

From “smart regulation” to “regulatory arrangements”

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Abstract When regulators are faced with practical challenges, policy instrument choice theories can help them find the best solution. However, not all such theories are equally helpful. This paper aims to offer regulators a better alternative to the current policy instrument choice theories. We will specifically address the shortcomings of “smart regulation theory” and present an alternative that keeps the best of that theory while remediating its weak points. Some authors (Böcher and Töller 2003; Baldwin and Black 2008) say that smart regulation theory does not address institutional issues, compliance type-specific response, performance-sensitivity and adaptability of regulatory regime. We have resolved these problems by merging the smart regulation theory with the policy arrangement approach and the policy learning concept. We call the resulting approach “regulatory arrangement approach” (RAA). The central idea 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. The reduction can be so drastic that the potential governance capacity falls below the smart regulation threshold. In other words, no smart regulatory arrangement can be developed in that institutional context unless policy learning occurs. In addition, a “smart” regulatory arrangement is no guarantee that the policy will succeed. For this reason, the performance of the regulatory arrangement is measured and evaluated. Performance below a certain threshold indicates that the regulatory arrangement needs to be adapted, which then results in policy learning.

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We illustrate the usefulness of this new approach with a secondary analysis of the Flemish sustainable forest management policy.

Keywords Instrument choice · Policy learning · Policy instrument · Political modernization · Policy style · Governance capacity

Introduction

The process of crafting thoughtful policy requires the choice of appropriate instruments (Rist 1998). This paper presents the regulatory arrangement approach (RAA), which is more helpful to regulators for solving practical challenges than current policy instrument choice theories, such as Gunningham and Grabosky's (1998) smart regulation theory.

More and more scholars now recognize that instrument choice theories like smart regulation over-simplify actual political practices (Böcher and Töller 2003; Baldwin and Black 2008). Real-life attributes like power, competence and prevailing regulatory perspectives shrink the number of instruments available to regulators (Majone 1976, 1989; Richardson et al. 1982; Linder and Peters 1989, 1998; Böcher and Töller 2003; Baldwin and Black 2008; Böcher forthcoming). These authors emphasize that these real-life attributes can influence policy success more than instrument choice. Nonetheless, Van Gossum et al. (2009) have shown that choosing an appropriate instrument mix can still be an important factor in policy success, especially when the current institutional environment of a specific policy does not inhibit the development of a “smartly” formulated instrument mix. Another criticism is that the instrument sequencing¹ principle of smart regulation is not compliance type-specific (Braithwaite 1995, 2003; Baldwin and Black 2008). Finally, smart regulation has been criticized because it is not performance-sensitive and neglects the adaptability of the “smartly” formulated regulatory design when the institutional environment changes (Baldwin and Black 2008). In situations where the earlier criticisms are (partly) valid, policy-makers need a new approach that guides them to the attributes (including instrument mix) that really matter for a specific policy theme. The new approach must also include compliance type-specific responses and a dynamic component.

This paper will (1) examine criticisms of smart regulation and (2) contribute to the development of instrument choice theory. We present a preliminary version of a new approach that compensates for the shortcomings of smart regulation.

The paper has six sections. The first introduces smart regulation theory; the second provides the reasons underlying the criticisms of smart regulation; the third critically re-examines smart regulation criticisms; the fourth develops the regulatory arrangement approach (RAA) by merging current smart regulation theory with the policy arrangement approach (PAA) and the policy learning concept; the fifth illustrates the RAA by secondary analysis of a Flemish case study on sustainable forest management (Van Gossum et al. 2009, 2010). The final section presents our conclusions and suggestions for further research.

¹ The regulators' first line of enforcement uses compliance strategies such as persuasion or education, but when the regulated firm fails to behave as desired, the regulators apply more punitive deterrent responses and escalate up a pyramid of such responses (Ayres and Braithwaite 1992).

Smart regulation theory

Smart regulation was developed as a solution for the intellectual stalemate between those who favor strong state regulation and those who advocate deregulation (Ayres and Braithwaite 1992; Grabosky 1994; Gunningham and Young 1997; Gunningham and Grabosky 1998). To this end, smart regulation proposes government intervention that is constrained by first, a range of market and non-market solutions and second, public and private orderings (Gunningham and Grabosky 1998). The theory proposes a number of principles that help policy-makers to “smartly” formulate their instrument design, ultimately generating an instrument design that will achieve the desired policy outcome. The principles, formulated by Gunningham and Young (1997), Gunningham and Grabosky (1998), Gunningham and Sinclair (1999) and Howlett and Rayner (2004), can be divided into eight principles (one policy-external principle and seven policy-internal principles). The eight principles are as follows. For an extended discussion of those principles, see Van Gossum et al. (2009).

1. avoid “perverse” or adverse effects of adjoining policies (Gunningham and Young 1997);
2. choose policy mixes that incorporate a broad range of instruments (Gunningham and Grabosky 1998). This implies a careful selection of the most cost-effective regulatory combinations;²
3. choose policy mixes incorporating a broad range of institutions (Gunningham and Grabosky 1998). This implies a careful selection of the most appropriate institutions to regulate the policy;
4. develop or use new environmental policy instruments (NEPI’s), when “traditional” instruments fail (Howlett and Rayner 2004);
5. invoke motivational and informative instruments (Gunningham and Young 1997). This ensures that the policy is capable of shaping the behavior of regulatees;
6. prefer less interventionist³ measures; it is important that these measures are still capable of delivering the identified policy outcome (Gunningham and Sinclair 1999);
7. use instrument sequencing, unless in situations that involve a serious risk of irreversible loss or catastrophic damage (Gunningham and Grabosky 1998); and
8. maximize opportunities for win-win outcomes (Gunningham and Grabosky 1998).

Reasons for criticism of smart regulation

Smart regulation has been said to neglect the following: institutional issues, type-specific compliance response, performance-sensitivity and adaptability to regulatory regime change. The next sections discuss this critique in more detail.

Institutional issues reduce the regulatory options available to bureaucrats and politicians (Böcher and Töller 2003; Böcher forthcoming.). More precisely, when institutional issues

² All individual instruments have both strengths and weaknesses and none are sufficiently flexible and resilient to be able to successfully address all environmental problems in all contexts. It is thus important to consider the benefits of mutual application of different instruments (Gunningham and Grabosky 1998).

³ The term ‘intervention’ has two principal components: prescription and coercion. Prescription refers to the extent to which external parties determine the level, type and method of the improvement. Coercion, on the other hand, refers to the external parties or instruments placing negative pressure on a firm to improve its performance. Both components’ influence is at the intervention level.

are present, the regulator does not have enough competence (Böcher and Töller 2003; Böcher forthcoming) and/or power (i.e., formal authority) (Baldwin and Black 2008) to choose certain regulatory options, and is further restricted in its choice by the prevailing regulatory perspectives of the state, the regulators and the regulatees. The following example illustrates lack of competence. When the Dutch Ministry of Agriculture, Nature and Food Quality (LNV) wants to introduce land value compensation to stimulate afforestation of agricultural land, LNV needs to communicate with the European Union to find out whether this form of state aid is allowed, and talk with the Ministry of Finance to see if this source of income is tax-free. The second issue, power, determines a regulator's strategic dependence on other regulators and regulatees to achieve its goals (Meyer and Baltes 2004; Liefferink 2006). This strategic dependency implies that the regulator, who is dependent on other actors, will need to negotiate regulatory options acceptable to those other actors. The third issue, prevailing regulatory perspectives, can be split into two categories: the national regulatory perspective and the regulatory perspectives of different actors. First, the national regulatory perspective or policy style can be described as the standard operating procedure of a country based on the deep-rooted values that national political systems have developed for making and implementing policies (Richardson et al. 1982, p. 2). The national policy style depends on the degree of insulation of the subsystems of state, market and civil society (Van Tatenhove and Leroy 2003). For example, a country with a clear distinction between state, market and civil society will have a predominantly state-oriented rationale. Second, the actors' regulatory perspectives can be described as the governance style (e.g., authoritative or cooperative) preferred to produce the desired societal outcomes. This depends on:

- the governance discourse: for example, discourse on deregulation, effectiveness and efficiency promotes the use of market-based policy instruments (Böcher and Töller 2003; Liefferink 2006; Böcher forthcoming);
- the actor's interpretation of the context-specific nature of the policy problem: for example, problems that are easily repaired (e.g., cleaning of rivers) can be solved by coercive instruments like legislation, but other regulatory approaches will be needed to handle complex and long-term problems like climate change (Böcher and Töller 2003);
- the instrument culture the actor is a part of (Sinclair 1997) anti-authoritarian tradition, for example; and
- the actor's expected gains (such as competitive advantage, discretion, flexibility or votes) (Linder and Peters 1989; Kichgässner and Schneider 2003; Howlett 2004; Barrett 2006; Böcher forthcoming).

The current smart regulation instrument sequencing can be improved by introducing *compliance type-specific response* (Braithwaite 1995), where the regulator uses different regulatory strategies depending on the compliance behavior of the regulatee. The regulatees can be classified into a limited number of compliance types. The main advantage of compliance type-specific response is a reduction in the regulator's compliance cost (Baldwin and Black 2008). The first step, persuasion, will be the same for all compliance types (Murphy 2004a). This first step is important because many regulatees will repay this respect with voluntary compliance (Braithwaite and Makkai 1994; Feld and Frey 2002; Murphy 2004b). After persuasion attempts, the regulatees then accept tougher enforcement of non-compliance (Lind and Tyler 1988; Braithwaite and Braithwaite 2001). The next step, taken only when there is non-compliance, will be compliance type-specific: a more interventionist measure for a more recalcitrant type (for a more detailed discussion of the five compliance types see "Cash Economy Task Force (1998)" and Braithwaite (2003).

It is also important to mention that the types are not fixed (Braithwaite 2003). This means that the regulator can try to increase the number of regulatees that voluntarily comply.

Smart regulation can also be improved by making the “smartly” formulated instrument mix *performance sensitive*. Performance-sensitivity requires that the regulator is able to assess the performance of the regulation in light of its objectives and to modify its tools and strategies when necessary to improve performance (Baldwin and Black 2008).

Another improvement can come from *adaptable regulation*, as regulatory priorities, circumstances and objectives can be changed by factors internal to the regulator or imposed on to the regulator from outside (Baldwin and Black 2008). The optimal set of regulatory tools and strategies will vary according to differences in institutional environment.

Critical reflection of smart regulation critics

This section presents the extent to which the above-mentioned criticisms of smart regulation theory are valid. We classify the criticisms into two groups: valid and partially valid.

Valid critiques include smart regulation’s lack of “compliance type-specific response” and “adaptability of regulation when the regulatory regime changes”, as well as the institutional issues of “competence” and “national policy style”. None of the first three items has been discussed in the smart regulation literature (Gunningham and Young 1997; Gunningham and Grabosky 1998; Gunningham and Sinclair 1999; Howlett and Rayner 2004). No papers resulted from a Google Scholar search that included both the terms smart regulation and the search terms “compliance type-specific*”, “adaptability of regulation”, “regulator’s competence” or “competence* regulator*”.⁴ National policy style is only mentioned as an illustration of instrumental incompatibility in Gunningham and Grabosky (1998, p. 443) paper on smart regulation, or as a description of the Canadian smart regulation policy style in a number of other papers (e.g., Eliadis and Lemaire 2006; Valiante 2007). However, the influence of policy style on smart regulation is neither comprehensively discussed nor reflected on as a smart regulation principle in any of these papers.

The partially valid critiques include the institutional issues of “power,” “actors’ regulatory perspectives” and “performance-sensitivity”.

First, power-related discussions in smart regulation focus on state-market dependence and the interplay between policy fields (Gunningham and Young 1997; Gunningham and Grabosky 1998). For example, the state requires industry’s cooperation to obtain desired information. Although such discussions do exist in the literature, this problem is not addressed by a smart regulation principle. Instead, the interplay between policy fields is reflected in the first principle, which states: “perverse effects or negative influences of other policies need to be avoided.” The likelihood of negative influences from other policies will increase when the investigated policy is seen as secondary, and thus less important. The political power of a secondary policy is generally lower than that of a primary policy; e.g., the political power of the forest sector is lower than that of the economic sector in most countries.

Second, several of the factors determining actors’ regulatory perspectives are indeed included in the smart regulation theory. The theory notes the influence of discourse on regulatory perspectives because the theory is presented as a solution for the intellectual

⁴ There was one record but smart regulation was only mentioned in the reference list.

stalemate between strong state regulation discourse and the deregulation discourse (Ayres and Braithwaite 1992; Grabosky 1994; Gunningham and Young 1997; Gunningham and Grabosky 1998). In addition, the theory also addresses the instrument design's dependence on the context-specific nature of the problem. For example, the principle of "less interventionist measure" is inappropriate in situations involving a serious risk of irreversible loss or catastrophic damage (Gunningham and Sinclair 1999). Furthermore, the theory acknowledges that many regulatees will prefer less interventionist policy instruments because they do not like command-and-control and prefer flexibility and discretion (Sinclair 1997; Gunningham and Grabosky 1998). It also takes the less interventionist preference of regulatees as a given, which is not always the case. An example: Pregernig (2001) asserts that in forest policy, instrument preferences are dependent on the forest owner type: environmentalists prefer informative instruments, forestry entrepreneurs prefer financial incentives and traditionalists prefer legislation.

Third, smart regulation measures performance. Performance measures are implicitly included in the "win-win" principle because, without explicit benchmarks and monitoring, there is no guarantee that there will be a "win" for the regulator (Merenlender et al. 2004; Saterson et al. 2004; Mayer and Tikka 2006). In addition, the adaptability of the instrument mix is included in the "instrument sequencing" principle, which states that more interventionist instruments will be needed when the performance of the preferred less interventionist instrument is much lower than expected and insufficient to achieve the desired policy outcome. However, "instrument sequencing" will not always solve the performance problem. Sometimes, it will be necessary to change the instrument mix more substantially. This possibility is not included in the current smart regulation theory.

Toward an improved version of smart regulation theory

Methods

This revision of the smart regulation theory begins from the assumption that the theory is worthwhile, even when it does shrink the number of instruments available to regulators. However, there will be situations in which a "smartly" formulated instrument mix will not be possible because influences, such as national policy style, adjoining policies, actors' regulatory perspectives, regulatees' compliance behaviors, powers or competences, have excessively reduced the available instrument mix. This situation also means that these variables will determine the extent to which the desired policy outcome will be achieved.

Improvement in the smart regulation theory could happen in many different ways: (1) the existing smart regulation theory can be extended, (2) a completely new theory can be developed, or (3) the smart regulation theory can be integrated or merged with other theories, approaches or concepts. We have chosen the third option because, considering the characteristics of the policy arrangement approach (PAA) (Van Tatenhove et al. 2000; Van Tatenhove and Leroy 2003; Arts and Van Tatenhove 2004; Arts et al. 2006; Arts and Goverde 2006) and the policy learning concept (Argyris 1976; Argyris and Schön 1978; Sabatier 1993; Glasbergen 1996; Fiorino 2001; Kemp and Weehuizen 2005), it is possible to expect that a merging of these two theories with smart regulation theory will solve the problems with smart regulation (see §5.2).

The next section introduces the policy arrangement approach and the policy learning concept. A description of the regulatory arrangement approach (RAA) follows. Finally, we illustrate the RAA by a secondary analysis of a Flemish case study on sustainable forest

management policy that has been investigated as part of a larger project (Van Gossum et al. 2009, 2010).

Policy arrangement approach and policy learning

The PAA has three central concepts: political modernization, policy arrangement and governance capacity.

First, political modernization refers to the shifting relations between the state, market and civil society in the political domains of the society—within countries and beyond—as a manifestation of globalization, Europeanization and individualization. Political modernization can result in changes in the national policy style (Arts and Van Tatenhove 2006) and tends to result in a plurality of co-existing traditional and innovative policy arrangements (Van Tatenhove and Leroy 2003). The political modernization concept seems to be appropriate to indicate that even the national policy style can change over time. Hence, this concept is the first dynamic part of our new approach.

Second, policy arrangement is defined as “the temporary stabilizations of the substance and organization of a particular policy domain” (Van Tatenhove et al. 2000, p. 54). The stabilization is assumed to be temporary because the arrangements are under pressure of change (Arts and Van Tatenhove 2004). The policy arrangement can be analyzed along the following four dimensions: (1) actors and their coalitions involved in the policy domain (organization); (2) division of resources between these actors (organization); (3) rules of the game (organization and substance); and (4) current policy discourses (substance) (Van Tatenhove et al. 2000, Arts et al. 2006). These four dimensions of a policy arrangement are inextricably interwoven. The policy arrangement concept seems to be appropriate to include real-life attributes, namely strategic dependencies (power dimension), actors’ regulatory perspectives (discourse dimension) and actors’ compliance behavior (actor dimension). In addition, it is important to mention that competence can be seen as an instrument-specific strategic dependency, since institutions that are in charge of this policy instrument need to give their permission.

Third, governance capacity of the policy arrangement (Arts and Goverde 2006) is defined as the extent to which new forms of governance are able to successfully mitigate or solve societal and administrative problems that are legitimately recognized by the stakeholders (Nelissen et al. 2000). In order to measure this capacity, Arts and Goverde (2006) borrowed the concept of “congruence” from Boonstra (2004). The capacity is high when there is sufficient coherence among (1) the policy views of the different actors (strategic congruence), (2) the dimensions of a policy arrangement (internal structural congruence) and (3) the investigated policy arrangement and the adjoining policy arrangements (external structural congruence). The governance capacity concept seems to be appropriate to indicate which real-life attributes (including “smartness” of regulation) really matters for policy success. Attributes for which the coherence is insufficient are possible failure factors. In addition, to avoid unnecessary investigations, it will be advisable to investigate governance capacity in the following hierarchical order: national policy style (general external structural congruence), adjoining policies (policy-specific external structural congruence), investigated policy (internal structural congruence and strategic congruence) and competence (instrument-specific strategic dependency). The order is based on the extent that changes are possible (see also policy learning).

The concept “policy learning” is defined as a relatively enduring alteration of thought or behavioral intentions that is concerned with the attainment (or revision) of the precepts of a policy system (Sabatier 1993). Three policy learning types have been distinguished:

technical learning, conceptual learning and social learning (Glasbergen 1996; Fiorino 2001; Kemp and Weehuizen 2005). Technical learning consists of a search for new policy instruments in the context of fixed policy objectives. Change occurs without fundamental discussion of objectives or basic strategies (Glasbergen 1996). Conceptual learning is a process of redefining policy goals and adjusting problem definitions and strategies. Policy objectives are debated, perspectives on policy issues change and strategies are reformulated. New concepts, e.g., new environmental policy instruments, enter the lexicon (Glasbergen 1996). Social learning focuses on interactions and communications among actors. It builds on the cognitive capacities of technical learning and the rethinking of objectives and strategies that occurs in conceptual learning, but it emphasizes relations among actors and the quality of the dialog (Glasbergen 1996). Social learning discusses also societal values, responsibilities and policy approaches (Kemp and Weehuizen 2005). Technical learning is an example of single-loop learning, i.e., learning that does not question the fundamental design, goals and activities of the organization (Argyris 1976). Conceptual and social learning are instances of double-loop learning. Double-loop learning usually requires a crisis or revolution because organizational actors (e.g., administrations and agencies) are acculturated to be primarily single-loop learners (Argyris and Schön 1978). Thus, it is important to remember that some policy changes will be difficult. Policy learning adds a second dynamic component to the new approach. Policy learning will be necessary when the governance capacity is too low, when the policy did not reach its targets or when a change in the institutional environment results in a too large diminishing of the governance capacity. It is clear that policy learning can make the new approach performance-sensitive and adaptable to changes in the institutional environment.

Regulatory arrangement approach

This section describes the regulatory arrangement approach (RAA).

The central idea of the RAA is to reduce or filter the almost infinite “smart” regulatory options by:

- the national policy style (Filter 1)
- adverse effects of adjoining policies on the investigated policy arrangement (Filter 2)
- the structure of the policy arrangement of the investigated policy (Filter 3) and
- instrument-specific competence dependencies of other institutions (Filter 4).

The filters are symbolized by trapezoids in Fig. 1.

After each pass through a filter, there will be a check if the potential governance capacity of the investigated policy is still high enough. The measurement of the governance capacity is symbolized with an oval, and the governance capacity check is symbolized with a rhombus and the words “go” and “no go” in Fig. 1. A “smartly” formulated regulatory arrangement will only be possible when there is still a “go” after passing all filters. A “no go” means that there are no “smart” regulatory options left because the potential governance capacity is too low. The thresholds for governance capacity that lead to a “no go” are the following:

- for national policy style: government does not allow the co-existence of innovative policy arrangements;
- for adjoining policies: the mutual influence of the adjoining policy instruments does not inhibit the development of the investigated policy, which means that the adverse effects

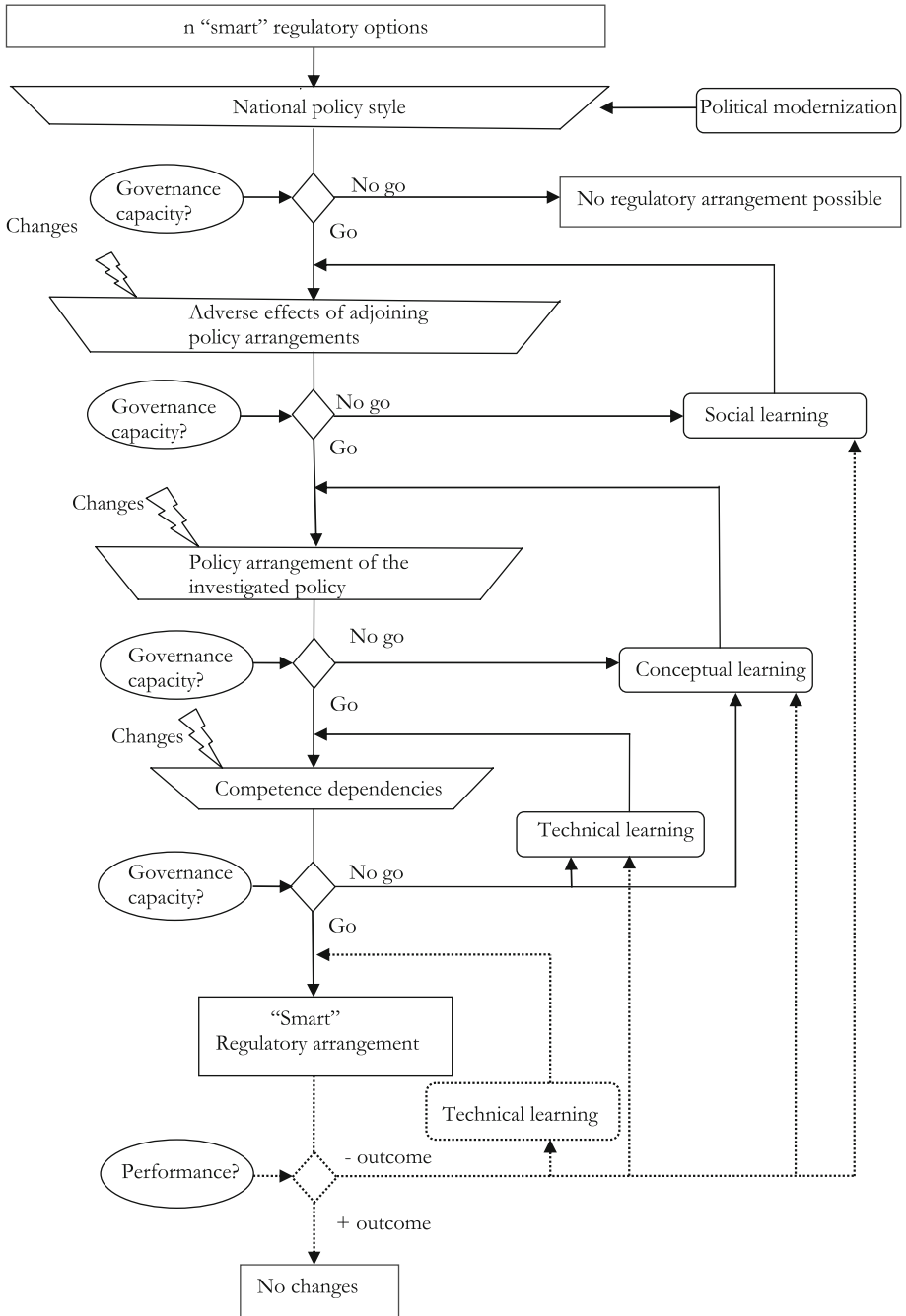


Fig. 1 Regulatory arrangement approach (see §5.3 for explanation of the legend)

can be solved by the introduction of policy instruments by the actors arranging the investigated policy;

- for the structure of the policy arrangement: the policy arrangement actors can agree on the choice of the policy instruments that will be used to reach the desired policy outcome; and
- for competence dependencies: the policy agency in charge of the investigated policy has enough instrument choice freedom left to choose an appropriate instrument mix, including policy instruments, for which it obtains the permission of the agencies in charge of these instruments.

The implication of “no go” is filter-dependent. “No go” after the first filter, national policy style, means that there are no “smart” regulatory arrangements possible, unless the national policy style changes through the political modernization process. “No go” after the second, third and fourth filter means that either social, conceptual or technical learning will be required, respectively. Social learning implies a dialogue between policy arrangements or even within the whole society. Hereby, it is important that the actors of the different arrangements discuss their objectives and better understand each other. This dialogue can also result in a change of societal discourse, like a change in rurality discourse from a productive space to a multifunctional space. Conceptual learning implies redefining the regulatory style and/or policy objectives within the policy arrangement of the policy being investigated. It can also include the introduction of more advanced instruments, like new environmental policy instruments. Technical learning implies that the instrument mix can be adjusted with new policy instruments that are (1) in line with the chosen regulatory style and which the policy arrangement governs or (2) for which the policy arrangement obtains the permission of the agencies in charge of these instruments. Political modernization and policy learning are symbolized by rounded rectangles in Fig. 1.

Depending on the filtering and learning, the end result can be the design of a “smart” regulatory arrangement or not. It is therefore also important to measure the performance of this regulatory arrangement (dotted oval) and to evaluate whether the desired outcome can be reached (dotted rhombus). A positive evaluation (+outcome) means that there is no need to change the regulatory arrangement. A negative evaluation (–outcome) means that there is a need to change the regulatory arrangement. The type of policy learning will then depend on the magnitude of the change. Finally, it is important to take into account that competence and policy arrangements can also change by external effects. These changes are symbolized with the lightning symbol in Fig. 1. The implication of such external changes is that the search for a smart regulatory arrangement must begin again from the place where the external change occurs.

Flemish SFM policy

Now that we have established the Regulatory Arrangement Approach to smart regulation, we can apply that approach to the case study of Flemish sustainable forest management (SFM) policy. Policy-makers can design many different smart regulations in order to achieve SFM. However, the institutional context will reduce the number of theoretical possibilities. In the following sections, we will discuss the instrument choice reductions that result from (1) the Flemish policy style, (2) the interactions with the policy arrangements of adjoining policies, (3) the structure of the SFM policy arrangement and (4) the competence dependencies of other institutions.

Policy style

The prevailing Flemish policy style is a corporatist policy style, which is characterized by limited cooperation between the different corporatist arrangements on the governmental level. This means that a corporatist policy style will reduce the number of smart regulatory options because this style makes it more difficult to include instruments that require an agreement with other governmental departments, especially when these departments are more powerful. In addition, interdepartmental and inter-sectoral cooperation is almost a necessity for contemporary problems, such as SFM (Howlett and Ramesh 2002; Verbij 2008). Thus, on first sight the governance capacity is too low to develop a smart regulatory arrangement.

However, the corporatist style of government does not exclude cooperation between civil society and market members of different corporatist arrangements. For example, in Flanders, there is a harbor agreement between the harbor companies of Ghent and Antwerp (economic corporatist arrangement) and the non-governmental nature organization “Natuurpunt” (nature corporatist arrangement). Furthermore, the political modernization process has also resulted in the co-existence of some innovative arrangements (see also Verbeek and Leroy 2006). There are a growing number of co-existing innovative arrangements, such as private–public partnerships (e.g., for building schools or large infrastructure projects), and diverse forms of network management (e.g., of regional landscapes, forest groups).

Thus, the Flemish policy style allows innovative ideas, innovative policy arrangements and inter-sectoral cooperation between civil society and market members of different corporatist arrangements. Therefore, we conclude that the potential governance capacity is still high enough to design a “smart” regulatory arrangement.

Adjoining policies

An important adjoining policy of the SFM policy is the nature policy. Both policies have contradictory aims for the coniferous forests and for the poplar plantations. Both forest types, taken together, count for about 70% of the Flemish forest area (Waterinckx and Roelandt 2001). The nature policy for both forest types is mainly aimed toward a conversion to open types of vegetation, like heath, open sand and grassland, while the SFM policy is aimed toward conversion to a sustainable managed forest. It is also important to mention that there are no contradictory aims for indigenous broadleaf forests—in this forest type, nature policy and SFM policy aims coincide.

Nature policy is more powerful than SFM policy because they have the legal possibility to overrule the latter. This is because the European habitat directive makes it mandatory that each member state keeps the protected areas of a habitat directive area in a good ecological condition. The European Union can sanction member states that fail to comply. The habitat directive is important because 40% of Flemish forests are designated as habitat directive area because of their suitability to protect and develop open habitat types. The protected open vegetation can only be kept in a good condition when some of the forests are converted. Thus, at first sight, the nature policy can have adverse effects on the SFM policy. Nonetheless, the adverse effects are small because the nature policy actors and the forest policy actors decided that a cooperative approach was more worthwhile than a conflicting approach. This choice is also reflected in the integration of nature and forest policy at the governmental level (including institutions such as administration, research institutes and consulting bodies).

In sum, the influence of nature policy on SFM policy does not inhibit the development of a “smart” regulatory arrangement.

SFM policy arrangement

The next step is to investigate the policy arrangement filter. This will be done by analyzing the strategic dependencies (power dimension), actors’ compliance behavior (actor dimension) and actors’ regulatory perspectives (discourse dimension).

The strategic dependencies are based on the distribution of power resources between the relevant stakeholders of the SFM policy. The power resources we named were the regulatory powers’ formal⁵ and formalized⁶ authority, money and personnel, expert power (knowledge), ownership power and communication possibilities (see Van Gossum et al. 2010). The analysis showed that the power was mainly scattered across actors that support the SFM policy (SFM coalition, which controls 40% of the power resources), the actors that promote a more economy-oriented version (economic coalition, 25% of power resources) and the actors that promote a more nature-oriented version (nature coalition, 25% of power resources). In addition, the economic coalition and the nature coalition both have their own importance. The first coalition is a necessity to come together with the SFM coalition to a share of more than 50% of the ownership power, the second for formal authority. This means that the governmental actor responsible for SFM policy needs to overrule the economic or nature coalition (which is not “smart”) or to cooperate with the nature, economic and SFM coalition if the government wants to achieve its desired SFM policy outcome.

Actors’ compliance behavior will be estimated for all five distinguished coalitions. Besides the above-mentioned nature, economic and SFM coalitions, these are the local use coalition (SFM possible as long as there are no negative effects on fire wood use and recreation) and the private property coalition (primacy of property rights). The expectations are that the private property coalition members will be non-compliers, the SFM coalition members voluntarily compliers and the local use and economic coalition captured compliers (many of them will probably comply after capacity building and compensations). The nature coalition will voluntarily comply, but only when the forest habitat will deliver the highest biodiversity value. In other circumstances, they will promote the conversion to open vegetation types and will be non-compliers for the SFM policy. This means that a combination of informative, economic and legislative instruments will be needed to have a smart regulatory arrangement. In addition, the preferred policy instrument after non-compliance needs to be different for the different coalitions (e.g., legislation for the private property coalition).

The regulatory perspectives of the strategic-dependent coalitions are the following:

- The economic coalition generally prefers communicative and economic instruments but it can accept some legislation, though it would prefer that legislation be secondary and addressed to non-compliers. Thus, the economic coalition prefers a cooperative and stimulating government that pays for delivered public goods.

⁵ Formal authority is defined as an authorization to implement legislation. For example, the forest service is the formal authority to judge a grant proposal for the ecological forest function.

⁶ Formalized authority is defined as an authorization, which an actor gets as member of a committee that can impact on forest management (e.g. steering committee forest management plan).

- The nature coalition prefers to have a guarantee that nature targets are not neglected. They believe that legislation is the best guarantee.
- The SFM coalition does not have a clear regulatory preference.

Thus, the government will need to strive for an acceptable “smart” regulatory arrangement based on the regulatory perspectives of these three coalitions.

In the next section, we will investigate if the government considers the above-mentioned regulatory perspectives. The government chooses for the following instrument mix:

- legislation (e.g., legislation mandating that all forests within the Flemish Ecological Network must be managed according to governmental SFM criteria);
- direct governmental intervention (e.g., buying forests);
- direct compensation of owners for these management restrictions through grants and fiscal exemption from inheritance taxes, and indirect compensation through the financial support of forest groups.

The first two policy instruments (legislation and direct intervention) are in line with the approach preferred by the nature coalition, and the third is in line with the approach preferred by the economic coalition. At first glance, the government has taken both preferences into account. However, the legislative instruments were clearly the primary instruments. This interventionist approach was in line with the nature coalition perspective and in conflict with the economic coalition perspective of a stimulating government. Thus, the chosen regulatory arrangement is not smart. Moreover, the government was even not able to choose a smart regulatory arrangement because the nature and economic coalitions held contradictory perspectives that kept them from agreeing on the choice of a smart instrument mix. Thus, according to the RAA model, policy-makers need to solve first this policy problem, which requires conceptual learning.

The next section describes the conceptual learning that took place in the Flemish SFM case. The conceptual learning was initiated by a large demonstration organized by a coalition of anglers, hunters, property owners and farmers against the nature, forest and environmental policy of the government (Bogaert and Gersie 2006; Bogaert and Leroy 2008). The demonstration resulted in an intention to change policy style from “an active and demonstrative government intervention to a private stimulating policy,” which was stated explicitly in a policy letter by the Flemish Minister of Nature, Environment and Energy (Peeters 2004). In addition, as reflected in the harbor agreement, the nature NGO changed also its style from a legislative approach (e.g., Deurgandok)⁷ to a cooperative approach (e.g., harbor agreement). This means that under the new institutional setting of the SFM policy arrangement, it was possible to develop a “smart” regulatory arrangement based on a cooperative policy style (in line with the strategic-dependent nature, economic and SFM coalitions) with coercive instruments in the background for non-compliers (especially for the private property coalition).

⁷ Deurgandok was a new dock planned for the harbor of Antwerp, but the area was also designated as a European Natura 2000 area. In the first plans, there was no compensation for the planned Natura 2000 area, though such compensation is mandatory for a European protected area. Natuurpunt, a Flemish nature NGO, went to court, and after several years of judicial battle Natuurpunt won the court case. However, they found that the judicial approach was not ideal because their image was damaged as they were fighting against the economic sector.

Competence dependencies

The next step is to investigate the competence filter. Of the preferred instrument mix, only fiscal exemption fell under the competence of another policy department, the Ministry of Finance. This Ministry agreed with the fiscal exemption. Thus, there was no reduction in instrument choice because of an instrument-specific strategic dependency.

Smart regulatory arrangement

Notwithstanding the policy-makers' potential to develop a smart regulatory arrangement, the resulting Flemish SFM regulatory arrangement is not yet smart. For example, a smart regulatory arrangement can be a combination of forest cooperatives (network, communication), compensation for ecosystem services like carbon, biodiversity and recreation, grants for non-economic management measures for wood quality (first thinning and pruning), forest certification, monitoring and laws (including enforcement when necessitated by non-compliance). In the next section, we describe the Flemish SFM regulatory arrangement and its limitations.

The forest group spearheads the Flemish SFM regulatory arrangement. The Flemish forest group, an organization with voluntary membership that supports owners through management, is a reflection of the government's recent change to a more cooperative style. The forest group is also a new environmental policy instrument that is not interventionist and mainly acts as an informative instrument. Other instruments include grants for the ecological and social functions, government-sponsored forest certification, grants to create a forest management plan and more coercive legislation. Currently, the government will only use the more coercive instruments when necessitated by non-compliance. At first glance, the regulatory arrangement seems to be smart.

However, there are still two issues remaining from the former interventionist style of the government. First, the legal document "SFM criteria and indicators" gives a very detailed codification of only one SFM perspective, while other SFM perspectives exist in Flanders. Therefore, it is better to have a more "open" definition of SFM so that the definition covers at least the three main SFM perspectives (nature-oriented, economic-oriented and governmental). It is also advisable that the government makes use of the strengths of the various discourse coalitions. For example, the realization of the most ambitious ecological aims can be appointed to the nature coalition, while the economic coalition can ensure wood production. Second, the grant schemes focus only on the ecological (biodiversity) and social (recreation) functions and not on the economic function. However, support for the economic function would be appropriate due to the low profitability of the forestry industry in Flanders (Dienstencentrum voor Bosbouw 2000) and that necessary management measures for quality wood production are delayed (e.g., late first thinning) or not performed at all (e.g., pruning of young trees) (Callens 2008). The regulatory arrangement will only become smart when policy-makers consider these recommendations. This would also create a high probability that the SFM policy will be achieved in the near future.

Conclusions

The aim of this paper is to develop a new approach to choosing instruments, one which answers the valid criticisms of smart regulation. This means that the new approach needs to guide the policy-makers to the attributes that really matter for a specific policy theme

(sometimes this is regulation, while in other circumstances the institutional context will be the most important factor). In addition, this new approach also needs to include compliance type-specific response and a dynamic component. This paper demonstrates that the above-mentioned requirements could be realized by merging smart regulation theory with the policy arrangement approach and the policy learning concept. The empirical example given above also illustrates the usefulness of the so-called regulatory arrangement approach. In this empirical example, a smart regulatory arrangement was only possible after a change in the preferred regulatory perspectives of the government and the nature coalition (institutional context) through conceptual learning. Thus, the added value of this new approach is that (1) it gives the possibility to investigate ex ante whether the institutional context or the smartness of the instrument mix is the determining factor to explain policy success or failure and (2) it gives the possibility to investigate regulatory changes over time.

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