
Sustainable Improvement and Innovation (SI&I)

Richard Clark. Jane Gray. Pamela McAllister. Tshilidzi Madzivhandila. Nkhanedzeni Nengovhela. Janice Timms.

SI&I Vision

- ▶ Individuals, families, teams, partnerships, networks, projects, businesses, organisations, government, regions and communities are achieving greater successes, improvements and innovations; in line with goals.

SI&I Mission

- ▶ To support people, projects and businesses with knowledge, skills, capacity and good mechanisms and tools to achieve regular and frequent successes, improvements and innovations; in line with goals.

SI&I Goal

- ▶ To achieve regular and frequent successes, improvements and innovations in line with life, business and/or project SMARTT outcome-based goals.

Principles

1. Stay focused - start with a clear vision, mission, goals and principles i.e. goal achievement orientated
2. Use a proven process of Continuous Improvement and Innovation (CI&I) to support regular and frequent cycles of thinking and action every 1, 7, 30, 90, 180 and 360-days (all part of time management)
3. Support; self, individuals, teams, partnerships and leadership is essential for successes, improvements and innovations
4. Use effective mechanisms and tools to support ongoing successes, improvements and innovations
5. Use design, measure and manage principles and mechanisms to achieve short, medium and long-term life, business and/or project goal/s
6. Manage the Sustainable Improvement and Innovation (SI&I) system using critical success factors (CSFs), key performance indicators (KPIs) and key actions (KAs) for success, effectiveness and efficiency.

The Value of Sustainable Improvement and Innovation

Figure 1 shows the value of Continuous Improvement and Innovation (CI&I) and Sustainable Improvement and Innovation (SI&I) compared to other approaches. The red line shows 'business as usual' – do the same, get the same. In today's rapidly changing world if all we do is what we have always done, we are likely to fall behind the game. The purple line shows the impact when the main source of improvements is information and technology provided by others. Impact is achieved, but the pace of improvement depends on the speed of technology development and adoption. It also depends on other factors like the fit of the technology within current business systems. The blue line shows the steady returns achieved from successful continuous improvement approaches. The green line shows the value from applying a process that combines both continuous improvement and continuous innovation. Combining this CI&I process with specific mechanisms, and the SI&I system, ensures impact is sustained and continues to grow (green line).

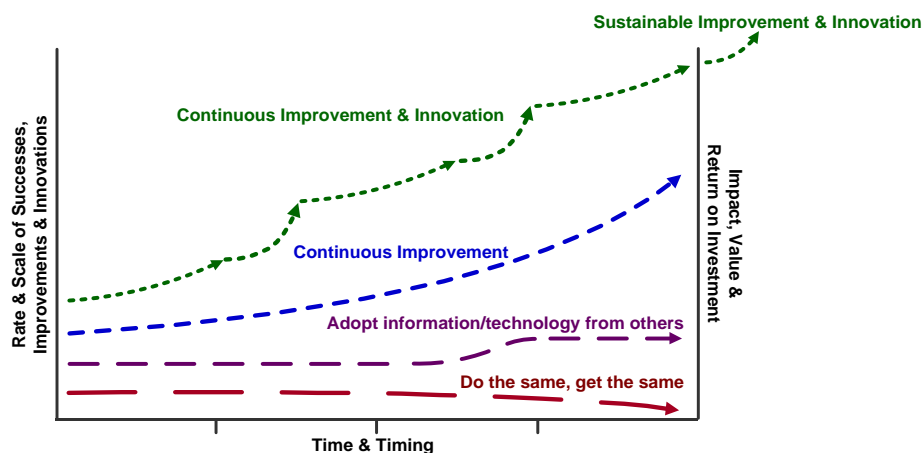


Figure 1 Continuous Improvement and Innovation (CI&I) and Sustainable Improvement and Innovation (SI&I) compared to other approaches.

To achieve regular and frequent successes, improvements and innovations for specific outcomes, it is necessary to “start with the end-in-mind” i.e. clear outcome goal/s, and use the right mechanisms, within available inputs/resources (Figure 2). It is essential that goal/s are aligned with the vision, mission, goals and principles like: Profit, People and Planet (Triple-Bottom-Line); Balanced-Scorecard (Finance; Customers; Business; Improvement); Wheel-of-Life. The use of mechanisms requires a logical set and sequence to achieve the goal/s. Some new mechanisms required may need methodologies like Research and Development (R&D) e.g. Fourth Generation R&D (and Fifth, Sixth and more R&D); and/or Participative R&D. Figure 3 shows levels of goals, roles and operations i.e. strategy/system, tactical/process, operational/practices. The roles and responsibilities of achieving, leading and managing are very different. Achieving requires best practice and self-improvement; Leading requires clear processes; Managing requires system elements. Each level requires different types of mechanisms. Leadership is essential, and to be clear who is involved: individuals, teams, partnerships and/or networks (Figure 4). Agreement of “Key Terms” is essential in partnerships.



Figure 2 Appropriate mechanisms and inputs needed to successfully achieve specific outcome goals.

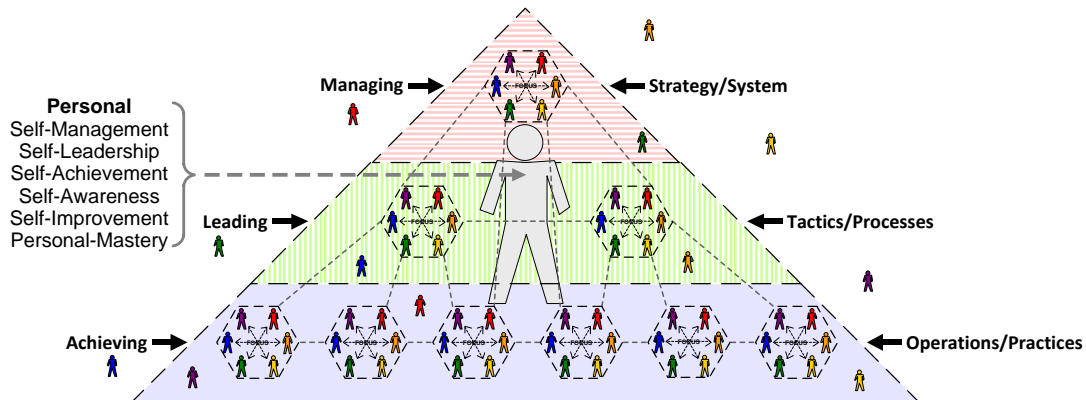


Figure 3 Different levels of goals, roles and operations: strategy/system; tactics/processes; operations/practices. Each requires specific types of mechanisms, and different types of thinking and action.

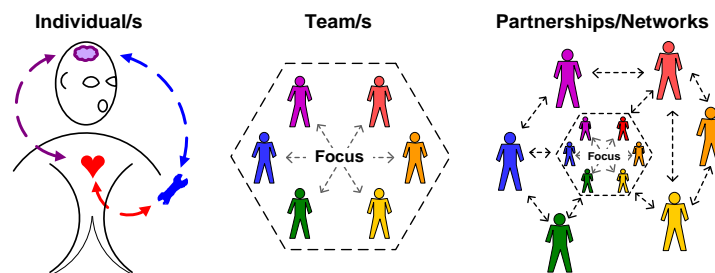


Figure 4 The CI&I process and/or SI&I model can be for individuals, teams, partnerships or networks. Regular and frequent thinking, feeling and action (Head; Heart; Hand) are needed.

The Continuous Improvement and Innovation Process

To achieve greater successes, improvements and innovations, for now and the future; it is necessary to use a clear agreed process, with a logical set and sequence of steps, and tools for each step (Figure 5). The CI&I process is designed to achieve improvements and innovations, it is enhanced from the “continuous improvement” (TQM) process designed by Shewhart and Deming and more recently improved by Langley et al. (1996). The CI&I process of regular and frequent thinking, feeling and action (Head, Heart, Hand) can be used by individuals, teams, partnerships and/or networks (Figure 3 and 4). The process must be applied in cycles every 30, 90, 180 and 360 days; all part of time management and “Best Practice” (Figure 5). It is good to use 5-10% of daily and weekly time to-do CI&I thinking. Using the process in teams or partnerships provides greater rates and scales of successes, improvements and innovations (Figure 1). It is sometimes necessary to

trial options before deciding whether they are worth implementing on a larger scale. These cycles of ‘trial and control’ happen within Steps 4, 5 and 6 (Figure 6).



Figure 5 The Continuous Improvement and Innovation (CI&I) process, is a set and sequence of steps and tools to achieve the Focus/es. This is done in cycles e.g. every 1, 7, 30, 90, 180, and 360-days.

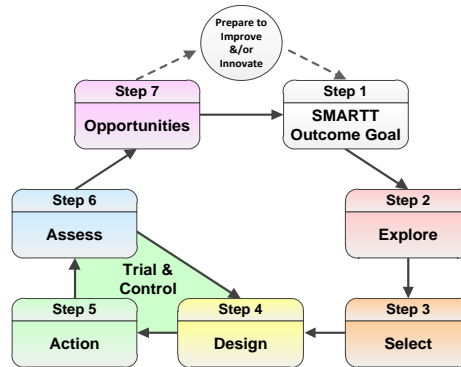


Figure 6 The Continuous Improvement and/or Innovation process cycles of ‘Trial and Control’ in steps 4, 5 and 6.

Table 1 describes the target outcomes of each step of the CI&I process. All this is in line with the desired goal/s of greater successes, improvements and innovations e.g. the Focus for Business, Project and/or People. Table 2 gives examples of some of the tools available to achieve the target outcomes for each step. There are more than 600 tools available for steps of the CI&I process (see CI&I Tools List). The selection of the best tools (in a logical set and sequence in each process step) for the goal/s and the level of thinking and action required is important (see CI&I Tool Selection Guide). It is essential to-do ‘‘Tool Assessment’’ with every tool, in each step, for the goal. A CI&I/SI&I Tool Assessment tool is offered on the SI&I website and on the back of this document. It is also important to do R&D and/or CI&I for better mechanisms, aligned with theory and practice.

Table 1 Clear steps and target outcomes of each step of the CI&I process for the desired goal/s.

Steps	Goals
1. Focus	A clear SMARTT outcome-based goal/s. Stay focused
2. Explore	A range of ideas & opportunities for synthesis to achieve the goal/s
3. Select	Clear priorities to achieve the goal/s
4. Design	A clear action design, measure & manage for achieving the goal/s
5. Action	Regular & frequent thinkings, feelings & actions to achieve the goal/s
6. Assess	Assessment of successes, improvements and innovations for goal/s, & effectiveness & efficiency
7. Creation	Observations, questions, ideas & opportunities for further improvements, new goal/s or future
8. Re-Focus	Same &/or new SMARTT outcome-based goal/s. Stay focused.

Table 2 Some tools available for each step of the CI&I process. These tools are just for simple goals.

Steps	Tools
Focus	SMARTT Outcome Goal/s. Vision, Mission, Goals, Principles. Short, Medium, Long-Term Goals. CSFs, KPIs, KAs. Profit, People, Planet. Balanced Scorecard. Balanced Wheel-of-Life. Stakeholder/Partner Roles & Responsibilities. Design, Measure & Manage (DM&M)
Explore	Brainstorming & Synthesis. Inverse Thinking. Plus, Minus, Ideas. Ideas & Opportunities Synthesis. Driver Tree. Fishbone. Force Field Analysis. Venn Diagram.
Select	Impact & Influence. 8-Criteria. Decision Tree. Voting. Prioritisation. Gross-Margin. Benefit vs Cost. Cost-of-Not. Covey’s Quadrants. Decision Matrix Analysis. Return on Investment (ROI)
Design	SMARTT Outcome Goal/s. CSFs, KPIs, KAs. Design, Measure & Manage (DM&M). 5Ws & 1H. To-Do List. Stakeholder Analysis. Short, Medium, Long-term Goals. Skills Audit. Trail & Control
Action	Regular & frequent thinking, feelings & actions, in cycles, every 1, 7, 30, 90, 180 & 360-days. SMARTT Outcome Goal/s. Short, Medium, Long-term Goals. CSFs, KPIs, KAs. Reporting for Support. Thinking for Support = OQI&O. Skills Audit. Design & Redesign
Assess	SMARTT Outcome Goal/s. Short, Medium, Long-term Goals. CSFs, KPIs, KAs. Reporting for Support. Thinking for Support = OQI&O. Skills Audit. Design & Redesign. Return on Investment (ROI). Effectiveness & Efficiency. Profit, People, Planet. Balanced Scorecard. Balanced Wheel-of-Life
Creation	Achievement Stacker. Brainstorming & Synthesis. Plus, Minus, Ideas. Inverse Thinking. Thinking for Support = OQI&O. Futures/Futuring tools & Visioning/Visionary specific opportunities. Design &/or Re-Design. Profit, People, Planet; Balanced Scorecard &/or Balanced Wheel-of-Life. Synthesis
Re-Focus	SMARTT Outcome Goal/s. Vision, Mission, Goals, Principles. Short, Medium, Long-Term Goals. CSFs, KPIs, KAs. Profit, People, Planet. Balanced Scorecard. Balanced Wheel-of-Life. Stakeholder/Partner Roles & Responsibilities. Design, Measure & Manage (DM&M)

Continuous Improvement and Innovation in Partnerships

Support, feedback, stimulation and momentum are critical to successful CI&I. Regular thinking, feeling and action is essential every 1, 7, 30, 90, 180 and 360-days. Stimulation and motivation are supported by the momentum that is created from using the ‘CI&I Rule’ of 30, 90, 180 and 360-day cycles. For greater successes, improvements and innovations it is important to design, measure and manage (DM&M) CI&I cycles for momentum. This involves having clear goals, principles, process, mechanisms, times, timing, dates, agendas, schedules and roles. CI&I events require stimulating leadership i.e. leading by example. Table 3 shows the types of sessions required for momentum. The types of CI&I sessions and cycles are: Start-up, 30, 90, 180, 360-day sessions, the 360-days should be annual forums (Figure 7). Figure 8 shows the leadership and support requirements, and design, measure and manage required for successful CI&I partnerships. The principles required are those on page 1.

Table 3 The design of CI&I momentum using; Start-up, 30, 90, 180, 360-day sessions and forums.

Session Focus	Target Outcomes	Time & Timing
Start-up Sessions		
To achieve a team & individual focus on goals & design action for the next 360-days	A SMARTT goal for team & individuals. Complete CI&I Steps 1-4 with clear roles. Motivation for goals & action	1-3 hrs per individual. 1 to 3-days for team/s depending on the size of project. Includes assessing the session, & ideas for improvement 10 minutes. [1-2days]
30-day Sessions		
To achieve support of individual & team thinking, feeling & action every 30-days	People are supported in achieving their goals. Tracking of actions & results, & any necessary re-design (steps 4, 5, 6). Measures. Observations, questions, ideas & opportunities to support action for goal achievement. Motivation	15-30 minutes per individual or team member. Includes assessing the session, & ideas for improvement 10 minutes. [2h for 6people]
90-day Sessions		
To support individual & team assessment of successes, improvements & innovations	People are supported in achieving their goals, & in the use of the CI&I process & tools. Assessments & measures of results (step 6). Observations, questions, ideas & opportunities to support ongoing successes, improvements & innovations. Motivation	15-30 minutes per individual or team member. Synthesis of ideas & opportunities to support ongoing successes, improvements & innovations. 30–90 minutes per individual or team member. Includes assessing the session for ideas for improvement 10 mins. [4h for 6people]

180-day Sessions	To achieve individual & team celebration & support for ongoing successes, improvements & innovations	People are supported in achieving their goals & using the CI&I process & tools. Measures & celebration of results. Observations, questions, ideas & opportunities to support achievement of goals & re-focus. Motivation	Achievements 60 minutes. 15-30 minutes per individual or team member. Synthesis of ideas & opportunities for Re-Focus 30-90 minutes. Includes assessing the session, & ideas for improvement 10 mins. [6h for 6people]
360-day Sessions	To achieve individual & team celebration & support to identify goals for the future, in 'Forums'	People are supported in achieving their goals & using the CI&I process & tools. Measures & celebration of results. Observations, questions, ideas & opportunities for future CI&I. Re-Focus on goals for the future. Motivation	Recognising achievements 60 minutes. 15-30 min per individual or team member. Synthesis of ideas & opportunities for 30-90 minutes. Synthesis of futures thinking for new goals. Includes assessing the session, & ideas for improvement 10 mins. [1-2days]
Annual Cycles	To achieve individual & team support for successes, improvements & innovations in cycles. Design annual work & forums for support & celebration of successes, improvements & innovations for the future.	Stimulation & support for successes, improvements & innovations for individuals, teams & partnerships every 30, 90, 180 & 360-days. Annual Forums.	Thinking, feeling & action & support in cycles every 30, 90, 180 & 360-days. Synthesis of futures thinking for new goals 1-3hrs, every 180 & 360-days. Includes assessing the session, & ideas for improvement 10 mins. [1-2days]

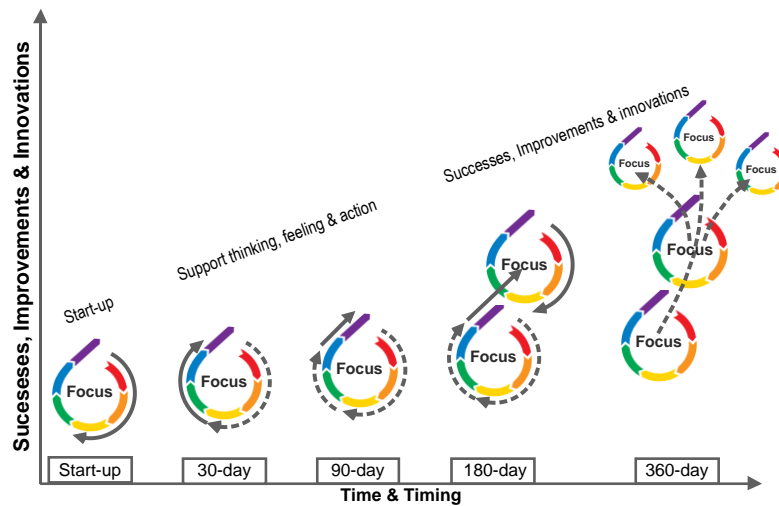


Figure 7 Each type of CI&I sessions and cycles of support in; 30, 90, 180; 360-day and forums for greater successes, improvements and innovations.

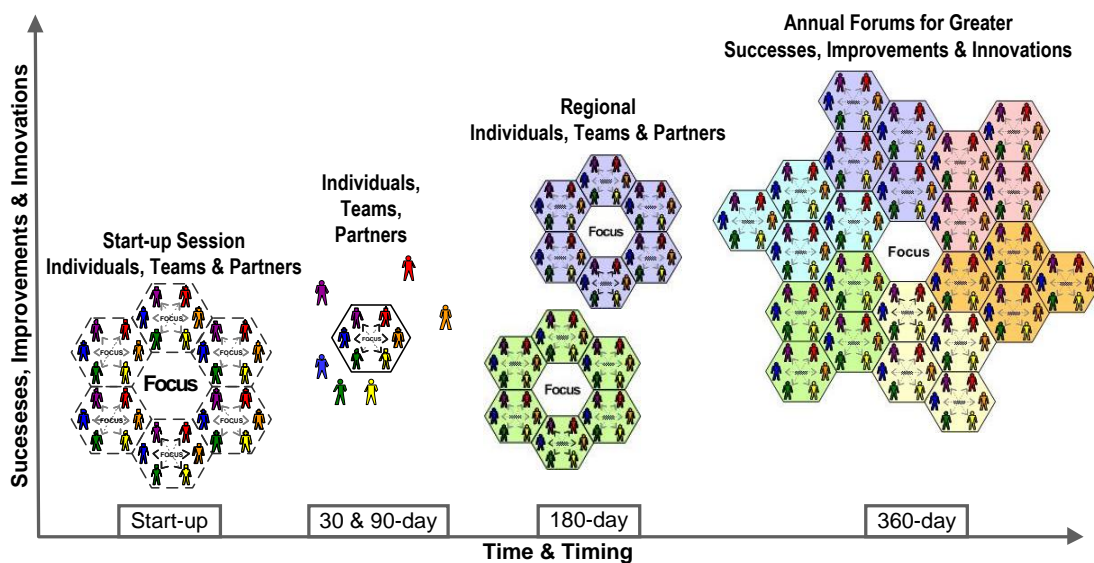


Figure 8 The leadership and design, measure and manage (DM&M) required for partnerships for greater successes, improvements and innovations in regions.

Continuous Improvement and Innovation at all Levels

All levels for CI&I for outstanding performance are strategy / system, tactics / processes and operations / practices (Figure 3). This applies to businesses, projects and people; and requires achieving, leading and managing (Figure 3). Each level requires Design (Re-design), Measure and Manage (DM&M) with the right tools for each level (see Tool Selection Guide). Levels require SMARTT goal/s, and mechanisms to achieve the goal/s with available inputs (Figure 2). Each level has six simple steps required for ongoing successes, improvements and innovations; see below starting with operations, tactics and strategy as a systemic approach.

Operations / Practices

Operations and practices are fundamental for achieving desired goal/s. The six simple steps are:

1. Develop clear agreed SMARTT (short, medium and long-term) goal/s. These goals are determined by the opportunities or needs, have clear boundaries and scope, and are underpinned by operating principles
2. Use DM&M (and regular re-design) for operations and practices to achieve the goal/s. Use CSFs, KPIs, KAs and required resources for effectiveness, efficiency and momentum
3. Establish the clear roles, responsibilities and teams that are needed to achieve the goal/s (Figure 4). DM&M with roles and “Best Practice/s”
4. Provide capacity-building for each role and team (Figure 2) to ensure necessary knowledge, skills and mechanisms to achieve goal/s. Regular skills-audits help determine capacity needs and opportunities
5. Manage and measure the mechanisms for operations and practices to ensure they are effective and efficient. Using DM&M and CSFs, KPIs, KAs
6. Ensure continuous improvement and innovation (CI&I) of practices and operations by having regular and frequent (30, 90, 180 and 360-day).

Tactics / Processes

Tactics and processes require leadership and support of all involved for achieving desired goal/s:

1. Lead people, teams, partnerships and networks to achieve SMARTT goals for business, projects or life (Profit, People, Planet)
2. Lead the DM&M (and regular re-design) of processes and tactics needed to achieve the goal/s. Use CSFs, KPIs, KAs and required resources for effectiveness, efficiency and momentum. Business Process Management (BPM) requires clear processes for people involved
3. Establish the clear roles, responsibilities, teams, partnerships, networks that are needed to achieve the goal/s. Leadership DM&M of tactics and processes, successful relationships and stakeholder engagement (Figure 4 and 8)
4. Provide capacity-building for roles, teams and partnerships with specific knowledge, skills and mechanisms required. Regular skills-audits for individuals, teams and partnerships (Figure 2)
5. Lead DM&M of mechanisms for processes and tactics for business, projects or life to ensure they are humming, effective and efficient (Figure 7). This includes processes for regular and frequent communication, information sharing, motivation and “Holistic Leadership”
6. Lead DM&M of CI&I for regular and frequently sessions (see types Table 3) (30, 90, 180, 360-day and Forums).

Strategy / System

Strategy and system requires management of all involved for achieving vision, mission, goal/s and principles:

1. Develop and manage a focus on vision, mission, goals and principles for now and the future. SMARTT goal/s for business, projects or life (Profit, People, Planet)
2. Manage DM&M (and re-design) of strategies and systems elements within context and boundary for greater successes, improvements, innovations and momentum. With the available resources for the goal/s
3. Manage DM&M for teams, partnerships and networks for goal/s. Managing all elements and partnerships with successful relationships and stakeholder engagement (Figure 4)
4. Manage capacity-building for priorities at all levels e.g. operations / practices, tactics / processes, strategy / system (Figure 3). Regular skills-audits for teams, partners and projects (Figure 2)
5. Manage mechanisms for strategies and systems humming with effectiveness and efficiency for business, projects or life. Using DM&M and CSFs, KPIs, KAs. Regular and frequent communication, information sharing, motivation and “Holistic Management” / “Personal Mastery”
6. Manage CI&I for regular and frequently sessions regular and frequently sessions (see types Table 3) (30, 90, 180, 360-day and Forums).

The Sustainable Improvement and Innovation Model

The Sustainable Improvement and Innovation (SI&I) system model is designed to achieve greater successes, improvements and innovations for any goals in a context. The model requires; momentum, rhythm and regular and frequent cycles with all the tools required. It is essential to align the model to the vision, mission, goal/s and principles of life and/or business in any context (Figure 9).



Figure 9 Aligning system design with vision, mission, goals and principles in specific boundaries of context and scale.

To achieve Sustainable Improvement and Innovation (SI&I) it is essential to distinguish between system, processes and practices levels of thinking, feeling and action. Each level requires specific design, measurement and management of goals (in line with needs/opportunities), and use of the right mechanisms (Figure 10). All this requires CI&I for effectiveness and efficiency, improved mechanisms and ideas for the future. The SI&I website offers specific mechanisms to support system, process and practice levels of thinking, feeling and action (see CI&I Tools List).

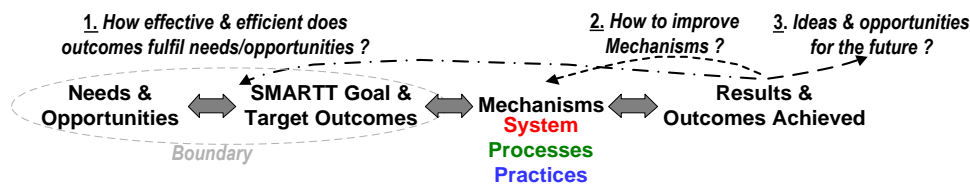


Figure 10 Design and re-design for needs/opportunities with SMARTT goals, and the right mechanisms for ongoing greater successes, improvements and innovations.

The SI&I system model has six key elements that are required to sustain successes, improvements and innovations, in line with the vision, mission, goal/s and principles (Figure 9). The six elements can be applied to many contexts e.g. Profit; People and/or Planet. Figure 11 shows the six system elements represented as a machine. The elements are: Focus, Continuous Improvement and Innovation (CI&I), Partnerships, Capacity, Mechanisms and Momentum. The size of the cogs represents the relative amount of effort and input that is put into each element over time. However, all the elements are of equal importance, and all are essential; without an element the machine won't work. Figure 12 shows the dynamics between the elements, and the levels of impact (high, medium, low) elements have on each other in the system.

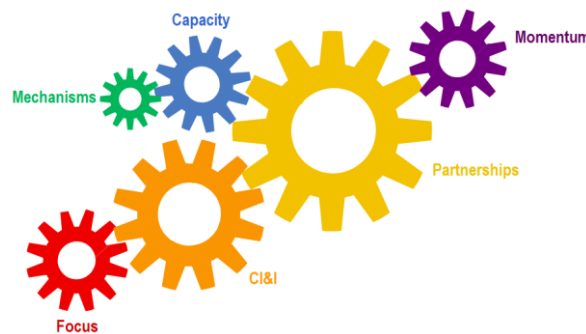


Figure 11 The six elements of the Sustainable Improvement and Innovation (SI&I) model represented as a machine.

It is essential to have each element of the SI&I system model with clear goals and objectives in line with business, project, value-chain and/or life system vision, mission, goals and principles (Figures 9, 10, 11 and 12). Projects may be connected with programs and portfolios. Each element of the SI&I system model has clear goals and objectives (Table 4). Each system element must be designed, measured and managed (DM&M) in line with the system goal, and operate dynamically. It is essential to avoid "Paralysis by Analysis"; and focus on Critical Success Factors for successes, improvements and innovations; using evidence-based practice.

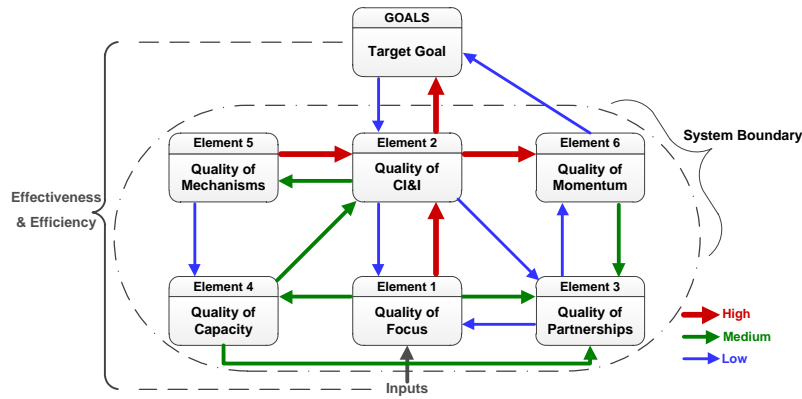


Figure 12 The six elements of the SI&I system, the dynamics and levels of impact (high, medium, low) of elements on each other and the target goal; with effectiveness and efficiency from the inputs.

Table 4 The objectives of each element of the SI&I model all in line with, business, project and/or life vision, mission, goal/s and principles.

Elements	Objectives
Focus	SMARTT outcome goal/s in line with vision, mission, goal/s & principles. Clear short, medium, long-term goal/s, aligned with CSFs, KPIs, KAs required to achieve the goal/s, focus & ongoing successes, improvements & innovations. All in line with Profit, People, Planet; Balanced Scorecard; &/or Balanced Wheel-of-Life. System measurement
CI&I	Use a clear shared logical process e.g. Continuous Improvement & Innovation (CI&I), in regular & frequent cycles of thinking, action & support every 30, 90, 180 & 360-days required to achieve the goal/s, focus & ongoing successes, improvements & innovations
Partnerships	Clear shared agreed goal/s, roles & responsibilities. Regular & frequent support every 30, 90, 180 & 360-days required to achieve the goal/s, focus & ongoing successes, improvements & innovations
Capacity	Clear roles & necessary knowledge, skills & mechanisms required (skills-audits) to achieve the goal/s, focus & ongoing successes, improvements & innovations
Mechanisms	Specific set & sequence of tools & mechanisms required &/or created to achieve the goal/s, focus & ongoing successes, improvements & innovations
Momentum	To achieve interest enthusiasm, enjoyment, stimulation & satisfaction of all involved required to achieve ongoing successes, improvements & innovations. All in line with personal &/or business vision, mission, goal/s & principles. All rebalanced Profit, People, Planet; Balanced Scorecard; &/or Balanced Wheel-of-Life Futures/Futuring & Visioning/Visionary specific opportunities.

Figure 13 shows how each system element should be assessed in regular and frequent cycles (e.g. 90, 180 and 360 days). The system effectiveness and efficiency for impact on the business, project and/or personal goals and objectives must also be assessed and improved (e.g. 180 and 360 days). The use of CSFs, KPIs and KAs makes the system easy to Design (Redesign), Measure and Manage.

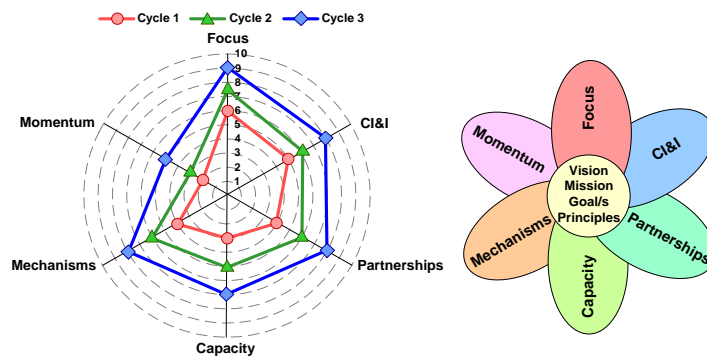


Figure 13 The SI&I scorecard of six elements in regular and frequent measures (in dynamic cycles) of how each element is functioning and achieving necessary goals in line with vision, mission and principles.

It is essential to “Start with the-end-in-mind” i.e. clear system goal/s for Planet, People and Profit (PPP); as an integrated holistic system with all essential elements (Figure 14). This is best with an agreed vision, mission, goal/s and principles for the planet, countries, states, regions, projects, businesses. The goal/s need to be clear, agreed and committed to by all humans on the planet and in countries. It is essential to Design (Redesign), Measure and Manage (DM&M), in regular and frequent cycles, for greater successes, improvements and innovations. This requires the use of CI&I and/or SI&I in cycles 30, 90, 180 and 360 days; using a triple-bottom-line (PPP) scorecard.



Figure 14 An example of Planet, People, Profit system; vision, mission, goals and principles for greater successes, improvements and innovations in regular and frequent cycles.

Figure 15 shows an optimal rate and scale of successes, improvements and innovations for impact the goal of profit assessed and achieved annually. It is essential there is a return on investment (RoI) measurement system in place for annual gains. Applying system thinking and practice makes achieving sustainable improvement and innovation more effective and efficient, within the available inputs (Figure 12). The process of CI&I and/or R&D can contribute to improving system mechanisms and methodology. It is essential to start with “Focus” i.e. SMARTT target-outcome goal/s for the short, medium and/or long-term.

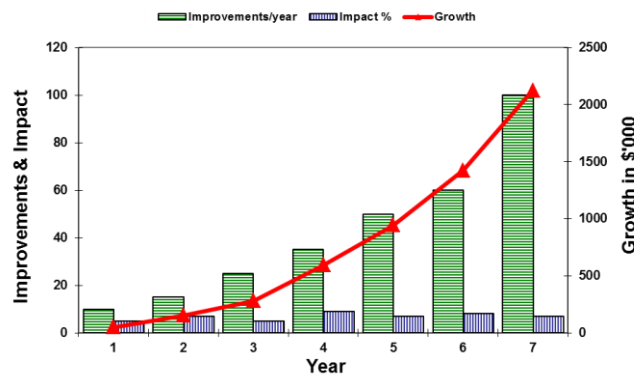


Figure 15 The improvements, and their percentage of impact on profit can grow year by year. The rate and scale of improvements and the % of impact helps assess the return on investment (RoI).

The Design (Redesign), Measure and Manage (DM&M) tool is essential for achieving any goals (short; medium; long-term) and all levels (Figure 3). DM&M requires a clear process with tools to make it effective and efficient for individuals, families, teams, partnerships, networks, projects, businesses, organisations, government, regions and communities (Figure 16 page 13).

The use of CSFs, KPIs and KAs tool at all levels of operations can really help achieving effectiveness and efficiency for greater successes improvements and innovations. The CSFs need to be aligned to the levels of goals, and the roles, and time and timing required for successes (Figure 3 & 17).



Figure 17 The use of CSFs, KPIs and KAs tool in line with goals, and roles and time and timing required for successes.

Measurement for greater successes, improvements and innovations helps stimulate and achieve more effectiveness and efficiency of SMARTT goal/s, and new ideas and opportunities. The tool assessment criteria helps the use of tools/mechanisms for: strategy/system; tactics/processes; operations/practices levels of operations (Figure 1, 2, 3, 4, 5, 7, 8, 10, 11 & 12). “Tool Assessment” helps steps for goal/s using; scores (1-10), comments and improvements (Figure 18). The guidelines for tool assessment are available (page 13).

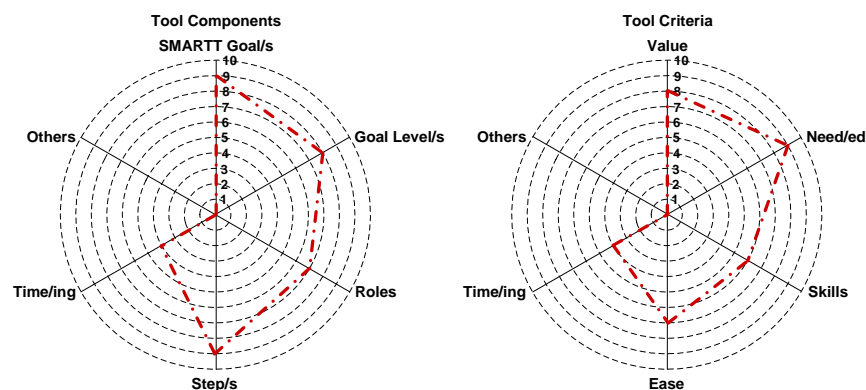


Figure 18 Assessment of “Six Thinking Hats” tool using the Spider Diagram Tool (1 to 10 scores).

Glossary of Key Terms

Achieving - Best practices for achieving successes, improvements and innovations of goal/s.

Best Practice/s – Thinking and actions with the right mechanisms that consistently achieve the goal/s.

Capacity - The potential to activate appropriate skills, knowledge, experience, resources and values for the effective and efficient achievement of results.

Continuous Improvement and Innovation (CI&I) - A shared process that enables individuals, teams, businesses, networks, projects and organisations to focus their thinking and action to achieve improvements and innovations regularly and frequently.

Focus - A specific area, with boundaries on which to concentrate attention, thinking, feelings and action to meet a specific need, opportunity or solve a problem for a clear SMARTT outcome goal.

Goal - The SMARTT short, medium and/or long-term target outcomes towards which resources and effort are directed.

Improvement versus Innovation - Improvements are enhanced practices, processes, systems, products or services, whereas innovations are new practices, processes, systems, products or services.

Intent - A thing that an individual, team, project or business aims to achieve.

Leading - Leading a team, project or business with support for successes, improvements and innovations of goal/s.

Managing - Design, measure and manage project or business for successes, improvements and innovations of goal/s.

Mechanisms - The key parts, methods and tools needed to effectively and efficiently achieve a goal/s.

Methodology - A system of methods and mechanisms used in a set and sequence, to achieve specific goal/s.

Methods - A means or manner of procedure, system, process, practice and mechanisms to achieve specific goal/s.

Mission - A description of purpose, focus and overall goal/s.

Momentum - The level of impetus that sustains the growth of successes, improvements and innovations achieved by partners involved in Sustainable Improvement and Innovation (SI&I).

Need - An important or urgent personal, project, business, community or industry requirement, that must be addressed in order to achieve specific goals.

Network - A purposeful, value-adding partnership based on reciprocal transactions between partners that facilitate the exchange of experience and knowledge between members of the network.

Operations - A set and sequence of tasks to achieve specific goals.

Opportunity - A set of alternatives, options, prospects or ideas for advancement or greater success in achieving a goal.

Partnership - A dynamic, interdependent relationship between individuals or groups, usually involving close cooperating that is characterised by understood, mutual and specified intentions, purposes, roles, rights and responsibilities.

Practices - A set and sequence of key actions and tools/mechanisms to achieve specific goals.

Principles - Accepted rules about how people or things function and behave. They provide guidelines for the taking of action and the implementation of systems and processes. The principles one follows determine what assumptions we make about how the world operates.

Process - A set and sequence of specified steps, mechanisms and actions for achieving specific goals.

Strategy - A systematic, long term plan or course of action designed to achieve specific outcomes, and to deal with uncertain future circumstances which could impact on the achievement of the outcomes.

Sustainable Improvement and Innovation (SI&I) - A system model that is designed to achieve and sustain successes, improvements and innovations.

System - A group of interacting and interrelated parts which form a complex and unified whole, and that operate together for a common purpose.

Tactics - A set and sequence of procedures to achieve specific goals.

Team - A small number of people, committed to work together for a common goal with individual skills, roles and responsibilities.

Techniques - A set and sequence of methods and tasks to achieve specific goals.

Technology - The development and application of tools, machines, materials and processes, that helps to address needs and problems. A technology consists of two essential components: a ‘hardware’ aspect, consisting of the tools, materials and mechanisms that embody the technology, and a ‘software’ aspect, consisting of the information base or process in which the tool is embedded so that it can be more easily integrated and applied in a management system.

Tool - Any instrument that makes achieving outcomes more effective and easier.

Vision - A description of what you want to exist in the mid-term or long-term future if your goal/s are successfully achieved.

Continuous Improvement and Innovation (CI&I) Tool Selection Guide

There are three levels of thinkings, feelings and actions necessary for Continuous Improvement and Innovation (CI&I): Practices (Operational); Processes (Tactical); System (Strategic). For each step of the CI&I process specific tools/mechanisms are required in a set and sequence. This Tool Selection Guide shows:

- Key tools (with scores) for practice, process and/or systems thinkings, feelings and actions (TFAs) for each CI&I Step
- Each tool can be scored for its value for each of the three levels of thinking, feeling and action – Low = 1; High = 10.

1. Focus	Practice / Operation Level	Score	Process / Tactic Level	Score	System / Strategic Level	Score
1.	Vision, Mission, Goals, Principles	10	Vision, Mission, Goals, Principles	10	Vision, Mission, Goals, Principles	10
2.	SMARTT Outcome Goal/s	10	SMARTT Outcome Goal/s	10	SMARTT Outcome Goal/s	10
3.	Short; Medium Long-term Goals	10	Short; Medium Long-term Goals	10	Short; Medium Long-term Goals	10
4.	Practices/Operations DM&M	10	Processes/Tactics DM&M	10	System/Strategy DM&M	10
5.	Wheel-of-Life; PPP and/or Balanced-Scorecard	8	Wheel-of-Life; PPP and/or Balanced-Scorecard	9	Wheel-of-Life; PPP and/or Balanced-Scorecard	10
6.	CSFs, KPIs, KAs	10	CSFs, KPIs, KAs	10	CSFs, KPIs, KAs	10
7.	Stakeholder/Partner Roles & Responsibilities Design	10	Stakeholder/Partner Roles & Responsibilities Design	10	Stakeholder/Partner Roles & Responsibilities Design	10
8.	CI&I Cycles 1, 10, 30, 90, 180, 360-Day	10	CI&I Cycles 1, 10, 30, 90, 180, 360-Day	10	CI&I Cycles 1, 10, 30, 90, 180, 360-Day	10
9.	DM&M Tools/Mechanisms	10	DM&M Tools/Mechanisms	10	DM&M Tools/Mechanisms	10
10.	Skills Audit	9	Skills Audit	9	Skills Audit	19

2. Explore	Practice / Operation Level	Score	Process / Tactic Level	Score	System / Strategic Level	Score
1.	Brainstorming	10	Brainstorming	10	Brainstorming	10
2.	Inverse-Thinking	10	Inverse-Thinking	10	Inverse-Thinking	10
3.	Practices/Operations Assessment	10	Processes/Tactics Assessment	10	System/Strategy Assessment	10
4.	Plus; Minus; Ideas	10	Plus; Minus; Ideas	10	Plus; Minus; Ideas	10
5.	Driver Tree	8	Driver Tree	10	Driver Tree	10
6.	Compare & Contrast / Venn Diagram	6	Compare & Contrast / Venn Diagram	9	Compare & Contrast / Venn Diagram	10
7.	Fishbone	6	Fishbone	7	Fishbone	8
8.	Force Field Analysis	7	Force Field Analysis	8	Force Field Analysis	9
9.	Six Thinking Hats	6	Six Thinking Hats	7	Six Thinking Hats	8
10.	SWOT	6	SWOT	7	SWOT	8

3. Select	Practice / Operation Level	Score	Process / Tactic Level	Score	System / Strategic Level	Score
1.	Short; Medium Long-term Goals	10	Short; Medium Long-term Goals	10	Short; Medium Long-term Goals	10
2.	Impact & Influence	10	Impact & Influence	10	Impact & Influence	10
3.	8-Criteria	10	8-Criteria	10	8-Criteria	10
4.	Gross-Margin	10	Gross-Margin	10	Gross-Margin	10
5.	Specialist Questioning	10	Specialist Questioning	10	Specialist Questioning	10
6.	Thinking &/or Support – OQIO	10	Thinking &/or Support – OQIO	10	Thinking &/or Support – OQIO	10
7.	Benefit vs Cost vs Cost-of-Not	6	Benefit vs Cost vs Cost-of-Not	8	Benefit vs Cost vs Cost-of-Not	9
8.	Action Priority Matrix	7	Action Priority Matrix	8	Action Priority Matrix	9
9.	Stakeholder/Partner Roles & Responsibilities	9	Stakeholder/Partner Roles & Responsibilities	9	Stakeholder/Partner Roles & Responsibilities	10
10.	Time Assessment	7	Time Assessment	7	Time Assessment	7

4. Design	Practice / Operation Level	Score	Process / Tactic Level	Score	System / Strategic Level	Score
1.	SMARTT Outcome Goal/s	10	SMARTT Outcome Goal/s	10	SMARTT Outcome Goal/s	10
2.	Short; Medium Long-term Goals	10	Short; Medium Long-term Goals	10	Short; Medium Long-term Goals	10
3.	Practices/Operations DM&M	10	Processes/Tactics DM&M	10	System/Strategy DM&M	10
4.	CSFs, KPIs, KAs	10	CSFs, KPIs, KAs	10	CSFs, KPIs, KAs	10
5.	Stakeholder/Roles & Responsibilities Design	10	Stakeholder / Partner Roles & Responsibilities Design	10	Stakeholder/Partner Roles & Responsibilities Design	10
6.	CI&I Cycles 1, 10, 30, 90, 180, 360-Day	10	CI&I Cycles 1, 10, 30, 90, 180, 360-Day	10	CI&I Cycles 1, 10, 30, 90, 180, 360-Day	10
7.	DM&M Tools/Mechanisms	10	DM&M Tools/Mechanisms	10	DM&M Tools/Mechanisms	10
8.	Timelines – Calendar &/or Schedule	10	Timelines – Calendar &/or Schedule	10	Timelines – Calendar &/or Schedule	10
9.	Thinking &/or Support – OQIO	10	Thinking &/or Support – OQIO	10	Thinking &/or Support – OQIO	10
10.	Skills Audit	9	Skills Audit	9	Skills Audit	9
11.	Trial & Control	9	Trial & Control	9	Trial & Control	9
12.	5Ws & 1H	9	5Ws & 1H	5	5Ws & 1H	4

5. Action	Practice / Operation Level	Score	Process / Tactic Level	Score	System / Strategic Level	Score
1.	SMARTT Outcome Goal/s	10	SMARTT Outcome Goal/s	10	SMARTT Outcome Goal/s	10
2.	Short; Medium Long-term Goals	10	Short; Medium Long-term Goals	10	Short; Medium Long-term Goals	10
3.	Practices/Operations DM&M	10	Processes/Tactics DM&M	10	System/Strategy DM&M	10
4.	CSFs, KPIs, KAs	10	CSFs, KPIs, KAs	10	CSFs, KPIs, KAs	10
5.	DM&M Tools/Mechanisms	10	DM&M Tools/Mechanisms	10	DM&M Tools/Mechanisms	10
6.	Stakeholder/Partner Roles Management	10	Stakeholder/Partner Roles Management	10	Stakeholder/Partner Roles Management	10
7.	CI&I Cycles 1, 10, 30, 90, 180, 360-Day	10	CI&I Cycles 1, 10, 30, 90, 180, 360-Day	10	CI&I Cycles 1, 10, 30, 90, 180, 360-Day	10
8.	Thinking &/or Support – OQIO	10	Thinking &/or Support – OQIO	10	Thinking &/or Support – OQIO	10
9.	Communications Design Cycle	10	Communications Design Cycle	10	Communications Design Cycle	10
10.	Support Tools/Mechanisms Assessment	10	Support Tools/Mechanisms Assessment	10	Support Tools/Mechanisms Assessment	10

6. Assess	Practice / Operation Level	Score	Process / Tactic Level	Score	System / Strategic Level	Score
1.	SMARTT Outcome Goal/s	10	SMARTT Outcome Goal/s	10	SMARTT Outcome Goal/s	10
2.	Short; Medium Long-term Goals	10	Short; Medium Long-term Goals	10	Short; Medium Long-term Goals	10
3.	Practices/Operations DM&M	10	Processes/Tactics DM&M	10	System/Strategy DM&M	10
4.	Wheel-of-Life; PPP and/or Balanced-Scorecard	8	Wheel-of-Life; PPP and/or Balanced-Scorecard	9	Wheel-of-Life; PPP and/or Balanced-Scorecard	10
5.	CSFs, KPIs, KAs	10	CSFs, KPIs, KAs	10	CSFs, KPIs, KAs	10
6.	DM&M Tools/Mechanisms	10	DM&M Tools/Mechanisms	10	DM&M Tools/Mechanisms	10
7.	Stakeholder/Partner Successes	10	Stakeholder/Partner Successes	10	Stakeholder/Partner Successes	10
8.	Thinking &/or Support – OQIO	10	Thinking &/or Support – OQIO	10	Thinking &/or Support – OQIO	10
9.	Achievement Stacker	8	Achievement Stacker	9	Achievement Stacker	10
10.	Plus; Minus; Ideas	8	Plus; Minus; Ideas	9	Plus; Minus; Ideas	10
11.	Skills Audit	8	Skills Audit	9	Skills Audit	10
12.	Specialist Questioning	7	Specialist Questioning	7	Specialist Questioning	7

7. Create	Practice / Operation Level	Score	Process / Tactic Level	Score	System / Strategic Level	Score
1.	Vision, Mission, Goals, Principles	10	Vision, Mission, Goals, Principles	10	Vision, Mission, Goals, Principles	10
2.	SMARTT Outcome Goal/s	10	SMARTT Outcome Goal/s	10	SMARTT Outcome Goal/s	10
3.	Wheel-of-Life; PPP and/or Balanced-Scorecard	8	Wheel-of-Life; PPP and/or Balanced-Scorecard	9	Wheel-of-Life; PPP and/or Balanced-Scorecard	10
4.	Stakeholder/Partner Roles & Responsibilities	10	Stakeholder/Partner Roles & Responsibilities	10	Stakeholder/Partner Roles & Responsibilities	10

5.	Futures / Futuring	10	Futures / Futuring	10	Futures / Futuring	10
6.	Brainstorm	10	Brainstorm	10	Brainstorm	10
7.	Inverse Thinking	10	Inverse Thinking	10	Inverse Thinking	10
8.	Plus; Minus; Ideas	10	Plus; Minus; Ideas	10	Plus; Minus; Ideas	10
9.	Six Thinking Hats	10	Six Thinking Hats	10	Six Thinking Hats	10
10.	Johari Window	5	Johari Window	5	Johari Window	7
11.	Outside the Box	5	Outside the Box	6	Outside the Box	7
12.	Practices/Operations DM&M	10	Processes/Tactics DM&M	10	System/Strategy DM&M	10

Figure 16 Design (Redesign), Measure and Manage (DM&M) tool

Vision; Mission; Goal; Guiding-Principles
→
SMARTT Goal/s
↗

Target Outcomes	Outputs	KPIs
1.		
2.		
3.		
4.		
5.		
6.		

Values; Principles; Assumptions		
▶	▶	▶

Steps	1.	2.	3.	4.	5.	6.
Actions						
Tools						
Skills						
Roles						
Resources						
Timing						
Outcomes						
Outputs						
CSFs\KPIs\KAs						

Tool Assessment for Continuous Improvement and Innovation (CI&I) for greater Successes, Improvements and Innovations

The goal of Tool/Mechanism Assessment is: To achieve more effectiveness and efficiency of SMARTT goal/s for greater successes, improvements and innovations. For a tool (Tool Name see below), there are two assessment categories (see below): A. The goal/s, levels, roles, CI&I step/s, time/timing; B. The tool criteria. The steps to use are:

1. Clear SMARTT outcome goal/s (short, medium and/or long-term) – see the SMARTT tool
2. Level of goal/s (tactics/practices, tactics/processes, strategy/system) – see the levels of operations (Figure 3)
3. Roles and responsibilities (individuals, teams, partnerships) – see roles for individuals, teams and/or, partnerships (Figure 4)
4. CI&I steps used in (1. Focus, 2. Explore, 3. Select, 4. Design, 5. Action, 6. Assess, 7. Create) – see the steps of CI&I (Figure 5)
5. Time and timing of tool (daily, weekly, monthly; 30-day, 90-day, 180-day, 360-day); and any others – see cycles of CI&I (Figure 7)
6. Tool criterial (Value, Need/ed, Skills to use, Ease of use, Time to use, Cost-of-Not); and any others – see scores 1 - 10 using the spider-diagram below (Figure 16).

Criteria A: - Tool Components; the goal/s, levels, roles, steps of CI&I process, time and timing. Tool scores, comments and improvements.

Tool Name: -			
Tool Components	1-10	Comments	Improvements
1. SMARTT outcome goal/s			
2. Level of goal/s			
3. Roles and responsibilities			
4. Step/s of CI&I process			
5. Time and timing of tool			
6. Others.			

Criteria B: - Tool Criteria; value, need/ed, skills to use, ease of use, time to use, cost-of-not. Tool scores, comments and improvements.

Tool Name: -			
Tool Criteria	1-10	Comments	Improvements
1. Value			
2. Need/ed			
3. Skills to use			
4. Ease of use			
5. Time to use			
6. Cost-of-Not using			
7. Others.			

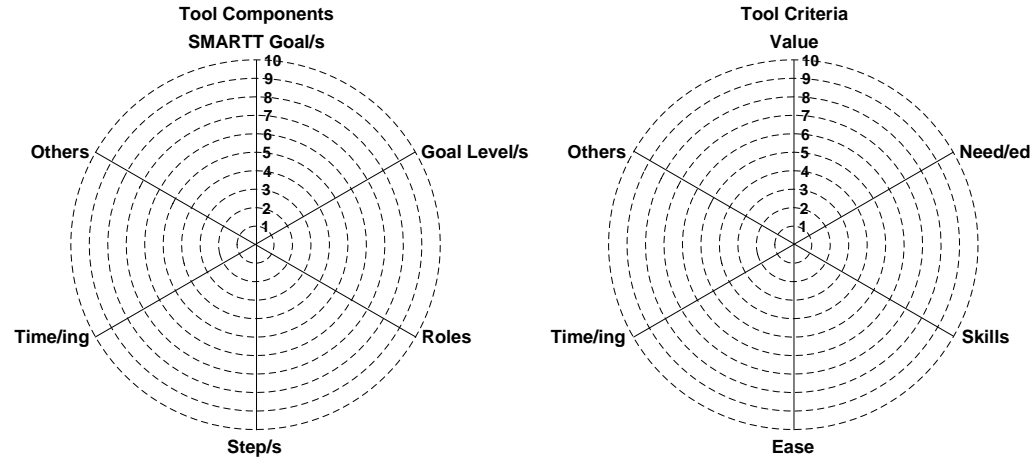


Figure 1 The use of Tool Assessment Spider Diagram Tool (1 to 10 scores).

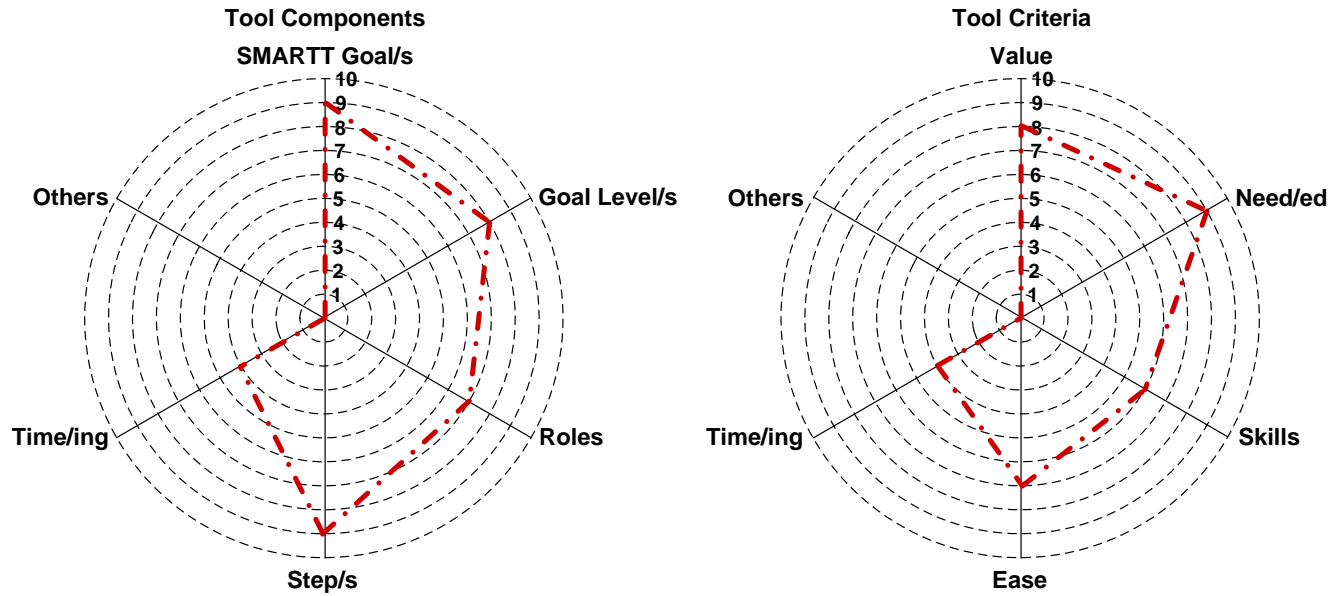


Figure 2 Use the Tool Assessment Spider Diagram Tool (1 to 10 scores) e.g. "Six Thinking Hats".

Continuous Improvement and Innovation (CI&I) Tools List

Identifies tools for each CI&I Step, and/or Level of Practice (Pra); Process (Pro) and/or System (Sys) Thinkings, Feelings and Actions. Tools of particular value to SI&I and CI&I are highlighted in red. Tools can be scored (10 = High and 1 = Low) for their value in each step and use in the Practice; Process and/or System levels.

Mechanisms	Step	Pra	Pro	Sys	1-10
1. 10,000 Times/Hours Rule	Step 1;2;3;4;5;6;7	✓	✓	✓	
2. 360 Degree Assessment/Reflection Tool	Step 1;2;3;4;5;6;7	✓	✓	✓	
3. 5 Ps of Marketing	Step 4;5;6		✓	✓	
4. 5 Whys	Step 2		✓		
5. 5S. <u>Structurise</u> ; <u>Systematise</u> ; <u>Sanitise</u> ; <u>Standardise</u> ; <u>Self-discipline</u>	Step 1;2;3;4;5;6;7		✓		
6. 5Ws & 1H	Step 4;	✓			
7. 80:20 Rule	Step 4;5;6		✓		
8. 90-Day Goal-Setting	Step 1;2;3;4;5;6;7	✓	✓	✓	
9. 8-Criteria	Step 3	✓	✓	✓	
10. 8D Problem Solving / Eight Disciplines Problem Solving	Step 1;2;3;4;5;6;7		✓		
11. ABC Method (A very Important; B Important; C Marginally Important)	Step 3		✓		
12. Achievement Stacker	Step 4;5;6;7	✓	✓	✓	
13. Achievement Orientated Leadership	Step 1;2;3;4;5;6;7	✓	✓	✓	
14. Action Design	Step 4	✓			
15. Action Design, Measure & Manage (ADM&M)	Step 1;2;3;4;5;6;7	✓	✓	✓	
16. Action Learning L= P+Q [L = Learning. P = Programming. Q = Questioning] (q +p) + Q = L	Step 1;2;3;4;5;6;7	✓	✓	✓	
17. Action Plan	Step 4;	✓			
18. Action Priority Matrix	Step 3	✓	✓	✓	
19. Action Research Process	Step 1;2;3;4;5;6;7	✓	✓	✓	
20. Active Listening for Support	Step 1;2;3;4;5;6;7	✓	✓	✓	
21. Activity Network	Step 4;5;6	✓	✓		
22. Adaptive Management (AM)	Step 1;2;3;4;5;6;7		✓	✓	
23. ADKAR model	Step 4;5;6		✓	✓	
24. ADOPT (Adoption & Diffusion Outcome Prediction Tool)	Step 4;5;6		✓		
25. ADRI (Adoption; Deployment; Results; Improvement) Cycle	Step 1;2;3;4;5;6;7	✓	✓	✓	
26. Affinity Diagram/Process (organising ideas into common themes)	Step 2		✓	✓	
27. AGO Aims, Goals & Objectives	Step 3;4;5;6	✓	✓	✓	
28. AIDA (Attention-Interest-Desire-Action)	Step 4;5;6	✓	✓	✓	
29. Algorithm Design, Measure & Manage	Step 1;2;3;4;5;6;7		✓	✓	
30. Analysis of Variance (ANOVA)	Step 4;5;6		✓		
31. Analysis for Goals vs. Analysis Paralysis	Step 1;2;3;4;5;6;7	✓	✓	✓	
32. Analysis Paralysis Avoid	Step 1;2;3;4;5;6;7	✓	✓	✓	
33. Analytical Hierarchy Process	Step 2		✓	✓	
34. Annual Forums for Review, Support, Succuses, Improvements & Innovations	Step 1;2;3;4;5;6;7	✓	✓	✓	
35. APC Alternatives, Possible, Choices	Step 2;3		✓	✓	
36. Appreciative Inquiry (Definition; Discovery; Dream; Design; Destiny)	Step 1;2;3;4;5;6;7	✓	✓	✓	
37. Arnstein's Ladder	Step 2	✓	✓	✓	
38. Arrow Diagram	Step 2	✓	✓	✓	
39. ASHEN (Artefacts; Skills; Heuristics; Experience; Natural)	Step 1;2;3;4;5;6;7		✓	✓	
40. Assumption Busting	Step 2	✓	✓		
41. Attribute Control Charts	Step 4;5;6	✓	✓	✓	
42. Auditing	Step 2	✓	✓	✓	
43. Australian Business Excellence Framework (ABEF)	Step 1;2;3;4;5;6;7	✓	✓	✓	
44. Balance-Wheel-of-Life	Step1;7	✓	✓	✓	
45. Balanced-Scorecard ~ Finance; Customers; Business; Improvement	Step 1;2;3;4;5;6;7	✓	✓	✓	
46. Balancing Loops	Step 1;2;3;4;5;6;7			✓	
47. Balancing Top-Down & Bottom-Up	Step 1;2;3;4;5;6;7	✓	✓	✓	
48. Baldrige Business Model (BBM)	Step 1;2;3;4;5;6;7	✓	✓	✓	
49. Bar Charts	Step 4;5;6	✓	✓		
50. Bayesian Analysis / Belief Network	Step 2	✓	✓	✓	
51. Beer Game System Management	Step 1;2;3;4;5;6;7			✓	
52. Behaviour-Over-Time Graphs (BOTGs)	Step 1;2;3;4;5;6;7			✓	
53. Belbin's Team Roles	Step 1;2;3;4;5;6;7	✓	✓	✓	
54. Benchmarking	Step 1;2;3;4;5;6;7	✓	✓	✓	
55. Benefit vs. Cost (Benefit Cost Analysis)	Step 3	✓	✓	✓	
56. Benefit-Cost vs. Cost-of-Not	Step 3	✓	✓	✓	
57. Bennett's Hierarchy	Step 1;2;3;4;5;6;7	✓	✓	✓	
58. Best Practice	Step 1;2;3;4;5;6;7	✓	✓	✓	
59. Blitz Starting Template	Step 2	✓	✓		
60. Bloom's Taxonomy / Matrix / Wheel	Step 1;2;3;4;5;6;7	✓	✓	✓	
61. Bootstrapping	Step 1;2;3;4;5;6;7	✓	✓	✓	

Mechanisms	Step	Pra	Pro	Sys	1-10
62. Bottlenecks	Step 2	✓	✓	✓	
63. Box Theory	Step 1	✓	✓		
64. Brainstorming (& Reverse Brainstorming)	Step 2;7	✓	✓	✓	
65. Brainwriting	Step 2	✓	✓		
66. Breakdown	Step 2;5;6	✓	✓		
67. Business System Design, Measure & Manage	Step 1;2;3;4;5;6;7	✓	✓	✓	
68. Business Process Design, Measure & Manage (BPM)	Step 1;2;3;4;5;6;7	✓	✓		
69. Business Practice Design, Measure & Manage	Step 1;2;3;4;5;6;7	✓			
70. C&S Consequences & Sequel	Step 2;3;4;5;6		✓	✓	
71. CAF = Consider All Factors	Step 2		✓	✓	
72. Capability Study	Step 2	✓	✓	✓	
73. Capacity Building with Skills Audit	Step 1;2;3;4;5;6;7	✓	✓	✓	
74. Cascade / Levels Goals, Roles & CSFs; KPIs; KAs	Step 4;5;6	✓	✓	✓	
75. Case Study/ies	Step 1;2;3;4;5;6;7	✓	✓	✓	
76. CATWOE	Step 2	✓	✓		
77. Causal Loop Modelling & Dynamics	Step 1;2;3;4;5;6;7			✓	
78. Cause & Effect Matrix (Fishbone)	Step 2	✓	✓	✓	
79. Change Management Life Cycle	Step 1;2;3;4;5;6;7	✓	✓	✓	
80. Check Lists / Sheets	Step 1;2;3;4;5;6;7	✓	✓	✓	
81. Chi Square	Step 2	✓	✓		
82. CI&I Process (Continuous Improvement & Innovation)	Step 1;2;3;4;5;6;7	✓	✓	✓	
83. Circle of Influence	Step 1;2;3;4;5;6;7	✓	✓	✓	
84. Clubs Improvement & Innovation	Step 1;2;3;4;5;6;7	✓	✓	✓	
85. Clusters Improvement & Innovation	Step 1;2;3;4;5;6;7	✓	✓	✓	
86. Coaching Cycle	Step 1;2;3;4;5;6;7	✓	✓	✓	
87. Cognitive Mapping	Step 2	✓	✓	✓	
88. Cohort Study	Step 2	✓	✓	✓	
89. Communication Diagrams	Step 4	✓	✓	✓	
90. Communication Face-to-Face	Step 1;2;3;4;5;6;7	✓	✓	✓	
91. Communication Process DM&M with Mechanisms	Step 1;2;3;4;5;6;7	✓	✓	✓	
92. Communications Design Cycle	Step 1;2;3;4;5;6;7	✓	✓	✓	
93. Compare & Contrast / Venn Diagram	Step 2	✓	✓	✓	
94. Comparison Analysis	Step 2;3	✓	✓	✓	
95. Concept Fan	Step 4;5;6			✓	
96. Concept Mapping	Step 2;3; 4;5;6			✓	
97. Concept Screening / Tree	Step 2	✓	✓	✓	
98. Conceptual Diagramming	Step 4;5;6;	✓	✓	✓	
99. Conceptual Management Tools	Step 1;2;3;4;5;6;7	✓	✓	✓	
100. Conflict Management	Step 1;2;3;4;5;6;7	✓	✓	✓	
101. Consensus Agreement	Step 3;4	✓	✓	✓	
102. Context-Mechanism Outcomes (CMO)	Step 4;5;6			✓	
103. Continual Professional Development	Step 1;2;3;4;5;6;7	✓	✓	✓	
104. Continuous Improvement Practitioners (CIP)	Step 1;2;3;4;5;6;7	✓	✓	✓	
105. Control Charts	Step 4;5;6	✓	✓		
106. Control Trials	Step 4;5;6	✓	✓	✓	
107. CoRT Thinking (de Bono). CAF. FIP. PMI. APC. OPV. AGO. C&S	Step 1;2;3;4;5;6;7	✓	✓	✓	
108. Cost-Benefit Analysis (CBA) / Benefit Cost Analysis (BCA)	Step 4;5;6	✓	✓	✓	
109. Cost-of-Not	Step 4;5;6	✓	✓	✓	
110. Counselling Skills	Step 1;2;3;4;5;6;7	✓	✓	✓	
111. Covey's Quadrants	Step 3;4;5;6	✓	✓	✓	
112. Creation & Synthesis	Step 7	✓	✓	✓	
113. Creative & Critical Thinking	Step 2	✓	✓	✓	
114. Criteria-Based Matrix to Prioritize	Step 3	✓	✓		
115. Critical & Creative Thinking	Step 2	✓	✓	✓	
116. Critical Failure Factors (CFFs)	Step 1;2;3;4;5;6;7	✓	✓	✓	
117. Critical Friend	Step 1;2;3;4;5;6;7	✓	✓	✓	
118. Critical Path Method / Analysis (CPM)	Step 4;5;6	✓	✓		
119. Critical Realism	Step 2	✓	✓	✓	
120. Critical Success Factors (CSFs), KPIs, KAs [Cascade of Levels]	Step 1;2;3;4;5;6;7	✓	✓	✓	
121. Critical to Quality (CTQ) Tree	Step 3	✓	✓		
122. Crosby Grids (Self-Assessment)	Step 4;5;6	✓	✓	✓	
123. Cross Functional Process / Teams	Step 4;5;6	✓	✓		
124. Cross Impact Analysis / Matrix	Step 3	✓	✓		
125. Customer Focus Surveys	Step 1;2;3;4;5;6;7	✓	✓	✓	
126. Customer Needs Assessment	Step 1;2;3;4;5;6;7	✓	✓	✓	
127. Cycle Time Studies	Step 2	✓	✓	✓	
128. Cynefin (Simple; Complicated; Complex; Chaotic)	Step 2		✓	✓	

Mechanisms	Step	Pra	Pro	Sys	1-10
129. Daily Task List	Step 1;2;3;4;5;6;7	✓	✓	✓	
130. Dart Board Feedback Tool	Step 5;6	✓	✓	✓	
131. Dashboard System Monitor	Step 1;2;3;4;5;6;7			✓	
132. Data Analysis Explained	Step 2	✓	✓		
133. Data Analysis In Microsoft Excel	Step 2	✓	✓		
134. Data Analysis Techniques	Step 2	✓	✓		
135. Data Flow Diagram (DFD)	Step 4	✓	✓		
136. Data Points	Step 2	✓	✓		
137. Data, Information, Knowledge & Wisdom (DIKW) Hierarchy	Step 1;2;3;4;5;6;7	✓	✓	✓	
138. Database Deployment	Step 2	✓	✓		
139. DATT Direct Attention Thinking Tools (DATT)	Step 1;2;3;4;5;6;7		✓	✓	
140. Decision Making 8-Criteria	Step 3	✓	✓	✓	
141. Decision Making Framework	Step 3	✓	✓	✓	
142. Decision Matrix Analysis	Step 3	✓	✓	✓	
143. Decision Trees	Step 3	✓	✓	✓	
144. Deductive, Inductive &/or Abductive thinking & reasoning	Step 1;2;3;4;5;6;7		✓	✓	
145. Delphi	Step 2	✓	✓	✓	
146. DELTA (DEscription Language for TAxonomy)	Step 4;5;6	✓	✓	✓	
147. Design & Analysis	Step 2	✓	✓	✓	
148. Design & Redesign	Step 4;5;6	✓	✓	✓	
149. Design of Experiments (DoE)	Step 4;5;6	✓	✓	✓	
150. Design, Measure & Manage (DM&M) Practices [Re-Design]	Step 1;2;3;4;5;6;7	✓			
151. Design, Measure & Manage (DM&M) Processes [Re-Design]	Step 1;2;3;4;5;6;7	✓	✓		
152. Design, Measure & Manage (DM&M) Products & Services [Re-Design]	Step 1;2;3;4;5;6;7	✓	✓	✓	
153. Design, Measure & Manage (DM&M) Services [Re-Design]	Step 1;2;3;4;5;6;7	✓	✓	✓	
154. Design, Measure & Manage (DM&M) System [Re-Design]	Step 1;2;3;4;5;6;7	✓	✓	✓	
155. Design, Measure & Manage (DM&M) Tools/Mechanisms [Re-Design]	Step 1;2;3;4;5;6;7	✓	✓	✓	
156. Diagnostic/s	Step 2	✓	✓	✓	
157. Diagram Tools	Step 4	✓	✓		
158. Dialogue Mapping	Step 2		✓	✓	
159. Diamond Model / Spider Diagram	Step 3	✓	✓		
160. Direct Attention Thinking Tools (DATT) TM	Step 1;2;3;4;5;6;7	✓	✓	✓	
161. Directed Creativity Cycle	Step 1;2;3;4;5;6;7	✓	✓	✓	
162. Direction ~ Areas for Improvement	Step 1;2;3;4;5;6;7	✓	✓	✓	
163. DiSC (Dominance; influence; Steadiness; Conscientiousness)	Step 4;5;6		✓	✓	
164. Discourse Analysis	Step 2	✓	✓	✓	
165. Discussion Group/s	Step 1;2;3;4;5;6;7	✓	✓	✓	
166. DMAIC (Define, Measure, Analyse, Improve & Control)	Step 1;2;3;4;5;6;7	✓	✓	✓	
167. Do & Don't Do Tool	Step 2;3	✓	✓		
168. DO's & DON'T's	Step 4;5;6	✓	✓		
169. Doing Things Differently vs. Doing Different Things	Step 2	✓	✓		
170. Dot Plot or Tally Chart	Step 2	✓	✓	✓	
171. Dot Voting	Step 3	✓	✓	✓	
172. Dotmocracy Technique	Step 3	✓	✓		
173. Draw See Think Plan (DSTP)	Step 4;5;6	✓	✓	✓	
174. Driver Tree	Step 2;3	✓	✓	✓	
175. Drivers & Barriers Tool	Step 4;5;6	✓	✓	✓	
176. e-Book	Step 1;2;3;4;5;6;7	✓	✓	✓	
177. e-Communication	Step 1;2;3;4;5;6;7	✓	✓	✓	
178. Economic Development Tools	Step 1;2;3;4;5;6;7	✓	✓	✓	
179. Eco-System	Step 1;2;3;4;5;6;7	✓	✓	✓	
180. Effective Team Meetings	Step 1;2;3;4;5;6;7	✓	✓	✓	
181. Effectiveness & Efficiency Design, Measure & Manage	Step 1;2;3;4;5;6;7	✓	✓	✓	
182. Eight Criteria Decision Tool	Step 3	✓	✓	✓	
183. Eight Disciplines Problem Solving (8D)	Step 1;2;3;4;5;6;7	✓	✓	✓	
184. Eight Steps of Innovation Process Management	Step 1;2;3;4;5;6;7		✓	✓	
185. Eisenhower Method/Matrix	Step 2	✓	✓		
186. EMBOK Event Management Body of Knowledge	Step 4;5;6	✓	✓	✓	
187. Emotional Intelligence (EI)	Step 1;2;3;4;5;6;7	✓	✓	✓	
188. Employer Engagement & Support	Step 1;2;3;4;5;6;7	✓	✓	✓	
189. Engagement / Collaboration / Relationships / Partnerships	Step 1;2;3;4;5;6;7	✓	✓	✓	
190. Entrepreneurial Skills	Step 1;2;3;4;5;6;7	✓	✓	✓	
191. Environmental Scanning	Step 2	✓	✓	✓	
192. Error Proofing	Step 2	✓	✓		
193. Ethnographic	Step 2;3			✓	
194. e-Tools	Step 1;2;3;4;5;6;7	✓	✓	✓	
195. European Foundation for Quality Management (EFQM)	Step 1;2;3;4;5;6;7	✓	✓	✓	

Mechanisms	Step	Pra	Pro	Sys	1-10
196. Evidence-Based Practice	Step 1;2;3;4;5;6;7	✓	✓	✓	
197. Evaluation	Step 4;5;6	✓	✓	✓	
198. Experiential Learning	Step 1;2;3;4;5;6;7	✓	✓	✓	
199. Facilitation Steps & Tools (Tool-kit)	Step 1;2;3;4;5;6;7	✓	✓	✓	
200. Fact Sheets	Step 1;2;3;4;5;6;7	✓	✓	✓	
201. Failure Mode & Effects Analysis (FMEA)	Step 2	✓	✓	✓	
202. Fault Tree Analysis (FTA)	Step 2	✓	✓	✓	
203. Feasibility	Step 2	✓	✓	✓	
204. Feedback	Step 1;2;3;4;5;6;7	✓	✓	✓	
205. Feedback & Feed-forward	Step 1;2;3;4;5;6;7	✓	✓	✓	
206. Feedback Two Way	Step 1;2;3;4;5;6;7	✓	✓	✓	
207. FIP First Important Priorities	Step 2;3	✓	✓	✓	
208. Field Experiment/s	Step 4;5;6	✓	✓	✓	
209. Fishbone Diagram or Ishikawa Diagram	Step 2;3	✓	✓	✓	
210. Five S (Sort, Straighten, Shine, Standardize & Sustain)	Step 1;2;3;4;5;6;7		✓	✓	
211. Five Whys	Step 2	✓	✓		
212. Flow Chart	Step 4	✓	✓		
213. Flow Diagrams	Step 4;5;6	✓	✓		
214. Flow Model	Step 1;2;3;4;5;6;7	✓	✓	✓	
215. FlowCharting Software	Step 2	✓	✓		
216. FMEA (Failure Mode & Effects Analysis)	Step 2	✓	✓		
217. Focus Group	Step 2	✓	✓	✓	
218. Focusing Framework	Step 1;2;3	✓	✓	✓	
219. Force Field Analysis	Step 2;3	✓	✓	✓	
220. Foresight	Step 6;1	✓	✓	✓	
221. Fork in the Road	Step 2		✓	✓	
222. Forming' Storming; Norming; Performing; Adjourning	Step 1;2;3;4;5;6;7	✓	✓	✓	
223. Forums of Support, Successes, Improvements & Innovations annually	Step 1;2;3;4;5;6;7	✓	✓	✓	
224. Fourth Generation Research & Development	Step 1;2;3;4;5;6;7	✓	✓	✓	
225. Front-End Tool	Step 1;2;3;4;5;6;7	✓	✓	✓	
226. Future Backwards	Step 2;3	✓	✓	✓	
227. Futures / Futuring & Visioning Thinking Methods, Techniques & Tools Specific Opportunities	Step 1;6;7		✓	✓	
228. Futures Wheel	Step 1;6;7	✓	✓	✓	
229. Fuzzy Front-End	Step 2		✓	✓	
230. Gage R&R	Step 3;4;5	✓	✓	✓	
231. Gantt Chart	Step 4;5;6	✓	✓	✓	
232. Gap Analysis	Step 3	✓	✓		
233. Getting Unstuck	Step 2	✓	✓	✓	
234. Go vs. No-Go	Step 2		✓	✓	
235. Goal Achievement Assessment (GAA)	Step 1;2;3;4;5;6;7	✓	✓	✓	
236. Goal Achievement Stacker (GAS)	Step 1;2;3;4;5;6;7	✓	✓	✓	
237. Goal & Objective Focused	Step 1;2;3;4;5;6;7	✓	✓	✓	
238. Goal-Oriented Action Planning (GOAP)	Step 1	✓	✓	✓	
239. Goal Setting Levels Strategic / System; Tactical / Process; Operational / Practice	Step 1;2;3;4;5;6;7	✓	✓	✓	
240. Goal Setting Theory & Practice	Step 1;2;3;4;5;6;7	✓	✓	✓	
241. GOAP Goal Oriented Action Planning	Step 4;5;6	✓	✓	✓	
242. Goals Profit; People; Planet &/or Profit; People; Environment; Improvement	Step 1;2;3;4;5;6;7	✓	✓	✓	
243. GOPP (Goal Oriented Project Planning)	Step 4;5;6	✓	✓	✓	
244. Grid Analysis	Step 3	✓	✓	✓	
245. Gross Margin	Step 3;4;5	✓	✓	✓	
246. Group Decision Making Tools	Step 2;3;4	✓	✓	✓	
247. Groups / Teams Process	Step 1;2;3;4;5;6;7	✓	✓	✓	
248. GROW Model (Goal; Reality; Options; Why-Ahead)	Step 3	✓	✓	✓	
249. GRPI Model (Goals; Roles; Procedures; Interpersonal Relationships)	Step 1;2;3;4;5;6;7	✓	✓	✓	
250. Habits of Mind	Step 1;2;3;4;5;6;7	✓	✓	✓	
251. HACCP Analysis (Hazard Analysis Critical Control Points)	Step 4;5;6		✓	✓	
252. Halo-Effect	Step 3		✓	✓	
253. Hawthorne Effect	Step 1;2;3;4;5;6;7		✓	✓	
254. Hazard Analysis & Critical Control Points (HACCP)	Step 4;5;6	✓	✓	✓	
255. Head; Heart; Hand (Thinking; Feeling; Action)	Step 1;2;3;4;5;6;7	✓	✓	✓	
256. Herrmann Brain Dominance Instrument (HBDI)	Step 1;2;3;4;5;6;7	✓	✓	✓	
257. Herzberg Motivators	Step 1;2;3;4;5;6;7	✓	✓	✓	
258. Heuristic Model	Step 1;2;3;4;5;6;7		✓	✓	
259. Hexagons	Step 2	✓	✓	✓	
260. Hierarchy of Needs	Step 2		✓	✓	
261. Histogram or Bar Chart	Step 4;5;6	✓	✓	✓	
262. Holistic Resource Management (HRM)	Step 1;2;3;4;5;6;7	✓	✓	✓	

Mechanisms	Step	Pra	Pro	Sys	1-10
263. Horizon Scanning	Step2		✓	✓	
264. How-How Diagram	Step 4;5;6	✓	✓	✓	
265. 'How-To' to Trigger Focused Thinking	Step 1	✓	✓	✓	
266. Hub Innovation & Improvement	Step 1;2;3;4;5;6;7	✓	✓	✓	
267. Huddles Teams & Groups	Step 1;2;3;4;5;6;7	✓	✓	✓	
268. Human Resource Management (HRM)	Step 1;2;3;4;5;6;7	✓	✓	✓	
269. Hypothesis Testing	Step 2	✓	✓	✓	
270. Iceberg Strategy	Step 2		✓	✓	
271. Idea Box	Step 2	✓	✓	✓	
272. Idea Creation & Synthesis Tool	Step 2	✓	✓	✓	
273. Idea Selection	Step 3	✓	✓	✓	
274. Ideation / Idea Generation	Step 2	✓	✓	✓	
275. Images of Ideas	Step 2	✓	✓	✓	
276. IMOOI Model (Inputs; Mechanisms; Outputs; Outcomes; Impact ("IMOOI"))	Step 2		✓	✓	
277. Impact & Effort	Step 3	✓	✓	✓	
278. Impact & Influence	Step 3	✓	✓	✓	
279. Impact Analysis / Assessment	Step 3	✓	✓	✓	
280. Impact & Cost-of-Not Achieving	Step 3	✓	✓	✓	
281. Impact & Effort Matrix	Step 3	✓	✓	✓	
282. Importance & Satisfaction	Step 2	✓	✓	✓	
283. Improvement Wheel - Wheel of Continuous Improvement	Step 1;2;3;4;5;6;7	✓	✓	✓	
284. Influence & Interest Grid	Step 2	✓	✓	✓	
285. Innovation Matrix	Step 2	✓	✓	✓	
286. Innovation Methods, Techniques & Tools	Step 1;2;3;4;5;6;7	✓	✓	✓	
287. Innovation Navigator	Step 4;5;6		✓	✓	
288. Innovation Self-Assessment	Step 2	✓	✓	✓	
289. Innovation Skills	Step 2	✓	✓	✓	
290. Interpersonal Circumplex (IPC)	Step 1;2;3;4;5;6;7	✓	✓	✓	
291. Interrelationship Diagram	Step 3		✓	✓	
292. Interrelationship Digraph (Id)	Step 3		✓	✓	
293. Inverse Thinking	Step 1;2;4	✓	✓	✓	
294. Is / Is-Not Matrix	Step 2	✓	✓	✓	
295. Issue Tree	Step 2	✓	✓	✓	
296. Johari Window	Step 2	✓	✓	✓	
297. Kaizen	Step 1;2;3;4;5;6;7	✓	✓	✓	
298. KASA (Knowledge, Attitudes, Skills & Aspirations)	Step 2	✓	✓	✓	
299. Kepner-Tregoe Matrix	Step 3	✓	✓	✓	
300. Key Actions (KAs)	Step 1;2;3;4;5;6;7	✓	✓	✓	
301. Key Performance Indictors (KPIs)	Step 1;2;3;4;5;6;7	✓	✓	✓	
302. Key Words at Work	Step 1;2;3;4;5;6;7	✓	✓	✓	
303. KISS -"Keep it Simple, Stupid"	Step 1,4	✓	✓	✓	
304. Knowledge Management	Step 1;2;3;4;5;6;7	✓	✓	✓	
305. Kotter's 8-Step Change Model	Step 1;2;3;4;5;6;7		✓	✓	
306. Ladder of Inference	Step 2	✓	✓	✓	
307. Landscape Management	Step 1;2;3;4;5;6;7		✓	✓	
308. Lateral Thinking Tools	Step 2	✓	✓	✓	
309. Leadership Design, Measure and Manage	Step 1;2;3;4;5;6;7	✓	✓	✓	
310. Leadership of CI&I	Step 1;2;3;4;5;6;7	✓	✓	✓	
311. Lean Tools	Step 1;2;3;4;5;6;7	✓	✓	✓	
312. Learning Log / Diary	Step 1;2;3;4;5;6;7	✓	✓	✓	
313. Learning Pyramid	Step 1;2;3;4;5;6;7	✓	✓	✓	
314. Learning Styles	Step 1;2;3;4;5;6;7	✓	✓	✓	
315. Learning Wheel	Step 1;2;3;4;5;6;7	✓	✓	✓	
316. Leverage Points	Step 2;3	✓	✓	✓	
317. Lewin's Learning Cycle	Step 1;2;3;4;5;6;7	✓	✓	✓	
318. Life Cycle Design, Measure & Manage	Step 1;2;3;4;5;6;7	✓	✓	✓	
319. Life Long Learning	Step 1;2;3;4;5;6;7	✓	✓	✓	
320. Life Plan	Step 1;2;3;4;5;6;7	✓	✓	✓	
321. Life Styles Inventory™ (LSI)	Step 1;2;3;4;5;6;7	✓	✓	✓	
322. Linear Regression	Step 2	✓	✓	✓	
323. Local Best Practices (LBP)	Step 2	✓	✓	✓	
324. Local Consensus Data (LCD)	Step 2	✓	✓		
325. Logframe (Logical Framework Approach)	Step 1;2;3;4;5;6;7		✓	✓	
326. Logic Tree	Step 2		✓	✓	
327. Lotus Blossom Technique	Step 2		✓	✓	
328. Make Time for Success	Step 2	✓	✓	✓	
329. Management Cockpit	Step 1;2;3;4;5;6;7	✓	✓	✓	

Mechanisms	Step	Pra	Pro	Sys	1-10
330. Managing Leading & Achieving (MLA) Design, Measure & Manage (DM&M)	Step 1;2;3;4;5;6;7	✓	✓	✓	
331. Marketing	Step 1;2;3;4;5;6;7	✓	✓	✓	
332. Maslow's Hierarchy of Needs	Step 2		✓	✓	
333. Matrix Diagram & Management	Step 4;5;6		✓	✓	
334. McKinsey 7S (Share values; Strategy; Structure; Systems; Style; Staff; Skills)	Step 1;2;3;4;5;6;7		✓	✓	
335. Mean; Median & Mode	Step 4;5;6	✓	✓	✓	
336. Measure Effectiveness & Efficiency	Step 1;2;3;4;5;6;7	✓	✓	✓	
337. Measuring, Monitoring & Evaluation (MME)	Step 4;5;6	✓	✓	✓	
338. Mechanisms Assessment	Step 1;2;3;4;5;6;7	✓	✓	✓	
339. Mechanisms Design, Measure & Manage (MDM&M)	Step 1;2;3;4;5;6;7	✓	✓	✓	
340. Mechanisms Support System (Website)	Step 1;2;3;4;5;6;7	✓	✓	✓	
341. Meeting Agenda Tool	Step 1;2;3;4;5;6;7	✓	✓	✓	
342. Meeting Feedback	Step 1;2;3;4;5;6;7	✓	✓	✓	
343. Mentoring	Step 1;2;3;4;5;6;7	✓	✓	✓	
344. Meta-Analysis	Step 2		✓	✓	
345. Metacognition	Step 1;2;3;4;5;6;7	✓	✓	✓	
346. Methodology; Methods; Techniques; Tools (Theory; Paradigm; Epistemology)	Step 1;2;3;4;5;6;7	✓	✓	✓	
347. Mind / Mental Mapping	Step 2	✓	✓	✓	
348. Mission	Step 1;7	✓	✓	✓	
349. Mixed Methods	Step 1;2;3;4;5;6;7	✓	✓	✓	
350. Moment of Truth (MOT) Analysis	Step 2		✓	✓	
351. Monitoring & Evaluation (M&E)	Step 1;2;3;4;5;6;7	✓	✓	✓	
352. Moodle (Modular, Object-Oriented, Dynamic, Learning, Environment)	Step 1;2;3;4;5;6;7		✓	✓	
353. Most Significant Change (MSC)	Step 5;6		✓	✓	
354. Motivate a Team	Step 1;2;3;4;5;6;7	✓	✓	✓	
355. Motivation Tools	Step 1;2;3;4;5;6;7	✓	✓	✓	
356. Multiple-Criteria Decision Analysis (MCDM)	Step 2;3	✓	✓	✓	
357. Multi-Vari Analysis	Step 2	✓	✓	✓	
358. Multi-voting	Step 3	✓	✓	✓	
359. My & Business Plan Design, Measure & Manage	Step 1;2;3;4;5;6;7	✓	✓	✓	
360. Myers Briggs Assessment & Management	Step 1;2;3;4;5;6;7		✓	✓	
361. Narrative Inquiry	Step 1;2;3;4;5;6;7		✓	✓	
362. Needs Assessment	Step 2	✓	✓	✓	
363. Negative Selection	Step 2	✓	✓		
364. Network Design, Measure & Manage (NDM&M)	Step 1;2;3;4;5;6;7	✓	✓	✓	
365. Network & Networking for Support	Step 1;2;3;4;5;6;7	✓	✓	✓	
366. Neuro-Linguistic Programming (NLP)	Step 2	✓	✓	✓	
367. Nominal Group Technique	Step 2;3	✓	✓	✓	
368. Normal Distribution	Step 2;3	✓	✓	✓	
369. NUF Test (New Useful Feasible)	Step 3	✓	✓		
370. Objective Tree	Step 1;4	✓	✓	✓	
371. Observations, Questions, Ideas & Opportunities (OQI&O)	Step 1;2;3;4;5;6;7	✓	✓	✓	
372. Observe, Orient, Decide, Act - OODA Loops	Step 2; 3;4		✓	✓	
373. Opinion Polling	Step 2	✓	✓	✓	
374. OPV Other People's Views	Step 2;3	✓	✓	✓	
375. Organisational Culture Inventory (OCI)	Step 2		✓	✓	
376. Organisational / Business / Project Learning	Step 1;2;3;4;5;6;7	✓	✓	✓	
377. Organized Teams	Step 1;2;3;4;5;6;7	✓	✓	✓	
378. ORID - Objective, Reflective, Interpretive, Decisional	Step 2		✓	✓	
379. Outcome-Based Management (OBM)	Step 1;2;3;4;5;6;7	✓	✓	✓	
380. Outcome Mapping	Step 1;2;3;4;5;6;7		✓	✓	
381. Outside-the-Box Thinking	Step 2		✓	✓	
382. Overall Equipment Electiveness (OEE)	Step 2		✓	✓	
383. Paired Comparison Analysis	Step 3		✓	✓	
384. Paradigms/Paradigmatic (Pragmatic Foresight)	Step 2	✓	✓	✓	
385. Paralysis by Analysis ~ Avoid!!!	Step 1;2;3;4;5;6;7	✓	✓	✓	
386. Pareto Analysis Chart	Step 4;5;6	✓	✓	✓	
387. Participatory Action Research	Step 1;2;3;4;5;6;7	✓	✓	✓	
388. Participatory Research & Development (4 th Generation R&D)	Step 1;2;3;4;5;6;7	✓	✓	✓	
389. Partnership & Mechanisms	Step 1;2;3;4;5;6;7	✓	✓	✓	
390. Past, Present & Future	Step 2	✓	✓	✓	
391. Pause	Step 1;2;3;4;5;6;7	✓	✓	✓	
392. Paynter Chart	Step 2		✓	✓	
393. Payoff Matrix	Step 2	✓	✓	✓	
394. PDCA-PDSA Process (Plan; Do; Check / Study; Act)	Step 1;2;3;4;5;6;7	✓	✓	✓	
395. Percentage of Time	Step 1;2;3;4;5;6;7	✓	✓	✓	
396. Perceptual Control Theory (PCT)	Step 2		✓	✓	

Mechanisms	Step	Pra	Pro	Sys	1-10
397. Performance Prism	Step 4;5;6		✓	✓	
398. Personal (& Business) Design, Measure & Manage	Step 1;2;3;4;5;6;7	✓	✓	✓	
399. Personal &/or Business Improvement Wheel	Step 1;2;3;4;5;6;7	✓	✓	✓	
400. Personal &/or Professional Development Plans (PDPs)	Step 1;2;3;4;5;6;7	✓	✓	✓	
401. Personal Mastery	Step 1;2;3;4;5;6;7	✓	✓	✓	
402. PERT Chart	Step 4;5;6	✓	✓	✓	
403. PEST (Political; Economic; Socio-Cultural; Test) Analysis	Step 2		✓	✓	
404. PESTAL Analysis (Political. Economic. Social/cultural. Technological. Legal. Environmental)	Step 2		✓	✓	
405. Petal Personal &/or Business	Step 1;2;3;4;5;6;7	✓	✓	✓	
406. PFMEA (Process Failure Mode & Effects Analysis)	Step 2		✓	✓	
407. Picture Boarding "Pictures speak louder than words" "A picture is worth a thousand words"	Step 2	✓	✓	✓	
408. Pie Charts	Step 1;2;3;4;5;6;7	✓	✓	✓	
409. Pilot Testing	Step 4;5;6	✓	✓	✓	
410. PINC Filter (Positives; Intriguing; Concerning; Negatives)	Step 2		✓	✓	
411. Pipeline Ways of Thinking	Step 4;5;6		✓	✓	
412. Planning for Influence Chart	Step 3	✓	✓	✓	
413. Plus vs. Minus	Step 2	✓	✓	✓	
414. Plus; Minus & Delta	Step 2	✓	✓	✓	
415. Plus; Minus & Ideas	Step 2,5;6	✓	✓	✓	
416. Pluses vs. Minuses	Step 3	✓	✓		
417. Polarity Mapping & Management	Step 2		✓	✓	
418. Policy Planning & Deployment	Step 4;5;6		✓	✓	
419. Positives & Negatives	Step 3	✓	✓	✓	
420. Power & Interest Grid (P&I)	Step 2		✓	✓	
421. Power of Perception (PoP)	Step 1;2;3;4;5;6;7		✓	✓	
422. Practice Design, Measure & Manage (Prac DM&M)	Step 1;2;3;4;5;6;7	✓	✓	✓	
423. Practices, Tools & Technologies	Step 1;2;3;4;5;6;7	✓	✓	✓	
424. Principles (Key) of Practice & Operation	Step 1;2;3;4;5;6;7	✓	✓	✓	
425. Priorities / Prioritization Criteria Matrix	Step 3	✓	✓	✓	
426. Prioritise Criteria	Step 3	✓	✓	✓	
427. Priority Drivers / Priority Setting	Step 3	✓	✓	✓	
428. PRISM (Performance of Routine Information System Management)	Step 1;2;3;4;5;6;7	✓	✓	✓	
429. PROBE Network	Step 1;2;3;4;5;6;7		✓	✓	
430. Problem + Stimulus + Idea (PSI)	Step 2	✓	✓	✓	
431. Problem Solving Cycle	Step 4;5;6	✓	✓	✓	
432. Problem Solving Model	Step 4;5;6	✓	✓	✓	
433. Problem Solving Process	Step 4;5;6;7	✓	✓	✓	
434. Problem Tree Analysis	Step 3	✓	✓	✓	
435. Process Capability	Step 3;4;5;6	✓	✓		
436. Process Decision	Step 3;4;5;6	✓	✓		
437. Process Decision Program Chart (PDPC)	Step 4;5;6	✓	✓		
438. Process Design, Measure & Manage (Proc DM&M)	Step 1;2;3;4;5;6;7	✓	✓		
439. Process Focus	Step 4;5;6	✓	✓		
440. Process Mapping	Step 4;5;6	✓	✓		
441. Process Standardization	Step 4;5;6	✓	✓		
442. Process Streamlining	Step 4;5;6	✓	✓		
443. Process Summary Worksheet	Step 4;5;6	✓	✓		
444. Procreation	Step 2	✓	✓	✓	
445. Product & Service Design, Measure & Manage	Step 1;2;3;4;5;6;7	✓	✓	✓	
446. Professional Development	Step 1;2;3;4;5;6;7	✓	✓	✓	
447. Professional & Personal Quality Checklist	Step 1;2;3;4;5;6;7	✓	✓	✓	
448. Profit; People; Planet/Environment	Step 1;2;3;4;5;6;7	✓	✓	✓	
449. Profit Driver Tree	Step 2	✓	✓	✓	
450. Profit Matrix	Step 2;3	✓	✓	✓	
451. Profit; People & Planet (3Ps)	Step 1;2;3;4;5;6;7	✓	✓	✓	
452. Program Chart	Step 4;5;6	✓	✓	✓	
453. Program Logic Model	Step 1;2;3;4;5;6;7	✓	✓	✓	
454. Project Charter	Step 4;5;6	✓	✓	✓	
455. Project Design Measure & Manage (Proj DM&M)	Step 1;2;3;4;5;6;7	✓	✓	✓	
456. Project Management Body of Knowledge (PMBok)	Step 1;2;3;4;5;6;7	✓	✓	✓	
457. Project, Program & Portfolio Management System (PPPMS)	Step 1;2;3;4;5;6;7	✓	✓	✓	
458. Project Scoping	Step 2			✓	
459. Project Selection Checklist	Step 4;5;6	✓	✓	✓	
460. Pros & Cons Analysis	Step 3	✓	✓	✓	
461. Prouds & Sorries	Step 2	✓	✓	✓	
462. Provocation	Step 2	✓	✓	✓	
463. Provocation / Lateral Thinking	Step 2	✓	✓	✓	

Mechanisms	Step	Pra	Pro	Sys	1-10
464. Publication Steps for Theory & Practice	Step 1;2;3;4;5;6;7	✓	✓	✓	
465. Pulse-Check Business / Project	Step 2	✓	✓	✓	
466. QMS Review	Step 4;5;6	✓	✓	✓	
467. Quality Circles	Step 1;2;3;4;5;6;7	✓	✓	✓	
468. Quality Costs	Step 3	✓	✓	✓	
469. Quality Improvement	Step 1;2;3;4;5;6;7	✓	✓	✓	
470. Questions (The Right Question to Ask) Questionnaire	Step 1;2;3;4;5;6;7	✓	✓	✓	
471. Quiz Tool	Step 2	✓	✓	✓	
472. Radar Chart / Matrix / Spider	Step 1;2;3;4;5;6;7	✓	✓	✓	
473. Rainmaker Steps & Tools	Step 1;2;3;4;5;6;7	✓	✓	✓	
474. Rapid Problem Resolution(RPR)	Step 1;2;3	✓	✓	✓	
475. Reflective Practise (QUICK)	Step 1;2;3;4;5;6;7	✓	✓	✓	
476. Relevance Tree	Step 2	✓	✓	✓	
477. Randomised Controlled Trials	Step 4;5;6	✓	✓	✓	
478. Random Words	Step 2	✓	✓	✓	
479. Rating Scale	Step 1;2;3;4;5;6;7		✓	✓	
480. Reduce Variation	Step 2	✓	✓	✓	
481. Reflective Practice/Practitioner Cycle	Step 1;2;3;4;5;6;7	✓	✓	✓	
482. Recognition & Support Regularly	Step 1;2;3;4;5;6;7	✓	✓	✓	
483. Regression Analysis	Step 2	✓	✓	✓	
484. Regular Action, Reporting & Support	Step 4;5;6	✓	✓	✓	
485. Relationship Diagram	Step 1;2;3;4;5;6;7	✓	✓	✓	
486. Relevance Tree	Step 2	✓	✓	✓	
487. Repertory Grid	Step 2	✓	✓	✓	
488. Repetitive Why	Step 4;5;6	✓	✓		
489. Reporting & Support Tools	Step 1;2;3;4;5;6;7	✓	✓	✓	
490. Research & Development (R&D) 4th Generation R&D	Step 1;2;3;4;5;6;7	✓	✓	✓	
491. Responsibility Chart / Matrix	Step 4;5;6	✓	✓		
492. Return on Investment (ROI) at all levels and goals, annually	Step 2;3;4;5;6	✓	✓	✓	
493. Reverse Brainstorming	Step 1;2;4	✓	✓	✓	
494. Rich Pictures	Step 2	✓	✓	✓	
495. Right Braining	Step 2	✓	✓	✓	
496. Risk Analysis / Assessment Management	Step 3	✓	✓	✓	
497. Road Map & Mapping	Step 3;4		✓	✓	
498. Road Testing	Step 1;2;3		✓	✓	
499. Roles & Responsibilities (Clear & Agreed) Tool/Matrix [Tool for Defining Roles]	Step 1;2;3;4;5;6;7	✓	✓	✓	
500. Room Set-up Options	Step 1;2;3;4;5;6;7	✓	✓	✓	
501. Root Cause Analysis	Step 2;3;4;5;6		✓	✓	
502. Round-Robin Brainstorming	Step 2	✓	✓	✓	
503. Rubber Ducking	Step 2	✓	✓	✓	
504. Rubric Design	Step 4;5;6	✓	✓	✓	
505. Run Chart	Step 4;5;6	✓	✓		
506. S-Curve	Step 2	✓	✓	✓	
507. Sampling	Step 4;5;6	✓	✓		
508. SCAMPER (Substitute; Combine; Adapt; Modify; Put to Others; Eliminate; Reverse)	Step 2	✓	✓	✓	
509. Scatter Diagram	Step 4;5;6	✓	✓	✓	
510. Scenario Thinking, Analysis & Planning	Step 2;3;4;5;6		✓	✓	
511. Science, Theory & Practice of CI&I	Step 1;2;3;4;5;6;7	✓	✓	✓	
512. Scientific Approach	Step 4;5;6	✓	✓	✓	
513. SCOPE (Session-Based; Collaborative; Process-Centered; Environment)	Step 2		✓	✓	
514. Scope Matrix	Step 2	✓	✓	✓	
515. Scorecard	Step 1;2;3;4;5;6;7	✓	✓	✓	
516. Shared Mental Model/s	Step 1;2;3;4;5;6;7	✓	✓	✓	
517. Self-Assessment, Efficiency, Efficacy, Esteem	Step 1;2;3;4;5;6;7	✓	✓	✓	
518. Self-Determination, Design, Measure & Manage	Step 1;2;3;4;5;6;7	✓	✓	✓	
519. Self-Efficacy Mechanisms	Step 1;2;3;4;5;6;7	✓	✓	✓	
520. Service & Product Design Measure & Manage (Serv DM&M)	Step 1;2;3;4;5;6;7	✓	✓	✓	
521. SERVQUAL Model / Tool	Step 1;2;3;4;5;6;7	✓	✓	✓	
522. Set Specifications	Step 4;5;6	✓	✓		
523. Short; Medium Long-term Goals	Step 3;4;5;6	✓	✓	✓	
524. Simplex Process - 4 Stages; 8 Steps	Step 1;2;3;4;5;6;7	✓	✓		
525. SIPOC – Suppliers; Inputs; Process; Outputs; Customers	Step 2	✓	✓	✓	
526. Site Maps	Step 4;5;6	✓	✓	✓	
527. Six Sigma Model	Step 1;2;3;4;5;6;7	✓	✓	✓	
528. Six Thinking Hats	Step 2	✓	✓	✓	
529. Skills Audit for specific goals & roles	Step 1;2;3;4;5;6;7	✓	✓	✓	
530. SMARTT Outcome Focus	Step 1;4	✓	✓	✓	

Mechanisms	Step	Pra	Pro	Sys	1-10
531. SMED (Single; Minute; Exchange; Dies)	Step 2	✓	✓		
532. SOAR (Strengths, Opportunities, Aspirations, Results)	Step 2;3	✓	✓	✓	
533. Social Ecology (SE)	Step 1;2;3;4;5;6;7		✓	✓	
534. Social Learning	Step 1;2;3;4;5;6;7	✓	✓	✓	
535. Soft Systems Methodology (SSM)	Step 1;2;3;4;5;6;7	✓	✓	✓	
536. Solution Vision Matrix	Step 4;5;6	✓	✓	✓	
537. Spaghetti (Physical Process) Map	Step 2	✓	✓		
538. Spaghetti Diagram	Step 4;5;6	✓	✓		
539. Spatial process management	Step 1;2;3;4;5;6;7	✓	✓		
540. Specialist Questioning Technique	Step 1;2;3;4;5;6;7	✓	✓	✓	
541. Speedometer	Step 1;2;3;4;5;6;7	✓	✓	✓	
542. Spider Diagram / Diamond Model	Step 1;2;3;4;5;6;7	✓	✓	✓	
543. Spotlight Report	Step 1;2;3;4;5;6;7	✓	✓	✓	
544. Stage-Gate Process/Model	Step 1;2;3;4;5;6;7	✓	✓		
545. Stakeholder / Partner Roles & Responsibilities	Step 1;2;3;4;5;6;7	✓	✓	✓	
546. Stakeholder Analysis / Engagement	Step 1;4	✓	✓	✓	
547. Stakeholder Chart	Step 4;5;6	✓	✓	✓	
548. STAR Tool (Situation; Task; Action; Results)	Step 4;5;6	✓	✓	✓	
549. Start, Stop Continue	Step 2	✓	✓	✓	
550. Start with the end-in-mind	Step 1;7	✓	✓	✓	
551. Start vs Stop Tool	Step 2	✓	✓		
552. Statistical Process Control (SPC)	Step 4;5;6	✓	✓		
553. Statistical Process Control Charts (SPC)	Step 4;5;6	✓	✓		
554. Statistical Sampling	Step 4;5;6	✓	✓	✓	
555. Stepladder Technique	Step 2	✓	✓	✓	
556. Stocks & Flows	Step 2		✓	✓	
557. Stop-Doing Tool	Step 2	✓	✓	✓	
558. Stop; Start; Continue	Step 2	✓	✓	✓	
559. Storyboarding – Story Boards	Step 2	✓	✓	✓	
560. Storytelling	Step 2	✓	✓	✓	
561. Strategic Alignment Pyramid	Step 1;2;3;4;5;6;7	✓	✓	✓	
562. Strategic; Tactical; Operational Design, Measure & Manage (Stra DM&M)	Step 1;2;3;4;5;6;7	✓	✓	✓	
563. Straw Man principles	Step 1;2;3;4;5;6;7	✓	✓	✓	
564. Study Circle	Step 2	✓	✓	✓	
565. Study Tour	Step 2	✓	✓		
566. Succession Planning	Step 2	✓	✓	✓	
567. Suggestion Box	Step 2	✓	✓	✓	
568. Support Leadership & Management	Step 1;2;3;4;5;6;7	✓	✓	✓	
569. Support Sessions	Step 1;2;3;4;5;6;7	✓	✓	✓	
570. Supportive Thinking (OQI&O)	Step 1;2;3;4;5;6;7	✓	✓	✓	
571. Surveys	Step 1;2;3;4;5;6;7	✓	✓	✓	
572. Survey ~ Readiness Survey	Step 1;2;3;4;5;6;7	✓	✓	✓	
573. Sustainable Improvement & Innovation (SI&I) System/Model	Step 1;2;3;4;5;6;7	✓	✓	✓	
574. SWAP Sort	Step 2;3	✓	✓		
575. SWOT (Strengths; Weaknesses; Opportunities; Threats) Analysis	Step 2;3	✓	✓	✓	
576. Synergistic Decision Making Model	Step 3	✓	✓		
577. System Archetypes	Step 1;2;3	✓	✓	✓	
578. System Reinforcing (R) & Balancing (B) Loops	Step 1;2;3;4;5;6;7			✓	
579. System Design, Measure & Manage (Syst DM&M)	Step 1;2;3;4;5;6;7	✓	✓	✓	
580. Systems Development Life-Cycle (SDLC)	Step 1;2;3;4;5;6;7	✓	✓	✓	
581. Systems Thinking	Step 2	✓	✓	✓	
582. Systems Thinking & Action/Practice (Meta & Sub System)	Step 1;2;3;4;5;6;7	✓	✓	✓	
583. T-Chart (Plus Minus Tool)	Step 2	✓	✓	✓	
584. Tally Charts	Step 4;5;6	✓	✓		
585. TapRooT System	Step 2	✓	✓	✓	
586. Target Audience	Step 1;4		✓	✓	
587. Target Outcomes	Step 4;5;6	✓	✓	✓	
588. Target Shifting	Step 4;5;6	✓	✓		
589. Task List	Step 4;5;6	✓	✓	✓	
590. Team Approach	Step 1;2;3;4;5;6;7	✓	✓	✓	
591. Team Dynamics	Step 1;2;3;4;5;6;7	✓	✓	✓	
592. Team Guidelines	Step 1;2;3;4;5;6;7	✓	✓		
593. Team Progress Model	Step 1;2;3;4;5;6;7	✓	✓	✓	
594. Teams / Partnerships / Networks Process	Step 1;2;3;4;5;6;7	✓	✓		
595. Teams / Work Groups	Step 1;2;3;4;5;6;7	✓	✓	✓	
596. TEEPSE (Technological, Economic, Environmental, Political, Social & Ethical)	Step 1;2;3		✓	✓	
597. Theory of Constraints (ToC)	Step 1;2;3;4;5;6;7	✓	✓	✓	

Mechanisms	Step	Pra	Pro	Sys	1-10
598. Theory X & Theory Y	Step 2	✓	✓	✓	
599. Theory & Practice	Step 1;2;3;4;5;6;7	✓	✓	✓	
600. Think & Explore Ideas, Words, Terms, Concepts, Images, Direction & Goals	Step 1;2;3;4;5;6;7	✓	✓	✓	
601. Thinking in Loops	Step 1;2;3;4;5;6;7		✓	✓	
602. Thinking Outside the Box	Step 2	✓	✓	✓	
603. Thinking Tool (OQI&O)	Step 1;2;3;4;5;6;7	✓	✓	✓	
604. Thinking & Support Tool (OQI&O)	Step 1;2;3;4;5;6;7	✓	✓	✓	
605. Thinkings, Feelings & Actions (TFAs) Design Tool	Step 4;5;6	✓	✓		
606. Thinkings, Feelings & Actions (TFAs) in 1, 10, 30, 90,180,360-Day Cycles	Step 1;2;3;4;5;6;7	✓	✓	✓	
607. Three Legged Stool (Time, Quality, Cost)	Step 2	✓	✓	✓	
608. Time Assessment	Step 4;5;6	✓	✓	✓	
609. Time Management	Step 1;2;3;4;5;6;7	✓	✓	✓	
610. Time Order Plot	Step 4;5;6	✓	✓		
611. Time Series Plots / Percentages	Step 4;5;6	✓	✓		
612. Time, Timelines, Timing & Cycle-Time	Step 1;2;3;4;5;6;7	✓	✓	✓	
613. Tipping Points	Step 2	✓	✓	✓	
614. To-Do List	Step 1;2;3;4;5;6;7	✓	✓	✓	
615. Tool / Mechanism Assessment Criteria (Spider Diagram) Tool	Step 1;2;3;4;5;6;7	✓	✓	✓	
616. Tool Quiz	Step 1;2;3;4;5;6;7	✓	✓	✓	
617. Tool Selection Guide	Step 1;2;3;4;5;6;7	✓	✓	✓	
618. Top-Down vs. Bottom-up	Step 2	✓	✓	✓	
619. Total Quality Management (TQM) System	Step 1;2;3;4;5;6;7	✓	✓	✓	
620. Traceability Matrix	Step 4;5;6		✓	✓	
621. Trail & Control	Step 4;5;6	✓	✓	✓	
622. Training Course Assessment	Step 1;2;3;4;5;6;7	✓	✓	✓	
623. Training in specific knowledge, skills & mechanism for CI&I/SI&I	Step 1;2;3;4;5;6;7	✓	✓	✓	
624. Training Needs Assessment	Step 1;2;3;4;5;6;7	✓	✓	✓	
625. Transition Curve	Step 2	✓	✓	✓	
626. Tree Diagram	Step 2	✓	✓		
627. Trend Analysis / Base Line Analysis	Step 2	✓	✓	✓	
628. Triad Tool	Step 2		✓	✓	
629. Triangulation	Step 2	✓	✓	✓	
630. Triple-Bottom-Line ~ Profit; People; Planet/Environment	Step 1;2;3;4;5;6;7	✓	✓	✓	
631. Triple Helix	Step 2		✓	✓	
632. TRIZ Approach	Step 1;2;3;4;5;6;7	✓	✓	✓	
633. Two by Two Matrix	Step 2	✓	✓	✓	
634. Type A vs. Type B (Thinkings, Feelings & Actions)	Step 2	✓	✓	✓	
635. Urgent / Important Matrix	Step 3	✓	✓	✓	
636. Value-Chain Design, Measure & Manage	Step 1;2;3;4;5;6;7	✓	✓	✓	
637. Value Driver Tree / Value Analysis	Step 2		✓	✓	
638. Value Stream Mapping	Step 2		✓	✓	
639. Venn Diagram / Compare & Contrast	Step 2		✓	✓	
640. Versus This-Versus-That	Step 1.2	✓	✓	✓	
641. Virtuous & Vicious Cycles	Step 2		✓	✓	
642. Vision; Mission; Goals; Principles Design, Measure & Manage (VMGP DM&M)	Step 1;2;3;4;5;6;7	✓	✓	✓	
643. Visionary, Visioning & Futuring Specific Opportunities	Step 1	✓	✓	✓	
644. Visualisation	Step 2	✓	✓	✓	
645. Visual Management	Step 1;2;3;4;5;6;7	✓	✓	✓	
646. V-Model	Step 4			✓	
647. Voting	Step 2	✓	✓	✓	
648. Vroom-Yetton-Jago Decision Model	Step 2	✓	✓	✓	
649. Walk the Talk	Step 1;2;3;4;5;6;7	✓	✓	✓	
650. Waterfall Chart	Step 1;2;3	✓	✓	✓	
651. What-if Analysis	Step 2	✓	✓	✓	
652. Wheel-of-Life	Step 1	✓	✓	✓	
653. Why Not	Step 2	✓	✓		
654. Why; What; How	Step 1;2;7	✓	✓	✓	
655. Why-Why Diagram	Step 2	✓	✓	✓	
656. Wicked Problems	Step 2		✓	✓	
657. Wishing	Step 2	✓	✓		
658. Wizard of Oz	Step 2;3;4;5	✓	✓	✓	
659. Worksheet/s	Step 4;5;6	✓	✓	✓	
660. Workshop Design, Measure & Manage (Work DM&M)	Step 1;2;3;4;5;6;7	✓	✓	✓	
661. Write Streaming	Step 2	✓	✓		
662. X-Y Theory Questionnaire	Step 2	✓	✓	✓	
663. Zero to Ten Rating	Step 1;2;3;4;5;6;7	✓	✓	✓	
664. ZOPP ~ Zielorientierte Projektplanung	Step 4;5;6	✓	✓	✓	