



KPMG GLOBAL SUSTAINABILITY SERVICES™

Sustainable Insight

Your quarterly insight into sustainability

Striking the Balance between Public
and Private Sector Responsibility:
The Role of Government in Facilitating
Sustainability Transitions

April 2009

Introduction

Whereas the private sector plays a vital role in sustainability innovation¹, the contribution of government to achieving public sustainability goals is indispensable. This raises the question as to the boundaries of the responsibilities of each of the public and the private sector in supporting sustainable development. It is not possible to conclusively answer this question here. We can however contribute to the debate through a discussion of the factors which influence the success of government as a facilitator of sustainability transition.

In our view, government has four distinct roles in addressing sustainability concerns. These are policy development, regulation, facilitation and its own internal sustainability management. As suggested below, these roles need to be carried out coherently if they are to achieve their optimum effectiveness. The benefits of government facilitation – in particular the use of financial incentives, subsidies and even direct investments – are hotly debated among politicians, academics and within the private sector. The current financial crisis has provided fresh stimulus to the discussion around the role of government vis-à-vis that of the private sector, making the question of public facilitation of sustainability transition more topical than ever. While the need for public sector intervention in response to global challenges such as climate change, water scarcity and poverty is widely accepted, there is no such consensus on the role of government in spurring economic growth through investment in sustainability solutions². The high volatility of the



renewable energy market in recent months only adds to the complexity of this debate.

In this Sustainable Insight, we propose a set of criteria which could determine the right balance between facilitation by the public sector of sustainability innovation and the primacy of market mechanisms. These criteria are derived from³:

- an analysis of the different roles of government in supporting sustainability goals; and
- insight derived from transition management practices.

¹ KPMG (2007), 'Sustainable Development and Innovation', Sustainable Insight, October 2007.

² For information on the topical debate on this issue see for example: 'A Green New Deal', in: Newsweek, October 25, 2008 and 'Green, easy and wrong: Why a verdant New Deal would be a bad deal', in: The Economist, November 6, 2008.

³ Our analysis is based on, among other information, interviews with private sector representatives, policy makers and senior civil servants from various European countries, and KPMG's own insight from engagements with clients in both the public and the private sector.

Four governmental roles to spur sustainability

Implementation by government of coherent strategies to achieve sustainability goals requires an understanding of the different roles commonly played by government in relation to sustainability. As illustrated in figure 1, each of the *policy making, regulation, facilitation* and *internal sustainability management* roles of government has its own characteristics and success factors. Together, these roles have the potential to effectively support sustainability management, particularly through:

- setting goals;
- driving change; and
- leading by example.

It is important for government to operate strategically in these roles in a well-designed sequence or simultaneously as necessary. However, government agencies often lack coordination internally and in interacting with each other because of jurisdictional discrepancies (in the case of international relations), weak lines of communication, or competing goals and interests. The British government, for example, has been pushing for higher renewable energy output but has maintained stringent planning controls on the creation of new wind power sites. This has resulted in high economic rents for current wind power providers. In Northern Ireland,

obtaining planning permission can take up to three years while in the rest of the UK securing such a permission takes at least a year⁴.

The interplay between policy making, regulation, facilitation and internal sustainability management is very dynamic as the relative importance of each role may change over time. As argued below, different types of intervention may be called for at different stages of a transition process.

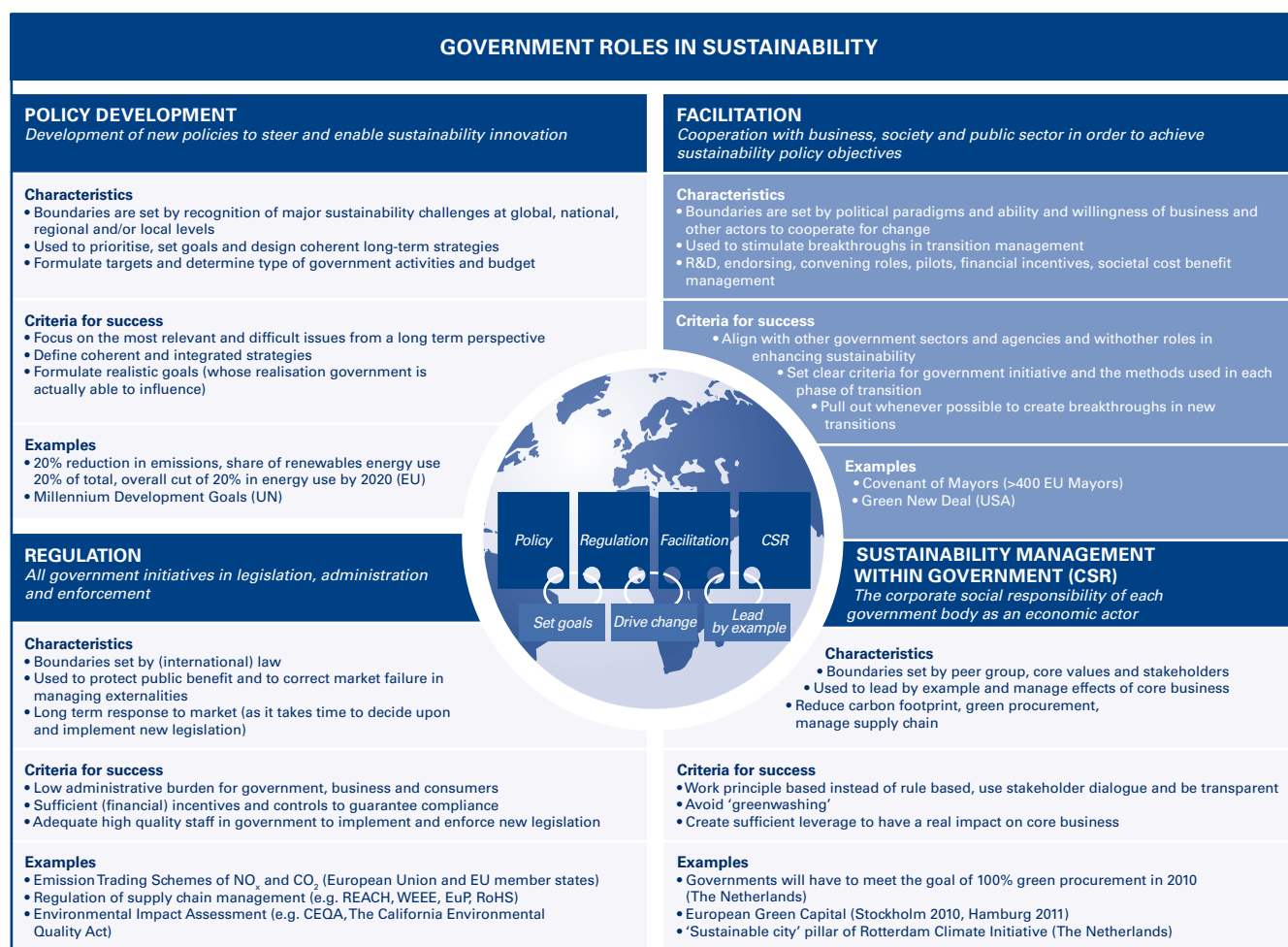


Figure 1: Four governmental roles to spur sustainability

⁴ The Economist Intelligence Unit/KPMG United Kingdom (2008), 'Turning up the heat; an insight into M&A in the renewable energy sector in 2008'. KPMG, London.

Managing sustainability transitions

Transition management has the potential to effectively promote sustainability innovation at local, regional, national and international levels. In this context, 'transition' is the conversion from the use of conventional to innovative and more sustainable methods. Transition may involve multi-level changes which fundamentally alter predominant societal patterns of behaviour, such as a shift from fossil fuels to renewable energies, private cars to public transport, or the use of alternatives to meat in our daily diet. If it is carefully designed, the facilitator role can be highly influential in long term transition management because it relies on consultation and the ability of markets to come up with the most (cost-)effective solutions rather than prescribing ways of pursuing policy targets which may be less effective. As a facilitator,

government will work towards realising sustainability policy goals in cooperation with the private sector, research institutions and other stakeholders in addition to its regulatory, control and licensing functions. An example of how the public sector can facilitate sustainability transition is the Dutch government's inter-ministerial action plan for sustainable development (see box). Measures to support transition processes range from multi-stakeholder consultation processes to the provision of subsidies in favour of one (emerging) technology over another. However, government facilitation of sustainability transition is not free from controversy. Arguably 'too much' government intervention will lead to the 'wrong' choices and distortion of the market. The debate around the provision of financial incentives

to support sustainability transition has been intensified by the current financial crisis. According to the Economist Intelligence Unit, many governments have invested significant public funds to minimise the impact of the economic downturn, including major investments in renewable energy infrastructure and energy-efficiency projects⁹. Several provinces in the Netherlands have decided to invest some of the revenue generated by the privatisation of utility companies in sustainability innovations in order to boost the economy. These include investing in research and development, increased subsidies and participating in innovative projects and companies⁹. The latter may be a logical choice in sustainability terms because of growing evidence of the extent to which several urgently needed

Distance to target in renewable energy transition

The Dutch government has committed itself to making sustainability mainstream in all policy fields and has carried out joint initiatives with the private sector, consumers and other stakeholders using three criteria⁵:

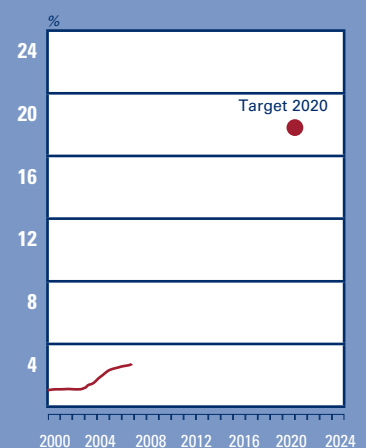
- a focus on Dutch expertise;
- deliberate selection of a minimal set of ambitious long term goals; and
- supporting frontrunners.

Six themes of societal importance have been selected as priority areas for support:

- water and climate adaptation;
- biofuels;
- carbon capture and storage;
- biodiversity, food and meat;
- sustainable agriculture; and
- sustainable energy.

The last theme is taken from the European Union climate and energy package adopted in December 2008. Its main goals are to reduce carbon emissions by 20% and for primary renewable energy to reach a 20% market share by 2020⁶. Currently primary renewable energy accounts for a share of just 3% of the Dutch primary energy use⁷. Therefore, the Netherlands is a long way from achieving its 20% target which suggests that there is a need for government intervention to support the transition to the use of renewable energy.

Share of renewable energy in primary energy use



Source: Milieubalans (PBL, 2008a)

5 VROM (2008), 'Kabinetbrede Aanpak voor Duurzame Ontwikkeling', Ministry of Spatial Planning, Housing and the Environment, The Hague.
6 EU (2008), 'The Climate action and renewable energy package, Europe's climate change opportunity,' European Union, Brussels.
7 CBS (2009), 'Monitor Duurzaam Nederland', Centraal Bureau voor de Statistiek, The Hague.
8 Economist Intelligence Unit (2009), 'Countdown to Copenhagen: government, business and the battle against climate change', London, sponsored by KPMG.

9 Dutch Province of North Brabant (2009), 'Website announcement of new policies to abate the economic crisis'. Province of North Brabant, 's-Hertogenbosch.



transitions fall short of achieving applicable targets (see box on page 4). It may be less so from the perspective of stimulating the economy. This is because new technologies, due to their usual lead times for becoming marketable, rarely increase consumer demand and jobs significantly in the short term.

The question should therefore be not whether or not governments need to play a facilitating role at all, but the means by which they should do so during the different stages of a transition process. Set out below is a discussion of criteria which might help to determine the appropriate level of public sector intervention during each stage.

Three phases of transition

There are three phases of transition management: a pre-development phase, a take-off and acceleration phase and a stabilisation phase¹⁰. The pre-development phase is best described as a broad playing field where government seeks to make strategic choices of new technologies to support the realisation of public policy goals. Identifying such opportunities, through extensive consultation, a preliminary cost-benefit analysis and an assessment of comparative advantages, is at the core of the pre-development phase. During the take-off and acceleration phase, the public sector promotes projects which potentially

have a high impact on sustainability and provide business opportunities, and seeks to mobilise other key players such as research institutions, companies and investors. Governments monitor and steer the development of the selected projects with increasing focus. The stabilisation phase is characterised by the increased market maturity of the new regime: at this stage, government's role is largely limited to monitoring progress and promoting best practice. This ultimately leads to market self-regulation within the applicable regulatory and fiscal framework.

¹⁰ Rotmans, J. (2003), 'Transitiemanagement: sleutel voor een duurzame samenleving'. Koninklijke van Gorcum, Assen. We have slightly adapted Rotmans' model by combining the take-off and acceleration phases into one phase for reasons of similarity and simplicity.

Criteria and means of successful government facilitation

Our experience indicates that successful government facilitation of sustainability transition depends on:

- the application of a set of criteria to determine whether and when government should act; and
- the ability and readiness of government to apply a range of methods simultaneously or in a carefully designed sequence, corresponding to the relevant phase of the transition process.

This section is intended to define both the criteria and the methods which should be applied during each of the three phases of sustainability transition outlined above. It goes without saying that determining the optimal means of intervention and the limits of public action is never a clear-cut process. Political convictions, power relations and the ability and willingness of other parties to change all play a significant role. Nevertheless, we believe that

general guidelines can be established irrespective of the specific political realities. These guidelines may assist decision making processes within and between public sector agencies as well as consultation with interested stakeholders. The proposed framework is summarised in figure 2.

Criteria for government facilitation

Governmental agencies should facilitate sustainability transition processes only if a number of conditions are met. These conditions are likely to maximise the impact of the process and minimise possible negative side effects such as undesirable market distortion.

Effectiveness and efficiency in serving the public benefit

Governments should carefully assess – by means of a preliminary societal cost-benefit analysis – the extent to which the different options available

to it will promote the public benefit, including possible trade-offs between competing goals. The means of intervention selected should not only promise the most added value (defined in terms of the advancement of public policy objectives, whether international, European, national or local). It is also crucial to consider possible social and environmental side effects, such as the implications for employment, which may be detrimental to other public policy goals and could thwart public support for the proposals. In addition, it is important to be clear about the expected impact of the measure under consideration: a beneficial macroeconomic impact (such as a reduction in time expended in traffic jams due to improvements in public transport) is no guarantee of microeconomic gains (such as the profitability of the public transport operator), at least in the short term.

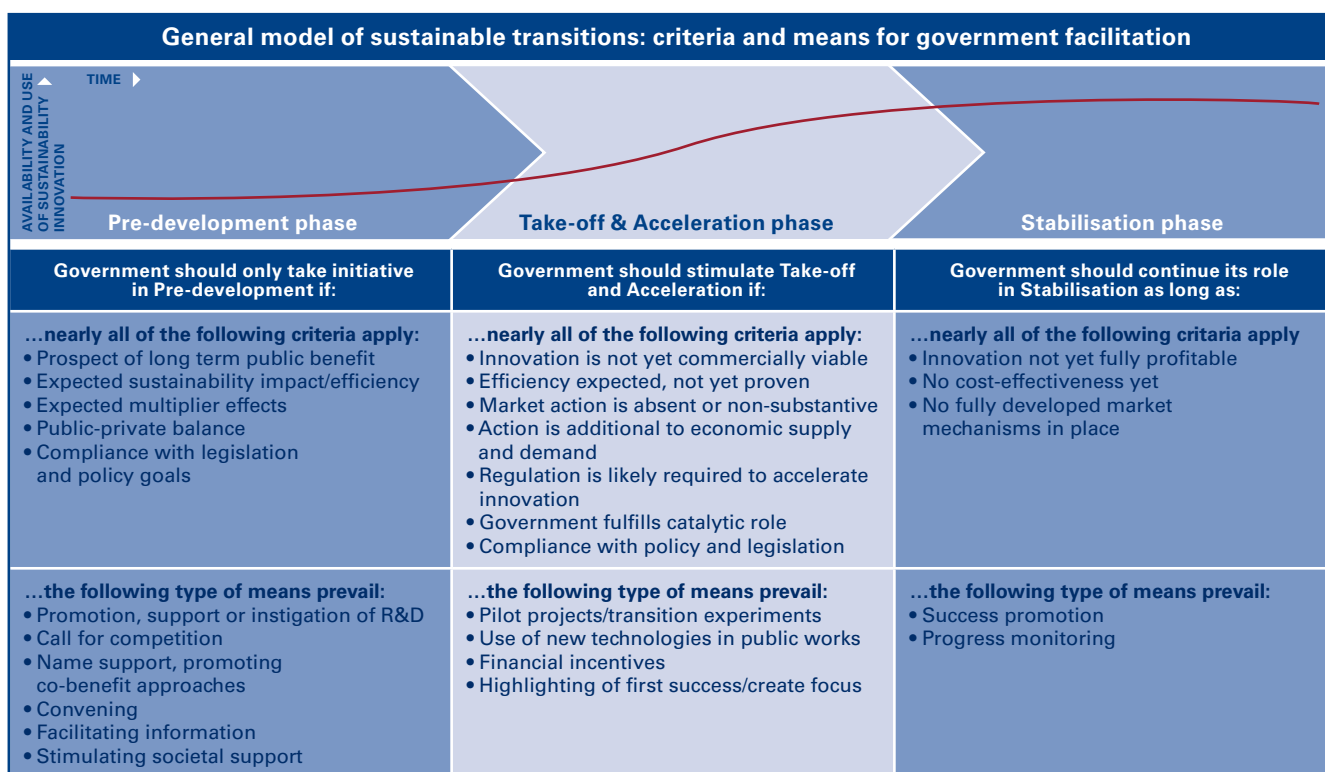


Figure 2: Criteria for success

“Governments should help parties overcome financial barriers by means of investment, especially by investing in innovation in the pre-development phase.”

Harry Verhaar (Director Energy & Climate Change, Philips Lighting)

“Companies have always played a major role for improvements in environmental performance and they will remain the primary source for innovation required by the concept of sustainable development.”

Jan van den Broek (Senior Advisor International Environmental Affairs and Environmental Law at VNO-NCW, Confederation of Netherlands Industry and Employers)

Last but not least, any form of government facilitation should be assessed against – and indeed be conducive to the realisation of – existing international, European, national, regional and local regulatory frameworks and policies.

Taking the long term perspective on sustainability

Primarily the public sector should support technologies or processes which are not yet commonly available and profitable, but in the long term promise significant sustainability gains (and ultimately will be economically viable). For example, by subsidising investments in emerging emission reduction technologies, government can serve as a catalyst for technological and market development as the risk-return profile of these technologies improves (figure 3)¹¹.

Additionality and multiplier effect

The public sector should only play a major role in a transition if the changes sought would otherwise not be

realised within a reasonable timeframe, because, for example, a viable market for an emerging technology does not yet exist (additionality). At the same time, government should have well-founded reasons for expecting that the support provided – for example, subsidies – will have a catalytic effect in terms of attracting private investors and companies to create sufficient momentum for further development (multiplier effect).

Public-private balance

Sustainability transitions will only be successful in the long run if the public and private sectors, in becoming involved, concentrate on their respective strengths. Government should act as an enabler and (co-)shaper, particularly in the pre-development phase, by creating conditions which are conducive to the success of the remainder of the transition process. In subsequent phases of the process, government should gradually adjust its involvement and let business take the lead within an overall policy framework.

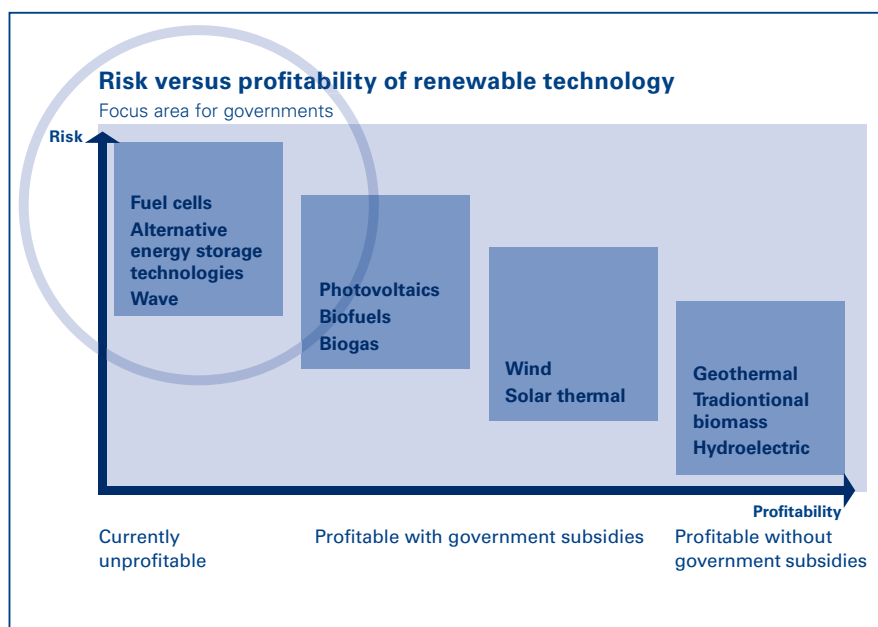


Figure 3: Risk versus profitability of renewable energy technology

The importance of some of the criteria outlined above will change during the course of the transition. For example, while multiplier effects should be considered during the pre-development phase, they are unlikely to be evident before the onset of the take-off and acceleration phase because investors and other players may still be reluctant to commit to advancing an emerging technology or process¹². While the assessment criteria of effectiveness and efficiency should apply to the entire transition process, the scope of the analysis will gradually shift, for example from the evaluation of pilot projects to impact assessments of innovations which are close to production scale.

¹¹ See also UBS (2007), 'Climate Change: beyond whether'. UBS Wealth Management Research, Zürich.

¹² Rotmans, J. (2003), 'Transitiemanagement: sleutel naar een duurzame samenleving'. Koninklijke van Gorcum, Assen.

“The output and effectiveness of new, innovative technologies may initially be low and it often takes a long time before they are consolidated in the market. Governments should have an active role in facilitation and stimulation of innovation. However, governments should refrain from investing money in specific sustainable technologies, because the choices made may not be the best ones. Instead, generic instruments should be used to stimulate new technologies.”

Paul Koutstaal (Programme Leader Climate Change, Netherlands Bureau for Economic Policy Analysis)

Means of facilitating transition processes

The role of the public sector as facilitator is highly dynamic because the methods adopted by government tend to change in each transition phase. Some of the means of intervention which we have come across most frequently in relevant literature, interviews and projects are briefly outlined below.

Pre-development phase

In the pre-development phase, government can stimulate innovation through grants, competitions, patronage, awards and other means to support and reward research and development by third parties. Government can also make use of its convening power by bringing together research organisations, businesses and other agents of change. It can also collect and provide access to information on good sustainability practice (such as environmental reporting or carbon accounting). Last but not least, the public sector can play an important role in raising public awareness of specific sustainability challenges. This can contribute to changes in behaviour and consumer demand, which may in return encourage innovation.

Take-off/acceleration phase

In the take-off and acceleration phase, government can support, promote or even manage pilot projects to stimulate sustainability innovation. New technologies can be tested in public works projects. Government can also offer a wide range of financial incentives such as tax credits, (interest) subsidies, ‘feed-in tariffs’, grants and awards. For example, the German government offers funding to appropriate companies and research institutes under the National Innovation Programme for Hydrogen and Fuel Cell Technology. The programme aims to enhance the marketability of these technologies, support the evolution of value chains, and



facilitate learning while contributing to the achievement of federal energy and climate goals. While government can play an important role in highlighting first successes and, as a consequence, create more focus, great care needs to be applied in the provision of financial incentives to promote sustainability transition. Obvious risks include the waste of public funds (where for example technology backed by government eventually turns out to be less effective than alternative solutions) and market distortions. Therefore, a key challenge for government is to know when to withdraw financial (and other forms of) support for the benefit of market mechanisms.

Stabilisation phase

In the stabilisation phase, government should withdraw from active involvement as soon as possible, leaving the field to the emerging market while continuing to monitor progress by means of Societal Cost-Benefit Management. When assess-

ing whether its facilitating role should continue, government should consider the profitability of new technologies. Once market self-regulation sets in (or continues to fail with no prospect for change), time, energy, budgets and other resources are better allocated to new transition processes.

Dilemmas

As stated at various points in this Sustainable Insight, the question of how far the public sector should go in facilitating sustainability transition is a controversial, and essentially a political one: when should government intervene and what means should it employ? When should markets be left to regulate themselves? In a nutshell, the following dilemmas occur:

- Government needs to reconcile its roles as facilitator (which supports and rewards) and as regulator

(which formulates and enforces clear obligations) when addressing sustainability challenges. It needs to identify the most effective methods of intervention and ensure consistency between them.

- Government will want to avoid allegations of a state-directed economy (including possible violations of international trade rules), while seeking opportunities and helping private sector innovation leaders to take their next steps.
- Putting too much effort into inadequate or already economically viable solutions which appeal to the public is wasteful. Government needs to achieve a balance between popularity and sound economic and ecological judgement.



Conclusion

We have argued in this Sustainable Insight that an understanding of the dynamics of sustainability transition processes is necessary to determine the right balance between market mechanisms and public sector facilitation, of sustainability innovation. Whether and how government should actively facilitate sustainability innovation depends on what stage a transition is at. In order to identify the kind of involvement which will have a maximum impact on the realisation of public policy goals, we have proposed a set of criteria and means which correspond to the different phases of the transition process. We have also presented a number of dilemmas that government may face when facilitating

sustainability transition. We believe that a better understanding of the potential, limitations and dilemmas of public sector facilitation is vital for government, business and society to collaborate effectively.

An important way to secure public understanding, obtain feedback and accordingly enhance the relevance and effectiveness of sustainability facilitation is transparency. Government should provide information not only on the various sustainability programmes in place but also on the underlying process. An important aspect of government transparency is disclosure of the extent to which the views of relevant stakeholders, such as

consumers, entrepreneurs and societal organisations, were taken into account in the decision making, implementation and evaluation process. So far, this has not been the strongest suit of many governmental agencies.

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