

## Abstract

### So You Are Thinking Sustainability: Who Is On Your Team?

The concept of sustainability is posing many new questions in engineering today and often members of a project team have differing ideas on how to address the issue and which tools to use. In many cases traditional engineering teams are no longer effective and projects are encountering environmental and social complications that impact the project reputation, budget and timeframe.

This paper will explore the key features important to an engineering team working within a sustainability framework. Some issues to be addressed will include:

- The balance between internal (in-house) and external (consultants) members of a team.
- Combining the old and young.
- Varying professions and employing the right people to do the job.
- The balance between technical and “people” skills.
- Employing personnel with a passion for what they do.
- Utilizing an independent facilitator

The people employed in an engineering project will greatly impact the issues raised, how they are dealt with and project outcomes. By choosing a balanced team on project onset we can greatly improve sustainability performance.

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## **So you are thinking sustainability: who is on your team?**

The concept of sustainability is posing many new questions in engineering today and often members of a project team have differing ideas on how to address this issue and which tools to use. Whilst focus is often given to which model of sustainability to consider, how to define sustainability for your project and which tools to apply, the issue of whom should be included in your team is often neglected.

In many cases traditional engineering teams are no longer effective and projects are encountering environmental and social complications that impact the project reputation, budget and timeframe.

This paper will explore the key features important to an engineering team working within a sustainability framework.

### Define Sustainability at an early stage

Defining what sustainability means for your project will provide an indication of which personnel to include in your team. Many sustainability professionals have outlined how to define sustainability for your particular needs and often they highlight the need to conduct this assessment at the earliest stage possible. It is similar to the risk assessment process in that it provides you with a framework to work within and will introduce important project issues into your project agenda at an early stage. An obvious advantage in conducting this process early, is that you will know which sustainability related professionals you will need to engage during the project and hence be adequately prepared to deal with the related issues.

For these reasons it is ideal to conduct a sustainability assessment of your project at the concept stage and it is recommended that this be completed by a trained sustainability professional familiar with current assessment methods.

### Employ the right people to do the job

Although this is an obvious point to make it is still common to see inadequate staffing or representation for social and environmental issues on an engineering project. The reasons for this are numerous, but are often due to lack of awareness within project management and outdated attitudes to these issues within the team.

A common mistake is not assigning qualified personnel to environmental and community tasks. Project management often assign quality assurance staff or engineers to roles that qualified environmental and social professionals should be undertaking. Whilst during the project this may be seen as cost and time effective, often issues later arise that may in fact cause delays or budgetary problems.

Another common scenario is the environmental scientist who is engaged to play both roles. Environmental scientists can not always serve as community professionals due to time and technical constraints. Whilst it is common for environmental

professionals to conduct community consultation during the environmental approvals process, projects are now being asked by the community to consider more complex social issues.

I am currently on a project where there are separate community consultation and environmental teams and this has enabled me to witness the benefits of a separate dedicated community consultation. The environmental team is able to concentrate on technical work whilst community professionals liaise with the public on a range of issues including environmental. We have found that many queries with regard to the project have been answered before the public review stage of the environmental approvals process and so the community is more aware of project details.

Time efficiency is not the only benefit for employing dedicated community professionals. Whilst some project managers may assume that the overlap between environmental and community issues means one person can do both, the fact is that not every human can be good at everything!

Often environmental staff can be excellent technically but not really want to interact with the community. Some of our most intelligent people can be quite shy and dealing with the community can be traumatic for them. Be realistic when choosing who will conduct your community consultation. Whilst qualities such as patience, compassion and empathy are expected for such a role, a basic requirement must be that the person wishes to conduct the work and in fact enjoys it.

I have a friend working in local government who is conducting three months of community consultation for one of his projects. An environmental planner who is very good at his job, but quite shy, is finding the work very stressful and feels this work, which he does not enjoy, has been imposed on him. In such a case it would be wiser to check within your team if there is someone else who would particularly enjoy this work or engage an external contractor or consultant. It is very obvious to members of the community if people are not enjoying talking with them and your project could be perceived negatively simply because the right people were not selected to do the job.

#### Employ personnel with a passion for what they do

It is natural when selecting your engineering team to choose people whose ideals align with your own and the goals of the project. Whilst for the engineering team this may be ideal, when addressing sustainability principles this is not. If your intention is to develop a model of sustainability for your project and work within this framework then you will need people in the team who can identify with and understand the complexity of environmental and social issues. It is only through debate of these issues, challenging the current status quo and integration with your project, that you can fulfil this intention.

I am sure some environmental and social professionals are familiar with the scenario of needing to bury their true thoughts, feelings and advice regarding an issue for not wanting to appear negative to other team members. I am also sure that some project managers are familiar with what appears to be the stress of environmental and social

professionals continually identifying issues of importance that may contradict project goals. Well I am about to tell you that the latter is a good thing!

We all know we can pay a lot of money to hire people that will tell us what we want to hear. We have all heard of consultants who do well financially simply because they are known for providing advice that will enable clients to cut corners and cheat the system. While this may be tempting for your personal taxes, if you do this for your project while claiming to work within sustainability principles, you are possibly deceiving yourself and certainly your team and the community! The community and regulatory authorities are demanding greater transparency and accountability from projects and we are seeing the effects of operating in this manner publicly catch up with organisations.

It is advisable from a risk perspective that the people you employ to advise you on social and environmental matters are very honest and upfront. While you may not want to hear now what you perceive as ‘their bad news’, these may be the very issues that arise later and affect your project’s reputation, budget and timelines.

People who are likely to be honest with the project team with regard to environmental and social issues are those that feel connected to the role they are playing and have a sense of purpose in what they do. Their passion for these issues may seem out of step with your own, but only through having these individuals represent the environment and community on your project can you move towards true sustainability. Whilst previously you may have seen an environmental professional’s role as gaining your project environmental approvals, they may see their role as representing the environment on your project. You may see the role of a community professional as ensuring minimal complaints, they may see their role as interacting with the community, identifying their needs and integrating these into the project.

#### Use an independent facilitator

Utilizing an independent facilitator for external community consultation has now become recognised as a necessary requirement and is often required by regulatory authorities for organisations applying for environmental approvals. This can affect the outcome of community consultation and how the community perceives your project.

What is undervalued however is the use of facilitators internally within an engineering project. When debating controversial issues within a project, it is ideal to have ‘workshops’ facilitated. To make decisions based on economic, environmental and social principles, the outcome will probably be an integration of the advice from several individuals.

It needs to be taken into account that some people can be more aggressive when expressing their views than others. The project manager needs to ensure that environmental and community personnel views and technical advice is being incorporated into project matters. Facilitated discussions provide a forum for this to take place.

When using an external facilitator for internal workshops, ensure representative and balanced participation and input by those involved. Clearly define the scope and objectives, provide meaningful opportunities for all to contribute, identify and communicate constraints and “givens” early in the process and ensure a commitment to act upon agreed outcomes.

A colleague of mine recently resigned from a design project where her environmental concerns were not being seriously incorporated into the overall project risk. She felt the project team were not appreciating the importance of the sensitive environmental issues with regard to the approvals process and how the project may in fact not be given approval. It was only after a qualified risk professional facilitated a workshop and highlighted her concerns as valid, that the engineers realised they had been in denial with regard to her advice. This example highlights how facilitated workshops provide a forum for formalising concerns by environmental and social personnel.

### Create a balance between technical and ‘people’ skills

If your intention is to address sustainability principles you will find yourself needing to incorporate “people” skills more within your team. By this I am referring to those human qualities that are important to us all to feel connected to others and having a sense of belonging. Qualities such as listening, empathy and compassion are necessary to be able to relate to another’s concerns and understand their complexity. Unfortunately these qualities have traditionally been undervalued in the engineering and business worlds and are often associated with lower paying positions. In environments dictated by deadlines, it is often viewed as time wasting to take time out to truly listen and seek to understand others.

I am finding on a current project that a long term community consultation program, that has involved many hours of individual conversations, has meant issues have arisen at an earlier stage and resolutions incorporated in the design. The client has been honest in saying its previous practice was to complete the project to their specifications and then deal with community complaints as an after thought. Time spent engaging with the community can resolve conflict and is often the result of the “people” skills that the community consultation team has brought to the project.

It may not be enough to now rely on the “people” skills of just a few members of your team. We have seen in the past that when dealing with the negative feedback of a project, organisations often use an older female as if to portray a motherly image. The demand for greater transparency means community members now expect to talk to engineers and project management also. You therefore need to ensure that these individuals are also able to connect with the community at an individual level and they are aware of how their actions and attitudes may be perceived.

When resourcing key engineering and management positions for your project, ensure they have a good balance between technical and ‘people’ skills. They may need to interact with the community and integrate their needs into project design and issues.

### Create a balance between internal and external personnel

There are obvious advantages and disadvantages for using both internal permanent staff and external consultants for a project and, by balancing use of these, you can benefit.

Internal personnel offer current and historic knowledge of the project or organisation. They probably already have ideas for improvement from personal experience with project related problems. Involving internal staff from an organisation in related engineering projects enables the lessons learnt to be integrated and then applied to future projects.

External consultants however do have their benefits and can bring new energy to a situation or group and hence create new thinking patterns. Aside from providing specialist knowledge in particular fields, they are not hampered by internal culture and politics. Many consultants have a different type of enthusiasm due to changing work environments and this can aid in altering outdated thinking.

Overuse of external consultants may have its downside. I know of one organisation that contracts all project environmental work to consultants and the result has been that improvements do not take place and valuable knowledge is not passed on. They are in fact relying on consultants to set sustainability benchmarks for them.

It is important to acknowledge that it will be the organisations conducting the engineering project that will determine if sustainability principles will be applied and not an assigned contractor. It is therefore necessary to have permanent staff present that accept responsibility for project goals and ensure any intention of working within a sustainability framework is implemented. In some organisations, the use of a consultant has been associated with a transfer of responsibility for an issue and it is imperative this attitude should change for there to be a continual improvement in sustainability performance.

### Create diversity of gender, age and backgrounds within your team

Include younger people in decision making groups and value their participation. Their enthusiasm may be higher and their thinking challenges established givens. This may contradict the tradition of young engineers 'having to serve time' before being involved in responsible decision making processes. You may even find that younger team members are more in touch with current sustainability issues.

Diversity with gender and cultural backgrounds is also of benefit for identifying different sustainability issues and understanding their complexity.

## Conclusion

The key to any engineering project addressing sustainability principles today is balance and diversity within the team. Through adequate resourcing for issues and selecting the right personnel, we can expect to improve our environmental and social performance. Don't expect the traditional white, male, middle aged engineer to be able to do it all. Ensure your team comes from a diverse range of backgrounds and provide an environment that encourages honesty and integrity from individuals. Do not shy away from controversial issues, as has been the tradition in the past and realise that solutions may only come about through vigorous debate.