

The Australian Industry Group

Management Skills in the Manufacturing Sector Pilot Project Stage 2 Final Report

December 2015



1. Introduction

Commencing in December 2014, the Australian Industry Group, in conjunction with its subsidiary, Australian Industry Group Training Services Pty Ltd, operating an RTO, undertook the design and delivery of a pilot program 'Management Skills in the Manufacturing Sector - Stage 2', on behalf of the Victorian Department of Education.

Overseen by the Manufacturing Skills and Training Taskforce, this project followed the Stage 1 Report prepared by Precision Consultancy and Ai Group. The Stage 2 pilot program was based on the proposed delivery model and learner supports identified in the Stage 1 report.

Within a 12 month project, the six month pilot leadership development program aimed to facilitate the transition of emerging leaders from shopfloor positions into a management role. The program utilised a range of methods including action learning, adaptive leadership principles and a framework for coaching and self-guided reflection.

Identified by the Taskforce, and integral to the success of the pilot program were three key components:

- Management skills to be developed within a manufacturing context
- Establishment of a regional network of first line managers
- Facilitation via innovative methodology, supported through a partnership with an RTO to deliver a qualification, but driven by the needs of the individuals and companies.

As specified in the Department's request for tender, the

model was trialled in two separate program locations: one delivered in regional Victoria and one delivered in metropolitan Melbourne. Participating companies were identified during the tender phase and expressed their interest to Ai Group (Appendix 1). Member companies that had expressed interest then completed a pre-assessment form for the employee that had been chosen to participate in the program (Appendix 2).

The Stage 2 project, using the learnings from the pilot program, has also involved the development of a guide to implementing innovative management development in manufacturing. The guide aims to support manufacturing companies to develop emerging managers using their workplaces and the individuals to drive the context for learning, while at the same time building cross-business relationships.

2. Participating Companies

A total of 16 participating companies were enrolled in the program which commenced in January 2015.

Of the 16 participants enrolled in the program, 15 completed all requirements.

One participant was removed from the program because he felt uncomfortable with the innovative approach and learner-led methodology. In some respects, this participant’s unsuitability for the program was in part due to his difficulty in identifying a suitable workplace project that had some complexity to it and

which involved other stakeholders. This issue could be prevented in the future by including the identification and scoping of the workplace project in the pre-assessment suitability questionnaire.

Regional Participating Companies	Metropolitan Participating Companies
Thales Australia	SEW Eurodrive
Australian Turntable Company	Ecotech
Hoffmann Engineering	Natures Organics
Keech Australia	The Product Makers (Australia) Pty Ltd
Motherston Elastomers	Roll Surface Technologies
Andy’s Earthmovers	Marand
Barker Trailers	Selectronic
Keogh’s	Coca-Cola Amatil

3. Program Schedule

All companies, participants and their sponsors were informed of the program schedule at the commencement of their commitment.

Workshops	Metro Dates	Regional Dates
Manufacturing Workshop half day for company sponsors and their participants	13 Feb (9.00am - 1.00pm)	17 Feb (9.00am - 1.00pm)
Two Day start up workshop <ul style="list-style-type: none"> Day 1 - Leadership Introduction Day 2 - Business Models (participants/sponsors) 	24 and 25 Feb (9.00am - 5.00pm)	23 and 24 Feb (9.00am - 1.00pm)
Action Learning Set Meeting - Set 1 (participants only)	17 March (9.00am - 5.00pm)	17 March (9.00am - 5.00pm)
Action Learning Set Meeting - Set 2 - (participants only)	Tue 21 April (9.00am - 5.00pm)	21 April (9.00am - 5.00pm)
Action Learning Set Meeting - Set 3 - (participants only)	Tue 26 May (9.00am - 5.00pm)	26 May (9.00am - 5.00pm)
Action Learning Set Meeting - Set 4 - (participants only)	Tue 23 June (9.00am - 5.00pm)	23 June (9.00am - 5.00pm)
Action Learning Set Meeting - Set 5 - (Bendigo participants only)	-	14 July (9.00am - 5.00pm)
Final workshop - (participants only)	Tue 14 July (9.00am - 5.00pm)	25 August (9.00am - 5.00pm)

4. Methodology

The innovative learner-led methodology used was an integral component of the pilot management skills program Ai Group developed for this project. The program utilises a constellation of methods including action learning, adaptive leadership principles and a framework for regular coaching and self-guided reflection. Core to the success of the program are individualised work based projects driven by company needs that serve a dual role of building both individual capability as well as delivering on tangible organisational improvements and providing opportunities for collaboration.

The nature of this program necessitates an individualised approach which supports the participants' own journey and is contextualised to their business. This tackles one of the three key program components identified by the Taskforce, by ensuring a manufacturing context is the subject of the projects.

The involvement of senior managers within the participating companies from a coaching/mentoring perspective was important since the locus of learning is the workplace.

The action learning approach and methodology provides a safe haven for leaders, new and experienced, to be challenged in their thinking, assumptions and preconceptions. From our past experience facilitating these programs, these surface issues often give way to deeper-rooted problems or in some cases deeply-held beliefs that need to change in order to assist the management and leadership capability of the participants and associated cultural change within the company. This was evident in the pilot program and participants were supported during

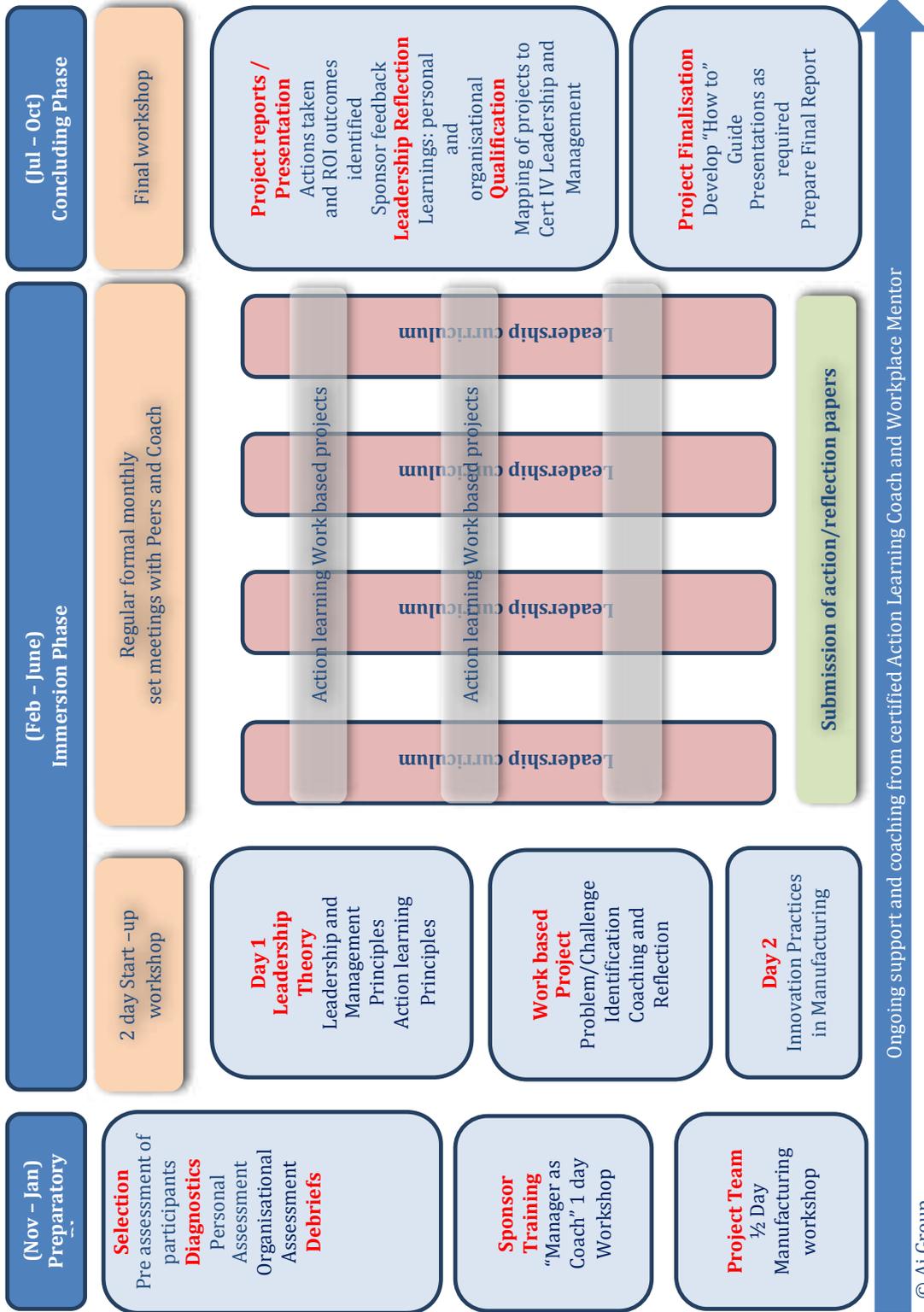
and after the action learning sets to allow them time to reflect on their assumptions and thinking.

The action learning sets also encouraged fresh ideas through discussions by participants across companies. Fostering interaction between businesses can help businesses become more innovative and grow. Sharing positive mindsets and behaviours are conducive to high performance and growth .

Both groups have networked in their own way, which is another key program component identified by the Taskforce. The Bendigo participants in particular, perhaps due to the close proximity of companies, decided to rotate the location for each session, thereby allowing the participants to get a feel for the company within which the participants worked. This has also formed the basis of ongoing beneficial business networks.

A visual map of the program structure follows.

Trial of Pilot Program - Management Skills in the Manufacturing Sector



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4.1 Learner-led Action Learning Best Practice:

Teaching management has become more challenging for a variety of reasons, not the least of which is a shifting world platform with increasingly complex problems for which we have no defined answers. A lot of the development models relied upon to date presume that 'transfer of learning' occurs once the individual returns to the workplace. It often doesn't as managers can find themselves constrained by the cultural norms/practices and ways of doing things 'back in the real world'. Rather than relying on traditional generic input-based curriculum, the pilot program required participants to identify real-life challenges from each individual's workplace. Basing the program around a workplace challenge means that the workplace becomes the locus of learning, a critical factor in leadership development.

The individual needs identification should be driven by the needs of each participant and their organisation. A common element in many programs is the use of the generic, instructor-led curriculum which draws on predesigned content. This mode of delivery is generally designed with specific learning objectives or outcomes in mind and written in behavioural terms. However this becomes less effective in leadership development initiatives that require a mindset shift through the unravelling of previous ideas, perceptions and understanding of leadership as it needs to be practised. For the purpose of this program then, the needs were derived from each individual's current workplace challenge.

Using questions to generate learning allows learners to address problems and challenges for which they don't necessarily have answers. The idea of a learner-led curriculum (i.e. where the participants determine what information/knowledge they need) initially took some getting used to by the participants and we found that one participant in the metropolitan group was unable to take on board this approach. For the benefit of the individual and the remaining participants in the group, a joint decision was made for the participant to be removed from the program. This particular participant was offered a complementary place in an Ai Group

'developing leader' workshop which is run using a more traditional instructor-led approach.

4.2 Use of coaching/mentoring:

For those learning providers/organisations that do recognise the importance of "in context" development, the 70/20/10 framework is commonly applied. However, the 70/20/10 framework presupposes that 70 per cent of learning does actually occur on the job. There are numerous challenges associated with making this learning explicit but it is this process of making the learning explicit that leads to sustained behaviour change.

The pilot program utilised peer support and feedback, together with one-on-one coaching and mentoring and personal reflection to build self-awareness and therefore encouraged a greater likelihood of application back in the workplace.

5. Project Stages

The project consisted of four key stages:

Stage 1: Planning and Development

- Selection/assessment of participant suitability
- One-on-one behavioural diagnostic and debrief
- High Performing Organisational Assessment
- Design and development of Leader as Coach workshop
- Design and development of Start-up Workshop.

Stage 2: Project Implementation

- Enrolment session and qualification briefing
- Delivery of Leader as Coach workshop
- Delivery of Start-up workshop
- Coaching for challenge identification
- Action Learning Set days (four - five full days over program)
- Monthly coaching sessions by facilitators (1 hr per month over six months p/p)
- Innovation in manufacturing mentoring (individual and group sessions)
- Final workshop.

Stage 3: Management & Monitoring

- Internal team meetings
- Management support
- Key Project Officer support
- Administrative compliance, mapping and project support for qualification.

Stage 4: Review

- Participant presentations, assessment completions
- Program evaluation
- Development of implementation guide
- Preparation of Final report (including Case Studies).

6. Evaluation of the pilot program

6.1 Evaluation of Planning and Development Phase

Measurement of the success of programs that utilise innovative methodologies such as action learning and work based projects require different indicators. A considerable part of the evaluations are the workplace projects that have been completed and the tangible change in the workplace at both an individual and organisational level. The success of the program can be viewed through the case studies/presentations that the participants prepared.

In support of the key program components identified by the Taskforce, these presentations showed the progress made in the workplace in relation to each participant's project and therefore demonstrate how the program has met the needs of individual companies within a manufacturing context (see Case Studies).

In addition, from an individual leadership skills improvement perspective, much of this program is directed towards vertical development, i.e. a change in mindset and increased ability to deal with complex issues in new ways. For this reason, we believe that the reflection papers that were required to be submitted are particularly important when assessing this type of development.

6.1.1 Pre-assessment

Given the different approach this methodology takes, it is important to identify suitable participants in the form of a pre-assessment. The purpose of the pre-assessment was twofold, a) to identify the employee readiness for participation in the program and b) to identify availability of internal support and mentoring for the employee as they progressed through the pilot. As a result of the pilot, some changes have been made

to the pre-assessment form which is included in the Implementation Guide.

6.1.2 Diagnostic Assessment

All participants completed a Myers-Briggs Type Indicator® (MBTI®) assessment designed to measure the psychological preferences for people perceiving the world and therefore make decisions. For many participants, this was the first time that they had encountered any form of introspective assessment. Participants commented that they felt the process was worthwhile and that it helped them to understand themselves and how they 'show up' at work. This was complemented in the action learning sets when participants challenged each other in their assumptions and perspectives. Having an understanding of their preferences helped the participants to understand their perspectives and the assumptions that often get made in different situations.

In addition, the project facilitators supplemented the individual self-assessment tool with an innovative online high performing organisations assessment tool developed by the University of Adelaide's Australian Workplace Innovation and Social Research Centre (WISeR). This was an online assessment measuring eight categories associated with high performance work systems. The report is user friendly and is presented in a 'traffic light' format that highlights areas of concern.

At the time of undertaking this assessment the Centre had only developed an 'employer' version of the online diagnostic tool. An 'employee' version is planned for future rollout. Undertaking a diagnostic purely from the manager/employer perspective doesn't provide a holistic picture of the organisation's practices. Having a mirror diagnostic allows for a more "honest" lens on the organisation and helps pinpoint target areas for improvement. For this reason, the workplace

diagnostic was of limited use in this pilot program. However, with the University's future planned rollout it is believed that the online tool will be of much greater value in assisting participants identify a workplace project. The tool is currently free of charge and can be accessed by any organisation.

6.2 Project Implementation

6.2.1 Evaluation of Leader as Coach Workshop

In order to obtain the maximum support for the participants, the 'Leader as Coach' (one day) workshop was the first program to be delivered within the pilot program to the participants' nominated workplace coaches. The company coaches/sponsors needed to understand the program and gain some awareness of the coaching process so that they could interact with the participants in a supportive manner throughout the duration of the program and assist with development of the individual emerging manager and the organisation.

Most of the coaches/sponsors spoken to indicated they had coaching experience, but it became evident during discussions early on in the workshop that what people thought was coaching was actually providing feedback. During the practice sessions, some of the sponsors/coaches initially kept reverting to the command and control paradigm by trying to offer 'solutions' and 'advice'. It was further identified during the day that most of the sponsors/coaches in the room did not have any formalised leadership management training themselves.

6.2.2 Challenge Identification and ongoing Coaching

Each participant was required to identify a workplace challenge and discuss it with their coach/sponsor prior to submitting the project for review by the Ai Group facilitator. This in reality turned out to be a fairly time consuming process as a number of the projects initially identified were not suitable (ie they were purely technical in nature and did not involve many stakeholders). Nor was there a challenge involved in the project itself: in many ways these projects were tasks that the participant could undertake autonomously and with minimal pushback. In these instances, the facilitators liaised with each individual participant and sponsor in order to identify a more

appropriate challenge, both in terms of duration and complexity.

Ai Group facilitator coaching sessions were held each month with each individual employee in order to closely manage their progression and provide feedback and support where necessary.

6.2.3 Start-up Workshops

A Manufacturing workshop, led by Goran Roos, a specialist in innovative manufacturing, was included as an important element in setting the context for the program. It highlighted the importance of innovation in the manufacturing sector. These workshops (held for each group) were half a day in duration and the participants, along with their company coach and sponsor, were invited to attend.

The leadership theory and communication/action learning skills workshop was delivered as part of another, 2 day Start-up workshop. This included an Innovation Practices in Manufacturing session which was run on Day 2.

The Day 1 session covered the following topics:

- Introductions
- Reflection
- Leadership approaches and concepts
- Effective Communication (Active Listening and Managing Group Dynamics)
- The power of effective teams
- Action Learning Fundamentals and Practice
- Work based project (discussion)

Business Models Inc was engaged to facilitate the Innovation Practices in Manufacturing session on Day 2. This session was designed to support and build on the discussion generated in Goran Roos' earlier Manufacturing workshop, and both participants and company coach/sponsors were involved on Day 2. Whilst clear guidelines were provided, some participants (and sponsors) found the level of material and applicability of the workshop given the unfamiliarity of the topic. It was felt by some participants that the material covered by Business Models Inc. would have been better directed at the sponsor/executive level rather than the participant.

However, some participants gained considerable benefit from the workshop and expressed their support for the program.

In evaluating this aspect, again the issue is raised around the readiness and suitability of some participants to engage with the innovative content. This could be addressed in future iterations through a more thorough pre-assessment process.

6.2.4 Action Learning Sets

Both groups undertook monthly action learning set days. Commitment to active participation in all of the action learning set days had been identified as a risk early on in the project. Within the metropolitan group there were only three participants who missed one set day and all three were as a result of extreme family circumstances. In the Bendigo group one participant missed one day as a result of a work emergency.

Overall Ai Group was satisfied with the attendance levels and the commitment demonstrated by the program participants. It is believed that this commitment is partially due to the strong bond and camaraderie that the participants experienced as part of the journey.

The action learning set days were supplemented with additional instructional workshops at the start of the day. The additional topics covered were:

- Building networks and working relationships
- Implementing your project - operational plan progress
- Effective feedback skills
- Work Health and Safety

6.2.5 Innovation Mentoring

Each participant was required to submit a company 'business model canvas' and a value proposition as part of the assessment process. Business Models Inc was engaged to provide the mentoring around the canvas and the value proposition.

Both Ai Group facilitators did receive feedback that the mentoring sessions could have been better managed by the Business Models Inc coach. It was also noted, however, that some of the participants were difficult to

pin down in terms of arranging coaching sessions with Business Models Inc.

6.2.6 Final Presentations

Each participant was required to conduct a final presentation to the group members on their project, progress made and any significant outcomes. The participants received feedback from both the facilitator and their peers in order to assist them with any improvements that needed to be made to their presentation.

Each participant was then required to conduct the presentation back in the workplace with their company coach/sponsor as part of the assessment process.

The case studies developed for the project identify varying levels of change and success for the participating companies as well as for the participating emerging managers.

6.2.7 Nationally recognised qualification

At the commencement of the program participants were enrolled in BSB40812 Certificate IV in Frontline Management. The pilot program was comprehensively mapped against the qualification units, and where required, additional workshops were incorporated in order to cover required competencies. With the endorsement of a new qualification during the project, two additional units were mapped against the program to enable the participants to complete a BSB42015 Certificate VI in Leadership and Management.

6.2.8 Compliance Requirements

All qualification compliance requirements were met during the project. The Australian Industry Group Training Services Pty Ltd's RTO Manager was included as a member of the internal project team.

7. Challenges identified during the pilot

There were two main challenges identified as part of the pilot that have led to further measures being built into the program:

- a) varying degrees of support from company-nominated coaches/sponsors, and
- b) the level of knowledge of action learning methodology required by RTO facilitators.

7.1 Company-nominated coach/sponsors of participants:

The project framework included a one day coaching session for the participants' managers/sponsors at the commencement of the program. Whilst participants' managers were initially supportive of the participants in undertaking this program, some participants experienced barriers in undertaking their work-related projects as the projects gained momentum. This was partly related to actual time being given during work hours to work on assessments. However of greater concern, was that in some cases, part of the participants' workplace challenges involved issues to do with their direct manager. This was problematic for those participants whose direct manager also performed the role of workplace coach throughout the program.

To address this issue, future iterations of the program will identify a coach in the selection stage who is not a direct supervisor or manager of the participant. In some cases the coach/manager did not fulfil their obligations as discussed in the initial agreement. These issues were discussed with the participants during the Ai Group monthly coaching sessions. Whilst this could have been addressed with a senior sponsor, this potentially could have placed some of the participants

in a difficult position and as such the participants requested confidentiality.

As a general observation, the leadership skills of the participants' managers cannot wholly be addressed through this program. However, by separating the role of company coach and direct manager in future programs, we believe that greater accountability can be achieved through more robust levels of support and ultimately a better outcome achieved for both the participant and the organisation.

7.2 The knowledge of action learning methodology required by RTO facilitators

The facilitators involved with the pilot program were both experienced with action learning methodology. The action learning process was considered to be an underlying factor in contributing to the growth of the program participants, and needs to remain as a central component for future success.

RTOs involved with this program will need their facilitators to be familiar with the principles of action learning, a term widely used but given varying interpretations. Programs on action learning, utilising methods such as Learning Circles, are widely known and require no additional formal qualifications other than the qualifications and vocational experience currently required to become a trainer/assessor in the VET sector.

The Implementation Guide developed as part of the project includes information for those needing to gain further understanding of the action learning process.

8. Conclusion

The pilot program is considered to have been successful in many regards. A large part of the success of the model depends upon the commitment of each participant and their organisation, and on the willingness of the participant to engage in the learning process with participants from other companies and other stakeholders in their companies. This is more likely to occur when there are strong support mechanisms in place.

The lessons learned as part of the delivery of this pilot have provided us with areas for improvement and these have been incorporated into the guide to implementing the program for manufacturing companies and RTOs. These additional measures will improve the quality and outcome of future company projects undertaken as part of this program. This in turn will impact positively on both future participants and the organisations for which they work.

In terms of the three key components viewed as integral to the success of this Stage 2 Project, it is believed that the pilot program design and delivery was able to meet these requirements:

- A localised manufacturing context was achieved through each individual's project activity, and a focus on the need for innovation in manufacturing was provided early in the program;
- Collaboration between local businesses was achieved through the relationships that were established at the commencement of the program and continued throughout the program. This fostered interaction to assist innovation and growth in the businesses, and supported positive mindsets conducive to high performance;
- The innovative delivery methodology supported each individual's learning needs and was driven from the learner's needs and the organisational needs, rather than an RTO's set process.

Ongoing networking initiatives were implemented by the two participant groups. The Bendigo group chose to rotate

the action learning set days at each participant's organisation. Not only did this help with providing an appreciation for the environment that each participant worked within, it led to the establishment of an ongoing network. The Metropolitan group decided to create a Linked In Group to keep in touch. These strategies were adopted by the participants to suit their own particular needs.

The nature of the program lends itself to ongoing connections since the participants form a close bond throughout the program. This often occurs when participants are being pushed out of their comfort zone and are feeling uncomfortable as part of the learning process.

Measures incorporated as a result of the pilot program aim to better engage senior management in the program and retain their participation/support for the duration of the program.

The pilot program was successfully mapped to BSB40812 Certificate IV in Frontline Management, and further mapped to the new BSB42015 Certificate IV in Leadership and Management against two additional units resulting in a nationally recognised qualification for the participants.

This innovative management development program for emerging managers in manufacturing needs to be promoted to both manufacturers and RTOs. The most effective approach would involve a number of networked companies, having identified internal candidates for valuable management development, approaching RTOs and requesting the use of this program methodology.

The accompanying Guide to implementing innovative management development in manufacturing sets out the steps and provides tools and templates to ensure the key components are achieved for manufacturing companies into the future.

Appendix 1 - Expression of Interest to Companies

Management skills in the manufacturing sector Development Program

Expressions of Interest sought

This innovative program aimed at emerging leaders within the manufacturing sector introduces the principles of high performance organisational work practices and explores organisational challenges through action learning sets, supported by peer feedback, coaching and personal reflection.

Commitments needed by your company

- Your nominated frontline manager/emerging manager will be attending six full day group sessions (comprising up to 8 participants - one from each participating company) over a period of 5-6 months plus 1-2 hour coaching sessions each month. Attendance at each full day session is integral to the success of the program.
- You will need to identify together with your participating employee a suitable work based issue/challenge that the participating employee will be expected to make progress on during the program
- Your support, through attendance at an initial half day coaching workshop together with ongoing coaching discussions with the participant during the program is expected
- Participants will be briefed about their commitment to the group and confidentiality of all discussions is agreed upon. Participants and organisations chosen for the program will not be working in direct competition with one another.

Benefits for your company from involvement in the project

- Your employee will gain a Certificate IV in Leadership and Management, at the same time building self-awareness and improving communication skills
- Your employee will work on a real life organisation specific issue, identified in conjunction with your management team
- Training will be delivered over time allowing time for improvements made as a result of the project to be sustained in your company
- Your employee will establish networks with other organisations through regular peer sessions. External networks are important to business success.

Appendix 2 - Pre-assessment Form

Pre-assessment Form for selecting program participants

Please provide a response to all questions, and return to (insert email address). Any questions can be directed to (insert relevant contact details).

Name of Employee: _____

Job title of Employee: _____

Company Name: _____

Previous Qualifications: _____

Name of Sponsor*: _____

Sponsor Contact No: _____

*The sponsor is a senior manager who has overall responsibility for both the participant and the designated Coach.

1. Why did you nominate this particular employee?

2. In what way has the nominated employee demonstrated their potential as an emerging leader/front line manager?

3. Has the nominated employee been spoken to regarding this program? Yes No

If yes, in what way have they demonstrated a personal commitment to their own development?

4. Will this employee be given sufficient support and time during work hours to make progress on a work related management project? Yes No

5. Who will support this employee internally to ensure they get the support they need to carry out their project?

Name of direct support person* (ie Coach): _____

*Note that the support person/coach must NOT be the participant's direct manager

a. Has this support person been notified of their role in this project including the need for them to attend the 1 day Manager as Coach workshop? Yes No

6. Who (apart from the nominated employee) from your company will be attending the following workshops?

Half Day Innovation in Manufacturing workshop: _____

One Day Innovation practices workshop: _____

Name of Sponsor: _____

Signature of Sponsor: _____

Date: _____

Case Studies

Company A

Participant 1

Background:

Company A in Australia is part of a leading international electronics and systems group serving the defence, aerospace and space, security, and transport markets in Australia and throughout the world.

Challenge:

The issue identified was that too much time was spent on rework due to mistakes or quality concerns in the work of the team the participant supervises. While there are quality systems in place and process sheets to follow, they have been unable to eliminate these errors. There are no concerns with capability, as most of these workers have been building the same vehicles for ten years, and have in the past successfully completed tasks with minimal or no errors.

Overall Progress/Outcome of Project/Challenge:

- Started the C4 pilot group, taking inspiration from a process used on another site but never implemented at the participant's site (the Group included Engineering, Management and Operators)
- Changed the process of fixing quality issues, previously it was whomever was available, and now time and date of quality issues are itemised in order to find who made the error, and they are then tasked with fixing it
- Discovered through investigation that errors were not due to poor morale, but simply human error, but there were still ways to reduce this
- Implemented monthly barbeques.

As rework had already significantly reduced, the focus of the project then became more about refining and improving the quality control systems and guide to implementing measurement. During the project the participant started to think about other ways to contribute to quality, not just rework measures. A significant moment for the participant was when the question was asked "Would it be beneficial to add a dollar figure to the rework report?". This was something that hadn't been explored and it was thought that displaying it may have had an impact on employees realising that non-quality costs money. Actions then taken included: piloting new Quality Boards, displaying rework costs to staff through graphs and bar charts, and investigating accuracy of the current skills matrix.

Outcomes:

- The average number of issues per vehicle has decreased significantly from 3.0 to 2.1
- For the seven vehicles completed for the month, all vehicles achieved the target of 3 IPV
- Recurring Issue Range from July 2015 has changed from 30 vehicles down to 15 vehicles
- Recurring issues has dropped from 44 per cent to 6 per cent.

Benefits Gained:

Organisationally: A better system has been created for capturing quality issues and allocating them to Design, Engineering or Production teams for investigation or rectification. Introducing a format in the C4 process has meant they are able to investigate and resolve issues more effectively. Displaying graphs and tables shows the impact and costs of re-work.

Personally: The participant believes he has found that one learns every day, and that gaining a thorough understanding of a problem or issue is the key to rectifying it. He believes he has grown in his confidence to approach employees more frequently to engage in conversation. In addition, active listening is a skill that he has been able to fine tune during the program, allowing employees to find solutions to their issue by making them think or find out themselves what would be the best outcome.

Company B

Participant 2

Background:

Company B, a member of a multi-national Group, is one of the largest rubber manufacturers and is the only manufacturer of a certain product range in Australia. The Victorian based plant has full in-house design capabilities, an extensive range of over 1900 material formulations and is an accredited TS 16949, QS 9000, ISO 9001 and 14001 company.

Challenge:

The workplace was considered to be untidy with a problem around general housekeeping. This was affecting the company by reflecting poorly on visiting customers and potential customers, which may lower the perception of the company's attitude towards quality. Poor housekeeping in the workplace can also lead to safety hazards such as trip hazards and slippery surfaces. Also, when materials/items are not put away, efficiencies can be lower due to additional time required to locate these items.

Overall Progress/Outcome of Project/Challenge:

Although the main problem was identified as being a cultural issue (there is a strong culture suggesting that the messy/untidy state of the factory is considered 'the norm'), there was a recognition that a lack of time/resources existed in which to maintain housekeeping to a satisfactory level. The team explored why 5S did not work in the past, which was mainly due to a lack of resources and management of the system. Some work has been done to see how much time would need to be delegated to maintain a satisfactory level of housekeeping. One of the issues identified was that the need for good housekeeping was not being prioritised, with no real accountability for the different areas. No one took ownership.

The participant created a housekeeping team as per the team charter which has put people in charge of areas to ensure accountability. He has also created a simple system in which each area is scored out of ten to monitor the progress. Cleaning stations have been set up and the participant has implemented allocated cleaning time when standard work hours are not enough and areas need it.

Benefits Gained:

Organisationally: There has been an improvement to the housekeeping which has been noticed both internally and by external entities. The culture is starting to improve in some areas and, according to the participant, it feels as though the employees are starting to develop a sense of pride in their workplace.

Personally: The Myers-Briggs Type Indicator helped the participant to realise his preferences. It has helped him to understand why he dislikes routine and tends to focus on the more exciting projects as opposed to those with the most potential, and why he becomes easily bored. He also learnt that he has a tendency to assume full responsibility instead of sharing the load and that he needs to ask for help more often. He will continue to apply these new found preferences within the workplace

Company C

Participant 3

Background:

Since 1969 Company C has provided specialist engineering services to Australia's industry leaders. Quality assurance accreditation by Lloyds (LRQA) complements the total quality culture. The company's commitment to continuous quality improvement touches every aspect of its products, services and customer support.

Challenge:

It was identified that communication between Shopfloor, Planning and other sites (Bendigo, Melbourne and Perth) was lacking. This was causing projects to fall behind and have errors, thereby increasing company costs and eating into profit margins. The participant realised he needed to add some different ways of communicating within the company. The ideas put forward were: email groups, weekly planning boards, 'kick off' meetings, 'lessons learnt meetings and weekly planning meetings.

Overall Progress/Outcome of Project/Challenge:

Whilst the weekly planning whiteboards implemented began well, not all the team appeared to be on board. The challenge was revised in order to look into ways to ensure the whole shopfloor worked together on one plan. The participant encouraged the machine shop supervisor for his input and actively sought his involvement in the 'weekly white-boards'. This provided a plan for the entire shop to flow smoothly between fabrication and machining.

The improved communication has impacted positively on projects. For example, the "XXXX" Project (seven months from Jan-end of July) had a margin initially planned at 9% (quoted late 2014). Thanks to efficiencies gained through the planning process within the Shopfloor, that margin increased to 19%. There has been increased ownership from Shopfloor. Workers are now allocating their names to certain tasks and making suggestions/changes as to the order of things or implement process improvements.

Benefits Gained:

Organisationally: The profit margin doubled (drag line tub) with on-time delivery. Happy management and Shopfloor employees has meant the company has satisfied customers and the team is well prepared for all incoming jobs.

Direct feedback from Shopfloor: "When we communicate with each other and the whole facility gets along together, we definitely don't have the errors or reworks on jobs that we have had in the past. Shopfloor employees are also a lot happier as things are planned a lot better and employees are not put under pressure at the end of a job to get it delivered on time".

Personally: The participant believes he communicates more regularly with all staff and that his time management and forward planning skills have improved.

Company D

Participant 4

Background:

Company D takes an innovative approach to design and manufacturing techniques of semi-trailers, to continual product improvement and to safety and efficiency for road users, operators and employees.

Challenge:

Company D was delivering only 60 per cent of trailers on time which means customer demands were not being met. Sales were lost because the production lags meant they could not commit to the turnaround some clients wanted.

Overall Progress/Outcome of Project/Challenge:

The main problem was identified as sales orders being incomplete when given to the Engineering Department to start the build process. It was identified that the Sales manager needed to push-back on the sales team to have more completed order specifications from the client. A new system was set up for new orders - involving Engineering, Sales, job sheets, the Fabrication teams at their two sites, the MD and Operations Manager.

The benefits of the new system are:

- Communication - everyone is clear on expectations of delivery; all departments are in the loop; it has reduced the incidence of certain departments not achieving agreed targets
- The Engineering team can push back if they need more time or the specifications are not complete
- If the Fabrication team sees any issues with stock requirements/inventory, they can order earlier
- Morale at the second site has improved as they are less isolated and are kept in the loop as jobs come in and future planning is transparent.

The Company D Improvement Team has been set up and with the help of the team objectives identified in the Team Charter, the team is sharing and helping to resolve each department's issues.

Toolbox meetings have also occurred weekly since late March. It took about a month for these meetings to become two-way forums to prove productive.

Planned Actions and Outcomes:

- Appointment of a new Engineering Manager which has resolved one of the major bottlenecks
- The Sales Team is issuing completed order forms
- Departments are starting to communicate and work better as a team to meet delivery deadlines
- Knowledge is being shared between sites to the benefit of both sites (saving in time, money and efficiency)
- Implementation of Toolbox Meetings improving efficiencies and changing culture.

Benefits Gained:

Organisationally: The implementation of Toolbox Meetings across 10 departments has created a forum for communication between all departments, employees and management. Company D previously had issues with communication between management and the factory floor that was causing angst. This forum seems to have improved morale greatly.

Creating the Company D Improvement Team and Team Charter has also helped with communication and team-building throughout all the departments.

Company D have improved their on-time deliveries to an average of around 80% per month compared to 60% at the beginning of the project.

Personally: The participant has benefitted from the action learning sets - knowing which questions to ask and when. He has gained confidence in pushing back and making people more accountable and has enjoyed the benefit of having established a like-minded group within similar industries to share experiences.

Company E

Participant 5

Background:

Company E has over 30 years' experience in the earthmoving industry, with a team that is committed to providing the best possible earthmoving solutions to its customers. With a fleet of over 300 earthmoving machines, Company E is renowned for providing high quality rental equipment throughout Australia.

Challenge:

The participant's team was having issues with machines arriving on site and not working properly, and/or not built to the customer or site specifications. Also they were losing revenue from not capturing back chargeable cost and forwarding onto customers. The effect of the problem didn't just affect the participant's team but the whole business by causing low morale in workshop floor staff, creating tension between departments with nobody wanting to help or listen. They were incurring (in some cases), significant financial loss.

Overall Progress/Outcome of Project/Challenge:

A significant moment for the participant was early on in the project when he realised what they were not doing as a business in the form of scheduling and predictive maintenance.

Planned actions:

- Develop standards with pre and post hire inspections of machines.
- Make inspections compulsory with set days or time to be completed by.
- Develop scheduled/predictive maintenance system.
- Develop an equipment return to work estimation schedule
- Capture cost of post hire damage and examples of failure to capture these costs.
- Develop a questionnaire/request form for sales and rental departments.

Outcomes:

- Implemented a pre and post hire Inspection Process;
- Implemented Questionnaire for sales and rental departments;
- Developed a Maintenance Email Group ensuring all stakeholders are in the loop;
- Implemented a process to monitor machine movements (Since the changes, they haven't missed a machine arrival/departure and are able to trace back movement of smaller goods.)
- Established a WIP account management and back-charging Invoices.

Benefits Gained:

Organisationally: The timing for this project including the Team Charter was considered to be perfect. At the time, the business was going through a business restructure due to rapid growth. Using the project and Team Charter they were able to redesign procedures and paperwork and improve inter-departmental communication thereby assisting to build strong relationships based on trust. Even some of the smallest changes, such as the Maintenance email group, and the combined transport and maintenance department's morning meetings have helped.

Participant: has learned to guide implementation work with different types of people. He is now empowering people with responsibility and is appreciating that getting people involved from different levels and departments to help solve a problem together can yield significant benefits.

Company F

Participant 6

Background:

Company F aims to lead the world in the provisioning of rotating manufacturing solutions. Whether for manufacturing, construction, exhibition or residential and industrial property markets, they pride themselves on service excellence and the ability to work creatively with customers to develop and implement successful rotational solutions for their organisation.

Challenge:

The participant had identified communication issues between the installation team and the production and planning team. Inspection reports were not complete or detailed enough for the next part of the process to occur, which was leading to a waste of resources and time (e.g. many return visits, wrong product being ordered, or needing to rush to a site with extra tools).

Overall Progress/Outcome of Project/Challenge:

There was a realisation that the main installer was in need of a new challenge. He has since moved on to another company. Other Actions identified were to continue to upskill the existing workforce and explore subcontracting options.

The participant has now begun upskilling the remaining team members to take on more responsibility while recruiting a new main installer. During discussions about the team's future, the participant came to the realisation that a new production manager should also be employed and that the participant himself would move to a new role in R & D.

Actions taken:

- Looked for a better qualified person to do installation work: fitter rather than welder or experience with installations
- Undertook full cost analysis of setting up a person in Sydney rather than contracting
- Recruited and trained new production manager
- Established simple step procedure for installations
- Implemented ongoing performance management of current personnel
- Recruited a new installer and a highly qualified production manager.

Benefits Gained:

Organisationally: The staff are happier since the main installer has moved on. A new and very experienced production manager is in place to manage all functions related to production and installations of products. Whilst there are still some call backs they are becoming fewer as the new installers are becoming more experienced. They are proactive in reporting defects and are much more involved in finding the solutions. In addition, the participant's new role allows him to think more strategically about managing the business without getting caught up in operational concerns. The company is now exploring how to position itself for future growth.

Participant: The whole process has reinforced what the participant already knew and highlighted some areas that have allowed him to make certain decisions around his future as a production manager in the company. He found the Myers Briggs report interesting and finds himself reflecting on the findings. It has given him freedom in that he can refer back to the results and acknowledge his personality type. He understands why it is hard to organise a team that needs exactly that -organisation and diligence. This has given him the opportunity to move himself into a role that is much better suited to him.

Company G

Participant 7

Background:

Company G specialises in the design and manufacturing of commodity handling equipment. Company G also carries out customised work for various customers. Because of the high reputation of its products and the long standing in the industry, Company G enjoys a high level of repeat business.

Challenge:

There was no formal record of employee skills within the company. This would slow or even stop production in periods of employee absence. A skills matrix for staff was suggested to assist in better utilising staff to produce better quality goods, resulting in better profits for the company. It was anticipated this would also boost staff morale, as staff could be moved around the work floor in quiet times.

Overall Progress/Outcome of Project/Challenge:

At the beginning of the project it became apparent that staff were set in their ways culturally. They have always been very hesitant when change is initiated within the company. The significant moment for the participant was when she was asked what was within her realm to change.

Planned actions:

- Establish a workflow chart
- Explore possibility of multi skill allowance
- Finalise team charter and set up meeting to review/finish team charter
- Document continuous improvement list and communicate back to workers
- Explore whether managers can enforce work procedure sheets.

The participant presented at toolbox meetings to make staff aware that she was developing a skills matrix, and to explain what the purpose and benefits of it would be to them and to the company. Over the course of the project the following outcomes have been achieved:

- A "current state" skills matrix across the business has been established. This will serve as a benchmark to determine current skill and knowledge levels amongst the company's personnel, as well as providing direction regarding the development of the company's personnel e.g. "future state" skill and knowledge levels.
- Introduction of development plans for key, new personnel in order to fast-track their skills and knowledge development.

Benefits Gained:

Organisationally: Morale has improved as the staff are learning (through a variety of work), and are engaged, resulting in reduced turnover. The skills and knowledge base across the business has been broadened. Due to the increase of knowledge of production lines, staff can easily move around to where they are needed in quiet times. There is also a boost of morale amongst employees, as they experience different roles instead of the repetitiveness within the same job. Company G aim is to have fewer redundancies as a result of having upskilled staff.

Personally: The participant learned one person cannot fix a problem single-handedly. She believes she has learned to speak more effectively in front of her peers and how to give positive feedback. She has developed a better relationship with her co-workers. In relation to her project she is now proficient in completing a skills matrix, is clear on her own responsibilities, and has a better insight into the company.

Company H

Participant 8

Background:

Company H is an advanced manufacturer in 3D scanning, CAD modelling, Prototyping and Tooling.

Challenge:

Company H's issue involved inadequate capacity in the CAD department, which is a core area of their business. Due to changes in the manufacturing sector, notably offshoring to cheaper markets, pattern making is a dying trade and lack of trade schooling has left a large hole in terms of skills available in the current employment market.

Initially the focus related to how to fast-track recruitment, until the moment of realisation that the problem was more about availability of resources. Improvements with respect to the recruitment process can only go so far as there is a genuine lack of skills in this area. Some of the actions earlier on in the project involved garnering support in the training sector to build these skills.

Overall Progress/Outcome of Project/Challenge:

Discussions initially focused on the potential for freeing up current tasks with management in order to mentor an internal resource. It also involved exploring recruitment amongst similar professions (fitter and machinist, die-makers, plastic injection moulding). During the project, the pressure was relieved due to the recruitment of a technician within the parent company, to assist with CAD preparation saving up to 40 per cent of the team's time. This assisted with the workload but the team continued to be under-resourced. The team has now found some suitable sub-contractors who have previously produced work for them. Outsourcing these projects allowed the team to meet the incredibly tight timeline dictated to them by the parent company. This has allowed the participant extra time to work on a mentoring program.

As this challenge was not a quick fix solution, they are still a long way from having the perfect situation in place. What has been established so far is a fairly solid base to build on for the future. The project exposed the importance of upskilling current employees along with the training and development of people to maintain a robust and diverse business.

Benefits Gained:

Organisationally: Company H is building a more robust business by not relying on a few key people to execute tasks. They are focusing on developing employees to provide additional flexibility to accommodate fluctuating work flow/loads. All employees within the company now have a more thorough understanding of the businesses values and ambitions. Employees are feeling more empowered as they are adding to what they provide for the company. Although it is still a high pressure environment, the workplace is happier with a perceived reduction in stress levels.

Personally: The participant learned that on occasions it pays to make yourself uncomfortable. He has a new found value on input from outside his specific industry. Focusing time on the smaller challenges can make a huge difference to how he tackles the big challenge within the business. He is able to set timelines and action plans for solving problems.