

Municipalities, companies and environmental management

Stimulating municipalities and companies towards environmental management out of a policy network

Paper presented at the third conference of the Greening of Industry network, workshop Regulation and environmental strategie, Copenhagen, november 13-15, 1994.

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1. Introduction

The environmental problem is one of the greatest problems of our time. Although there is as yet no scientific consensus on the seriousness and inevitability of the various environmental effects, it is clear that major changes will be required over the coming years.

The use of policy instruments is often characterized on the basis of three guidance models. In the legal guidance model the government formulates rules and regulations in the assumption that the target group will be more or less law-abiding. Sanctions are imposed on anyone who breaks the rules. When the government uses the economic guidance model, the instruments are levies, subsidies and variants like the deposit system. It is assumed that the target group, seeking to serve its own interests, will be encouraged by financial incentives to make the behavioural choices envisaged by the government rather than the less desirable alternatives. The communicative guidance model centres on the transfer of information, knowledge and experience. Traditionally, a government that makes use of this model assumes that greater insight into alternatives and the consequences of alternatives will guide the behavioural choices of the target group in the right direction.

In traditonally microtheories on the use of instruments, communicative guidance instruments are often assigned a fairly modest role (cf. hood, 1983, Udo de Haes, 1988). According to Van der Doelen (1989) two forms

of communicative guidance can be distinguished. The first form of communicative guidance is the transfer of information designed to increase knowledge. This form of communicative guidance involves education, instruction and the provision of factual information. In principle, the freedom to choose remains intact. The second form of communicative guidance concerns the transfer of information designed to influence the will of the actor. Examples include advertising, public relations and propaganda.

Though the first form of communicative guidance aims to increase knowledge and not to influence the will, it can most certainly change the weight attached by the target group to the consequences of behavioural alternatives. In our opinion, therefore, the distinction between the first and second form of communicative guidance may be of analytical importance, but in terms of actual effectiveness a communicative policy instrument is capable of increasing the actor's knowledge as well as of influencing his will. Communicative instruments, so it is argued, are mainly effective in relatively simple situations where the gap between the government actor's objective and the interests of the target group is fairly narrow. A case in point is the Aids information campaign that highlights ways of minimising the risk of contracting the virus. The target group must also attach sufficient significance to the consequences of the highlighted behavioural alternative otherwise the message will fall on deaf ears. In addition, the alternative must not require too great a personal sacrifice. After all, the freedom to choose remains intact in principle and the theory has so far always assumed that the actual consequences of the behavioural alternatives remain unchanged.

So far communicative instruments are mainly perceived to play a supporting role in the deployment of legal or economic instruments by informing the target group of the consequences of a policy based on legal and economic guiding instruments (cf. Bressers and Klok, 1988). We believe however that, under specific circumstances, communicative guidance can achieve much more than the microtheory has assumed by taking into account organizational structures in which the guidance takes place. The microtheory assumes that there is only one target group and that there is only one set of instruments.

This is especially wrong in the case with *sequential* instruments. This paper aims to stimulate the expansion of the policy instruments theory, on the basis of the above-mentioned arguments, in order to take into account the so-called sequential instruments in policy networks. A set of sequential instruments is defined as follows: it consists of two or more instruments that are each deployed in distinguishable implementation processes, while

the instrument that influences the ultimate target group of the policy cannot be realised and deployed without making use of the results of the earlier implementation processes (and therefore of the earlier section(s) of the instruments) (De Bruijn and Lulofs, 1991 a and b). The various implementation processes will start sequentially but may partly overlap.

The analysis of sequential instruments is impossible without taking into account the organizational structures of the implementation processes (De Bruijn and Ten Heuvelhof, 1991). The paper deals with these structures in the case of the Dutch stimulation policy on environmental management.

Questions answered in this paper are:

1. What is the content of the Dutch stimulation policy? (section 2)
2. What does the environmental management network look like? (section 3)
3. To what extent is environmental management implemented in companies and local governmental businesses? (section 4)
4. Does the policy network function the way it is supposed to do? (section 5)

Finally some conclusions are drawn in section 6.

This paper is based on our research-project on the stimulation of environmental management out of policy-networks surrounding municipalities and companies. Only a small part is presented in this paper. The scores of the target groups on some dependent variables are presented in section 4. The policy performances of the network organizations are presented in section 5. The independent variables in the research project are not only representing the policy performances but also cultural and structural features of the target groups. Case-studies will be done to get more insight into the causal relations.

2. A new strategy: intra-company environmental care

2.1 The stimulation policy of the government

Initiatives to arrive at intra-company environmental care are a response to problems which were signalled in the implementation and enforcement of environmental legislation (see for instance Aalders, 1984). Such initiatives are taken both by industry and by the authorities. The central concept underlying intra-company environmental care is to stimulate the companies' own responsibility and activity. In addition to satisfying (government) regulations, we may expect intra-company environmental care to contribute to preventive goals.

Around mid-1989, the central authorities took a position on the Memo-

randum on Environmental Care which it sent to Parliament (Ministry of Environment and Public Housing, 1989). This Memorandum indicates what the authorities wish to achieve in the area of intra-company environmental care and which activities it feels are required to do so. The central authorities want to see to it that companies in the Netherlands have a functioning environmental system by 1995. An environmental care system is defined as follows in the Memorandum:

‘An environmental care system is a coherent unit of managerial, organizational and administrative measures, aimed at gaining insight into, controlling and wherever possible reducing the effects of company activities on the environment’.

An environmental care system should include the following elements:

- a. an environmental policy statement;
- b. an environmental program;
- c. integration in company activities/environmental coordinator;
- d. measurements and registrations;
- e. internal controls;
- f. internal guidance and education;
- g. internal and external reporting;
- h. auditing of the system.

To achieve the above-mentioned objective, the Memorandum presented a program of activities. This program was based mainly on the acquisition, through research and stimulation and sample projects, of specific knowledge which would then be disseminated among companies through guidance and education.

Aside we mention that the stimulation policy is not the only environmental policy-programme that is implemented in a network-approach. The stimulation policy is only aiming at the target groups in a sense that they learn how to implement environmental management. The question on what to achieve in terms of environmental outcomes is dealt with in the so called target group-policy. Several sectors of industry participates in a communicative consultation with the authorities. During these negotiations all of the relevant goals from the National Environmental Policy Plan are translated into sector specific goals. The local authorities are able to use the results as a basis for issuing the licence (Lorenzen, Pedersen, Thomsen, Klemmensen, 1994). The results are the minimal requirements. Environmental management is the tool which enables the target groups to reach the minimal requirements set by the target group policy or to reach even higher goals. This paper only deals with the stimulation policy.

2.2 *The implementation of the environmental care policy*

The objective of the government includes the behaviour of virtually all companies (private or public) in the Netherlands. This target group is so large that the achievement of this goal is recognized as a problem by the government. To solve this problem, a so-called sequential set of instruments was chosen.

Its *first section* consists of instruments which focus mainly on intermediary organizations such as branch organizations. These intermediary organizations are stimulated to set up projects which focus on the development of so-called model environmental care systems for e.g. a whole branch of industry or services. Such model environmental care systems consist of checklists which can be used by individual companies to set up their own environmental care system in a simple way. The environmental care projects of intermediary organizations are subsidized by the central authorities. Thus the first section of the instrumentarium is still mainly of an 'economic' nature.

In the *second section* the emphasis shifts to the individual governmental organizations and private companies. Also there is a transition from the Ministry of Environment and Public Housing as the central actor in policy implementation to the intermediary organizations. In the second section the Ministry mainly acts as coordinator, while the intermediary organizations are responsible for keeping in touch with the individual companies. By supplying information, attempts are made to stimulate the actual introduction of the model environmental care systems developed in the first section, into the companies. The underlying idea is that by offering such resources (i.e. the model environmental care systems) and other support, the uncertainty and therefore the cost to the individual companies can be reduced to such an extent that they will actually proceed to introduce the system.

If we look at the program of activities from the point of view of the conditions for the transfer of information mentioned in the introduction, we can make a number of remarks. Firstly it is striking that efforts are made, through stimulation and test projects, to make the information being offered as specific as possible for a certain company. Secondly, attempts are made to respond to the characteristics of an organization: the organizations own initiatives and activities are stimulated. Organizations are given a certain amount of freedom to include environment in their own planning of activities. The third point concerns the source of the information. Organizations are not approached directly by the central government, but by their own branch organization and other organizations out of the policy network. In the implementation of the activities program, therefore, the government plays only a limited role. The Ministry of Environment and Public Housing

is charged, via a programs office, with the coordination and evaluation of the activities to be developed.

3. What does the environmental management network look like?

In the first section, the government's objective was to create a group of organizations around the local governments and the companies. Each organization had to perform some tasks in the second section. The complex whole of intended guiding impulses from the network can be organized by distinguishing the following three functions:

1. The will-influencing function from the network

We speak of a will-influencing function from the network if a network organization is expected to influence the objectives of the members of the target group. Basically this involves persuasion from a position of authority.

2. The supporting function within the network

We may speak of a supporting function if the intention is for a network organization to show the way for those members of the target group who are willing. This is the so-called 'coaching function'. Basically this involves an educational function.

3. The repressive function within the network

We may speak of a repressive function if the network organization is intended to guide the unwilling members of the target group in the desired direction by means of gentle or hard coercion. Basically this involves acting from a position of power.

The environmental management network surrounding municipalities consists mainly of the central government, the provincial authorities, the Association of Dutch Municipalities (VNG for short, i.e. the 'branch organization of the municipalities'), the Environmental Hygiene Inspectorate (which supervises the implementation of environmental policy by the municipalities) and the consulting agencies. The intended functions are:

Actor	Function	will-influencing	support	repressive
central government		intended		
provincial authorities		intended	intended	
VNG		intended	intended	intended
Environmental Hygiene Inspectorate				intended
consulting agencies			intended	

Figure 1: The network surrounding municipalities

A network has been constructed around companies as well. The main organizations within this network are the branch organizations, business environmental services, municipalities, central government and consulting agencies. The network has the following intended functions:

Actor	Function	will-influencing	support	repressive
branch organizations		intended	intended	intended
business environmental services			intended	
municipalities		intended	intended	intended
central government		intended		
consulting agencies			intended	

Figure 2: The network surrounding companies

Furthermore, for both target groups the research expectation was formulated that the target group will maintain the most frequent contacts with the supporting organizations.

In Section 4 of this paper we first discuss the situation concerning the implementation of environmental management in municipalities and firms. In Section 5 we then verify for the target groups, i.e. the municipalities and companies, whether the network functions in the intended manner.

4. Environmental management in companies and local governmental businesses

The answer to question 3 'To what extent is environmental management implemented in companies and governmental businesses?' involves finding out the extent of target achievement of the policy measured in the eventual target groups.

Two target groups are coached from the network:

1. Local governmental businesses:

The environmental management stimulation policy is also aimed at the municipalities. They are expected to install a system of internal environmental management within their own municipal services and businesses. A study of the situation in municipalities with more than 30,000 inhabitants was performed in the spring of 1993 (see Section 4.1).

2. Companies:

The government objective regarding environmental management extends to all firms in the Netherlands. They are expected to develop and introduce an environmental management system that is adapted to their own organization. In early 1994 the situation in four branches of industry was studied. For this purpose, data were gathered on 143 firms (see Section 4.2).

4.1 Environmental management in local governmental businesses

The extent of target achievement of this policy was researched both in terms of progress and in terms of quality:

Progress

How much progress was made by municipalities with more than 30,000 inhabitants was measured on the basis of the variable 'progress', using a questionnaire. The categories of the variable follow a schedule of successive steps. Measurement yields the following results, operationalization being given in the last column:

category	number(%)	Operationalization Category:
inactive	6 (9)	internal environmental management is not yet an issue in the municipality itself/no tasks distributed over the organization/no environmental measures
exploratory	16 (23)	environmental management is on the municipal political agenda/preliminary contacts were made/employees or temporary workers are exploring the issue/an external agency was contracted/general internal information is provided by way of preparation/no tasks distributed over the organization/occasional environmental measures
initial	46 (66)	a (non-exploratory) environmental examination took place within the municipality/some tasks were distributed over the organization/ some environmental measures
progressive	1 (1)	there is an environmental program based on an integral analysis/tasks distributed over the organization/there are environmental measures
finished	1 (1)	there is a working system of environmental management/plan of action/tasks distributed over the organization/environmental measures

Figure 3: The progress of municipalities

The variable 'progress' is a measure of 'how far' the municipality has come. 'How well one is doing and is going to do' is dealing with the quality. So progress measures the amount of activities so far. While quality is also future oriented.

The quality of environmental management

The quality of environmental management was measured using a scale consisting of three variables. These variables are programming, orientation and comprehensiveness. They represent individual aspects of the activities of municipal environmental management and the planning and thoughts about environmental management as they exist on executive level.

Programming concerns the extent to which environmental management activities were programmed by municipalities for the next four years. A finite, project-type approach without any sequel is less desirable. In 45 municipalities we see no or only vague intentions (score 0). 23 of the respondents indicated more details (score 1).

Orientation concerns the extent to which the municipality is focused on specific environmental measures or on the development of the system of environmental management. Environmental measures are aimed solely at reducing certain forms of environmental pollution. Examples are the

introduction of recycled paper, two-sided copying, no more single-use packaging, etc. Respondents with a system-oriented approach emphasize building an environmental management system which is supposed to generate such measures by means of task allotment and task distribution. The answers of 55 respondents can be placed in this category. In 24 of the municipalities a focus on environmental measures was dominant (score 0). 31 of the municipalities responded in such a way as to suggest a focus on the problem of environmental management (score 1).

Comprehensiveness concerns the question of whether the environmental management comprise part or all of the municipal organization. The desirable situation is the integration of environmental management within the whole municipal organization. 52 of the respondents gave unequivocal answers; 43 respondents indicated that environmental activities at the moment of their response concerned part of the municipal organization (score 0). 36 of the respondents in this group indicated that this is to be extended to cover the entire organization. Nine respondents indicated that environmental management comprised all municipal services and firms (score 1).

In our opinion these three aspects carry equal weight in the final evaluation of the quality with which a municipality is working on environmental management. It seems correct to state that the better the quality of environmental management, the higher the score on each of the three variables. Because each variable has two classes, a simple scale for quality may be constructed. The low score for each variable can be considered 'insufficient', the high score 'sufficient'. By allocating a 0 to the low score and a 1 to the high score we obtain a new variable, i.e. 'quality'.

The following figure summarizes the results for all 45 municipalities on which information is present on all variables. Thus, for these municipalities statements can be made both on progress and on quality.

		QUALITY			
		low		high	
		.00	1.00	2.00	3.00
PROGRESS					
inactive	1.00			1	
exploratory	2.00	1	3	3	
initial	3.00	5	10	18	2
progressive	4.00				1
finished	5.00			1	

Figure 4: Progress vs. quality in municipalities

Summarizing the results:

Question 3 was: ‘To what extent is environmental management implemented in local governmental businesses?’. Summarizing the results, over 91 percent of the municipalities initiated environmental care in municipal services and businesses. If a somewhat more critical approach is chosen, this percentage is reduced to over 68 percent. Here we can speak of ‘initiated’ only if the municipality has charted at least the environmental pollution that was caused. If the attitude is taken that there is target achievement only if the environmental management system is functioning and is adapted to the nature, size and complexity of the organization, the target achievement percentage drops to less than 3 percent. The latter criterion for target achievement is unreasonable, however. The objectives of the stimulation policy are aimed at target achievement in 1995. The moment at which this inventory was taken is the spring of 1993. This means that the prediction as to the extent of target achievement expected for 1995 is that this will be over 68 percent for the group of municipalities with more than 30,000 inhabitants.

The group of respondents that was also scored for all the quality variables consisted of 45 research units. For 58 percent of the municipalities the verdict on the quality of environmental management was positive. For the municipalities which are expected to have a system of environmental management by 1995 this percentage is 60 percent. Of the municipalities that do not achieve the target for 1995, 50 percent does have a high-quality approach to environmental management.

4.2 Environmental management in companies

Target achievement is considered both in terms of progress and in terms of quality also for companies.

Progress

As mentioned above, a system of environmental care should consist of eight elements. In addition organizations should take actual measures in order to reduce their environmental pollution. Two approaches were used, therefore, to establish how far firms had progressed in this respect: the number of elements developed (few or none/some/almost all) and the number of measures taken (few or none/some/many). This resulted in a classification of the firms we investigated into five categories (thus the amount of progress could be established for 122 firms):

category	number(%)	operationalization
inactive	7 (6%)	few elements/few environmental measures
exploratory	22 (18%)	few elements/some environmental measures or some elements/few measures
initial	66 (54%)	some elements/some environmental measures or virtually all elements/few measures or few elements/many measures
progressive	24 (20%)	virtually all elements/some environmental measures or some elementen/many measures
finished	3 (2%)	virtually all elements/many environmental measures

Figure 5: Progress of companies

The quality of environmental management

Also for companies we looked at the quality of present activities and planning and thoughts about future activities. This quality was measured on the basis of three variables, i.e. the extent of programming, the nature of the measures taken and a verdict on the question to what extent a company approached the final targets of environmental management.

Programming was operationalized in the same way as for municipalities. 48 firms had no or only vague intentions (score 0). 58 firms had a more elaborate type of planning (score 1).

The nature of the measures that were taken concerns the *orientation* of the

firm towards active measures (55 firms, score 0), or systemic measures (52 firms, score 1).

Finally the opinion is asked about the *profundity* of the activities. This latter variable was established by asking firms for an opinion on a five-point scale to what extent the following issues are worked out in depth or not:

- insight into the extent, nature and sources of environmental pollution;
- quantified environmental goals;
- a 'game plan' for the reduction of environmental pollution;
- the influence of environmental considerations on decisions;
- a systematic registration of substance flows.

The firms were divided into two groups. 31 firms still had a long way to go (score 0). 105 firms approached the final objectives more closely (score 1).

In our opinion, these three aspects carry equal weight in the final verdict on the quality with which a business firm is working on environmental management. It seems correct to state that the better the quality of environmental management, the higher the score on each of the three variables. Because each variable has two classes, a simple scale for quality may be constructed. The low score for each variable can be considered 'insufficient', the high score 'sufficient'. By allocating a 0 to the low score and a 1 to the high score we obtain a new variable, i.e. 'quality'. This results in four groups of firms (score 0, 1, 2 or 3).

In the following figure the progress of companies is plotted against the quality of the progress that was made. This proved possible for 94 firms.

Summarizing the results

Question 3 was: 'To what extent is environmental management implemented in companies?'. Summarizing the results, over 94 percent of the firms in the branches we investigated has initiated environmental management in one way or the other. However, only 22 percent has progressed relatively far in this respect. Although here the same comment should be made, as far as the moment of target achievement is concerned, as in the case of the municipalities, it is not to be expected that in 1995 all firms will possess a working system of environmental management.

		QUALITY			
		low			high
		.00	1.00	2.00	3.00
PROGRESS					
inactive	1.00	4	1		
exploratory	2.00	2	12	3	
initial	3.00	1	10	25	13
progressive	4.00		2	10	9
finished	5.00			1	1

Figure 6: Progress vs. quality in companies

5 The effectiveness of the environmental management network surrounding municipalities and companies

Question 4 was 'Does the policy network function the way it is supposed to?'. For each organization within the environmental management network we have explored to what extent it provides municipalities or firms with the functional guiding impulses intended by the policy. Research expectations are given in Section 3 for each of the network organizations surrounding either one of the target groups. These expectations were deduced directly from the stimulation policy. Whether they became a reality was established by us on the basis of opinions from both the target groups. Thus, the task of judging the presence of guiding impulses lies with the respondents from the municipalities and companies.

A verdict on whether the network organizations do in fact influence the activities as intended, was elicited in the following manner:

1. The will-influencing function

In order to establish to what extent an organization has a will-influencing function, the question was put to the respondents to what extent they feel that the organization influences the opinion on internal environmental management. This concerns the relation of network organization vis à vis the target group. In order to find out to what extent the target group also sees a will-influencing function towards the network organization, a second indicator was used. This concerns the question to what extent the network organization is seen as making an effort to introduce certain preferences

into the policy process.

2. The supporting function

As a first indicator of the extent to which an organization acts as a facilitator, the question was asked per organization to what extent the respondent feels that its contribution is applicable in practice. This is an indicator of the relation of the network organization towards the target group. As a second indicator the question was asked whether the organization itself gets in touch with issues related to environmental management. This is an indicator of the reverse relation.

3. The repressive function

As an indicator of the extent to which an organization repressively, per organization the question was asked to what extent efforts in the field of environmental management are reported.

Questions were asked on a ten-point scale. The interpretation of the results is particularly interesting. Meaningful scores should be distinguished from meaningless ones. The level from which scores are meaningful, i.e. the threshold value, was established on the basis of quantitative and qualitative considerations. The quantitative consideration concerns the average score per question. This 'white noise' can be explained from the tendency not to score excessively on the extremes on a scale. The quantitative considerations suggest a level of 4,1 - 4,8. The qualitative consideration concerns the height of the scores on evidently illogical propositions. Each question was asked for each network organization. The scores on evidently illogical propositions make the level of white noise that is caused, visible. The qualitative one suggests a noise level that does not exceed 3,5 per question. The fact that the evidently illogical propositions score below average is a desirable situation. After all, if the average score of logical and illogical propositions does not exceed that of only the illogical propositions, we would have to have serious doubts about the measurement instrument. This would be the alternative to the conclusion that the network does not exist in terms of the intended functions that need to be fulfilled.

On the basis of the above considerations, the limit was determined below which a network function is not recognized as such. Above this lower limit we may speak of a network relation recognized by the target group. In addition scoring on a ten-point scale has a second calibration point. We can speak of a strong network relation only if it is sufficiently appreciated. According to common usage, this begins at score 5,5.

Section 5.1 analyzes the network surrounding municipalities. Section 5.2 analyzes the network surrounding companies.

5.1 *The results summarized for the municipalities*

As shown in Figure 1, the effectiveness of the network surrounding the municipalities was researched for five organizations: the central government, the provincial authorities, the Association of Dutch Municipalities, the Environmental Hygiene Inspectorate and the consulting agencies. Interpreting the results on the basis of the various functions, we find the following. The target is *influencing the will* of the municipalities by the central government and by the Association of Dutch Municipalities. In both cases there is a recognized network relation corresponding to research expectations. In addition, this relation is a strong one in both cases. As far as the reverse relation is concerned, i.e. influencing the will of network organizations by municipalities, the only strong will-influencing relation that is found is with the Association of Dutch Municipalities. The objective also is the *support* of municipalities by the Association of Dutch Municipalities and the consulting agencies. Strong supporting network relations were found for both organizations. As far as issues at the initiative of the municipalities are concerned, i.e. the reverse network relation, relations are recognized, but they are not classified as being strong ones. Thirdly, *repressive* network relations are intended with the Environmental Hygiene Inspectorate and -albeit indirectly- with the Association of Dutch Municipalities. Both these relations are recognized by the municipal respondents, but were not classified as being strong ones.

The relations that were found correspond to research expectations. The same applies to the frequency of contacts between municipalities and network organizations. This frequency is relatively high for network organizations which have a supportive function, as compared to network organizations which appear to have a will-influencing or repressive function, or no function at all. This also answers question 4 about the network surrounding municipalities. The network functions as intended, with the exception of the function of the provinces.

5.2 *The results summarized for the companies*

As Figure 2 shows, the effectiveness of the network surrounding companies was studied for five organizations: branch organizations, business environmental services, the central government, municipalities and consulting agencies. If we interpret the results on the basis of the various functions, we find the following. The objective was *will-influencing* by branch organizations, the municipality and the central government. The study shows that these three relations are recognized. The strongest will-influencing is experienced by firms on the part of the municipalities, while the

branch organizations are also recognized as a strong relation. The reverse relation only occurs for branch organizations.

The intended *support* lay with the branch organizations, business environmental services, municipalities and consulting agencies. With the exception of the business environmental services, these relations are also recognized as being strong ones. An explanation for the observed lack of support by the business environmental services may be the small number of firms that were a member (only 20 percent). The branch organizations and the municipalities are also the organizations with which the firms themselves get in touch about environmental management. Both these relations are not strong ones, though.

Finally the *repressive* function. The intended aim was repression by the branch organization and by the municipality. Both relations are recognized by the firms, but only the relationship with the municipality is a strong one. We may conclude by stating that the effectiveness of the network largely corresponds to research expectations.

6. Conclusion

In this paper we reported on a study of the network surrounding municipalities and firms concerning the introduction of environmental management. In addition to data concerning the progress made by municipalities and companies, we also analyzed the effectiveness of the network. This leads us to the following conclusions.

One of the objectives of the implementation of an environmental management policy is to build networks which perform various functions. Our study indicated that this objective was largely achieved.

Although not all of the organizations we studied will possess a working environmental management system in 1995, we do not consider the results that were achieved thus far disappointing, since the level of ambition (all the organizations in question must introduce an environmental management system within *five* years) was unrealistically high.

This leads us directly to the final conclusion. Communicative guidance has more potentialities than has been assumed thus far in instruments theory. In addition to the nature of the instrument itself, the organizational setting in which it is applied is equally important to (explaining) the effectiveness of the instrument.

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