

# Developing Strategic Capacity To Respond To Climate Change<sup>1</sup>

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What enables one organisation to tackle climate change more effectively than another? How does an organisation know when progress has stalled? Where should change agents focus?

We have been exploring these questions through a collaborative EU-funded project with a County Council and a regional climate change partnership. Our research points to the crucial role that organisational development professionals can play in unblocking stalled progress on this and similar sustainable development challenges.

This paper explains why developmental change at the organisational level is necessary, proposes a simple framework for leaders and other change agents and draws initial conclusions from its use.

**KEYWORDS:** sustainability, climate change, organisation change, transformation

## ***The organisational development agenda for sustainability***

### **Climate change challenges to private and public sector leaders**

Climate change is now accepted as a fact by the mainstream of scientific and political opinion with *high likelihood* that the warming in decades is almost entirely attributable to human activities. Significant consequences are predicted – for instance increased flooding risks from more frequent heavy rainfall are 'very likely' (IPCC 2007). Helping human and natural systems to increase resilience to these changes is known as the *adaptation agenda*. But runaway climate effects are possible and it would be impossible to adapt to these; we also need to reduce emissions. Reductions will need to be significant: reductions of 60 to 80% in carbon emissions, possibly more, are required within a few decades. Achieving these cuts is known as the *mitigation agenda*.

These issues challenge organisational leaders in several ways:

1. Risks to physical assets as climate impacts grow (UKCIP 2002).  
*A major construction company had to close a theatre shortly after opening to replace drains and guttering at a cost of several million pounds because of unforeseen heavy rainfall. Precautionary action would have avoided problems at trivial cost.*
2. Risks to operations as carbon reduction policies begin to bite or because energy shortages occur for other reasons (Leggett 2005).

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*Many organisations are locked into high carbon operations. For instance centralised manufacturing operations depend on lengthy distribution channels. These will become costly or even impossible to operate in a significantly carbon constrained world.*

3. Risks to markets as economic activity is diverted to climate responses (Meadows, Randers et al. 2004).

*Much social and industrial capital is located in highly vulnerable areas – for example cities on rivers or the coast. If such capital is seriously damaged, industrial output will fall. But replacing it quickly will divert both capital and raw materials from consumption to capital goods.*

4. Risks to market valuation and to companies' access to capital as the market begins to take these factors into account (Llewellyn 2007).

*A report by banking giant Lehman Brothers argued that market valuations of assets could drop suddenly and dramatically.*

5. Much basic social and economic capital in the public sector is highly vulnerable and needs to be maintained in the face of these challenges.

*Elderly people's houses are usually unprotected and often underinsured; flooding events can leave them in terrible distress. The 2003 heat wave made many hospitals unfit for purpose. Relatively simple changes can offer much protection, but opportunities to make them are regularly being missed.*

Beyond these direct implications, other key aspects of organisations' strategic environments are likely to change massively – for instance taxation, laws, cost structures and the availability of essential services such as insurance.

The challenges are serious. A senior Director-level client in the construction sector told me that increasing adaptation costs over long duration design, build and operate contracts (for provision of hospitals and similar public assets) could undermine his company's profitability and might even threaten the survival of the parent PLC (Ballard 2005).

## **Responses are mostly missing the point**

Climate change has the hallmarks of a strategic issue: a risk which is not yet urgent but could become unmanageable, a major threat to an organisation's business model, a significant change in an organisation's context.

Unfortunately corporate responses are languishing at an operational level and have not yet led to strategic responses. My recent review of large, apparently leading-edge companies' climate change statements (Ballard 2007) showed that responses are still mostly missing the point:

- Very little grasp of the adaptation agenda – despite significant risks to their asset base. Most did not even mention climate impacts.
- While almost all addressed operational control of CO<sub>2</sub> emissions (e.g. measuring energy, setting targets) these were framed as a gesture of social responsibility, not strategic.
- A few companies are moving beyond operations towards strategy. Du Pont de Nemours CEO, Chad Holliday, has said that the company must prepare for a



significantly carbon-constrained world. It has a significant track record in reducing emissions, to back up his words.

If only a few leading companies grasp the strategic agenda, then we can safely assume that most others do not.

### ***Considering climate responses as a change issue***

This analysis suggests that responses to climate change need to be seen both as a technical and scientific issue and as an issue of blocked human change. There is much overlap between change in this specific field and the wider change field, but there are also some important differences. Our recent work on human and social change for environmental sustainability shows that several factors need to work in parallel:

- ***Awareness*** of how climate change is likely to affect what people care about. Awareness is widespread – most people recognise the terms and agree that humans are responsible – but it remains shallow. Even many professionals in the field lack an appreciation of the scale and urgency of the challenge to their own lives. Fewer still grasp the structural dimensions, feedback loops and time lags that make responses hard.
- ***Agency***: the felt capacity to respond in a personally meaningful way to what can seem like overwhelming issues. Awareness-raising without also raising agency is a weak - typically counter-productive - change strategy (Macnaghten, Grove-White et al. 1995).
- ***Association*** with other people to work on the issues, usually in groups. This is probably the single most important influence on change, more influential than attitudes to the environment and demographics (Olli, Grendstad et al. 2001).
- ***Action and reflection*** learning processes to allow change initiatives to be reviewed and refocused over time.

This is the 'Four A's model of change' (Ballard 2005; Ballard and Alexander 2005). The absence of a single one of these factors, we argue, is sufficient to block change. The factors are dynamic - in particular, what is 'meaningful', and therefore offers 'agency', changes as awareness of the issue develops.

This model works well at the level of the change project. However, changes are needed that extend from the personal and small group level to the organisational, industry, nation state and intergovernmental levels. So a fifth 'A' – an 'Architecture for Change' - is needed to help learning at one level to inform action elsewhere.

### **The crucial role of organisations in change processes**

The 4 A's change model has clear organisational implications.

- Organisations provide a ready source of *association*. Behaviour in work groups often blocks change but can as easily be used to support it.
- Reviewing how climate change might affect an organisation can help deepen people's general *awareness*.
- Organisations potentially offer significant *agency*. There is great capacity to make a difference at an organisational level for those who see themselves as climate change agents. Colleagues and I once removed 25,000 tonnes of CO<sub>2</sub> equivalent from our employer's operations, far more from the total supply chain – a scale inconceivable at individual or even community level.

- Competent organisations are usually needed to focus and resource *action and reflection* processes (Carley and Christie 2000).

In addition, if an organisation is to move from operational to strategic engagement it needs to develop the internal capacity to do so.

So how could organisations develop and support that architecture for change? Our research has given some pointers, which are explored below.

## **Transformation pathways**

Our framework - pathways for transformation - emerged from our research as part of ESPACE (European Spatial Planning: Adapting to Climate Events) - a significant European project on climate change, on which we have worked since 2004. The 4A's model of change also arose from this project. Since mid 2006, as part of the contribution made by Hampshire County Council and the South East Climate Change Partnership to ESPACE, we have been developing an initial organisational framework for diagnosing current strengths and for identifying areas for improvement.

## **Structure and underpinning assumptions**

The framework currently takes the form of a matrix. The vertical axis describes six levels of managerial response, with higher levels demonstrating clearly superior competence to lower levels. The horizontal dimension describes nine 'pathways' for change. Progress along each of these pathways is essential if wider change is to occur.

We have developed descriptions of managerial practice at each of the six levels within each pathway. This gives a basis (a) for assessing performance and (b) for planning improvements in organisational response.

## **Dimension one: levels of managerial response**

Organisations improve their response to sustainable development issues in predictable stages as they develop understanding of the issue and how to respond to it. At each level, performance settles down around a set of shared assumptions and practices, becoming resistant to further change. This builds on Kurt Lewin's classic 'unfreeze - change - refreeze' model (Lewin 1951) and on other stage models of organisational development (e.g. Lievegoed 1973; Torbert, Cook-Greuter et al. 2004).

In the sustainable development arena people are familiar with Dunphy's six levels (Dunphy, Griffiths et al. 2003). We used his classification as a basis for identifying levels, and adapted it in the light of our own research, amalgamating two of his levels and adding a new one.

The six distinct levels we identified are described here for climate change:

1. **Non-responsive:** Senior managers see climate change as irrelevant and / or as threatening and would prefer not to engage with it. Reluctant action, if any. No resources allocated.
2. **Compliant:** Managers will respond to pressure from a significant other – e.g. a legislator, senior manager or customer – but won't be proactive. Little understanding of climate change issues and how they apply to the organisation's activities. Nonetheless, action does begin and recognising and responding to key stakeholders' concerns marks progress. May be a 'tick box' exercise.

3. **Efficient management:** Managers recognise that the issue needs to be managed systematically, rather than occasionally. Measurement systems and targets, ISO 14001, carbon management, etc., are introduced. Climate change is usually delegated to someone lower down the organisation; senior managers may think they've cracked it. It's an important foundation for later progress, but relatively few yet grasp the scale of the climate change challenge.
4. **Breakthrough projects:** an important bridge from operations to strategy. Senior managers begin to recognise the substantial risks and opportunities. Well-resourced and sponsored projects are used to make breakthroughs in practice and understanding, but strategic decisions remain largely unaffected.
5. **Strategic responsiveness:** Top management teams recognise the significant importance of climate change. There is a strategic management focus on the ongoing resilience (e.g. of capital, services, facilities) of the organisation, and its context. This encompasses climate impacts and a future in which energy is likely to be seriously constrained. Serious climate change responses need an ability to work at this level, which is still rare.
6. **The 'champion organisation':** Still very rare. The organisation's focus is on significantly changing the political, social, legal, technological environment in which it operates in order to promote sustainability, rather than just responding to a changing climate or positioning itself with respect to the issue.

These six levels help us explain the differences between the corporate statements on climate change discussed above. Most responses were from level 3 (demonstrated by the strong grasp of measurement and operational improvement). A few companies – e.g. some banks – acknowledged that there were important issues that they had not yet thought through – a position that could lead to level 4. A very few, such as Du Pont on mitigation and the reinsurance companies on adaptation, seemed to demonstrate the responsive strategic grasp of level 5. None were yet demonstrating the visionary activities of a level 6 organisation.

## Dimension two: pathways for transformation

So how do organisations move through the levels? Our experience suggested that performance in one area tends to be paralleled by improvements in other areas. Moreover, if one area of performance lagged substantially, it was hard to make progress overall.

*A company was blocked in its progress on environmental issues. One area – external engagement – lagged far behind the others. Only the corporate affairs department was allowed to engage directly with outside organisations, leaving managers cut off from important external perspectives. We told top management this was hindering progress; when the constraint was lifted, performance leapt ahead in other areas.*

Recent organisational research has found that organisations function as interdependent systems (Pettigrew, Whittington et al. 2004). Changing one aspect of performance in isolation merely disrupts a functioning system: indeed small changes are not only unsuccessful, but typically make things worse. In change projects, we need to identify and act on a group of key factors together. The researchers called these factors 'complementarities'.

This offers the thrilling insight that substantial change might be easier than the minor

improvements that are the hallmark of most current improvement activity.

We set out to identify the complementary pathways for work on change for sustainable development. We identified nine, grouped as follows:

## Nine Pathways for Transformation

### Strategic

The capacity to or the extent to which...

- (a) **Awareness** ...members of the organisation having an appropriate grasp of what the issues mean for wider society, for the organisation and its mission and for their own particular areas of responsibility now and into the future.
- (b) **Agency** ...identify opportunities for timely action that are meaningful in terms of the organisation's other agendas and that are effective and affordable.
- (c) **Leadership** ...the organisation's leadership group can appropriately legitimise, support, integrate and participate in the programme.

### Developmental

The capacity to or the extent to which the organisation can...

- (d) **Champions** ...identify, develop, empower and support a group of 'champions' so that they can be effective agents of change.
- (e) **Stakeholder engagement** ...involve, respect the needs of, empower, learn from, accept support from and generally act in association with internal and external groups on this issue.
- (f) **Learning** ...develop the processes and culture to stimulate learning through creative and responsible experimentation, to identify any situation-specific complementary pathways, to make sense of outcomes and wider developments and to use them to improve operational procedures and strategies and to clarify its mission.

### Operational

The capacity to or the extent to which it can...

- (g) **Operational control** ... turn plans into effective action on the ground and can recognise and act on the need to improve its capacity to do so over time.
- (h) **Programme coherence** ...develop and participate in a coherent programme of projects, building on earlier activity and recognising a wider context, the different timescales involved, differing agendas and critical paths.
- (i) **Using expertise** ...recognise and access the necessary skills, understanding and technical expertise to devise a coherent programme and to carry out effective projects.



We suggest that the framework can help to diagnose where change might be blocked and where breakthroughs need support, help design interventions skilfully, review progress and accelerate change in this important field.

Table 1 shows how the nature of activity along a pathway changes at different levels of development.

<b>Levels of managerial response</b>	6. The 'champion organisation	Emphasis shifts to developing an ecosystem of champions, both internally and externally. Attention paid to developing the conditions within which champions can flourish.
	5. Strategic responsiveness	Champions seen as a key strategic resource of the organisation. Their value at key moments of change is appreciated and plans are made to have champions in place ahead of time. Some support is offered for the emotional stresses of the work.
	4. Breakthrough projects	The importance of champions in change is beginning to be recognised and attempts are made to hire or to develop them. Networks of champions are supported internally with some senior level sponsorship and with various channels to senior levels.
	3. Efficient management	Champions are appointed because of managerial role or technical competence rather than because of personal commitment. Change challenges are barely recognised. Support offered for professional membership, technical training etc. Little or no recognition of the emotional challenges of the role.
	2. Compliant	Champions may be recognised but not in a systematic way. They have to fight for resources, including for time, and experience little support – e.g. training, access to senior decision makers – in their roles.
	1. Non-responsive	Champions discouraged and may even be forbidden from working.
<b>Pathway (d) - Champions</b>		

Table 1. How performance differs along a crucial pathway at different levels of development.

## Examples of how the pathways differ at different levels

Looking at real-life examples - from our consulting practice and ESPACE - shows how the pathways differ at different developmental levels. (Two pathways are examined in greater detail here - space does not allow for more.)

**Pathway d: Champions:** In our work on behavioural change through ESPACE, every single case where change had occurred involved an active and committed change agent or 'champion': '*no champion, no change*'. Champions share some key characteristics, including a deep commitment to work on the issues, higher level awareness of the issues and a passion for 'agency' – the wish to make a difference (Alexander and Ballard 2005).

The departure of a champion is often enough to halt change in its tracks. They are essential for replication as well as for the first innovation. The development and support of a group of champions is therefore a necessary goal of policy. Organisations' capacity to do this, however, changes substantially at the different levels. At level 2, 'compliant', for instance, champions may be tolerated but do not receive organisational support.

1. In a construction company, managers were appointed for technical expertise and not as agents of change. Very frequently, such people developed some personal commitment to change but lacked training or support in turning this into practice. *Level 3, efficient management.*
2. In another company in the food and drink sector, a sustainability manager's role is defined as 2/3 operational, 1/3 change, recognising the change dimension. He was offered specific training to assist him with the change role. *Level 4, breakthrough projects.*
3. A major US company – a household name – has recognised that it does not have enough agents of change in one subsidiary to carry out its ambitious energy efficiency programme. It is supporting a major initiative to develop and support such change leaders. *Level 5, strategic responsiveness.*

**Pathway h: Programme coherence:** Change at one level of a system is often constrained by a wider social context that itself isn't changing. For instance, the efforts of a 'Green Travel Plan Co-ordinator' in a company were frustrated by the decision from senior management to relocate from a city centre to a location without as much public transport.<sup>2</sup> In the community, individuals' recycling efforts are constrained, or enabled, by the quality of recycling facilities. As organisations move up the levels, their ability to log and address such broader contextual constraints increases.

1. A particular project identified many barriers to change. The managers were prepared to tackle constraints within their own company but were less prepared to take on issues at holding company level and did not see that they had any responsibility for addressing issues at government or EU level. *Level 3, efficient management.*
2. The SLIM project for improving management of water catchment areas in central Flanders made great progress in modifying water management practices in the

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<sup>2</sup> Source: Tony Emerson, personal communication, 2007.

face of climate impacts (<http://slim.open.ac.uk>). The project identified and overcame many obstacles. It had been set up so as to allow emerging issues to be quickly addressed at different levels of the wider system, including at governmental level. *Level 5, strategic responsiveness.*

## ***Early insights***

Having developed the framework - through building on literature about organisational development and resilience, reflecting with partners on our experience, structured review of the ESPACE projects and parallel work on other consulting assignments - we reviewed it at a workshop with a range of other expert practitioners from leading organisations in both private and public sectors, with very positive feedback. Feeling confident in its value, we are using it as the basis for further consulting and research, using action research approaches to learn about the higher levels and about how the pathways inter-relate as projects progress.

The signs are that this approach offers very sharp insights very quickly, allowing projects and other improvement activities to be well targeted.

Here is some initial learning from its use.

- **Major gaps between what is required and where organisations currently are.** Leading edge climate change interventions require level 5 performance at least. Most organisations are at level 3 or below. Some of the people we spoke with seemed unaware that further development is even possible. We see level 4 (breakthrough projects) interventions as crucial to bridging this gap.
- **High initial credibility.** People are generally open to the idea of the levels and the pathways. They feel mainstream, despite pointing far beyond the status quo. The approach quickly helps to develop a language for change.
- **Credibility of the framework rests on case examples, but there are plenty of these.** Many of the descriptions are of what we have seen or done ourselves, and they fit with other people's experience as well.
- **Collaborative users quickly place their own organisation at an appropriate level.** People we have worked with who have a strong wish to improve organisational performance have welcomed the tool. We are looking at how to gather evidence in less collaborative relationships in current research.

## **Do we need to progress level by level or can we leap ahead?**

A bit of both! We have seen most activity proceeding step by step, the pathways moving broadly in parallel. If one pathway lags, then so does overall progress. However, progress is more like climbing a ladder than climbing stairs. Although there may be some movement ahead of the status quo as the hands of champions move onto higher rungs, most of the weight is borne by the feet. So although champions continually wish to move ahead ambitiously, this needs to be balanced by attention to consolidating good operational management and to moving the wider organisation forward another level so that their initiatives can flourish.

## ***An invitation to the organisational development professional***

Performance is typically blocked at the level of efficient management responses (level 3). It is at the next level, strategic experimentation, that the unique skills of the organisational development professional come into their own. It is vital that more

organisations take the next step – so the skills of the organisational development practitioner may be crucial to wider social responses to massive challenges such as climate change. Besides inviting comments and suggestions for improving the framework, I invite readers of this article to consider how and where they might be motivated to take part in this great endeavour.

## References

- Alexander, S. J. and D. I. Ballard (2005). *Warm Hearts, Cool Heads: The leadership Potential for Climate Change Champions*, Alexander Ballard Ltd for Hampshire County Council.
- Ballard, D. I. (2005). "Using Learning Processes to Promote Change for Sustainable Development." *Action Research* 3(2): 135-156.
- Ballard, D. I. (2007). *Mostly missing the point: Business responses to climate change. Surviving Climate Change: The Struggle to Avert Global Catastrophe*. D. Cromwell and M. Levene. London, Pluto Press.
- Ballard, D. I. and S. J. Alexander (2005). *How can local authorities stimulate and support behavioural change in response to climate change*, Alexander Ballard Ltd, in association with Rosslyn Research Ltd., for Hampshire County Council and the ESPACE Project.
- Carley, M. and I. Christie (2000). *Managing Sustainable Development*. London, Earthscan.
- Dunphy, D., A. Griffiths, et al. (2003). *Organizational Change for Corporate Sustainability: A Guide for Leaders and Change Agents of the Future*. London, Routledge.
- IPCC (2007). *Summary for Policymakers. Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. M. L. Parry, O. F. Canziani, J. P. Palutikof, P. J. van der Linden and C. E. Hanson. Cambridge, UK, Cambridge University Press: 7-22.
- Leggett, J. (2005). *Half Gone: Oil, Gas, Hot Air and the Global Energy Crisis*. London, Portobello Books.
- Lewin, K. (1951). *Field Theory in Social Science: Selected Theoretical Papers*. New York, Harper & Row.
- Lievegoed, B. (1973). *The Developing Organization*. London, Tavistock Press.
- Llewellyn, J. (2007). *The Business of Climate Change: Challenges and Opportunities*. London, Lehman Brothers.
- Macnaghten, P., R. Grove-White, et al. (1995). *Public Perceptions and Sustainability in Lancashire*. Lancaster, Lancashire County Council, 1995, £10.00.
- Meadows, D. H., J. Randers, et al. (2004). *Limits to Growth: The Thirty-Year Update*. White River Junction, VT, Chelsea Green.
- Olli, E., G. Grendstad, et al. (2001). "Correlates of Environmental Behaviors: Bringing Back Social Context." *Environment and Behaviour* 33(3): 181-208.
- Pettigrew, A. M., R. Whittington, et al., Eds. (2004). *Innovative forms of Organizing: International perspectives*. London, Sage Publications.
- Torbert, W. R., S. Cook-Greuter, et al. (2004). *Action Inquiry: the Secret of Timely and Transforming Leadership*. San Francisco, CA, Berrett-Koehler.
- UKCIP (2002). *Climate Change Scenarios for the United Kingdom: The UKCIP Scientific Report*. Oxford, UK Climate Impacts Programme.



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