

German Study Tour

Organised by Australian Industry Group (Newcastle). Dates: 20th to 29 May 2013

Attendees:

Michael Dietrich	Phalanx Consulting Group
Adrian Price	Australian Industry Group (Newcastle)
Bernie Cusick	Total Fabrication Services (Newcastle) – 78 employees
Andrew Carr	My Metals (Sydney) - 18 employees
Mario	Varley Group (Newcastle) – 500 employees
Anton Kris	PhD (Newcastle University)

Companies Visited

1. Schenk Process (Designer & assembler, not manufacturer of screens for mining, food, construction, power and transport industries)
2. KSB Pumps (small to medium pumps and valves manufacturer for water, power, mining, and automation industries)
3. Man Group (Diesel & Turbo) – (Manufacturer of large diesel engines & Steam turbines and Centrifugal Compressors)
4. DeMag (manufacturer of lifting cranes, now part of the Terex Group)
5. Windhof (Manufacturer of rail stock that installs and repairs rail tracks and repairs & maintenance of trains and rolling stock)
6. Ceramic Fuel Cells (Manufacturer of equipment that produces electricity from natural gas)
7. Haver & Boecker (Manufacturer of Wire Weaving Cloth and mesh for NASA, fabrics, food and chemicals & manufacturer of packaging equipment for cements, food & Chemicals)
8. Beckhoff (Manufacturer of electrical control products for Automation products, Events & Stadiums, wind generators and manufacturing equipment)
9. Scherdel (Designer and Manufacturer of springs, valves, wire seat springs)
10. Liebherr (Manufacturer of cranes, excavators, trucks and loaders)
11. E.O.S. (Manufacturer of 3D Printing/Additive Printers)
12. Fraunhofer (similar to our CSIRO, applied research and high engagement with industry)

Executive Summary

Manufacturing as a percentage of GDP:-

Germany	22.4%	
Australia	9.1%	or 2.5 times

Management Philosophy

Recurring themes included:-

- Long term strategy,
- Take very good care of staff,
- Not materialistic
- Self funded (only want to have short term very low levels of debt)
- Focus on high value and quality
- Constant improvement in all aspects of the business
- People take responsibility for their actions
- Everyone wants to do a god job
- Value education

Extremely good at detailed planning prior to commencing work. Identify all aspects and issues and resolve prior to commencement. Then effective implementation and complete work.

All factories are well laid out, organised, staff maintain their work areas for cleanliness and tidiness.

Corporate family functions (like Australia had approximately 40 years ago). This had the effect of reinforcing co-dependency between family and company.

Workers Committee. Staff and Management had representatives on a Workers Committee. Information of the performance of the company was widely distributed. Staff and Management worked together in co-operation on issues affecting staff, and business. Unions only consulted if staff and management could not agree. Referring back to the unions was rarely done.

During the GFC companies rarely reduced staff. They reduced workweek to 4 or and even 3 days so as not to terminate staff. When conditions improved this allowed them to very quickly meet customer demands.

They educated their customers on the value of quality, in terms of quality materials, quality in design, customer service levels, and risk to their business if an interruption occurs. See themselves as integral to the customers operations. Not just manufacturer but “design” partner.

Education

Education is valued. Ongoing education is available and actively encouraged. Training courses are published via a booklet or online.

Most of the executives have PhDs.

Education seen as ongoing and valued

Apprenticeship system 3.5 years, followed by degrees (previously called diplomas in Germany)

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Sourcing of employees from the community, via open days, connections with local high schools, connection with students and apprenticeships (rather than managers). Seen as big brother/sister rather than parent.

Lean

Every company was well advanced in implementing lean management principles. Every business had 5S, Visual Management, takt time, JIT in place.

What was missing was a high level of automation. Not possible for some manufacturers as they produced very small runs of products.

Some improvement in conveyors and robotics could be made.

Continuous Improvement was a focus and staff were expected and did provide ideas. Ideas were visually displayed and research into ideas and implementation of ideas was visually tracked.

Majority of the manufacturers state that they are cost competitive with their Chinese counterparts. Their customers knew the value of quality to their operations. Their customer did not want their operations stopped due to poor quality goods failing.

Organisational Development

Recurring themes:

1. Highly Competent
2. Highly educated
3. Take pride in their work
4. Focus on getting the work done
5. Staff also take personal responsibility for themselves
6. Everyone respected
7. But respect based on competency
8. Attitude was get the work done
9. Not materialistic culture

Safety

Everyone was aware of OH&S in the workplace. What was different was that only those companies with USA or Australian ownership had a core focus of safety. When questioned, the common response was that everyone was responsible for safety and that each work was responsible for themselves as well.

Not like in the "West" where the system of company was responsible for their safety. German companies and employees see this as a shared responsibility.

Co-Operation

High level of co-operation

- between Business Units and staff,
- between company and

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- between universities or research institutes
- between high schools and company
- between families and company
- Between customers and company

Innovation

Problem of defining what “innovation” was.

1. Incremental
2. Breakthrough
3. Basic research
4. Disruptive.

We observed German companies were very good and incremental and basic research innovations. Less observance of breakthrough and even less disruptive.

Why? Germans more process driven. More risk adverse than their Australian counterparts. Do not want to risk the business was one company's response.

Disruptive innovation is considered to be Australia's advantage here.

Everyone expected to contribute to innovation, predominately around process improvement. All view respected.

Spend, expressed as a percentage of gross sales was between 3 and 12%. Average seemed to be around 5%.