

# Steven J. Farrugia



## PERSONAL DETAILS

Name: Steven John Farrugia - Lean Six Sigma Process Engineer  
Telephone: (Mobile) 0412 859 810  
Email: Steven.Farrugia@vative.com.au

## QUALIFICATIONS

**Tertiary :** RMIT University

2003-2005	Bachelor of Engineering Manufacturing and Engineering Management (1 <sup>st</sup> Class Honours) (Minor) Business
1999 – 2002	Advanced Diploma of Engineering Principal Technical Officer
	<u>Casey Institute of Technical and Further Education</u>
1995 – 1998	Diploma of Engineering
1993 – 1996	Certificate of Apprenticeship
1992 – 1994	Advanced Certificate in Engineering
1992 – 1994	Certificate in Engineering

**Secondary :** Lyndale Secondary College

1987 – 1991	Victorian Certificate of Education (V.C.E)
-------------	--

### Other:

- ◆ Certified Lean Master / Lean Six-Sigma Green Belt (Motorola and LSSSP)
- ◆ Certificate IV in training and assessment
- ◆ Methods Time Measurement (MTM & UAS) License
- ◆ Level 3 First Aid Qualification
- ◆ Languages: English, Maltese and German

## RELEVANT TRAINING AND ACHIEVEMENTS

- ◆ Finalist of Victoria Business Innovations Competition 2004
- ◆ Finalist of Victorian Young Achievers Award in 2001
- ◆ Project Management (Kepner Tregoe)
- ◆ Lean Value Stream Mapping and 5S implementation systems (Master)
- ◆ Ergonomics and Ergonomic Workplace Design (Expert)
- ◆ Root Cause Analysis (Kepner Tregoe) (Expert)
- ◆ Quality Firewall Implementation and Management (Master)
- ◆ Quality Management, QS9000, TS16949, Q10
- ◆ Budgeting and Forecasting, Capital Investment Calculations
- ◆ Financial management, Book keeping and Tax
- ◆ DISC profiling, Inspire Team Building and Training Methods
- ◆ Microsoft Word, Excel, PowerPoint, Outlook and Explorer (Expert)
- ◆ Microsoft Frontpage and Dreamweaver (Intermediate level)
- ◆ Microsoft Project (Advanced), AutoCAD 2002 (Expert), CAD Management (Advanced)
- ◆ ERGOMAS (3D Ergonomic workplace design and simulation)
- ◆ Witness Simulation and Systems Modelling Software
- ◆ Comprehensive knowledge of SAP and other MRP ERP systems
- ◆ Pneumatics, Hydraulics, Programmable Logic Controllers and Control Systems

## PERSONAL SUMMARY

A dynamic team-oriented professional with highly developed technical skills, strong communication and analytical skills with an Lean innovative approach. A consistent ability to lead teams, solve underlying issues, work in a structured, motivating and planned manner. Additionally, strengths include:

- ◆ Strength in building relationships, leading Lean cultural change
- ◆ Ability to prioritise work and meet time frames and deadlines
- ◆ Ability to identify Lean opportunities and implement actions to seize benefits
- ◆ Ability to communicate effectively with both Directors, staff and other relevant bodies
- ◆ Ability to also listen and gather all relevant information and formulate into plans

## CAREER SUMMARY

DATE	COMPANY	POSITION
Oct 04 - Current	<b>Vative – Truly Innovative</b> Lean Process Eng. & Invention Development Consulting Agency	<b>Managing Director</b>
Oct 04 - Current	<b>InfoM8Direct – Marketing</b> Marketing Consulting Services & Email/SMS sending technologies	<b>Managing Director</b>
Feb 04 – Nov 04	<b>Robert Bosch (Australia)</b> Automotive Parts Manufacturer	<b>Production Engineer</b> <b>Lean Systems Leader</b>
Dec 01 – Feb 04	<b>Robert Bosch (Australia)</b> Automotive Parts Manufacturer	<b>Senior Industrial</b> <b>Engineer/</b> <b>Project Co-ordinator</b>
Sept 01 – Dec 01	<b>Robert Bosch (Germany)</b> Automotive Parts Manufacturer	<b>Industrial Engineer/</b> <b>Systems Analyst</b>
May 00 – Sept 01	<b>Robert Bosch (Australia)</b> Automotive Parts Manufacturer	<b>Industrial Engineer</b>
Jan 00 – May 00	<b>Robert Bosch (Australia)</b> Automotive Parts Manufacturer	<b>Technical Officer/</b> <b>Designer</b>
Oct 98 – Dec 99	<b>Robert Bosch (Australia)</b> Automotive Parts Manufacturer	<b>Industrial Designer</b>
Oct 97– Oct 98	<b>Robert Bosch (Australia)</b> Automotive Parts Manufacturer	<b>Maintenance Planner</b>
Dec 95 – Oct 97	<b>Robert Bosch (Australia)</b> Automotive Parts Manufacturer	<b>Maintenance Fitter</b>
Jan 96 – Oct 96	<b>Ballistics Productions</b> Youth Dance Parties	<b>Co-Manager</b>
Feb 92 – Dec 95	<b>Robert Bosch (Australia)</b> Automotive Parts Manufacturer	<b>Apprentice Fitter &amp;</b> <b>Machinist</b>
Jun 89 – Feb 94	<b>Gerard Meats</b> Butchery	<b>Shop Assistant</b> <b>(Part time)</b>
March 88 – Feb 89	<b>Moore's Hub Pharmacy</b>	<b>Storeman</b> <b>(Part time)</b>

## CAREER HISTORY

**Oct 2004 – Current**

***Managing Director – Vative – Truly Innovative***

*Innovative Lean Process Improvements and Products*

---

### **Responsibilities/Duties:**

*(Operations, Finance, Marketing, Learning Resources & Development)*

- ◆ Clients – All (Over 55 client Nationally and Internationally)
- ◆ Strategically analyse business gaps and goals (VSM, Lean Audits & Culture/Morale)
- ◆ Development of business improvement strategies to align with gap analysis
- ◆ Develop website and business forms and procedures for the following business sectors:
  - Lean Six Sigma Business Process Improvements
  - Inventions Development
  - Strategic Business Analysis
- ◆ Key sectors of Lean Process Improvements and Training
  - Lean Six Sigma Internationally Certifications
  - Strategic Business Analysis
  - Certified training for Lean Six Sigma in Manufacturing, Logistics, MRO, Finance, Health Care, Mining, IT, Construction and other
  - Lean Value Stream Mapping
  - Kanban Systems
  - Overall Equipment Effectiveness (OEE)
  - Quick Change Over
  - 5S
  - Total Productive Maintenance
  - Quotation and evaluations
  - Process design and implementation of improvement systems
  - Project management
- ◆ Key sectors of Inventions Development
  - Client innovation evaluation
  - Conduct patent searches
  - Product design/Prototype development/Prototype testing
  - Manufacturing cost analysis
  - Potential market share analysis
  - Strategic buyer analysis
  - Buyer presentation preparations
  - Buyer presentation
  - Royalties negotiations
  - Royalties management
- ◆ Manage consulting team consisting of:
  - 26 Lean/SixSigma Process Specialists
- ◆ Lead Teams to develop Lean Business Systems for new product introduction
- ◆ Management of all Vative marketing campaigns
- ◆ Establish and maintain relationships with strategically aligned businesses
- ◆ Business Sales Management and execution

Key Clients – FORD, Robert Bosch, Dana, Bluescope steel, Cummins, Smorgon Steel, Mackay Multi-link, Iveco, Australian Arrow, Danks, Tuff Tonneaus, Amalgamated Casket Co., Silvan, Kangan Batman TAFE, Think Appliances, Swinburne University and many other smaller organisations.

### **Key Invention Development Achievements:**

- ◆ Designed, registered, marketed and started manufacture of new innovative garden accessory distributed via major outlets (Mitre10, Bunnings, etc)
- ◆ Designed, tested and patented new innovative bedding product (To be released)
- ◆ Designed, patented and developed new innovative marketing systems that allows for targeted marketing campaigns with the shortest time to market ever achieved. System is linked to all major charity organisations in Australia  
Assisted multiple clients in product development, design and marketing

### **Key Lean Process Improvements Achievements:**

- ◆ Client: Robert Bosch – Developed strategies and implemented advanced methods and systems for Quality Control and Early Warning Systems prevention for Robert Bosch Australia. System used as a benchmark for Global Standards
- ◆ Client: Robert Bosch - Reduction of missed planned deliveries of companies highest value/highest volume product via System Flow Analysis and Value Stream Mapping techniques. Efforts achieving a reduction of overall WIP by 27% while increasing safety stock by 300%.
  - Single point control of entire Kanban system for area
  - Better utilisation of stock by holding stock of only completed goods which are useful to the customer and eliminating work in progress stock piles
  - Improving visual controls of work in progress levels between prior assembly processes by use of FIFO lanes
  - Development of a Kanban roadmap to indicate when product should be added or removed from Kanban
  - Development of capacity planning tool according to product specific process flows
  - Improved design over Kanban card to list sub assembly part number and process route
  - Simplification of card generating system
  - Amplification of breakdowns and line stoppages
  - Reduced average change over time of bottle neck process from 18min to 7min. This effort was to coincide with introduction of Every Part Every Interval (EPEI).
- ◆ Client: Mackay Multilink – Major process improvement project of assembly plant over 6 month period achieving all of the following in under quoted costs:
  - 57% improvement in assembly line efficiency via
    - Introduction of standardised work
    - Introduction of single piece flow
    - Labour Balancing
    - Improved workplace design
    - Automation of labour intensive processes (eg. Automated drilling machine, automated hub greasing machine)
    - Equipment improvements (eg. Electric axle lifting machine)
    - Operator training
    - Improved handling equipment
    - Improvements in process flow
    - Layout changes
    - Kanban introduction for key materials
  - Reduction in major quality issues via Root Cause Analysis and 5 Whys methodology
  - Reduction material shortages through more transparent process
  - Major plant re-layout over 3 day period with team of 8 workers

- Reduction in unused material storage
- Better use of floor space
- Elimination of forklift for internal stores area
- Reduced risk of Work Cover claims due to injury
- ◆ Client: Australian Arrow – Design and manufacture of custom tooling for rework area eliminating risk of injury and RSI
- ◆ Client: Iveco – Development of SAP routings system for entire plant, Value Stream Mapping of processes and development of strategic lean approach business improvement project plan. This includes integrated logistics, sales, quality and manufacturing systems that will reduce lead time to delivery, reduce WIP and reduce quality faults. Details of project can not be release for confidentiality reasons.

## **February 2004 – November 2005**

***Production Engineer/Lean Systems Leader – Robert Bosch Australia Pty. Ltd. (RBAU)***

*Robert Bosch Australia is a leading manufacturer of automotive parts and components.*

---

### **Responsibilities/Duties:**

- ◆ Drive all changes for Bosch Production Systems (BPS) implementation
  - Lean Value Stream Mapping
  - Kanban Systems
  - Overall Equipment Effectiveness (OEE)
  - Quick Change Over
  - Workshop 5S
  - Total Productive Maintenance
- ◆ Manage Production Employee Training & Development
- ◆ Lead Production Workshop Improvements
- ◆ Lead Quality Control teams via Redshelf and 8D programs according to TS16949 requirements
- ◆ Determine manufacturing techniques and costs for New Product Introductions (NPI)
- ◆ Lead Teams to develop Manufacturing Systems for new product introduction
- ◆ Manage and lead all Engineering Change Requests for related products (ECRs)
- ◆ Full Responsibility of LWS4 (Steering wheel angle sensor), CEG (Comfort Entry Go sensor)
- ◆ Duties for each product as follows:
  - Production project management
  - Production Documentation (Control Plan, Flow chart, PFMEA, WI)
  - NPI process
  - ECR process
  - Quality targets TS16949
  - Production KPI
- ◆ Web Master for Manufacturing Group 1

### **Key Achievements:**

- ◆ BMW supplier excellence award
- ◆ 0 ppm failure record
- ◆ Introduction of fault recording systems to track annual cost and drive improvements
- ◆ Over \$35K reduction in scrap and rework costs via Root Cause Analysis
- ◆ Reduced production takt time by 50% and increase capacity by 100%
- ◆ Rationalised Work In Progress (WIP) by 75% via improved plant process flow

- ◆ Over \$180K P.A. in labour cost reductions via elimination of non-value adding processes
- ◆ Elimination of cracked capacitor faults via Root Cause Analysis and improved process handling techniques
- ◆ Reduction of equipment downtime by 75% via strategic preventative maintenance planning and equipment design improvements

**10 Year long service award**

**December 2001 – February 2004**

**Industrial Engineer – Robert Bosch Australia Pty. Ltd. (RBAU)**

*Robert Bosch Australia is a leading manufacturer of automotive parts and components.*

---

**Responsibilities/Duties:**

- ◆ Deputy Team Leader for Industrial Engineer Group
- ◆ Optimise workshop layouts, material flow and logistics
- ◆ Improve productivity, labour costs and Value Stream Map manufacturing processes
- ◆ Develop concepts for new production lines
- ◆ Calculate technical capacities, utilisation and workshop efficiencies
- ◆ Co-ordinate, control and carry out all workshop relocations and new line introductions
- ◆ Develop, manage and maintain labour calculations and standards using SAP

**Responsibilities/Duties cont..**

- ◆ Ergonomic workplace design of all labour related work areas
- ◆ Establish and co-ordinate teams to improve production methods
- ◆ Train and develop skills of new department employees
- ◆ ERGOMAS systems co-ordinator (3D workplace design)
- ◆ Plant simulation systems co-ordinator
- ◆ Special projects as assigned by upper management
- ◆ Department Data Security co-ordinator
- ◆ Department SAP system co-ordinator

**Key Achievements:**

- ◆ Successfully managed Industrial Engineer tasks for Manufacturing Groups Anti-lock Braking Systems, Sensors and Machining Workshops. Over \$170,000 P.A. savings in labour and more the 80m<sup>2</sup> of saved floorspace by using advanced layout techniques
- ◆ Project Manager for the introduction and rollout of ERGOMAS 3D modelling system for RBAU. This introduction involved integration with existing design software, advanced training of four operators, developing and linking of new standards into current procedures and information sessions for over 150 participants
- ◆ Developed new layout approval procedures to reduce project “Time to Market”
- ◆ Developed standard checklist for workstation ergonomic release
- ◆ Part of team that introduced 2<sup>nd</sup> LWS Assembly line and drove team efforts to raise level of automation by 50%. Hence reduction of labour costs of over \$600,000
- ◆ Project manager for overall plant layout improvement project (over 35 sub projects and leadership of over 25 resources)
- ◆ Automated data Time Sheet calculation tool thus reducing operator effort and time
- ◆ 10 Year long service award

## **September 2001 – December 2001**

### ***Industrial Engineer/System Analyst – Robert Bosch Germany Pty. Ltd.***

---

#### **Responsibilities/Duties:**

- ◆ Analyse Robert Bosch worldwide Industrial Engineering methods and software tools
- ◆ Further develop skills and acquire knowledge to return to RBAU
- ◆ Shares skills and methods developed by RBAU with RB Germany

#### **Key Achievements:**

- ◆ Analysed worldwide Industrial Engineering methods and tools and reported on the direct effect of introduction for RBAU
- ◆ Analysed and justified the purchase of ERGOMAS in 2002
- ◆ Analysed and justified the purchase of ZEBRA in 2003 (Automated data management system for Time Studies)
- ◆ Collated all partially translated work practice manuals (Norms) from all English speaking Robert Bosch Plants around the world and compiled the backbone of the first English Norms release
- ◆ Provided key direction for future developments of ERGOMAS and ZEBRA software
- ◆ Compiled first 3D model of RB/FeW diesel pump de-assembly line and improved labour costs, workplace design, workshop efficiency and output
- ◆ Further developed personal skills of the German language

## **May 2000 – September 2001**

### ***Industrial Engineer – Robert Bosch Australia Pty. Ltd. (RBAU)***

---

#### **Responsibilities/Duties:**

- ◆ Optimise workshop layouts, material flow and logistics
- ◆ Improve productivity, labour costs and Value Stream Map manufacturing processes
- ◆ Develop concepts for new production lines
- ◆ Calculate technical capacities, utilisation and workshop efficiencies
- ◆ Co-ordinate, control and carry out all workshop relocations and new line introductions
- ◆ Develop, manage and maintain labour calculations and standards using SAP
- ◆ Ergonomic workplace design of all labour related work areas
- ◆ Establish and co-ordinate teams to improve production methods
- ◆ Manage, train and develop skills of technical assistant
- ◆ Special projects as assigned by upper management

#### **Key Achievements:**

- ◆ Successfully managed Industrial Engineering tasks for Manufacturing Groups Alternator and Starter Motor. Over \$900,000 savings in labour costs
- ◆ Designed and implemented automated material handling system for Alternator Stator production system reducing WIP, process time and labour costs
- ◆ Developed new Operator Loading Plan calculation tool to reduce “Time to Market”
- ◆ Nominated for 3 month work assignment at Robert Bosch Germany in Industrial Engineering head quarters to further develop new skills in order to extend knowledge to RBAU in the future
- ◆ Successfully trained new Industrial Engineer

## **January 2000 – May 2000**

### ***Technical Officer/Designer – Robert Bosch (Australia) Pty Ltd***

---

#### **Responsibilities/Duties:**

- ◆ Supervise and delegate work to machining and building workshops containing 14 tradespersons
- ◆ Ensure staff productivity and morale is kept at an optimum level
- ◆ Procurement of tooling and parts from various suppliers
- ◆ Design tools and fixtures using AutoCAD 3D
- ◆ Co-ordinate special purpose machine building and redesign problem areas
- ◆ TEF Auditor QS 9000 – Quality system
- ◆ Small project co-ordination from quotation stage through to equipment release

#### **Key Achievements:**

- ◆ Designed pressing fixture to set dies for new Diode Cold Heading presses. Planned output 166,000,000 pa.
- ◆ Development of resource planning sheet to assist in resource scheduling
- ◆ Development of supplier quality/cost surveying
- ◆ Redesigned machine safety systems in Diode manufacturing area

## **October 1998 – December 1999**

### ***Industrial Designer – Robert Bosch Australia Pty. Ltd. (RBAU)***

---

#### **Responsibilities/Duties:**

- ◆ Optimise workshop layouts, material flow and logistics
- ◆ Improve productivity, labour costs and Value Stream Map manufacturing processes
- ◆ Calculate technical capacities, utilisation and workshop efficiencies
- ◆ Co-ordinate, control and carry out all workshop relocations

#### **Key Achievements:**

- ◆ Became solely responsible for Industrial Engineering tasks for ABS, Fuel Rail, Ignition switch, Ignition coil, Oil pump drive and Distributor production lines. Major tasks as follows:
- ◆ Designed layout for Fan Blower Controller. Implemented into an already established workshop. Layout required rationalizing 50sqm from the existing workshops.
- ◆ Developed and implemented RBAU's first controlled electronic layout system.

**October 1997 – October 1998**

***Maintenance Planner – Robert Bosch (Australia) Pty Ltd***

---

**Responsibilities/Duties:**

- ◆ Allocate and analyse incoming notifications
- ◆ Determine and allocate preventative actions
- ◆ Co-ordinate corrective actions
- ◆ Responsible for maintaining and improving equipment reliability

**Key Achievements:**

- ◆ Developed preventative maintenance tasks lists
- ◆ Co-designed, manufactured and implemented various machine improvements to a multi million dollar high pressure washing machine thus reducing downtime, cycle time and improving productivity
- ◆ Recognized as a high achiever and offered to further develop a career within RBAU

**December 1995 – October 1997**

***Maintenance Fitter – Robert Bosch (Australia) Pty Ltd***

---

**Responsibilities/Duties:**

- ◆ Ensure restoration of malfunctioned machinery and equipment
- ◆ Carry out preventative maintenance and streamline work methods

**Key Achievements:**

- ◆ Reduction in breakdowns, which resulted in increased efficiency and productivity
- ◆ Team member in CIP activities resulting in 3<sup>rd</sup> place for best improvement idea

**January 1996 – October 1996**

***Co-Manager – Ballistics Productions***

*Ballistics Productions was an organization which provided youth dance parties.*

---

**Responsibilities/Duties:**

- ◆ Venue selection and preparation
- ◆ Marketing of events
- ◆ Budgeting of organization funds
- ◆ Management of 24 volunteers and employees

**Key Achievements:**

- ◆ Personally co-founded and managed Ballistic Productions. The primary function was to provide a safe, supervised, alcohol and drug free environment where the youth of the Metropolitan area could enjoy and be entertained by of some of Australia's best DJ's. With the sponsorship of major companies such as Hitz FM, Sony Music, Grendas Buses, Sanity, McDonalds and many more we were able to attract, at three events, crowds of over 2500 people. Giving away more than \$7000 worth of prizes and promotional music.

**February 1992 – December 1995**

***Apprentice Fitter and Machinist – Robert Bosch (Australia) Pty Ltd***

---

**Responsibilities/Duties:**

- ◆ Training and development in the training centre, learning all aspects of turning, milling, grinding etc
- ◆ Three monthly rotation system, alternating between departments to gain knowledge of all aspects of manufacturing

**Key Achievements:**

- ◆ Was awarded top rate apprentice for 3 consecutive years
- ◆ Was awarded an early release from apprenticeship

**INTERESTS**

- ◆ Fishing
- ◆ Hiking
- ◆ Snowboarding
- ◆ Home renovating
- ◆ Travelling
- ◆ Scuba diving
- ◆ Co-ordinating 4x4 expeditions

**REFERENCES**

References may be attained on request.