

Engineers are Gold in your Business and Community

All of the discussions in this paper are premised on the notion that the most likely people to solve complex problems and innovate are those with an "engineering mind". This does not automatically point to qualified professional engineers, but this is definitely a good starting point. Non engineering professionals may also have this aptitude, but the nature of engineering creates a foundation for complex problem solving and decision making.

Who are the best people to solve problems and take charge?

Before we answer this question you must realise I am biased toward the skills offered by talented Engineers.

This does not mean I am an advocate for all qualified Engineers. I am certainly not. Engineering, like many other professions embraces many professionals who should have done something else or who have run out of gas by the time they reach the workforce. The true Engineering professional is not necessarily the most highly qualified Engineer, but the one that maintains a passion for exploring, creating and solving within the Engineering world. These people exude a passion for excellence and have a natural leadership quality born from their inner confidence and experience. The trick for the business owner is being able to recognise true talent and sound leadership qualities.

Unfortunately this can only be tested in the workplace and hopefully bad decisions can be mitigated before they damage the business. The best business leaders are usually supported by outstanding decision makers and problem solvers. Whether it is luck or good judgement the selection of these people is vital to the success of a business. Don't leave this selection to the HR department. The business owner(s) or CEO must live or die on these choices and the skills to make these choices must reside at the top.

How does a company achieve and maintain Engineering quality?

Engineering quality is sometimes confused with Engineering excellence. Engineering excellence is where we aim. Engineering quality is what we deliver. Companies who can consistently achieve high Engineering quality rely on proven processes and an experienced and dedicated workforce. Persons engaged on a project need to be technically competent and emotionally involved to deliver the best quality. Good Engineering professionals are quality driven by their very nature and qualified Engineers who retain and develop their Engineering craft throughout their career are a company's most valuable asset. Engineering is about making decisions based on sound facts and proven processes. Experienced Engineers will not only solve technical problems but will help a company in wider decision making simply from their experience with complex Engineering problems. Look after your best Engineers and the quality delivered by your company will look after itself.

Fostering Innovation

Innovation is a very personal attribute. People innovate, not companies. The trick is to encourage innovation within a group of people but make sure the outcomes are discussed, modified and sometimes adopted.

It is best not to have one person in charge of innovation. Group discussion, group ideas and group success is much better for morale and produces much more workable outcomes.

A team mentality is sometimes difficult to foster but it is the same approach that is taken with sporting teams. The members must realise that some people are better than others and everyone has different strengths to bring to the team. Each person is working to get an outcome for the team and personal achievements and ideas are celebrated and encouraged by all members. Ultimately each member is motivated to come up with better ideas and help with solutions put forward by others to achieve better outcomes for the team.

Go forth and Innovate!

Project Managers – Choose carefully

Project Management seems to employ an ever increasing number of professionals. It appears to be the next area where persons of varying qualifications can call themselves Project Managers and entertain significant salaries. There is no problem with the basic principle, but far too often Project Managers are actually project planners with little or no expertise in the actual project being undertaken.

Large organisations are now forming project groups with the sole purpose of reporting project progress to senior management.

For the sake of the project get a real project manager, competent in the project scope and provide them with the best tools to manage the project. Empowering people and making them responsible for their decisions is the only way to manage a project.

This may sound a little too simplistic, but it is a very good starting point.

There must be a rule of thumb that gives us a guide to the number of hours spent monitoring and reporting on a project compared with doing the real project work. Some companies get absorbed with the monitoring process and this is often a sign that the project is in trouble.

These observations are more applicable to complex and/or technology projects but should still be applied to simple projects. I have yet to witness large organisations benefiting from previous mistakes. "Lessons learnt" is a wonderful idea but rarely done and rarely passed on to the next project.