

Putting Sustainability at the Core of Innovation

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Abstract

This article reviews a well-known technique for inducing generative change in a social system and how it can be applied to the problem of introducing sustainable development into an innovation business.

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1 Introduction

Addressing the issue of climate change is a subject which is increasingly in the forefront of everyone's minds. However, taking measures to reduce CO_2 emissions is only one part of the domain of sustainability. Sustainability applies to economics and society, as well as to environment.

The UK and other European governments take 'Corporate Social Responsibility' (CSR) very seriously. They recognise the need for all communities, businesses, and other organisations to understand their social responsibilities. The UK government's approach has been with its 'strategy for sustainable development' [1], which it launched in 1999. This later evolved into the strategy on CSR [2]. Within this process, a number of measures have been introduced to assist organisations in adopting a sustainable approach to the way they do business. For example, a set of competencies [3] have been drawn-up, which define the skills necessary for business leaders to adopt and maintain sustainable practices. An informative review of CSR management is given in [4].

Basically, these measures demonstrate an attempt to make remedial changes within UK organisations accordingly. However, in order to make an effective and permanent impact on the way organisations conduct themselves, **generative**, rather than remedial change is required.

In this article, a method for creating generative change is reviewed and applied to the issue of putting sustainability at the core of any technology innovation business.

2 Generative Change Using Neurological Levels

In his studies on modelling with NLP, Robert Dilts took Gregory Bateson's theory on ecology of mind [5] and formulated the change model known as the 'Neurological Levels of Change'. This model is shown in figure 1.

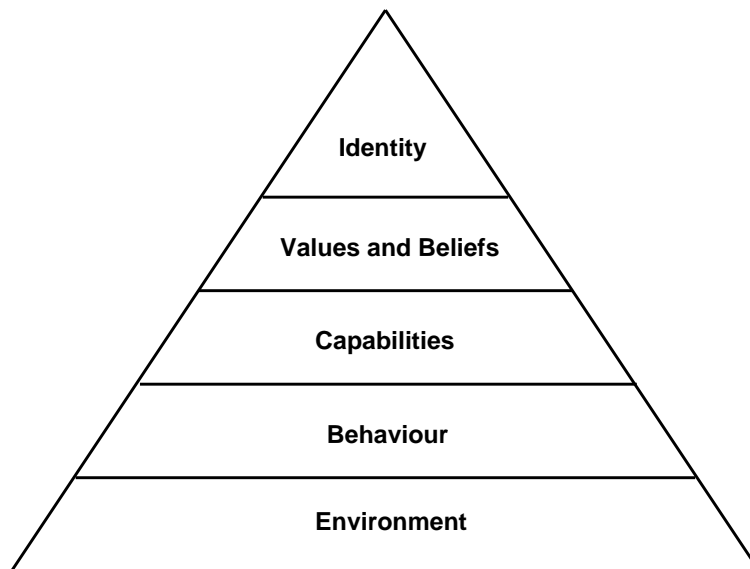


Figure 1: Neurological Levels of Change

This model is important because it allows the user to achieve generative change, by intervening at the levels above that at which the problem exists. For example, if a change in behaviour is required, then intervention is aimed at capabilities (or some level above that). In that case, the intervention might well consist of some form of training. The analysis of the situation might take a 'top-down' approach, where we analyse 'purpose', then 'identity', then 'values/beliefs', and so on until we find the highest level at which the presenting problem is apparent. Hence in our example above, we would have found that the presenting problem is not apparent at any of the levels above 'behaviour'.

3 Neurological Levels of Sustainable Innovation

As the neurological levels model is best understood by example, we move on to apply it to the problem of changing a technology innovation business so that all of its activities are fully sustainable. The following sub-sections deal with each level in turn and discuss the kind of evidence we might look for in terms of sustainability.

3.1 Purpose

This is the highest level, and it corresponds to the "bigger picture" - the overall system of which the organisation is a part. By taking sustainability into consideration at this level, we are considering how our organisation affects the ecology of the overall system. When a video game console manufacturer launches a new interface device for their console, this has a range of effects on the overall games market, influencing its economic, social, and environmental sustainability. For example, its influence on social sustainability will depend on the degree of social inclusivity the new device has.

3.2 Identity/Mission

Every successful organisation will have a 'mission statement' which it takes seriously: all products and services will be congruent with it. Moreover, the products and services are part of an organisation's main expression of identity. It therefore makes sense to ensure that the mission statement is inherently sustainable. For example, by changing the mission statement: "to produce highly entertaining video games", into: "to produce highly entertaining video games that provide a safe environment for learning and exploration" pins the products and services down to being more socially sustainable. Clearly, much more careful consideration (which would include an assessment of core values) is required in formulating a mission statement for your innovation business than was used for the above 'off-the-cuff' example.

The other main part of an organisation's identity is its branding. Branding influences everyone, including your staff. Hence, if your innovation business brands convey an image, a sound, and a feeling of social responsibility, it will probably influence your staff so that they innovate in a socially responsible way. Have you noticed how petrol brands have evolved over the past 10 years? Next time you pass-by your local petrol garage, think about what impressions, sounds, and feelings the branding conjures up for you.

3.3 Values

A person's values are essentially the ethos by which s/he lives his life. It is believed that personal values are derived from both nature and nurture - ie genetic coding and cultural upbringing. Sometimes, people are not always consciously aware of all of their values. Either way, a person's unhappiness can often be attributed to some aspect of their life being in opposition to one or more of their values. The corporate values of an organisation will tend to be those values that are common to most or all of its staff.

In cases where someone's personal values conflict with their employer's corporate values, they tend to feel out of place, hence they underperform and eventually seek alternative employment. In order to recruit and keep the right people, it is important to elicit and communicate corporate values from the outset. It is therefore a worthy investment to recruit expert consultants to take your business through this value elicitation process if it has not already been done. The process involves a simple staff survey to elicit common personal values followed by appropriate publication and marketing of the results.

In my experience, I have found that sustainability is an important value for most people in the UK. I have also found that, for sustainable innovation, the values neurological level seems to be where the intervention is required to achieve generative change. Hence, by asking the right questions during corporate value elicitation, sustainability can be automatically 'built-into' an innovation business. If your innovation business already has clearly outlined corporate values which omit any mention of sustainability, it would probably be easy enough to add one more to cover sustainability - again this should be done via a staff survey to ensure it is exactly congruent with the common personal values.

3.4 Capabilities

The capabilities level corresponds with what is commonly termed as ‘competencies’, or skills and abilities. Within an innovation business, this is essentially focused on the actual skills of your staff. It is the main level at which the UK government’s CSR policy is aimed, especially for senior managers. However, by intervening at the level of Values, a generative change can be achieved: generating a change at each of the levels below it. By making staff aware that they value sustainable development, they will have the power and motivation to rectify any deficiencies they have in their skillset that prevent them from innovating in a sustainable way.

3.5 Behaviours

The behaviours level is all about what people do - how they behave. Once your staff have ensured they have the capabilities to innovate in a sustainable way, they will change their behaviour accordingly - they will change what they do so that sustainability is a core part of the innovation process.

3.6 Environment

At the bottom of the hierarchy is environment, which includes business premises (atmosphere, site, and situation), fleet cars, dress code, etc. All of these things make a contribution to corporate image, and hence corporate reputation. The environment level is a subtle form of corporate communication with staff and visitors. Taking a more socially responsible approach to the corporate environment will therefore reinforce the ethos of sustainable innovation. At the higher neurological levels of sustainable innovation, it has been inappropriate to consider specific examples, simply because the specifics at these levels will be generated by the experts - your innovation staff - as they respond to the change in corporate values. At the level of environment, we need to make strategic changes that remind everyone of the value of sustainability, and hence specific examples will be relevant and useful.

Overt use of renewable energy sources would be one obvious change worth making. Installation of a mini wind turbine, hydro-electric turbine, solar water heating, or underground conductive heating would all serve as visible reminders. It is important to explore all options for carbon-free renewable sources, as significant financial assistance from the government is available to SMEs [6], making it more viable than it might look on paper. In addition to this, the use of wood burners and biodiesel fuelled micro CHP (Combine Heat and Power) systems is certainly worth consideration.

Similarly for any fleet cars: by using makes whose warranties are not voided through use of ‘biodiesel100’ (100% biodiesel), you can go carbon-neutral. Installing a refuelling tank on your premises improves its visibility.

There are also measures which can be taken to draw attention to social sustainability. For example, there are the obvious measures of wheelchair access and braille signing.

4 Summary

This article has reviewed an effective approach for building sustainability into your innovation business. The approach makes use of generative change, by introducing changes into the business at multiple levels. These changes are aimed at making positive impact on the people in your business.

References

- [1] *A better quality of life - strategy for sustainable development for the United Kingdom - 1999*, <http://www.sustainable-development.gov.uk/publications/uk-strategy99/>
- [2] <http://www.csr.gov.uk/>
- [3] *Changing Manager Mindsets* <http://www.csr.gov.uk/pdf/reportv5.pdf>
- [4] M. Hedger, "Are you getting the big picture?", *IET Engineering Management*, Vol 16, Issue 6, December 2006.
- [5] G. Bateson, *Mind and Nature: A Necessary Unity*, E P Dutton, 1979.
- [6] Energy Saving Trust: <http://www.est.org.uk/>