail business and a national infrastructure company before being enticed in 2004 back into the corporate world as an Operations Director within the Aerospace sector. Peter retained AMPM Logistics Ltd during this time and in late 2005 re-engaged with the automotive sector and infrastructure service sectors as in interim project-programme manager, culminating in Peter becoming a continuous improvement/project management consultancy sales executive from 2007–2009.

In 2009 Peter was a founding member of 'Prism Performance Ltd', a partnership combining sustainable thinking and design practices with project management and continuous improvement thinking. In 2013 he co-authored, 'What? To Watt!' a book that defines the elements of sustainable performance. This period also saw Peter managing several diverse projects including:

- the development and construction of a 'Lifetime sustainable property'
- the introduction (within a 15-month timescale) of a new operating system into an international waste management company from concept to full implementation
- operational and project management support for an international security company
- smaller environmental projects for 2 charities
- the provision of project and continuous improvement consultancy services to an international retail client, as well as a London health authority and the National School of Government (a UK government agency)

Due to partner retirement, 2016 saw the closure of Prism Performance Ltd and the creation of PM Business Performance Ltd, Peter's project-focused, continuous improvement, change management, performance consultancy and training company. PMBP delivers, 'Business in Balance, *Balance in Business*' sustainable transformation through the deployment of his 'T15' model. To-date, clients have included 2 health sector organisations, a national infrastructure business, an international logistics provider and a charity. A downloadable whitepaper and introductory videos to 'T15' are available on www.pmbp.co.uk

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