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Smart regulation

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1. Introduction

Gunningham et al. (1998) first advocated the concept of 'smart regulation' in a book of that title in 1998. Subsequently, the concept has been refined in various publications by Gunningham and Sinclair (1999a, 1999b, 2002). The term refers to a form of regulatory pluralism that embraces flexible, imaginative and innovative forms of social control. In doing so, it harnesses governments as well as business and third parties. For example, it encompasses self-regulation and co-regulation, using commercial interests and non-governmental organisations (NGOs) (such as peak bodies) as regulatory surrogates, together with improving the effectiveness and efficiency of more conventional forms of direct government regulation. The underlying rationale is that, in the majority of circumstances, the use of multiple rather than single policy instruments, and a broader range of regulatory actors, will produce better regulation. As such, it envisages the implementation of complementary combinations of instruments and participants tailored to meet the imperatives of specific environmental issues.

To put smart regulation in context, it is important to note that, traditionally, regulation was thought of as a bipartite process involving government (as the regulator) and business (as the regulated entity). However, a substantial body of empirical research reveals that there is a plurality of regulatory forms, with numerous actors influencing

the behaviour of regulated groups in a variety of complex and subtle ways (Rees 1988: 7). Crucially, informal mechanisms of social control often prove more important than formal ones. Accordingly, the smart regulation perspective suggests that we should focus our attention on understanding such broader regulatory influences and interactions, including: international standards organisations; trading partners and the supply chain; commercial institutions and financial markets; peer pressure and self-regulation through industry associations; internal environmental management systems and culture; and civil society in myriad different forms.

In terms of its intellectual history, smart regulation evolved in a period in which it had become apparent that neither traditional command-and-control regulation nor the free market provides satisfactory answers to the increasingly complex and serious environmental problems that confront the world. This led to a search for alternatives more capable of addressing the environmental challenge and, in particular, to the exploration of a broader range of policy tools such as economic instruments, self-regulation and information-based strategies. Smart regulation also emerged in a period of comparative state weakness, in which the dominance of neoliberalism had resulted in the relative emasculation of formerly powerful environmental regulators and in which third parties such as NGOs and business were increasingly filling the 'regulatory space' formerly occupied by the state.

At the heart of smart regulation is a series of *regulatory design principles*, adherence to which would enable policymakers to take advantage of a number of largely unrecognised opportunities, strategies and techniques for achieving efficient and effective environmental policy. These design principles include:

- The desirability of preferring complementary instrument mixes over single instrument approaches, while avoiding the dangers of 'smorgasbordism' (that is, wrongly assuming that all complementary instruments should be used rather than the minimum number necessary to achieve the desired result).
- The virtues of parsimony: why less interventionist measures should be preferred in the first instance and how to achieve such outcomes.

- The benefits of an escalating response up an instrument pyramid (utilising not only government, but also business and third parties) to build in regulatory responsiveness, to increase dependability of outcomes through instrument sequencing and to provide early warning of instrument failure through the use of triggers.
- Empowering third parties (both commercial and non-commercial) to act as surrogate regulators, thereby achieving not only better environmental outcomes at less cost but also freeing up scarce regulatory resources, which can be redeployed in circumstances where no alternatives to direct government intervention are available.
- Maximising opportunities for win–win outcomes by expanding the boundaries within which such opportunities are available and encouraging business to go 'beyond compliance' within existing legal requirements.

While space precludes a fuller discussion of all of these principles, two of the most important are elaborated on below: compliance and enforcement and the importance of designing for complementary instrument combinations.

2. Compliance and enforcement

Beyond the traditional enforcement roles of the state, smart regulation argues that enforcement is possible not just by the state (as traditional theories of regulation assume) but also by second and third parties who act as surrogate regulators. Building on the original (1992) version of *responsive regulation* (under which the regulator escalates or de-escalates their intervention depending on the regulatee's response), smart regulation argues the virtues of escalating up a three-sided enforcement pyramid, *with escalation of enforcement possible up each 'face' of the pyramid*, including the second face (through self-regulation) or the third face (through a variety of actions by commercial or non-commercial third parties or both), in addition to the first face (government action).

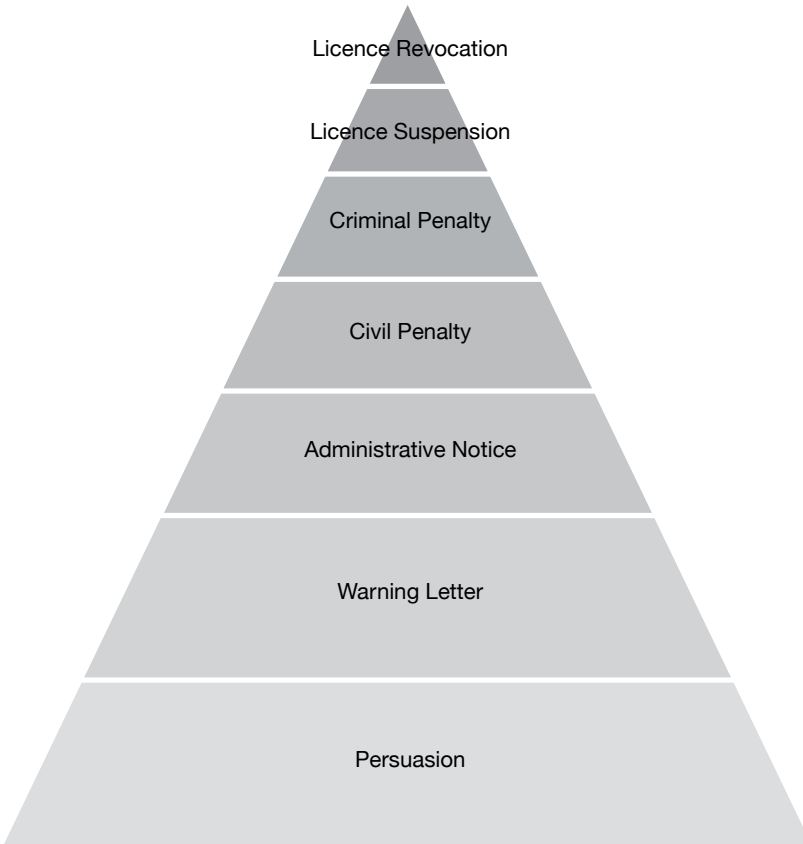

Figure 8.1 Enforcement pyramid
Source: Author's work.

In the case of the third face, an example is the Forest Stewardship Council (FSC), which is a global environmental standards-setting system for forestry products. The FSC both establishes standards that can be used to certify forestry products as sustainably managed and 'certifies the certifiers'. As such, its enforcement 'clout' rests on changing consumer demand in favour of FSC-certified timbers and timber-based products. While government involvement, such as formal endorsement or preferential procurement, may be valuable, the scheme is essentially a freestanding one: from base to peak (consumer sanctions and boycotts), the scheme is entirely third-party run. Under such an institutional system, the imposition of environmental standards is independent of government regulators (McDermott et al. 2010).

The smart regulation pyramid also conceives of the possibility of regulation using a number of different instruments implemented by the range of parties mentioned in the previous paragraph, with escalation to higher levels of coerciveness not only within a single instrument category, *but also across several different instruments and across different faces of the pyramid*. A graphic illustration of how this can indeed occur is provided by Joe Rees's analysis of the highly sophisticated self-regulatory program of the Institute of Nuclear Power Operations (INPO). INPO, established in the wake of a near meltdown of a US nuclear power plant, is arguably among the most impressive and effective of such schemes worldwide (Rees 1994). However, INPO is incapable of working effectively in isolation. There are, inevitably, industry laggards—nuclear power plants that do not respond to education, persuasion, peer group pressure, gradual nagging from INPO, shaming or other measures at its disposal. INPO's ultimate response, after five years of frustration, was to turn to the government regulator, the Nuclear Regulatory Commission (NRC). That is, the effective functioning of the lower levels of the pyramid may depend on invoking the peak, which, in this case, only government could do: closing a nuclear power plant.

The INPO case also shows the importance of coordination of the different levels and faces of the pyramid. The NRC did not just stumble across the issue or threaten action against the recalcitrant alone. Rather, there was considerable communication between INPO and the NRC. This facilitated a tiered response of education and information, escalating through peer group pressure and a series of increasingly threatening letters, ultimately leading to the threat of criminal penalties and incapacitation. Crucially, the peak enforcement response is one the government alone possesses, while INPO is in the best position to pursue lower-level enforcement responses. Thus, even in the case of one of the most successful schemes of self-regulation ever documented, it was the presence of a regulatory 'gorilla in the closet' that secured its ultimate success (as such, it may be more accurately termed co-regulation).

This example is not intended to give the impression, however, that a coordinated escalation up one or more sides of an instrument pyramid is practicable in all cases. On the contrary, controlled escalation is only possible where the instruments in question lend themselves to a graduated, responsive and interactive enforcement strategy. The two measures that are most amenable to such a strategy (because they are readily reshaped) are 'command and control' and 'self-regulation'. Thus, it is

no coincidence that the above example of how to shift from one face (regulator) of the pyramid to another as one escalates up graduated enforcement options to invoke a dynamic peak was taken from precisely this instrument combination. However, there are other instruments that are at least partially amenable to such a response. A combination of government-mandated information (a modestly interventionist strategy) with third-party pressure (at the higher levels of the pyramid) might also be a viable option. For example, government might require business to disclose various information about its levels of emissions under a Toxic Release Inventory, leaving it to financial markets and insurers (commercial third parties) and environmental groups (non-commercial third parties) to use that information in a variety of ways to bring pressure and financial sanction to bear on poor environmental performers (see, generally, US EPA 2014; see also Hamilton 1995).

In contrast, in the case of certain other instruments, the capacity for responsive regulation is lacking. This is either because an individual instrument is not designed to facilitate responsive regulation (that is, its implementation is 'static' rather than 'dynamic' and cannot be tailored to escalate or de-escalate depending on the behaviour of specific firms) or because there is no potential for coordinated interaction between instruments. Another limitation is the possibility that, in some circumstances, enforcement escalation may only be possible to the middle levels of the pyramid, with no alternative instrument or party having the capacity to deliver higher levels of coerciveness. Or a particular instrument or instrument combination may facilitate action at the bottom of the pyramid and at the top, but not in the middle levels, with the result that there is no capacity for gradual escalation. In the substantial range of circumstances when coordinated escalation is not readily achievable, a critical role of government remains to fill the gaps between the different levels of the pyramid. In doing so, they should seek to compensate for the absence of suitable second or third-party instruments or for their static or limited nature. They should do so: a) through direct intervention; or b) by facilitating action by other parties; or c) by acting as a catalyst for effective second or third-party action.

Finally, smart regulation cautions that there are two general circumstances where it is inappropriate to adopt an escalating response up an enforcement pyramid, irrespective of whether it is possible to achieve such a response. First, in situations where there is a serious risk of imminent irreversible loss or catastrophic damage, a graduated response

is inappropriate because the risks are too high. Second, a graduated response is only appropriate where the parties have a relationship involving continuing interactions—allowing for credible initiation of a low interventionist response and then escalation (in a 'tit for tat' fashion) if this proves insufficient. In contrast, where there is only one chance to influence the behaviour in question (for example, because small employers can only very rarely be inspected), a more interventionist first response may be justified, particularly if the risk involved is high.

In summary, the preferred role for government under smart regulation is to create the necessary preconditions for second or third parties to assume a greater share of the regulatory burden rather than engaging in direct intervention. This will reduce the drain on scarce regulatory resources and provide greater ownership of regulatory issues by those directly concerned in industry and the wider community. In this way, government acts principally as a catalyst or facilitator. In particular, it can play a crucial role in enabling a coordinated and gradual escalation up an instrument pyramid, filling any gaps that may exist in that pyramid and facilitating links between its different layers.

3. Instrument combinations

Smart regulation highlights the importance of utilising combinations of instruments and parties to compensate for the weakness of standalone environmental policies. It cannot be assumed, however, that all instrument combinations are complementary. Some instrument mixes may indeed be counterproductive. The outcome of others may be largely determined by the specific contexts in which they are applied. Unfortunately, the task of answering the question of which particular combinations are complementary, which are counterproductive and which are context-specific is complex. To explore the full implications of all instrument combinations would be both impractical and tedious. Instead, we provide a brief overview of some potential instrument interactions with selective examples to sensitise policymakers and others to the importance of selecting judicious policy combinations.[1] Box 8.1 summarises the principal policy instruments from which

1 A detailed exposition of instrument combinations is provided in Gunningham and Sinclair (1999b).

policymakers may choose. While these examples are taken from the area of environmental regulation, the same approach can be taken to many other areas of social regulation.

Box 8.1 Policy instrument categories

Command-and-control regulation

The various types of command-and-control standards have fundamentally different modi operandi. For example, *technology standards* prescribe an approved technology for a particular industrial process or environmental problem. Such a standard 'is defined in terms of the specific types of safeguarding methods one must use in specific situations and … places great emphasis on the design and construction of these safeguards' (McAvoy 1977: 9). In contrast, *performance standards* define a firm's duty in terms of the problems it must solve or the goals it must achieve. That is, performance standards are outcome-focused. They avoid overt prescriptions on how to achieve these outcomes. Finally, *process standards* address procedures and parameters for achieving a desired result—in particular, the processes to be followed in managing nominated hazards. They are most often used in respect of hazards that do not lend themselves to easy risk measurement and quantification.

Economic instruments

Three types of economic instruments may be distinguished. The first are *broad-based economic instruments*, such as tradable emission/resource permits and pollution/resource taxes that apply to the whole industry, which do not discriminate between sectors and/or preferred technological solutions or impose performance limits on individual firms. That is, apart from government setting the overall level of the tax or the number and value of permits, the market is left to operate freely. The second are *supply-side incentives*, which are financial subsidies provided by government for particular types of technology and/or specific types of industrial activity. These are distinguished from broad-based instruments in that there is a much higher level of government prescription. The third is that of *legal liability* whereby firms can be held financially responsible for cases of environmental harm.

Self-regulation

This is not a precise concept, but, for present purposes, self-regulation may be defined as a process whereby an organised group regulates the behaviour of its members. Most commonly, it involves an industry-level organisation (as opposed to the government or individual firms) setting rules and standards (codes of practice) relating to the conduct of firms in the industry. One can further categorise industry self-regulation in terms of the degree of government involvement ('pure' self-regulation, without any form of external intervention, is relatively uncommon).

Voluntarism

In contrast with self-regulation, which entails social control by an industry association, voluntarism is based on individual firms undertaking to do the right thing unilaterally, without any basis in coercion. Commonly, voluntarism is initiated by government and may involve government playing the role of facilitator and coordinator. At a general level, this category embraces voluntary agreements between governments and individual businesses taking the form of 'non-mandatory contracts between equal partners, one of which is government, in which incentives for action arise from mutual interests rather than from sanctions' (OECD 1994: 7). However, the variety of such agreements makes precise classification difficult.

Information strategies

The range of educational and information-based instruments is broad and, in many cases, these instruments may overlap. For present purposes, information strategies may be taken to include: education and training; environmental reporting; community right-to-know; freedom of information; proactive public disclosure; pollution inventories; and product certification.

Certain combinations of the above instruments are inherently complementary. That is, their effectiveness and efficiency are enhanced by using them in combination, irrespective of the circumstances of the environmental issue being addressed. As such, policymakers can be confident in choosing these combinations over others. An illustrative example can be drawn from the combination of voluntarism (in which individual firms without industry-wide coordination voluntarily seek to improve environmental performance) and command-and-control regulation.

Voluntarism (when genuine rather than tokenistic) will complement most forms of command-and-control regulation, particularly where levels of environmental performance 'beyond compliance' are desired. In the case of performance standards, a minimum performance benchmark is established, with voluntary-based measures encouraging firms to achieve additional improvements. The 33/50 program of the US Environmental Protection Agency (EPA) is an example of this approach (Aora and Cason 1995). Under the 33/50 program, firms were encouraged to reduce the levels of their toxic chemical releases, often at substantial cost, on a purely voluntary basis. Existing command-and-control regulations that applied to toxic chemical releases remained in force, with the 33/50 program delivering additional benefits in terms of reducing unregulated emissions.

The combination of the two instruments means that participating firms are encouraged to go beyond a minimum standard, while non-participating firms must still comply with this performance baseline. If voluntarism were introduced alone, there would be no guarantee that non-participating firms would contain their levels of toxic chemical releases, thus freeriding on those committed to higher levels of reduction. The combination of voluntarism and performance-based command and control in this instance has produced environmental improvements additional to those that could have been achieved in isolation. In contrast with *beyond compliance* activities, if voluntarism and performance-based standards were targeting the *same* level of behaviour then, at best, they would be a duplicative combination and, at worst, counterproductive.

Voluntarism can also work well with process standards—for example, where the adoption of environmental management systems (such as ISO 14001) has been mandated (Thomas 1997). As process-based prescriptions tend to be qualitative in nature, and therefore more difficult to measure quantitatively than performance or technology standards, their full potential is difficult to enforce externally unless the regulated firm is committed to the concept. Voluntary measures that seek to change the attitude of managers and the prevailing corporate culture may serve to underpin a commitment to process standards.

In contrast, technology standards are unlikely to produce complementary outcomes when used in combination with voluntary measures. This is because they are highly prescriptive: firms can either comply or not comply, resulting in little room for *beyond compliance* achievements. In effect, technology standards restrict the way in which firms respond to an environmental imperative in terms of the method of environmental improvement, whereas voluntary measures are, in principle, designed to provide additional regulatory flexibility.

Certain other combinations of regulatory instruments are either inherently counterproductive or, at least, suboptimal. Their efficiency and effectiveness are significantly diminished when they are employed in combination. The example of command-and-control regulation and economic instruments is illustrative. Most command-and-control instruments—namely, performance standards and technology standards—seek to impose predetermined environmental outcomes on industry. That is, even if the standards are not uniform (in that different requirements apply to different sectors or firms), individual firms are not free to make independent judgements as to their preferred method of environmental improvement (in the case of technology standards) or their overall level of environmental performance (in the case of performance standards). Economic instruments, in contrast, seek to maximise the flexibility of firms in making such decisions: government influences the overall level of environmental performance by providing a price signal relative to the level of pollution or resource consumption desired, or by creating a purchasable right to pollute or consume resources within an overall cap.

If a command-and-control instrument were to be superimposed on an economic instrument targeting the same environmental issue, or vice versa, to the extent that the command-and-control instrument limits the choice of firms in making individual decisions, the economic instrument would be superfluous (unless acting as a revenue stream for government). That is,

there will be a suboptimal regulatory outcome. Economic instruments are designed to exploit differences in the marginal cost of abatement between firms. It makes economic sense for those firms that can reduce their levels of pollution most cheaply to carry a greater share of the collective abatement burden, and for those for whom it is most expensive to carry a lesser share of the same burden. The result is that the net cost of reducing the overall level of pollution (or resource consumption) will be lessened. Alternatively, for a given level of expenditure, a greater level of pollution reduction will be achieved. By simultaneously applying a prescriptive command-and-control instrument (be it a performance or a technology standard), free market choices would be artificially restricted, thus undermining the basic rationale of the economic instrument. An example of this might be mandating specific energy efficiency technologies for firms in tandem with a carbon tax.

One way of avoiding potentially incompatible instrument combinations is to sequence their introduction. That is, certain instruments may be held in reserve, to be applied only if and when other instruments demonstrably fail to meet predetermined performance benchmarks. One type of sequencing is when an entirely new instrument category is introduced where previous categories have failed. Another version is when only the enforcement component of a pre-existing instrument is invoked to supplement the shortcomings of another. Logically, such sequencing would follow a progression of increasing levels of intervention. As such, considerable utility can be derived from otherwise dysfunctional instrument combinations and, in the process, the dependability of an overall policy mix can be improved.

So far, we have confined our discussion to bipartite mixes. There is, of course, no reason why mixes should not be multipartite, and they commonly are. The benefit of our examination of bipartite mixes has been to identify complementary and counterproductive mixes, with the result that we know, in the case of multipartite mixes, which combinations to avoid and the complementary combinations on which we might build. The possible permutations of multipartite mixes are very large indeed, and it is not practicable to consider them here.

4. Smart regulation in practice

A substantial number of policy approaches are consistent with the precepts of smart regulation. In Canada, smart regulation became the principle focus of federal government–driven regulatory reform in

the mid-2000s and continued under a different name for some time thereafter.[2] There it has been characterised by 'a restructuring of the process of assessing, reforming and improving the regime in which regulations are developed, managed, enforced and measured' (Wood and Johannson 2008: 361). A few years later, the European Union (EU) promoted smart regulation as a vehicle to achieve a 'cleaner, fairer and more competitive Europe' (Danish Ministry of Economic and Business Affairs et al. 2010). Indeed, according to Toffelson et al. (2008: 257), 'the smart-regulation critique has also resonated in potentially sweeping law and policy reforms in many other Western liberal democracies'.

At a more specific level, EU and Dutch regulators have invoked smart regulation to combat the global problem of e-waste, and as a vehicle for effective governance of the globalised shipping industry (Bloor et al. 2006). It has also been contemplated for other emerging globalising industries. The European Community regulation on chemicals and their safe use, which deals with the 'registration, evaluation, authorisation and restriction of chemical substances' (REACH), is also built on similar principles (Farber 2008).

Having said this, it must be cautioned that while 'many governments have adopted the term [smart regulation] to provide intellectual justification for a wide range of public-sector regulatory reform initiatives' (Toffelson et al. 2008: 357), the way the term is used by politicians and policymakers bears only a loose resemblance to the original academic concept. For example, while the authors of smart regulation emphasised the importance of designing complementary policy mixes, of harnessing third parties as surrogate regulators and of sequential combinations of public and private enforcement, policymakers have often paid little heed to this advice. They have, for example, been: a) reluctant to ascend an enforcement pyramid for fear of offending business; b) unwilling to cooperate with NGOs for fear of losing control; and c) more inclined to embrace a 'grab bag' of tools than a judicious combination of complementary ones. Overall, what passes for smart regulation in policy circles is more akin to a regulatory stew from which policymakers have selected particularly juicy morsels that appeal to the political rhetoric of their masters, largely irrespective of their likely effectiveness or efficiency.

2 See, in particular, the Canadian Government's regulatory reform program under this banner (Government of Canada 2005) and Leiss (2005).

If political acceptability was closely tied to evidence-based policymaking then the gap between such acceptability and effectiveness should be a relatively narrow one. Unfortunately, this is usually not the case. Governments, of whatever variety, seem far more concerned with political and economic rhetoric than with rational and evidence-based decision-making. For example, in Australia, the former Rudd Labor Government went beyond the Blair Government's various 'reducing regulatory burdens' initiatives by establishing a Department of Finance and Deregulation. It was no longer necessary to debate the complexity of public policy, the options involving varying degrees of government intervention or how to achieve an efficient and effective policy mix. Rather, the answer in each case was apparently clear: regulation bad; deregulation good. Indeed, so resistant was the department to any hint of new regulation that a smart regulation initiative was nipped in the bud, emerging finally in a much-diluted form as 'smart policy'.

Finally, smart regulation has not been immune from academic criticism. Some authors have claimed that it does not address institutional issues, compliance-type specific responses, performance sensitivity and adaptability of regulatory regimes (Baldwin and Black 2008; Böcher and Toller 2003). Van Gossum et al. (2010: 245) suggest that these shortcomings can be resolved by 'by merging the smart regulation theory with the policy arrangement approach and the policy learning concept' under what they call a 'regulatory arrangement approach' (RAA). The aim of the RAA is:

> to constrain the almost infinite smart regulatory options by: the national policy style; adverse effects of policy arrangements of adjoining policies; the structure of the policy arrangement of the investigated policy and competence dependencies of other institutions. (van Gossum et al. 2010: 245)

We take this as a constructive and nuanced means of preserving the essence of smart regulation, while extending its practical reach to a broader range of circumstances.

In conclusion, while there has been considerable progress in the development of smart regulation as a theoretical construct, its attempted translation into regulatory policy and practice has been mixed. This is because policymakers appear eager to embrace pluralism without the necessary constraints of choosing *complementary* combinations, and display an unwillingness to move from the base of the pyramid and/or to engage a range of third parties as surrogate regulators. In this regard,

it may be that the complexity and sheer number of possible instrument/party permutations dissuade policymakers from doing the necessary empirical research to effectively implement a smart regulation approach suitable for a given circumstance. If this is the case then, as van Gossum et al. (2010) suggest, a streamlining and tailoring of key complementary approaches to particular institutional circumstances will be of assistance.

In any case, the lack of appetite among many governments to confront an armada of significant environmental problems confronting society today—such as greenhouse gas emissions, unsustainable water use, diffuse pollution, species loss and habitat destruction—suggests that the principles of smart regulation are still pertinent. Certainly, a redesign of patently inadequate policy responses, such as the Australian Government's so-called direct action initiative—which is all voluntary 'base' and no enforcement 'peak', lacks third-party engagement and contemplates uncomfortable policy combinations—would be a good starting point from which to re-engage with smart regulation.

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