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**Regulating for Sustainability:
The Challenge of Excellence**

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Many regulators around the world are charged to further sustainable outcomes, or to encourage sustainable development, or to recognise the value of sustainability.¹ The delivery of what, in shorthand, can be termed ‘regulation for sustainability’, however, involves a special set of challenges for regulators and it is arguable that excellence in pursuit of sustainability is especially difficult to identify and demonstrate.

This paper considers the special challenges faced in pursuing excellence when regulating for sustainability. It starts by examining what regulators have to be able to do if they are to be recognised as successful and then explores the root of many of the regulatory challenges encountered in the sustainability field – the ways in which the principle of sustainability exhibits indeterminacy. The third section then deals with the challenges faced by regulators who seek to set objectives and deliver sustainable outcomes when confronted by such indeterminacy. The fourth section looks at the procedural challenges faced when ‘regulating for sustainability’ and, section five considers whether *risk-based* sustainability regulators meet special difficulties. Finally, the conclusions summarise how the pursuit of regulatory excellence in the field of sustainability demands: clarity on the measures of excellence that are relevant; an awareness of the special challenges to be faced; and a regulator that is attuned, intelligent and dynamic.

I. Recognising Regulatory Excellence

In order to identify the special challenges involved in being a good ‘regulator for sustainability’, it is necessary to be clear about the elements of regulatory excellence. The successful regulator has to perform well on three fronts: *objectives* need to be set in a satisfactory manner; appropriate *substantive outcomes* need to be produced; and *representative values* must be served (through processes that further such matters as accountability, procedural fairness and justification).

Why these fronts? Firstly, the setting of *objectives* underpins all of a regulator’s activities and it provides a basis for stakeholders to plan their affairs. For this reason, setting objectives can be seen as a fundamental deliverable of regulation

¹ In the UK, Ofwat, for instance, has a duty under the Water Industry Act 1991 (as amended) to ‘exercise and perform powers and duties...in the manner...best calculated to contribute to the achievement of sustainable development’. The word ‘sustainability’ is not invariably employed. See, for example, the duty of the Alberta Energy Regulator under the *Responsible Energy Development Act* 2012. Section 2(1) states: ‘The mandate of the Regulator is (a) to provide for the efficient, safe, orderly and environmentally responsible development of energy resources in Alberta.’ The *Environmental Protection and Enhancement Act* (Alberta) recognises the principle of sustainable development at section 2(c)).

rather than a mere means to an end. It is an activity, moreover, that the good regulator will perform in a manner that is seen as legitimate by affected parties.

As for appropriate *substantive outcomes*, delivery of these might be considered at first glance to be the core measure of regulatory performance. If a regulator produces the mandated substantive results (at non-excessive cost) why be concerned about anything else? We might not worry if the nature of such results was uncontentious and the regulatory mandate for these results was clear and beyond contention. The reality, however, is that regulators' mandates tend to be imprecise and malleable, dynamic and contentious – and especially so when sustainability is at issue. These features mean that parties who are affected by regulation will demand the serving of *representative values* so that they can participate fairly and adequately in the construction, development and implementation of mandates. They will, accordingly, want regulatory processes to be fair and open, transparent and accountable.²

In delivering on the above matters, successful regulators will need to demonstrate three key qualities. They will have to be *attuned* to their settings so that they are heedful of such matters as divergences of ideas and approaches, the constraints imposed by cultural and institutional settings, and the potential of different regulatory options. They will need to be *intelligent* – and be capable of both gathering and using information expertly and assessing their own performance; and they will have to be *dynamic* – with an ability to adapt their regime to changes in the regulatory environment.³

The excellent regulator, moreover, will not only perform well currently but will offer assurance to regulatory stakeholders that such a level of performance is likely to continue into the future. It will do so by being able to show that it has developed high levels of institutional competence across relevant activities.⁴ Thus, it will be clear to stakeholders that the regulator is highly attuned to settings, ideas and options, and that it is also intelligent and dynamic. Regulatory excellence, accordingly involves both excellence in performance and in institutional qualities or characteristics. For reasons of space, however, the discussion below is confined to the issue of excellence in performance.

II. The Dimensions of Sustainability: Varying Conceptions and Uncertainties

The principle of sustainability is particularly resistant to agreed understandings for a number of reasons. First, it is a concept of impressive inclusivity – one that allows very wide variations of understanding between many constituencies. Second, there is often no developed 'community of understanding' regarding this principle. It is of interest to a wide variety of concerns and communities, it covers a wide policy agenda that transcends portfolios and levels of government and which is

² See generally R. Baldwin, M. Cave and M. Lodge, *Understanding Regulation* (2nd Ed. 2012) Chapter 3.

³ See R. Baldwin and J. Black, 'Really Responsive Regulation' (2008) 71 *Modern Law Review* 59-94.

⁴ A regulator that relies on a charismatic leader rather than the deployment of a highly skilled team will thus not offer institutional assurance.

generally politically contentious. Third, it potentially covers the sustaining of numbers of resources or values, in a wide variety of contexts over various periods of time that may extend far into the future. In many formulations, moreover, it seeks to further a number of priorities and factors that interact in ways that are evidentially uncertain, that are not easily measured, predicted or quantifiable and which are often at tension with each other.⁵ Fourth, many different disciplines and theories offer their own approaches to sustainability. Fifth, many institutions and parties may see ‘sustainability’ as concept that neither provides nor demands precise meaning – either because it is an aspirational/theoretical concern or because it is not so much a freestanding objective as a set of considerations to be adverted to in pursuing other objectives. Finally, there are differences of view and uncertainties (collectively referred to here as ‘indeterminacies’) regarding not only the *content* of the principle but its *status and force* and also its *role* in the regulatory process.

As far as *content* is concerned, the principles of sustainability and sustainable development are given meanings that are peculiarly plentiful and disparate. Different discourses, for example, involve their own understandings of sustainability – familiar in the literature is the difference between environmental, economic, and social conceptions.⁶ Different mixtures of understandings are also encountered – it cannot be assumed that within a given discourse there is a single, consistent conception of sustainability rather than a multiplicity of approaches.⁷ Even within a given culture or discourse, different conceptions of content may be applied in different contexts. Time is also a source of conceptual variation. Sustainable development is a dynamic concept that evolves in response to changes in areas and activities as well as social, environmental, economic, technological and other settings.⁸

With regard to *status and force*, sustainable development is treated within many discourses as a principle of legal relevance. It is found, for instance, in a number of international and national treaties and other legal instruments.⁹ In other contexts, however, sustainable development is seen as a political or philosophical,

⁵ See evidence of the Country Land and Business Association to the House of Commons Environmental Audit Committee, *The Sustainable Development Strategy: Illusion or Reality?* Thirteenth Report of 2003-4 Vol.II Appendix 7 para. 5. In evidence reproduced in the same report English Nature argues that: ‘We do not get the sense overall that Government policy making recognises, or knows how to resolve, potentially conflicting objectives’ (Appendix 9, para. 4.3). See also Productivity Commission of Australia, *Implementation of Ecologically Sustainable Development by Commonwealth Departments and Agencies* (Inquiry Report 5, 5 May 1999) (hereafter ‘Productivity Commission’) pp.7 – 9: which notes the difficulty of measuring costs and benefits far off in the future.

⁶ See e.g. B. Giddings, B. Hopwood and G. O’Brien, ‘Environment, Economy and Society: Fitting them Together into Sustainable Development (2002) 10 *Sustainable Development* 187-196.

⁷ See W. Leal Filho, ‘Dealing with Misconceptions on the Concept of Sustainability’ (2000) 1 *International Journal of Sustainability in Higher Education* 9-19. See *Report of the World Commission on Environment and Development: Our Common Future* (the Brundtland Report) (Oxford, 1987).

⁸ V. Barral, ‘Sustainable Development in International Law: Nature and Operation of an Evolutive Legal Norm’ (2012) 23(2) *European Journal of International Law* 377-400.

⁹ *Ibid.*

rather than a legal principle.¹⁰ For their part, regulators will see the principle sometimes as a legally binding constraint and, at other times, as a mere policy objective or even a paper obligation alone.¹¹

Some lawyers see the principle as binding law in so far as it forms a basis for enforceable rights and obligations. Others view it as having only indirect force – as an influence on the judicial reasoning process that operates as a guide to interpretation or a set of values that the judiciary are invited to further.¹² On one view, the sustainability principle operates by ‘colouring the understanding of the norms that it modifies’¹³. The principle, in one conception, may be seen not as a means of setting down rights and duties but as a means of updating (or even re-defining) other provisions so that these are read ‘in the light of contemporary concerns’¹⁴ Even where sustainability objectives are contained in legislation, they may be seen by many parties as secondary rather than primary objectives, or as too broad in nature to demand implementation through policies or programmes.¹⁵ In such cases, the principle may be seen as aspirational only.

The force of the requirement to further sustainability, moreover, may be seen in substantive or procedural terms: as the obligation to produce certain outcomes; or as a duty to take heed of certain values in decision-making or policy-making processes.¹⁶

Finally, on the *role* of the principle, it may be targeted in particular ways. Even when there is agreement on what ‘sustainability’ means, there may be different opinions on the range of environmental or other factors to which the principle applies – or whether the role of the principle is to impact on particular tasks in the regulatory process the complete array of such tasks. Shifts in conceptions of regulatory role can, again, take place over time.

III. Delivering Objectives and Substantive Outcomes

Sustainability regulators face a series of special difficulties when setting objectives and delivering substantive outcomes. Arguably these go beyond the normal challenges of regulation by a significant degree

A. Setting Objectives

Sustainability is a principle that covers so many disciplines, considerations, issues and portfolios, and it routinely demands such levels of inter-agency co-

¹⁰ Ibid., p 378

¹¹ R. Gibson, S.Hassan, S. Holtz, J. Tansey and G. Whitelaw, *Sustainability Assessment* (Earthscan, London, 2005) (hereafter ‘Gibson et al’) p. 30.

¹² Lowe, ‘Sustainable Development and Unsustainable Arguments’ in A. Boyle and D. Freestone (eds.), *International Law and Sustainable Development* (1999).

¹³ Ibid., at 34, quoted by Barral, op.cit.

¹⁴ *United States – Import Prohibition of Certain Shrimp and Shrimp Products* WT/DS58/AV/R 1998; Barral, 395, 397

¹⁵ Productivity Commission p. xxi.

¹⁶ Opinion of Vice-President Weeramantry in *Babcikovo –Nagymaros* case ICJ Reports (1997) 88, 88-90; *Award in the Arbitration Involving the Iron Rhine* 27 RIAA (2005) 35.

operation, that clarity on objectives is essential if the task of furthering sustainability is to be made operationally manageable.

In setting objectives, though, sustainability regulators face an extensive series of challenges. Giving *content* to sustainability objectives is more difficult than in most policy domains for a number of reasons. Economic, environmental and social perspectives offer their own separate approaches to the formulation of sustainability objectives and the relative priorities of economic, environmental and social considerations is often unclear. Multiple objectives and values have potentially to be furthered and trade-offs between present and future gains and losses are involved. There is no readily available, un-contentious way to deal with such matters as the balance between the needs of today's less affluent consumers and the environmental interests of future generations.¹⁷

Where numbers of regulators are involved in an area, it may be extremely difficult to ensure that all of these subscribe to a common conception of the content, of sustainability objectives.¹⁸

The contestability of the principle of sustainability, moreover, presents powerful regulated concerns with considerable opportunities to grasp the initiative in defining the objectives of a given regime.¹⁹ In 'meta-regulatory' regimes that delegate front line risk management functions to corporate operators, the dangers are all the greater that those operators will seek to further conceptions of sustainability that are self-serving.²⁰

A further regulatory challenge arises because the very idea that objectives can be established with some precision may be especially misplaced when dealing with sustainability. Thus, Gibson *et al* argue that the principle of sustainability offers no clear prioritising or resolution of conflicts between criteria to be taken into account in decisions but a set of, sometimes imprecisely defined, desiderata that are to be adverted to in a variety of ways and which will not necessarily prevail over other values and objectives.²¹

¹⁷ Pearce, D., Markandya, A. and Barbier, E.B. 1989, *Blueprint for a Green Economy*, Earthscan Publications Ltd, London.

¹⁸ See A. Cashman, 'Water regulation and Sustainability 1997 – 2001' (2006) 37 *Geoforum* 488 – 504. The Environmental Audit Committee in its Seventh Report censured Ofwat for 'demonising environmental and quality investment' by emphasising its upward effects on prices.

¹⁹ 'Discourses define what is important' – see A. Cashman, 'Water regulation and Sustainability 1997 – 2001' (2006) 37 *Geoforum* 488 – 504; G. Bridge and P. McManus, 'Sticks and Stones: Environmental Narratives and Discursive Regulation in the Forestry and Mining Sectors' (2000) 32 *Antipode* 10-47.

²⁰ On meta regulation generally see: C. Coglianese and J. Nash, *Regulating from the Inside* (2001); *Leveraging the Private Sector* (2010); C. Coglianese and E. Mendelson, 'Meta-Regulation and Self-Regulation' in R. Baldwin, M. Cave, and M. Lodge (eds.), *The Oxford Handbook on Regulation* (Oxford, 2010).

²¹ R. Gibson, S.Hassan, S. Holtz, J. Tansey and G. Whitelaw, *Sustainability Assessment* (Earthscan, London, 2005) (hereafter 'Gibson *et al*') Chapter 5.

Regarding *status and force*, and *role*, the core challenges of setting objectives stem from the varying conceptions and uncertainties already described. Thus, regulators need to be clear whether the objectives being set are legally binding or not, whether they are intended to have a degree of precision that underpins implementation or they merely set out values to be accorded respect in decisions and policies; whether they are there to found enforceable rights or there to set aspirations down on paper. It must also be clear whether sustainability is a principal or a secondary objective. The role of the objectives must also be made clear – do they apply generally or to specific projects, institutions and policy areas only? Do they relate to environmental concerns or economic and social issues also? How are relative responsibilities for aspects of sustainability allocated? Is sustainability about the setting of objectives or the whole regulatory process, from objectives through implementation to appraisal of performance and modification of approach?

All of the above difficulties are compounded by data challenges and evidential uncertainties. Regulators have to collect and analyse data in order to set objectives and operationalise these but information relating to sustainability is highly problematic. Valuations of future social and environmental effects – such as intra-generational equity and conservation of bio-diversity - are especially difficult to quantify and even current data levels often stand in the way of setting sustainability objectives.²²

These difficulties are added to where numbers of governmental departments and agencies have shared responsibilities for an issue and collect data by different methods and according to different framing values and assumptions. When impact assessments are used to underpin the setting of objectives, the furthering of sustainability presents special measurement difficulties. Environmental and social considerations, and inter-generational equity issues do not lend themselves to ready quantification and scientific uncertainties and long term effects magnify problems.²³

A further challenge arises because of the rate at which sustainability priorities are liable to change over time. This means that even the most highly legitimate of regulatory objectives have to be adjusted in order to maintain credibility. A core challenge here is to balance two conflicting appetites of regulatory stakeholders: for changes that will meet new expectations and for the stability that allows businesses and other to plan their investments and affairs.²⁴

B. Delivering Substantive Outcomes

For a regulatory body to deliver substantive outcomes in a satisfactory manner it must build on clear and legitimate objectives before gathering information about problems, issues and challenges that need to be overcome to further those

²² Ecologically Sustainable Development Working Group, *Final Report Fisheries* (1991, AGPS, Canberra). See also R. Harding (ed.), *Environmental Decision-Making: The Roles of Scientists, Engineers and the Public* (1998, Federation Press, Sydney) p.v.

²³ Productivity Commission p. 134.

²⁴ See generally R. Baldwin, (2014) 'Regulatory stability and the challenges of re-regulation' [2014] *Public Law* 208-228.

objectives.²⁵ It must devise strategies for dealing with necessary issues, and it must apply these strategies on the ground so as to modify behaviour when necessary.

Detection and Information-Gathering

A sustainability regulator is liable to be confronted by institutional structures and constraints that will hinder detection and information collection and may aggravate the expected difficulties of collecting data on matters such as inter—generational equity that are intrinsically complex and contestable.

Poor institutional co-ordination will impede information collection together with the discharge of other key regulatory tasks such as the devising of strategies and the application on the ground of these.²⁶ In addition, different cultures and disciplines, as noted, will tend to see the requirements of sustainability divergently and this will impact on information gathering.²⁷

Successful detection activities have to involve intelligent, expert, analysis of data but, as with the construction of objectives, the challenge of sustainability stems from divergent approaches and uncertainties of evidence. Feedback systems have been said to be an especially effective way for the intelligent and dynamic regulator to address the indeterminacies of sustainability related policies.²⁸

Strategy Development

With respect to *strategy development*, a special concern for the sustainability regulator is that varying conceptions regarding the *content, status and force*, and *role*, of sustainability will impact on strategic choices - parties who see sustainability in political terms, for instance, will not see enforcement choices in the same way as those who see the principle as legally binding. Where numbers of agencies and departments are involved in an area, individual institutions may be wedded to particular intervention strategies and this may stand in the way of coherent and co-ordinated approaches to strategic design.

Measurement difficulties associated with certain social and environmental impacts can also impede the fully-informed consideration of regulatory strategies. More particularly, impact assessments do not lend themselves to the ready integration of economic, social and environmental issues, and this, again, can stand in the way of intelligent strategy development.²⁹

Modifying Behaviour

Many of the challenges that sustainability regulators face in developing strategies will also be faced when interventions are made in order to modify behaviour. Thus, the methods used to apply any given intervention tool may be

²⁵ On the importance of an adequate informational base see Productivity Commission pp 15-16.

²⁶ *Ibid.*, pp. 14-15, 97.

²⁷ Productivity Commission, p. 14.

²⁸ Productivity Commission, p. xxx.

²⁹ Productivity Commission, pp. xx111, 82.

subject to supra-normal contest in the sustainability field. In any regulatory intervention regime, moreover, it is difficult to ensure that common conceptions of risks, problems and approaches can be fostered across organizational levels (or across horizontal divisions of departments).³⁰ These challenges are all the more severe when the problems associated with furthering sustainability are so highly prone to contest and competing conceptions.

Reliable performance assessments are needed to adjust and improve behaviour modification strategies but these assessments are a special challenge in the field of sustainability. All of the problems of identifying objectives authoritatively will make it difficult to produce performance indicators with secure foundations. Data will also be intrinsically difficult and expensive to amass and analyse in this field because: evidential uncertainties will often be encountered; many impacts will lag interventions considerably; and long time-frames of analysis have to be committed to. In addition, as noted, the measurement of non-pecuniary benefits such as environmental and social impacts is intrinsically problematic and expensive. The absence of comprehensive data sets, and fragmentations of these will render performance assessments difficult as will the multi-agency nature of sustainability – which will often involve numerous disparities in the data systems.

The dynamic regulator will be quick to adapt strategies and approaches to behaviour modification where necessary but the difficulty in sustainability regulation is that this area of control requires the negotiation of numbers of settlements between many parties and the need to engage in complex renegotiations is an impediment to dynamism. Such dynamism, moreover, is especially important in sustainability regulation for a number of reasons. Conceptions of the content, status and force, and role of sustainability change so that regulatory objectives are reconceived. Scientific knowledge on natural resource impacts is often limited, uncertain and expanding so that the regulatory evidence base shifts. Impacts themselves change as environmental and public sensitivities shift. Institutional arrangements, moreover, are often so complex that initial regulatory strategies have to be adjusted and updated if they are to become workable and cope with new expectations and problems.

IV. Serving Representative Values

As noted, the indeterminacies of sustainability – regarding content, status and force, as well as role – put a high premium on satisfactory processes. Yet again, though, sustainability regulation presents special challenges.

A. Fairness

It is especially difficult for a regulator of sustainability to convince parties of its fairness. Complexities and indeterminacies provide myriad opportunities for powerful parties to influence regulatory approaches and actions in a self-serving manner. Accusations of substantive bias are liable, accordingly to be difficult to defend against. The attuned, intelligent and dynamic regulator will, accordingly, give high priority to showing that decisions and policies properly respect the interests of affected parties; will have the evidence to hand to demonstrate the paying of such

³⁰ See R. Baldwin and J. Black, ‘Risk Regulation: What’s the Problem?’ (forthcoming).

respect; and will ensure that the abilities to do these things will sustain over changes that impact on the regulatory environment.

As for demonstrating procedural fairness, sustainability exemplifies the decentred, fragmented type of regulatory regime in which interests and claims are made by a very wide range of methods.³¹ This makes it very difficult to create assurances of fairness in processes because comparisons cannot readily be made on a single plane – there is little obvious procedural equivalence. The attuned regulator, accordingly, will take all feasible steps to work towards such equivalence by ensuring the representativeness of those who have access to its processes, and by creating equivalence in opportunities of input and impact on outcomes. The intelligent regulator will also take steps to ensure informational fairness and will be prepared to act in a facilitative role so that it assists and enables participation where this is necessary for the required equivalence (where necessary by packaging information in the form best most digestible for the party at issue). It may involve using best offices to organise negotiations and settlements between parties of different positions so that disagreements are minimised.³² Such efforts, moreover, should seek to straddle institutional divisions so that access to one decision or policy-maker is not devalued by perceived exclusion from the processes of other agencies that are involved in the regulatory issue.

Dynamism, here, means that the regulator is quick to act on changes that affect the fairness of participation. Thus, where a newly complex issue enters the agenda, the dynamic regulator will be quick to take steps to ensure that this new complexity does not exclude certain parties from the relevant processes.

B. Openness and Transparency

Demonstrating appropriate openness and transparency in the sustainability field gives rise to the same challenges as just mentioned in dealing with fairness of access and participation. A message that is open and transparent to one kind of stakeholder may be opaque to another type. The attuned and intelligent regulator, accordingly, will be prepared not only to ensure that interested parties are identified comprehensively but to develop and apply processes and information systems that facilitate understandings by the full range of stakeholders. This may require a good deal of bespoke interactions and the resource implications of this will be borne in mind. Also considered, and addressed, will be the dangers that transparency in some aspects of a decision or policy may be undermined by activities within the control of another regulatory body. As for dynamism, again this will demand that fresh routes to transparency will have to be developed as new kinds of issue come on to sustainability agendas.

³¹ J. Black, 'Constructing and contesting legitimacy and accountability in polycentric regulatory regimes' *Regulation & Governance* (2008) 2, 137–164.

³² See Productivity Commission, p.75.

C. Accountability and Justification

The successful regulator for sustainability will be able to render proper account and, through justification, secure broad support for its actions. As noted in discussing fairness, however, the pursuit of sustainability demands that account is rendered through a host of different types of conversation or claim. Attuned regulators, therefore, will ensure that the different kinds of holders to account will be responded to with the appropriately tailored message. Securing strong justification is, however, a severe challenge for any sustainability regulator because of the above mentioned factors such as: indeterminacies, regime complexities, evidential uncertainties, vulnerabilities to change and high levels of contestability. The intelligent regulator will focus on the need to collect information of the kinds and extent that will maximise the potential to make convincing justificatory claims and the dynamic agency will see the process of justification as an ongoing project that is subject to constant change.

V. Risk-Based Regulation and Sustainability

Are the challenges of regulating for sustainability rendered more acute when a regulator operates a risk-based regime? It is arguable that this is the case in a number of respects.

In setting operational objectives, risk-based regulators have to work from their overall objectives down to key risk objectives so that risk-based assessments can be undertaken. If risks to sustainability are at issue, the high levels of indeterminacy involved mean in the first instance that identifying key risks is liable to be subject to supra-normal levels of contention. Problems may also be encountered in adjusting risk priorities. The danger in all risk-based systems is that of ‘model myopia’ and the tendency to over commit to the existing model of risks so that updating does not take place.³³ If it is the case that sustainability regulators need to spend much effort in deliberative procedures so as to create broad buy-in to a particular set of risk identifications, adapting to change will be all the more difficult as the hard-earned settlements and agreements that underpin regulation will have to be unpacked. Sustainability regulators’ resistance to such unpacking may thus combine with model myopia to render their regimes doubly unresponsive to change.

In seeking to deliver the right substantive outcomes, difficulties can arise when a risk-based sustainability regulator seeks to attune its interventions to cultural variations and to tailor intervention methods to different operators’ varying understandings of sustainability. Risk-based regulation focusses on identifying the operators that require priority attention (the high risks), it says little about the modes of intervention required and such a focus on targeting may draw the eye away from choices of intervention style – which may be highly contentious.

It is also the case that numerous risks to sustainability are systemic in nature – they often arise because of cumulations of pressures from pervasive or multiple sources. As was seen in the financial crisis of 2007 onwards, however, the logic of risk-based regulation may naturally focus attention on individual ‘silos of risk’ so that

³³ See Black and Baldwin, loc. cit., p. 206.

systemic / cumulative risks become neglected. In the sustainability field, moreover, what constitutes a systemic risk is also contestable (by different operators and regulators alike), this compounds an already considerable difficulty. The more that sustainability regulation is a multi-agency affair the more serious this problem is likely to be.

Risk-based regulators face special difficulties, furthermore, in measuring their own performance in delivering outcomes. Many control tasks are delegated to operating firms when risk-based regulators monitor operators' risk management systems rather than take direct steps to control risks. In such 'meta-regulatory' systems, the difficulty is that different actors will use different models or 'codes' to evaluate risks and this renders risk evaluations complex and opaque. The noted characteristics of the field of sustainability (notably cultural variations) will tend to make these difficulties all the greater.

Risk-based sustainability regulators may also find that ensuring that their staff act (and are seen to act) in a fair and consistent fashion comes at a significant price. Assessments of operators' risks to sustainability involve the exercise of considerable levels of discretion. The more scope there is for judgement there is, the more difficult it is to ensure consistency of approach. The processes for overseeing staff discretions may, accordingly, prove extremely costly and centralised controls over these matters can, additionally, make the regulator slow to respond to changes in the regulatory challenges it faces.³⁴

As for the risk-based regulator's ability to render account and secure support, there may be further worries. The prioritisations that risk-based regulation demands may render the sustainability regulator especially vulnerable to political attack. This vulnerability stems from the prevalence of differing opinions on content, status and force, and role of sustainability. When some risks are not given priority, the regulator may be liable to censure from groupings or interests who see those risks to be central to their conceptions of sustainability.

Clashes of regulatory logic may also impede the use of deliberative procedures to generate consent and support.³⁵ The logic of risk-based regulation is that risk analyses dictate priorities for intervention and the urgencies of intervention methods. Sustainability regulation, in contrast, demands careful negotiation of approaches and solutions for reasons noted above (indeterminacies, evidential uncertainties, regime complexities etc.). A good deal of deliberation and facilitation is often required if sustainability regulators are to retain support across stakeholders.³⁶ There is tension between the mechanical approach of risk-based regulation and the deliberative model necessary in sustainability regulation.

Public expectations may also be a difficulty for risk-based sustainability regulators. Risk-based regulation is often perceived as promising a technical, rational, systematic solution to control issues but the qualitative judgements involved in

³⁴ See J. Black and R. Baldwin, 'Really Responsive Risk-Based Regulation' (2010) 32 *Law and Policy* 181 – 213, 189.

³⁵ *Ibid.*, p. 199.

³⁶ See Productivity Commission, Chapter 7.

sustainability assessments, the evidential uncertainties and indeterminacies, and the multiplicity of divergent opinions on sustainability priorities all conduce to dramatic departures from this promise. Justifications are, moreover, not always strengthened by disclosures regarding risk priorities – these can just expose the agency to further attacks for failures to attend to un-prioritized risks.

Commitment to a risk model may, in addition, render the regulator un-responsive to stakeholders because it may blind the regulator to changes in various stakeholders' perceptions of priorities. In the sustainability field, moreover, such changes of perception are liable to be numerous for various reasons, including the numbers of parties commonly involved and the speed of developments in evidence concerning such matters as environmental impacts.

Conclusions

Aiming for regulatory excellence demands clarity regarding relevant measures of excellence and achieving excellence calls for an awareness of the challenges presented in a given regulatory domain. This paper suggests that regulators who act in pursuit of sustainability, either as a central concern or as part of their portfolio of concerns, face a set of challenges that are different in degree from those familiar in regulation more generally and that some such challenges are likely to be rendered yet more severe when they engage in risk-based regulation. The attuned, intelligent and dynamic regulator will be aware of these issues and will address them with special attention to context, informational considerations and the need to be responsive to change. In regulation the measures of excellence may remain quite constant across fields and styles of regulation but the challenges of achieving excellence may vary quite dramatically.