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## ARTICLES

# What role is there for the state in contemporary governance?

## Insights from the Dutch building sector

*Jeroen van der Heijden*

### 1 Introduction

Over the last three decades or so, the role of state actors in governing has changed.<sup>1</sup> This article is particularly interested in novel, non-coercive roles of the state in contemporary governance. It acknowledges that much governing in many areas is still being carried out by state actors through traditional mandatory direct regulatory interventions. Yet, it agrees with a growing body of empirical research that argues state actors have also taken up a range of novel roles, particularly in innovative and often voluntary governance arrangements.<sup>2</sup> State actors particularly seem to do so aiming to address governance problems that are too complex to be overcome through traditional direct regulatory interventions.<sup>3</sup>

One area exhibiting particular complex governance problems and much activity of state actors in novel roles is the environmental and resource sustainability of buildings and cities. Buildings and cities are a key source of the consumption of energy, water and other resources, as well as the production of greenhouse gas emissions and other wastes and pollution.<sup>4</sup> At the same time, buildings and cities hold vast potential for reductions and the social know-how and technology is available to achieve these.<sup>5</sup> Such reductions may be achieved at a relatively low cost, or even at a net-cost benefit.<sup>6</sup>

Unfortunately, significant market and regulatory barriers have thus far stood in the way of utilising the potential cities and buildings hold in terms of improved environmental and resource sustainability.<sup>7</sup> This is precisely the reason why state actors around the world are highly active in collaborating with non-state actors in the development and implementation of a series of innovative voluntary governance arrangements, aiming to overcome these barriers.<sup>8</sup>

1 Braithwaite 2008; Jordana & Levi-Faur 2004.

2 E.g. Davies 2011; Koch 2013.

3 Croci 2005; Gunningham 2009a.

4 IPCC 2014, chapter 8.

5 Newman, Beatley & Boyer 2009.

6 IPCC 2014.

7 Van der Heijden 2014.

8 Hoffmann 2011; IEA 2013.

Thus, the aim of this article is to address two questions through a systematic empirical analysis of ten innovative voluntary governance arrangements that aim to improve the environmental and resource sustainability of buildings and cities in the Netherlands, namely:

- What traditional and innovative roles have state actors taken up in these arrangements?
- What (clusters of these) roles do state actors need to take up to achieve positive outcomes from these arrangements?

In sum, the article seeks to add empirical knowledge concerning the roles of state actors in contemporary governance. Ultimately, it aims to come to an evidence-based typology of a combination of roles that state actors may wish to take up in seeking positive outcomes from innovative voluntary governance arrangements, or preventing negative outcomes. The findings may help to refine our thinking and theorizing about these roles and to improve the development and implementation of such innovative voluntary governance arrangements in the Netherlands and elsewhere.

The article unfolds as follows: section 2 provides a brief introduction to the research methodology, fuzzy set qualitative comparative analysis (fsQCA).<sup>9</sup> In section 3, the various roles taken up by governments in the ten Dutch arrangements are addressed. Section 4 presents the findings of the fsQCA analysis with a focus on the novel roles (or configurations of roles) for state actors that may be necessary or sufficient for achieving positive outcomes using the novel tools under analysis, i.e. the evidence-based typology. Section 5 concludes and discusses the impact of the research.

## 2 Research design: case selection, data collection and data analysis

In this article ten innovative voluntary governance arrangements ('cases') are studied. All cases are situated in the Netherlands and all seek to improve the environmental or resource sustainability of buildings and cities beyond the requirements laid down in Dutch building codes. The cases are further comparable in that participation is voluntary. Participants in the study were positive overall as concerned these cases as they felt that these fill gaps in the current building regulatory framework in the Netherlands. As one of them explained:

“The Netherlands are currently characterized by a movement towards more regulation. ... The Dutch government is unaware of what they may achieve [in terms of sustainability] without all too many [regulatory] costs. Take for example the program *Sustainable Procurement* [studied in this article]. By setting a benchmark for their own offices, a change was generated throughout the office rental market. ... Yet, policy makers in the Netherlands do not take

9 A step-by-step explanation of the fsQCA analyses carried out in this article is available online for those readers who are less familiar with this specific methodology. See [www.EnviroVoluntarism.info/appendixRDW](http://www.EnviroVoluntarism.info/appendixRDW).

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the initiative. They only follow politicians and politics. The problem is that ambitions in terms of sustainability are currently lacking in the House of Parliament. ... Environmental and sustainability politics are stuck in the Netherlands (int. 63; energy efficiency consultant).<sup>10</sup>

The study sits within a larger research project that seeks to understand the performance of close to 70 innovative governance arrangements in Australia, Asia, Europe and North America.<sup>11</sup> For the purposes of the current special issue, the ten Dutch cases were selected from this study.

### 2.1 *Snapshots of the ten cases*

The ten cases under analysis fit, roughly, three types of slightly different arrangement design: (1) best-of-class benchmarking, (2) innovative forms of financing and (3) arrangements that target a particular regulatory barrier.<sup>12</sup> Space prevents the introduction of all the cases at great length, but the following snapshots will give the reader some flavour:

- *BREEAM-NL* (type 1): the Dutch adaptation of the international best-of-class building assessment tool, BREEAM (BRE Environmental Assessment Method). Such tools are highly popular in the construction industry around the globe.<sup>13</sup> They allow the assessment of the environmental performance of buildings and certification of this performance in a particular class. In this way, buildings can be compared according to their relative scores.
- *Amsterdam Investment Fund* (type 2): a revolving loan fund of the City of Amsterdam that issues loans to building developments and retrofits, inter alia, which seek to achieve high levels of environmental performance.<sup>14</sup>
- *ESCO contracting* (type 2): Energy Service Companies (ESCOs) aiming to reduce their clients' energy consumption. The general business model is that the company installs energy efficient measures in its client's buildings, then operates and maintains them. It may even supply all non-generated energy that its client needs.<sup>15</sup>
- *Sustainable Procurement* (type 2): a programme seeking to harmonise the role of state actors as 'sustainable' consumers of office space, building services and buildings, the Dutch Ministry of Infrastructure and the Environment, together with other state actors, which has developed a series of purchasing criteria for public tendering and procurement processes.<sup>16</sup>
- *Energy Leap* (type 3): civil society and government collaboration that seeks to improve the energy efficiency of the built environment.

10 As is usual in social science research, I have promised the participants in my study anonymity. To give the reader some insight into the different 'voices' of the participants I have numbered them (e.g. int. 50).

11 Van der Heijden 2014.

12 For a similar typology, see Van der Heijden 2014.

13 Cole & Valdebenito 2013.

14 On revolving loan funds, see Boyd 2013.

15 On ESCOs, see Vine 2005.

16 Dutch Government 2013.

- *Green Deals* (type 3): a series of covenants between the Dutch state government and individuals, businesses or a sector as a whole. Two different Green Deals are included in this study: one in the City of Haarlem, the other in the City of Amsterdam. The first comprises a series of (interacting) local governance tools developed by local governments in collaboration with local businesses (and financially supported through the Green Deal). It seeks to stimulate households to reduce their energy consumption. The second is an agreement between the City of Amsterdam and the Dutch state government on the development of 24,000 carbon neutral homes in Amsterdam.
- *Local Covenant Sustainable Construction* (type 3): throughout the Netherlands, municipalities are entering into covenants for sustainable construction with local builders, state actors, housing corporations and industry interest groups.<sup>17</sup>
- *NL Agency* (type 3): NL Agency<sup>18</sup> was responsible for developing and coordinating governance experiments, bringing together various actors from the building sector, amongst others, to gain insight into regulatory and market barriers that stand in the way of improved environmental and resource sustainability in the sector, as well as drawing and communicating lessons from experiments and best practice.
- *Sunny Rentals* (type 3): a collaboration of housing corporations, their advocacy group, and governments in the Netherlands. It seeks to overcome legal barriers that stand in the way of the instalment of solar panels on residential buildings (individual homes and condominiums) owned by the housing corporations.

## 2.2 Data collection

In order to understand the development, implementation and performance of the cases under analysis, these were studied intensively. Most data relevant to the analyses presented in this article could be obtained from the arrangements' websites, existing reports and other sources. Novel data on the cases was obtained through a series of in-depth face-to-face interviews carried out in 2012. These interviews aimed to fill in gaps in the data from other sources, to resolve conflicts in data from other sources and to gain additional insight in the cases under scrutiny.

Interviewees were traced through internet searches and through social networking websites, particularly LinkedIn. A total of 27 experts involved in the ten cases were interviewed. They broadly represent state actors in the role of administrator of these cases (n=4) and other roles (n=4), and non-state actors, such as administrators of the cases studied, (n=3), architects, engineers and advisors (n=6), contractors and developers (n=4), property owners (n=3), and other stakeholders (n=3). Table 1 presents the background of the interviewees.

17 One of such covenants is addressed in this article, Municipality of De Bilt 2010.

18 Now merged into the Netherlands Enterprise Agency, see: Ministry of Economic Affairs 2013.

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**Table 1** *Background of interviewees*

Interviewee background	Government	Non-government
Policy maker	4	
Administrator	4	3
Architect, engineer, advisor		6
Contractor, developer		4
Property owner		3
Other		3
<b>Total</b>	<b>8</b>	<b>19</b>

The interviews were based on a semi-structured questionnaire that provided a structure of checks and balances to assess the validity of the findings. Also, the interviews were recorded and transcribed into a report that was sent back to the interviewees for validation. The interviewees were often aware of and involved in more than one case. It is expected that this (partly) helped to overcome a sampling bias of administrators (and participants) who were overly enthusiastic about their ‘own’ case.<sup>19</sup>

To gain a further understanding of the type of governance arrangements studied and to further validate insights from interviewees and other sources, I organised a seminar during the Dutch Green Building Week in 2012. Over 30 people (different from those interviewed) participated in this three-hour seminar (including four speakers who presented on various governance arrangements) in which we discussed the opportunities and constraints of these types of governance arrangement.

### 2.3 Data analysis

The data were processed by means of a systematic coding scheme and qualitative data analysis software (Atlas.ti). Using this approach, the data were explored systematically and insights were gained into the ‘repetitiveness’ and ‘rarity’ of experiences shared by the interviewees and those reported in the existing information studied. The data were further analysed using fuzzy set qualitative comparative analysis (fsQCA) logic and techniques through FS/QCA software (version 2.5). Since the mid-1990s, fsQCA has quickly evolved as an accepted research practice for the type of study presented in this article and has been applied in hundreds of studies in the policy sciences. The fundamentals and background of QCA are well explained and documented in a number of strong textbooks.<sup>20</sup>

In short, QCA differs from other data analysis methods in its focus. ‘The key issue [for QCA] is not which variable is the strongest (i.e., has the biggest net effect) but how different conditions combine and whether there is only one combination

19 Sanderson 2002.

20 Goertz & Mahony 2012; Ragin 2008; Rihoux & Ragin 2009; Schneider & Wagemann 2012. I pay in-depth attention to the logic underlying fsQCA in the supplementary online appendix. This appendix further gives a step-by-step description of how I have applied fsQCA in this study. It also supports, on theoretical grounds, my choice of this method. See also note 1.

or several different combinations of conditions (causal recipes) of generating the same outcome'.<sup>21</sup> In other words, in applying QCA in this study I do not seek to understand, case by case, why and how an arrangement has resulted in particular outcomes, but I am interested in gaining a better understanding of how particular conditions (the roles of state actors) interact in causing case outcomes (i.e. conjunctural causation) and whether there are one or more combinations of interacting conditions that cause case outcomes (i.e. equifinality).

Ultimately, in this article I aim to derive an evidence-based typology of combinations of roles that state actors may wish to take up in seeking positive outcomes from innovative voluntary governance arrangements, or preventing negative outcomes. Such a typology may inform policy makers, practitioners and academics alike in developing understanding and studying the performance of innovative voluntary governance arrangements. QCA is ideally suited for developing such a typology.<sup>22</sup>

#### 2.4 *Outcome of interest*

The outcome that I address in this study is how well the cases have performed in achieving their stated goals in terms of buildings built or energy consumption reduced, amongst other factors.

Whilst evaluating the outcomes of innovative voluntary governance arrangements comes with methodological complications that have been well documented elsewhere, the advantage of comparing stated ambitions with achieved results, as I do in this article, is that the data related to this outcome are fairly objective and were available from existing documentation on the ten cases (e.g. annual reports, websites, articles in journals for a policy and practitioner audience).<sup>23</sup> These data were validated in the interviews. This outcome is considered well suited to the assessment of the performance of the types of governance arrangements evaluated here. That said, the outcome data do not provide insight into issues such as how well individual participants in the arrangements perform, whether or not the arrangements result in overall better environmental performance of the sector than without these arrangements, or whether these arrangement are more (cost) effective in achieving their goals than traditional regulatory approaches.<sup>24</sup>

### 3 What roles are there for state actors in the ten cases?

Whilst the roles of state actors in innovative voluntary governance arrangements have been addressed by a variety of scholars (cited in what follows), a theory of the role of the state in these arrangements is as yet lacking. This section therefore takes an exploratory approach and unpacks the ten cases to gain a better insight into the traditional and non-traditional roles state actors have taken up. It then contrasts the roles uncovered with the existing literature in this area. The differ-

21 Ragin 2008, p. 114.

22 Fiss 2011.

23 Morgenstern & Pizer 2007; Young, King & Schroeder 2008.

24 Borck & Coglianese 2009; Potoski & Prakash 2009.

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ent roles were uncovered for the state actors involved in the cases (note, state actors include: the national government, regional governments and municipal governments). These roles can be assembled in five clusters:

– Cluster 1: *Providing monetary incentives*. In the type of governance arrangements studied, state actors are often found to reward desired behaviour financially. The specific role uncovered in the ten cases is:

– *Financial supporter* (Fin.). Financial support is likely to attract participants, simply because it takes away the risk of participation or the costs of meeting the requirements of the governance arrangement. In the *Amsterdam Investment Fund*, for instance, funding normally only comes to those participants likely to achieve the best results in terms of energy or greenhouse gas reduction.<sup>25</sup>

It may be expected that the more financial incentives state actors provide the more successful the arrangement will be.<sup>26</sup>

– Cluster 2: *Providing non-monetary incentives*. State actors may further seek to ease participation in an arrangement and make goal achievement attractive through other non-monetary forms of support. The specific roles uncovered in the ten cases are:

– *Advice and expertise* (AnE.). State actors have taken up the administration of a number of the cases studied. In doing so, they may give legitimacy to the arrangements (i.e. such support at the very least indicates that a state actor agrees with the arrangement). They may further help to ease participation by ensuring a ‘smooth’ administrative process. The *Netherlands Enterprise Agency*, for example, takes up very specific administrative tasks and ‘helps [entrepreneurs] with [applications for] grants, finding business partners, know-how and compliance with laws and regulations’.<sup>27</sup>

– *Marketer* (Mark.). State actors involved in the various cases studied were actively involved in marketing the arrangements as well as the performance of their participants. Such marketing activities may on the one hand attract new participants and on the other hand may incentivise participants to act in accordance with the goals of the arrangement. The Municipality of Haarlem, for example, maintains a highly professional website to market the various activities that are supported by the *Green Deal* in which it is involved.<sup>28</sup>

– *Educator* (Edu.). State actors involved in the various cases studied were further actively involved in the collecting of findings from the governance arrangements and the communication of lessons learnt. Drawing lessons on governance arrangements and improving these based on such lessons is often considered key in improving governance success.<sup>29</sup> Again, the website maintained by the Municipality of Haarlem provides a typical

25 Irvine, Lazarevski & Dolnicar 2012.

26 Croci 2005.

27 <http://english.rvo.nl/home/about-rvonl>.

28 [www.degroenemug.nl](http://www.degroenemug.nl).

29 Sabel & Zeitlin 2011.



example of this role in that it presents clear case studies showing how particular outcomes can be achieved.

It may be expected that the easier state actors make participation through the non-monetary support they provide, the more successful an arrangement will be.<sup>30</sup>

- Cluster 3: *Old governance in innovative arrangements*. When involved in an innovative governance arrangement, state actors may take up roles that resemble more traditional ones (cf. Pierre, 2000). This was confirmed in the ten cases in which state actors held the following roles:
  - *Rule-setter* (Rule.). The various governance arrangements studied are all based on some set of criteria that stipulate their goal and what is expected from their participants in aiming to achieve this goal.<sup>31</sup> State actors have been active in the development of these criteria. The criteria developed by the Dutch Ministry of Infrastructure and the Environment that guide *Sustainable Procurement* of Dutch state actors comprise only one of the various rule regimes that have been introduced in the arrangements studied.<sup>32</sup>
  - *Enforcer* (Enf.). Time and again scholars find that without enforcement the type of governance arrangements studied here do not result in their expected outcomes, particularly due to their voluntary nature. Much is expected from state actor involvement in the enforcement of such arrangements to achieve outcomes and in a number of cases state actors have taken up this role.<sup>33</sup>

The relationship between these roles and the outcomes of arrangements is somewhat complex.<sup>34</sup> It may be argued that by setting strict rules and strictly enforcing these, participants have to take meaningful action and run the risk of being found out when not complying with these rules. This would indicate a positive relationship. Yet, by setting strict rules and by strictly enforcing these, state actors may make participation unattractive (i.e. prospective participants may feel that they have to do too much when participating, or that state actors are too intrusive). This would indicate a negative relationship.

- Cluster 4: *Big picture governance*. Through involvement in an innovative governance arrangement, state actors may try to keep the larger picture of societal goals in mind. State actors may consider that participation in an arrangement is in line with their overall ambitions, for example, to reduce greenhouse gasses. In the ten cases they were found to take up the following roles:
  - *Initiator* (Init.). Some of the ten cases have been initiated by state actors. In doing so, they have brought together different non-state actors seeking to learn about the barriers these actors face in developing or retrofit-

30 Borck & Coglianese 2009.

31 Potoski & Prakash 2009.

32 Dutch Government 2013.

33 Potoski & Prakash 2009.

34 Potoski & Prakash, 2009.

ting buildings with high levels of environmental and resource sustainability. An initiating role is sometimes considered necessary to ensure that the different interests of various actors (state actors included) are merged.<sup>35</sup> It is further considered that the involvement of state actors in the development of governance arrangements may give these more legitimacy, which in turn may make non-state actors more willing to participate.<sup>36</sup> The *Netherlands Enterprise Agency* is again a typical example: a key role of this agency is to initiate, develop and implement governance arrangements.<sup>37</sup>

- *Assembler (Ass.)*. State actors are often considered to be in the right position to maintain an overview of the various governance arrangements introduced by different state actors and non-state actors.<sup>38</sup> In this role, they may seek synergies between various governance arrangements and between existing regulation and these arrangements. Here, the role played by the Municipality of Haarlem is illustrative: through participation in the *Green Deals* covenants, the Municipality has been able to acquire funding for a series of interacting local governance tools. The Municipality has taken up a key-nodal role as assembler in these tools and by doing so it can ensure that the whole of these tools is larger than the sum of its parts.

Through initiating governance arrangements, state actors may remove risks for participants (e.g. state actor involvement may give credibility to an arrangement) and by assembling arrangements, they may ensure that participants in different arrangements are not overburdened. This particular role of state actors is therefore expected to be positively related to the outcomes of arrangements.<sup>39</sup>

- *Cluster 5: Governance by doing*. A final cluster of roles highlights the ambiguity of state actors in contemporary governance. Whilst they may seek to achieve desired collective ends through traditional regulatory governance, or participation in innovative governance arrangements as discussed above, they can also actively seek to achieve such ends in their roles as consumer, customer or governance subject. Two such roles were uncovered in the ten cases studied:
  - *Launching customer (LC.)*. A very specific role taken up by state actors in some of the cases studied is that of launching customer.<sup>40</sup> Because state actors are major ‘consumers’ of office space and other buildings, they can significantly influence the market for environmentally and resource sustainable buildings. However, this role is different from that of *financial supporter* (see above). As launching customer, governments indirectly support an arrangement by requiring their suppliers to participate in an arrangement, for instance by demanding that future governmental build-

35 Gunningham 2009b.

36 Kickbusch, Hein & Silberschmidt 2010.

37 <http://english.rvo.nl/home/about-rvonl>.

38 E.g. Davis 2002.

39 E.g. Gunningham 2009b.

40 Hofman & De Bruijn 2010.

ings will have *BREEAM-NL* certification. As financial supporter, they provide direct financial support for the development and implementation of an arrangement.

- *Participant* (Part.). Last but not least, state actors can actively support an innovative voluntary governance arrangement simply by participating in it. In doing so, they can show leadership (leading by example) and learn about the opportunities and constraints of these arrangements.<sup>41</sup> A typical example from the study is the participation of state actors in the *Sustainable Procurement* arrangement. Through participation in this arrangement, they influence its outcomes.

For similar reasons as those discussed under Cluster 1, a positive relationship may be expected between ‘governance by doing’ and the outcomes of the innovative voluntary governance arrangements.<sup>42</sup>

Please note, the current literature considers a much wider variety of conditions as possible causes for the outcomes of innovative voluntary environmental governance arrangements than the roles of state actors only.<sup>43</sup> These relate to their contextual conditions, such as the existing legal setting and economic circumstances, and their design conditions, such as reward schemes and participation criteria. The contextual conditions are kept relatively constant in this study due to the single country focus and are therefore not expected to explain any differences in the set of cases under scrutiny. The design conditions of these cases vary slightly however (as illustrated in section 3). It is expected that this slight variety in designs in this article helps to overcome the possible impact of a selection bias on the outcomes of the study which could result from choosing a single design only. None of the designs cluster together in any of the solution formulae of the fsQCA analyses (see section 4). This suggests that the design conditions are indeed appropriately constant for this study. That said, because of the small variety in the different designs, this study does not claim to be representative of the wide variety of possible designs of contemporary innovative voluntary governance arrangements.<sup>44</sup>

Table 2 gives an overview of how state actors have taken up the various non-traditional roles in the ten cases studied. The table also gives insight into how well the cases have performed in achieving their stated goals in terms of buildings built or reduction in energy consumption, amongst other factors. The data observations are calibrated on a four-point scale to indicate the comparative (qualitative) differences in observations.<sup>45</sup>

41 Koski & Lee 2014.

42 Koski & Lee 2014.

43 Borck & Coglianese 2009; Potoski & Prakash 2009.

44 Van der Heijden 2014.

45 Data calibration is further explained in the online appendix.

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**Table 2** *Roles of state actors in the cases studied*

Case (Type)	Clusters of non-traditional role for state actors in cases										Out- come
	1		2		3		4		5		
	Fin	Adm	Mark	Com	Rule	Enf	Ini t	As s	LC	Pa rt	
Case A (2)	-	-	-	++	++	-	++	--	--	++	+
Case B (3)	-	+	++	+	+	-	++	++	--	-	-
Case C (2)	+	-	+	-	-	--	+	+	--	-	--
Case D (3)	-	--	--	--	--	--	-	--	--	--	-
Case E (2)	++	-	-	++	++	+	++	+	--	-	-
Case F (3)	-	++	+	++	+	+	+	++	-	-	+
Case G (3)	-	-	--	-	-	--	-	-	--	-	-
Case H (1)	--	--	--	-	--	--	-	-	+	--	+
Case I (3)	--	-	-	++	++	+	++	-	--	-	--
Case J (3)	-	+	+	++	++	+	+	++	--	-	-

Note: Cases are indicated with letters to maintain the anonymity of interviewees. The order (cases A–J) is different from the order in Section 2.1. Abbreviations: as per the above text. Symbols: as per the above text.

- ++ = qualitative maximum score (e.g. the arrangement has met stated ambitions);
- + = positive, but not the maximum qualitative score (e.g. the arrangement has achieved a substantial amount in terms of the number of buildings constructed/energy reduction/etc., but not the expected number);
- - = positive, but a marginal score (e.g. the arrangement has achieved a marginal amount of building construction/energy reduction/etc., but this is far from meeting the stated ambitions);
- -- = qualitative minimum score (e.g. the arrangement has not achieved any or only a little construction/energy reduction, etc.).

Table 2 indicates that state actors are involved in a wide variety of configurations in the ten arrangements studied. In some (e.g. cases E and J) they have taken up many of the roles identified, whilst in others (e.g. cases D and G) they are only sparsely involved. Only three of the cases have performed well in achieving the

outcome under scrutiny. This finding is in line with the broader literature on the types of governance arrangements focused on in this article.<sup>46</sup>

**Table 3** *Expected causal relations between clusters of roles and outcomes*

<b>Cluster</b>	<b>Causal relation</b>
<b>Role of state actors:</b>	<b>Outcome II</b>
1. Providing monetary incentives	Positive (e.g. Croci, 2005)
2. Providing non-monetary incentives	Positive (e.g. Borck & Coglianesi, 2009)
3. Old governance in innovative arrangements	Complex (e.g. Potoski & Prakash, 2009)
4. Big picture governance	Positive (e.g. Gunningham, 2009b)
5. Governance by doing	Positive (cf. Koski & Lee, 2014)

*Note:* Positive implies, for instance, high financial attractiveness, expected to result in positive scores for the outcome of interest; negative implies, for instance, strict participation criteria and strict enforcement of these, expected to result in low scores for the outcome.

#### 4 Are the non-traditional roles related to the case outcomes and if so, how?

This section presents and interprets the results of an fsQCA analysis in order to gain a better understanding of whether and how the various non-traditional roles of state actors have influenced the outcomes of these ten cases.

Whilst fsQCA helps to assess systematically whether and how (configurations) of conditions (here the novel roles of state actors) are related to outcomes of interest, my earlier experience with the method is that it is not suitable for assessing sets of conditions that are too large. An advisory number for a set of conditions is four to eight.<sup>47</sup> I therefore focus on the five clusters of roles, rather than the ten distinct roles. Table 3 states the expectations of how each cluster is expected to be related to the outcome under scrutiny, building on the existing literature discussed in section 3.

##### 4.1 *Necessary conditions*

Following fsQCA practice, the data are first analysed for necessary conditions before exposing them to more complex analysis to identify (configurations of) sufficient conditions.<sup>48</sup> Table 4 presents the results of this analysis for necessary conditions.<sup>49</sup>

Conditions should only be considered as necessary if their consistency scores are very high (consistency indicates how strongly the condition relates to the outcome); a cut-off point of 0.90 is advised.<sup>50</sup> As can be seen from Table 4, none of

46 Morgenstern & Pizer, 2007; Young et al., 2008.

47 Ragin, 2008.

48 Rihoux & Ragin, 2009, Chapter 5, box 8.1; Schneider & Wagemann, 2012, Chapter 11.

49 For a discussion of the analysis, see the supplementary file, step 6.

50 Rihoux & Ragin, 2009, 45.

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**Table 4** *Analysis of necessary conditions*

Cluster	Outcome	
	Consistency	Coverage
Cluster 1	0.63	0.63
Cluster 2	0.72	0.36
Cluster 3	0.63	0.58
Cluster 4	0.81	0.39
Cluster 5	0.82	0.82

Note: Analyses were carried out for the relations identified in Table 3.

**Table 5** *Intermediate solution for the outcome*

Solution:	c3*C5	+	C2*C4*C5	→	Outcome
Raw coverage	0.45		0.72		
Unique coverage	0.09		0.36		
Consistency	0.83		0.80		
Covered cases*	H		A		
Solution consistency	0.82				
Solution coverage	0.82				
Uncovered cases**	None				

\* Cases with membership in path > 0.5

\*\* Cases with membership in solution < 0.5 but and an outcome > 0.5

Note: the notation of conditions in capital letters (i.e. 'C5') indicates that the condition is present in the solution, whilst the notation in normal script (i.e. 'c3') indicates that the condition is absent in the solution. The '\*' symbol refers to the logical 'and'. The letter 'c' or 'C' indicates 'cluster'.

the clusters meet this criterion. This indicates that the data do not point to any distinct cluster of roles that state actors may wish to take up aiming to achieve positive results for the outcome under scrutiny (e.g. buildings built, or energy consumption reduced). It is, of course, possible that state actor involvement (or the absence thereof) in more than one cluster is related to positive results for the outcome. This is what the next section seeks to understand.

#### 4.2 Sufficient conditions for positive results

In order to gain a better understanding of what binds together the cases that have achieved positive results, the data are analysed aiming to reduce logically the empirically observed configurations.<sup>51</sup> Table 5 gives a summary of the findings.<sup>52</sup>

Table 5 indicates that two paths lead to the outcome of interest. In QCA methodology, the word 'path' refers to the combination of conditions that relate to the

51 Rihoux & Ragin, 2009, Chapter 5, box 8.1; Schneider & Wagemann, 2012, Chapter 11.

52 For a discussion of this analysis, see the supplementary file, steps 7 to 9. Appendix A provides the truth table for this analysis.

outcome and the word 'solution' refers to the combination of paths that are related to the outcome. The solution consistency (0.82) may be considered high and the solution coverage (0.82) may be viewed as considerable – i.e. the solution strongly relates to the outcome ('consistency') and the solution is of high empirical importance in reaching the outcome ('coverage').<sup>53</sup>

For those less familiar with QCA methodology, it may be helpful to understand these as ideal types<sup>54</sup> of combinations of roles that state actors may wish to take up in innovative voluntary governance arrangements if they seek to achieve the outcome of interest.<sup>55</sup> They can be read as:

- *Ideal type 1* (cluster3\*Cluster5): innovative governance arrangements in which state actors (i) actively support the arrangements as participants, launching customer, or both, but (ii) do not set the criteria for these arrangements, are not involved in the enforcement of those criteria, or refrain from both.
- *Ideal type 2* (Cluster2\*Cluster4\*Cluster5): innovative governance arrangements in which state actors (i) are actively involved in making it easy for participants to participate in these arrangements, (ii) actively support these arrangements as participants, launching customer, or both, and (iii) initiate these arrangements, seek synergies between these arrangements and existing statutory regulation, or both.

Ideal type 1 indicates that – even at a distance – state actors can have a strong impact on the performance of the (type of) arrangements studied in this article. It points out that even when state actors stay away from being involved in the actual development or implementation of an arrangement, they can still influence its performance in their role of participant in the arrangement, or customer of building services, office space and commissioner of buildings. The following quote is illustrative of how participants perceived this particular role within this ideal type:

A major role for the state to play is that of launching customer. By requiring more sustainable products and services themselves, they hold the power to change the market. This is a role that non-state actors cannot take up. (int. 70; sustainable building consultant, private sector)

This interviewee continued by explaining that in the Netherlands governments are the largest consumers of building services and office space and the main commissioner of new building projects. Through their role as launching customer, they can therefore significantly influence the market. Yet, ideal type 1 indicates that only acting as launching customer is not enough; it should at least be combined with staying out of the setting and arrangement criteria or enforcing these.

53 Schneider & Wagemann 2012.

54 A generalised abstract concept formed from the conditions of the cases analysed, but not meant to correspond to all conditions of any individual case (cf. Weber 1964 [1921]).

55 Fiss 2011.

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**Table 6** *Intermediate solution for not achieving the outcome*

<b>Solution:</b>	<b>c5</b>	<b>+</b>	<b>c1*C3</b>	<b>→</b>	<b>not Outcome</b>
Raw coverage	0.90		0.58		
Unique coverage	0.37		0.05		
Consistency	0.89		0.84		
Covered cases*	B, C, D, E, G, I, J		B, I, J		
Solution consistency	0.86				
Solution coverage	0.95				
Uncovered cases**	None				

\* Cases with membership in path > 0.5

\*\* Cases with membership in solution < 0.5 but an outcome > 0.5

Note: the notation of conditions in capital letters (i.e. 'C3') indicates that the condition is present in the solution, whilst the notation in normal script (i.e. 'c5') indicates that the condition is absent in the solution. The "\*" symbol refers to the logical 'and'. The letter 'c' or 'C' indicates 'cluster'.

Ideal type 2 points to a very different role for state actors in these arrangements. Contrary to ideal type 1 it indicates that through very active roles in the development and implementation of these arrangements, combined with their power as customer, state actors can have a positive impact on these arrangements. What is of particular interest in this ideal type is that it points out that such active support does not have to be in the form of financial support, which somewhat contradicts a part of the literature on this type of arrangements.<sup>56</sup> The following quote further stresses this insight:

As an organisation like ours [state actor X], you are able significantly to influence the market. Even without financial incentives, there is much to be achieved by connecting people and organisations and by disseminating research findings. You know, we are a recognized name. We are an independent and trustworthy source of information. (int. 75; representative of a public agency at arm's length from a Ministry)

#### 4.3 Sufficient conditions for negative results

The data can, of course, also be studied to understand more clearly what ties together the cases that have not achieved positive results for the outcome under scrutiny. Again the data are logically reduced following Section 4.2. Table 6 gives a summary of the findings.<sup>57</sup>

Table 6 indicates that again two paths lead to the outcome of interest. The solution consistency (0.86) and the solution coverage (0.95) may be considered high,

<sup>56</sup> Croci 2005.

<sup>57</sup> For a discussion of this analysis, see the supplementary file, steps 7 to 9. Appendix B provides the truth table for this analysis.



i.e. the solution strongly relates to the outcome, and the solution is of high empirical importance in reaching the outcome.<sup>58</sup>

Again these two paths represent ideal types. They can be read as:

- *Ideal type 3* (cluster5)<sup>59</sup>: innovative governance arrangements in which state actors refrain from actively supporting these as launching customer, participant, or both.
- *Ideal type 4* (cluster1\*Cluster3): innovative governance arrangements in which state actors (i) do not financially reward participants for their performance, but (ii) are actively involved in the setting of participation criteria for these arrangements, the enforcement of these criteria, or both.

Ideal type 3 adds little to what was already found based on the earlier analysis. It further stresses a key aspect of ideal type 1: the importance of the role of state actors as participant or launching customers of these types of governance arrangements if they seek to achieve positive outcomes from such arrangements. Ideal type 4, however, adds an intriguing insight to the findings from the earlier analysis. This ideal type may be understood as a situation in which state actors ask too much of their participants and reward them with too little. Whilst this is an interesting empirical insight in itself, the uncovering of ideal type 4 is also of importance for future studies on innovative voluntary governance arrangements: it indicates asymmetry in how the conditions (the roles of government) are related to the outcome studied.

Ideal type 3 (related to negative outcomes) is, in part, the inverse of type 1 (related to positive outcomes), pointing out symmetry related to the role of state actors in the role of launching customer. That is, in ideal type 3 the absence of state actors in the role of launching customer is related to negative outcomes, whilst in type 1 the presence of state actors in this role is related to positive outcomes (when combined with an absence of state actors in the roles of rule setter and enforcer).

However, ideal type 4 (related to negative outcomes) is not the inverse of either ideal type 1 or ideal type 2 (both related to positive outcomes). This indicates that the presence of state actors in a particular role should not be expected to result in an opposite outcome to the absence of state actors in that role. Here the role of state actors in financially supporting arrangements is of interest: whilst its presence does not arise as part of either of the two ideal types related to positive outcomes, its absence is part of an ideal type that is related to negative outcomes. In other words, in studying, designing and implementing innovative governance arrangements, no assumptions of such symmetry should be made. I will return to this issue in the concluding paragraph.

58 Schneider & Wagemann 2012.

59 In analysing whether any of the conditions may be necessary for the result 'not outcome' the 'absence of Cluster 5' shows a high consistency score (0.90) and a high coverage score (0.90). However, the data is skewed towards high scores for both the condition and the outcome, indicating that this is a trivial necessary condition (cf. Schneider & Wagemann 2012).

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## 5 Discussion and conclusion

In sum, this study has uncovered a series of ideal types of clusters of roles that state actors may wish to take up, or refrain from, if they wish to achieve positive outcomes from innovative governance arrangements such as the ones studied here. Yet, before discussing the results in further depth, some reflection on the study is appropriate. As with all empirical research, a number of caveats apply. The study only considered how state actor involvement in three types of innovative voluntary governance arrangements that seek to improve the environmental and resource sustainability of buildings in the Netherlands affects their outcomes. Therefore, the results of this study cannot be exported to other contexts (i.e. other countries or sectors) or other designs without carefully analysing what differences in the contexts and designs may further affect the outcomes of these arrangements.<sup>60</sup> Future research in other contexts (for instance innovative voluntary governance arrangements that seek to improve environmental sustainability in other countries, or innovative voluntary governance arrangements in other sectors in the Netherlands) or in a different set of designs of innovative voluntary governance arrangements may give insight into the generalizability of the findings presented in this article.

That said, the study has provided a number of novel insights on the role of state actors in innovative voluntary governance arrangements. First, the analysis reveals that none of the distinct five clusters of roles is necessary for (not) achieving the outcome under scrutiny. The analysis also reveals that with the exemption of the cluster ‘Governance by doing’, none of the distinct five clusters of roles is sufficient for (not) achieving the outcome under scrutiny. The analysis further reveals that for the most part the different clusters studied interact in causing their effects (i.e. conjunctural causation). This is a relevant finding because it indicates that state actors should choose their roles in these innovative governance arrangements very carefully. That is, the positive impact of state actor involvement in one role may be cancelled out when that state actor is also involved in another role. For instance, absence in the cluster ‘Old governance’ only affects the outcomes of these governance arrangements positively when combined with involvement in the cluster ‘Governance by doing’ (i.e. ideal type 1).

Second, the analysis reveals that the different ideal types may cause similar outcomes (i.e. equifinality). This is again a relevant insight because it indicates that state actors can choose from a range of options if they seek to be involved in innovative governance arrangements (and aim for positive outcomes from these, or seek to prevent negative outcomes). For instance, state actors unwilling to refrain from taking up ‘Old governance’ roles in those governance arrangements (which rules out ideal type 1) can still opt to take up roles in the combined clusters ‘Making participating easy and attractive’, ‘Big picture governance’, and ‘Governance by doing’ (ideal type 2). Or, at the very least, they may decide not to combine their involvement in ‘Old governance’ with not giving monetary incentives

60 Also Borck & Coglianese 2009.

(i.e. an absence in the role 'Providing monetary incentives') as this particular combination of roles is unlikely to result in positive outcomes (ideal type 4).

Third, the analysis reveals that the effects of state actor involvement in the different clusters of roles are not symmetrical. That is, the absence of state-actor involvement does not necessarily cause the inverse outcomes of its presence. This is a relevant finding because it highlights that state actors cannot solve a problem (e.g. undesired outcomes of an innovative governance arrangement) simply by doing the opposite of what they are doing. For example, whilst the absence of state actor involvement in the cluster 'Governance by doing' is unlikely to result in positive outcomes (ideal type 3), the mere presence of state actors in this cluster of roles is not sufficient to achieve positive outcomes. Only when combined with other roles (or the specific absence thereof) may state actor activity in the cluster 'Governance by doing' be expected to result in positive outcomes (ideal types 1 and 2).

In sum, from a study of ten innovative voluntary governance arrangements with limited variation in design and all implemented in a similar context, we learn that it is extremely difficult to draw general conclusions on such arrangements. Because of the above considerations, care needs to be taken in applying the evidence-based typology presented in this article, or those derived from even smaller studies or studies that are so broad that too many conditions (design, context, role of the state) may be related to the outcomes.

This is where the strength and weakness of QCA becomes apparent. The data asymmetry, equifinality and conjunctural causation uncovered in this article warns scholars against over-claiming insights derived from single or very small case studies. It also warns scholars not to expect too much when singling out a single variable or a small number of explanatory variables in very large comparative studies. The strength of QCA methodology is that it can give some comparative insight into the real world complexity of the type of governance arrangements studied in this article.

At the same time, the risk of applying QCA is that it may too easily result in oversimplified conclusions: it can only deal with a handful of conditions that are expected to be related to an outcome and still a considerable number of cases are needed for the analysis. Yet, the more cases one includes in the QCA analysis, the more likely it is that conditions other than those of interest will influence the outcome of the study, e.g. conditions related to the context or design of governance arrangements. Therefore, QCA is no 'miracle method'. It does, however, help to bring clarity in and understanding of a medium-n study, for instance through an evidence-based typology as in the current article, which may be the starting point for follow-up studies.

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