Constructing assessment indicator dashboards for evidence-informed policymaking: Insights from the perspective of public administration, institutions, and governance
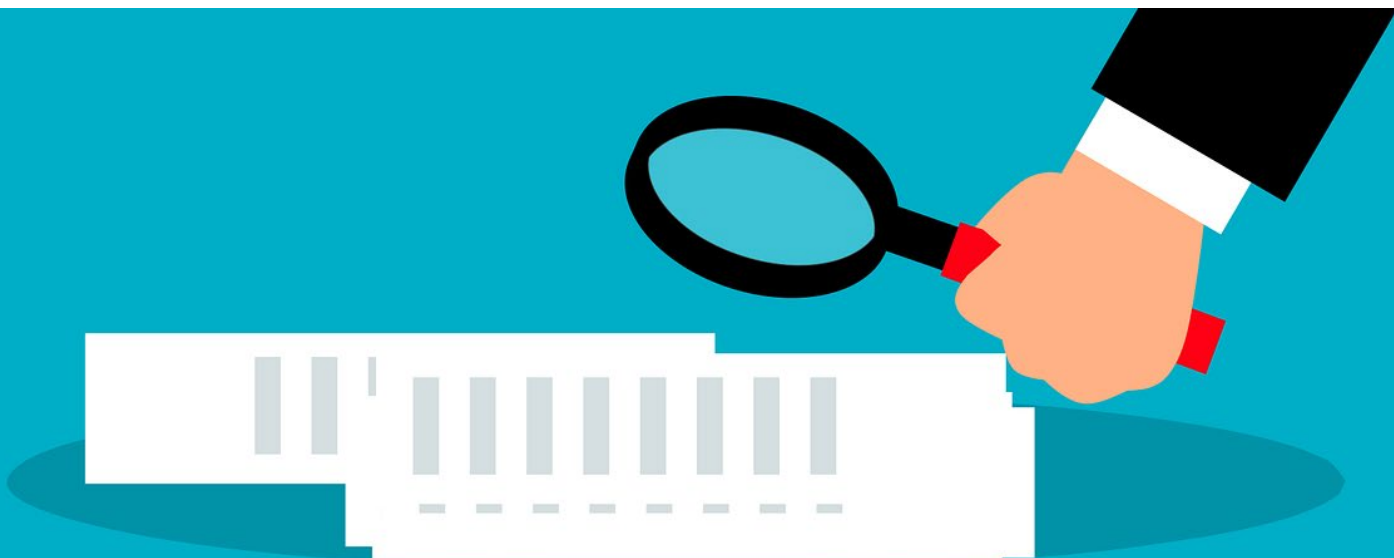
Contents

Foreword

In line with its role as the European Commission's science and knowledge service in support of EU policymaking, the Joint Research Centre (JRC) has launched several activities that aim at strengthening and connecting science for policy ecosystems within EU Member States. As policy issues become increasingly complex and interconnected and politics ever more polarised, robust institutions that ensure that scientific knowledge is mobilised, synthesised, translated for, and integrated into the policymaking process become increasingly relevant.

In this work, the JRC benefits from the input provided by professionals working about and/or at the science-policy interface across Europe, from public servants in ministries, government agencies, Parliaments, and government research funding bodies to staff of public and private research institutes, universities, national academies, learned societies, research councils, think tanks, committees, scientific networks, and publishing houses. Through surveys, commissioned studies, and participatory workshops, the JRC seeks to stimulate a vibrant debate about structures, networks, processes, and practices underpinning evidence-informed policymaking across Europe.

To inform and structure the debates about capacity building in support of robust, interconnected science for policy ecosystems, one strand of this work focuses on developing, together with an interdisciplinary group of experts and practitioners, an evaluation framework for the institutional capacity of such ecosystems. Through a combination of commissioned studies, participatory events, and pilot studies, the JRC aims to provide a playbook that support policymakers and other stakeholders at the science-policy interface in designing an evaluation process for the institutional ecosystem that connects scientific research with policymaking processes.

You are about to read one of the studies that we commissioned to develop this playbook. We welcome any feedback that you can share via JRC-E4P-ECOSYSTEM@ec.europa.eu.

We also warmly invites you to join our 1,600+ member strong "Science for Policy Ecosystems" community (https://knowledge4policy.ec.europa.eu/evidence-informed-policy-making/topic/science-policy-ecosystems_en).

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June 2022

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Summary

This paper approaches the effectiveness of evidence-informed policymaking mechanisms mainly from the perspective of policymakers (the 'demand side'), and in academic terms, from the perspective of public administration, public management and (sustainability) governance disciplines. After a brief Introduction (section 1), we discuss mindsets and causality issues (2.1), miscommunication due to parallel discourse models (2.2), organisational conditions to improve science uptake (2.3), and how governance styles represent different traditions and values in different countries, which need to be managed to get optimal results in a specific situation (through the use of governance of governance or metagovernance) (2.4). Section 2 proposes three attributes for effective science to policy systems, namely (1) to need to establish science-policy boundary mechanisms, (2) to have discourse analysis skills and (3) to have metagovernance capacity in place. In section 3, we propose 12 additional attributes, based on applying the 11 UN principles of effective governance for sustainable development. Without prejudice to a weighing exercise that could take place in the context of the JRC workshop, we could imagine that attributes 1-7 are more central, and that 8-15 might be merged into a smaller number of attributes. Section 4 suggests that a qualitative scoring approach for these attributes could be used, as elaborated as example in the table below for three attributes:

Attributes	Assessment/scoring			
	1	2	3	4
1 **Intermediary / boundary mechanisms**	A dedicated intermediary body exists	The intermediary body meets regularly	Regular and open interaction with policymakers exists	Composition is balanced (experts and stakeholders)
2 **Discourse analysis skills**	Policymakers are trained to be aware of discourse conflicts	An 'early warning system/place' for discourse conflicts exists	Discourse conflicts are addressed at science-policy workshops/ meetings	Discourse conflicts are reported in e.g. regulatory impact assessment reports
3 **Metagovernance capacity**	Policymakers are trained to be aware of governance style conflicts	Managers are responsible for optimising the governance mix for science and policy	Science and policy mechanisms combine the three key features (authority, trusted, cost-effect)	Metagovernance is used to design and maintain an effective, reflexive, and adaptive science-policy system
4 **Competence on science-to-policy challenges**				
5 **Transdisciplinarity**				
6 **Functioning (regulatory) impact assessment system**				
7 **Joint fact-finding mechanisms**				
8 **Integrity mechanisms**				
9 **Transparency**				
10 **Independent oversight**				
11 **Pro-active inclusiveness**				
12 **Accessibility**				
13 **Participation mechanisms**				
14 **Multilevel governance**				
15 **Foresight mechanisms**				

Finally, section 5 shortly discusses measurement methods and suggests being careful when focusing on indicators: joint assessment mechanisms (i.e., one step beyond joint fact finding) might deliver better results. An example is given where the main added value of a formal indicator is that it has stimulated a structured conversation within a government administration, across different ministries, and between countries, on how to

improve performance. We conclude that maybe we do not always need indicators, as we can organise fruitful conversations also directly based on the attributes. Combining is also an option: running indicator-based assessments every 2-3 years and link them to regular conferences and/or peer learning sessions on science to policy, in and across member states.

1   Introduction

To help EU Member States to strengthen and connect institutional capacity for evidence-informed policymaking (EIPM), JRC will develop an indicator dashboard for evaluating the use of evidence for policymaking, involving experts, practitioners and stakeholders. The dashboard should help identify areas for investment, partners in other MS with similar problems, and good practice in certain areas in the MS for mutual learning processes, as well as guide the EU's support of capacity building actions taking place within MS.

This paper contributes to the development of the dashboard by presenting key insights from research and practice, from the perspective of public administration, institutions, and (sustainability) governance. Annex 1 gives proposed definitions of governance and related key terms.

During the preparation of the paper, several fruitful discussions have been held between JRC officers Kristian Krieger and Lorenzo Melchor, the experts who wrote parallel papers, Kathryn Oliver and Roger Strand (Oliver 2022, Strand 2022), the author of this paper, Ingeborg Niestroy, and her collaborator Louis Meuleman. We have not tried to prevent overlaps: while the three papers follow their own logic and should be seen as complementary, there are strong links in some aspects (e.g., on metagovernance and the 5-star system).

The structure of the paper follows the eight questions formulated in the Terms of Reference, with a slightly changed order. The question of scoring and measurement (what do we want to measure (and how)?) needs to be dealt with prior to the question on indicators, and we did not dive into data issues.

We address knowledge input and the science – policy – society interface as one element of governance for sustainable development and the SDGs. We also discuss the function of metagovernance (i.e., governance of governance) for implementation and adapting concepts in different contexts: Although there are common goals, countries have different starting points which lead them to different pathways). In other words: the principle of "common but differentiated governance" (CBDG) applies (Meuleman and Niestroy 2015).

We base our reflections on experience with empirical research at this higher level of granularity, including in particular on one institutional arrangement for the science police society interface (advisory expert/multi-stakeholder councils) and one classic instrument for it (impact assessment). Against this background, we can draw the preliminary conclusion that sketching out such (differentiated) pathways will require:

1. Closing an interdisciplinary gap in research, namely linking analysis of public administration systems with R&I systems: which variables (in the PAG system) are leading to what on the R&I side (which are the dependent and independent variables)? [1]

2. An analysis of the science-policy ecosystem in different countries as researched by JRC in the last 2 years. Due to the different models and ecosystems for the science policy interface the approach will have to be inductive (starting with empirical analysis).

3. Giving more attention to the transdisciplinary aspect, i.e., the societal leg in the triangle science-policy-society, including – more concretely – the inclusion of different kinds of knowledge in research design and production. The latter will, inter alia, increase the knowledge base and acceptance.

Without such a more solid basis there is limited guidance for describing a direction like for the 5-star model [presented by Roger Strand in a parallel paper (Strand 2022)] or similar assessments as we will present in section 2 (and with this also identifying or constructing indicators - see presentation of experiences in section 4. And the discussion on indicators in section 5).

In sections 2 and 3, various attributes are proposed for an effective science for policy (advisory) system. These attributes, which are numbered and in boxes, are derived based on the analysis of some systemic issues (section 2) and on the 11 CEPA principles of effective governance for sustainable development, introduced in section 3.1.

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[1] Even within the public policy discipline the relations between evidence and policy are treated in very different literatures that have often remained disconnected (Blum and Pattyn 2021).

2 Public administration and governance: systemic issues around the uptake of evidence by policymakers

2.1 Mindsets, coincidence and causality

The worlds of policymakers and of science are very different, and when they meet it is also a clash of mindsets, between the "wisdom" of science and the (at least, seemingly) fuzziness of policymaking and governance (Meuleman 2015). Figure 1 illustrates some typical bottlenecks and conflicts in the relation between science and policy.

Figure 1. Bottlenecks between the realms of politics, policymaking and useful research

Source: After In 't Veld 2000 (Meuleman 2013, p18)

The thunderbolts are places in the science-policy system where the articulation of the demand for knowledge, or the utilisation of knowledge can be problematic. A typical conflict between policy and science arenas emerges when a political question translated into a too narrow knowledge demand, excluding alternative evidence tracks because they are not politically welcome. In the Netherlands, industrial agriculture causes such high nitrogen deposition on soils that biodiversity protection has become impossible. For decades it has been politically not feasible to address the main cause, namely overproduction in relation to acceptable pollution levels. Knowledge demand was steered towards technological innovation and optimistic modelling of the benefits of future innovations. A decision of the highest administrative court in 2019 resulted in crisis measures on other sources of nitrogen deposition (traffic speed down to 100 km/h, house-building activities blocked), while farmers are being bought out to bring down production level. The problem was not that science could not deliver evidence for adequate measures, but that policy only wanted certain evidence. Such conflicts can also take place within the policy arena. For example, the actual political agenda (e.g. the European Green Deal) may not correspond with the existing policy theories enshrined in laws or in the minds of top civil servants (e.g. that little-regulated markets should first provide the profits needed to invest in green policies). Also, inconvenient truth and new knowledge that attacks existing policy theories will probably not be applied in policymaking.

In order to deal effectively with these obstacles, political will to use scientific evidence is necessary, as well as a solution-oriented attitude among science providers. But at least as important is to have established intermediary mechanisms (formal and/or informal), which are well-connected with both 'sides' (science and policy); take into account these different mindsets; and have the courage to blow the whistle when science-policy relations have become unproductive or even corrupted. This is not a guarantee, however. Around 2010, all special science-policy advisory councils in the Netherlands were abolished. Likewise, around the same time, the UK government abolished the Royal Commission for Environmental Protection and the Sustainable Development Council. These councils had in common that they had published politically unwelcome reports.

An effective science - policy system has intermediary / boundary mechanisms to connect both sides and bridge their different mindsets.

An important challenge to the uptake of evidence in policy processes is that policymaking processes are usually not fully linear and not fully rational. The 'garbage can model' (Cohen, March, and Olsen 1972) according to which many political decisions emerge from unpredictable and coincidental meetings of problems, solutions and actors, represents real-life policymaking sometimes better than the rational policy cycle model.

Moreover, a policy is rarely the only impact on a defined societal problem, and therefore causal relations between policies and their impacts are often difficult to identify. Successful decisions on the response to natural disasters have been taken without a solid evidence base. The decision of German unification has been based more on the political intuition that it was inevitable, than on scientific evidence. The other way around, unsuccessful decisions based on economists' predictions are abundant.

Many have tried to develop rational decision-making models – but they just cannot describe the value-driven, in some ways opportunistic and seemingly erratic political decision-making in parliamentary democracies. Scientific evidence can be welcome, unwelcome, or met with indifference, depending on, for example, whether the evidence supports or undermines a policy option, which is in a certain situation and time the only politically feasible solution to a societal problem (Meuleman 2012; Meuleman and Tromp 2010). It is important to recognise, also from the impact assessment domain, that "rationalising the policy mess" (Hertin *et al.* 2009) is a permanent challenge.

Science can also be influenced by politics. Policy-relevant facts are often the result of an intensive and complex struggle for political and epistemic authority on both sides, resulting in evidence-based policy turning into policy-based evidence (Strassheim and Kettunen 2014). The same authors have observed that what counts as evidence is defined by institutionally and discursively established conventions that differ between countries and policies.

To conclude, science production and science uptake in policy are governed by two different logics. There are only limited causal relations between science input or uptake in Public Administration and Governance (PAG) systems, and the resulting PAG quality. Thus, the effectiveness of a science for policy / evidence system cannot be measured by assessing the effectiveness of policy processes or the resulting regulatory, participatory or financial institutions and mechanisms. What <u>can</u> be measured, is the input into the system, and whether the policymaking process is evidence-informed and enables the active participation of society. As argued above, that is not the same as assessing whether policymaking leads to successful societal outcomes, but it can still be meaningful in as far as it makes policies more evidence-informed.

2.2   Ineffective communication: parallel discourses

Boundary work between science and policy can be hampered by misunderstanding discussions between actors who are caught in different discourses with different assumptions. Hoppe (2005)[2] illustrated this with six prominent discourse types between science and policy arenas, which he defined as "systematized versions of how actors conceive of the division of labour between science and politics". Figure 2 plots these discourses on two axes: the horizontal axis varies between primacy for science (left) and for policy (right). The vertical axis represents whether the logics expressed in the discourses are divergent (approx.: power-oriented (top)) or convergent (approx.: consensus-oriented (bottom)). The chart is a means to understand with what different mindsets actors in the science-policy discourse argue their views. It can be used to map key actors and reveal why they may not understand each other.

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[2] http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1034.3934&rep=rep1&type=pdf

Figure 2. Sources of miscommunication between science and policy: discourses based on different mindsets.
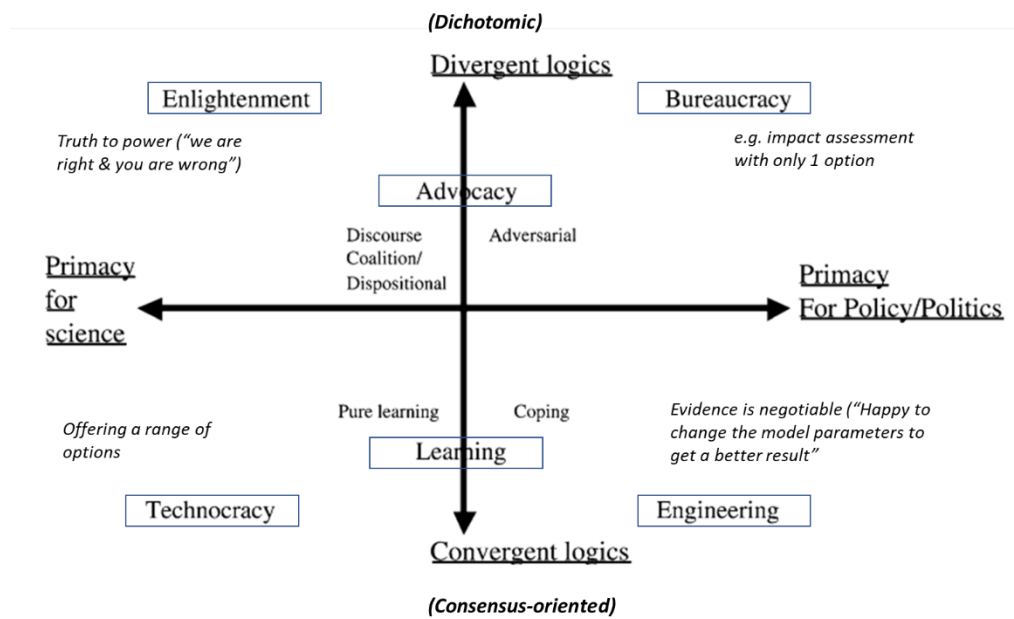
Source: adapted from (Hoppe 2005).

Below are short descriptions of the six models taken from Hoppe (2005); more in-depth description can be found in his paper, and this certainly deserves more discussion. The main message however is that there are different mindsets within and between science and policy arenas, which can hamper science to policy relations and should therefore be addressed explicitly.

> *"Two models presuppose the primacy of science. The enlightenment model emphasizes the separation between politics and science (divergence) and unambiguously opts for the primacy of science. Science leads to the gradual progress of objective knowledge of truth. The technocracy model, like the enlightenment model, stresses the primacy of science in its relationship to politics. However, technocrats believe in strong convergence between science and politics. Since their societal functions are essentially the same, there can be no objections against scientists or scientifically trained persons as administrators or central policymakers on vital positions of power.*
>
> *Two models presuppose the primacy of politics. The bureaucratic model embraces the divergence between politics and science in a very specific form. As is well known, the bureaucracy model is grounded in the politics-administration dichotomy. 'Administration' is taken to be any governmental action, which is informed by a body of scientific or professional knowledge, irrespective of political judgment. Like the bureaucratic model, the engineering model is grounded in the idea of the mobilization of knowledge from society at the service of the state. But unlike the bureaucratic model, the engineering model does not seek to incorporate knowledge and knowledge workers in state institutions.*
>
> *Finally, two types of models presuppose not primacy, but dialogue. Advocacy models are characterised by each voice in the political arena being considered an advocacy plea in favour or against positions defended by other political actors. Science is not an exception, but part of the regular political struggle over which view wins out in defining the public interest. Learning models differ from advocacy models in the way and purpose of 'equalizing' both institutional spaces. In advocacy models, science is considered one among multiple political voices that enable political debate, judgment and decision. In the learning models, all actors are constructed as 'inquirers' engaged in a process of social learning through social debate."*

These six models contain different assumptions on the subject and on the views of the participants in the science-policy equation. If this is not made transparent, creating an effective science to policy relationship will be difficult. Therefore, awareness and the skills to connect the different discourses should be an attribute for effective science to policy relations.

In an effective science to policy system, on both sides (science, policy), there should be an understanding of the different discourses that are possible and can create misunderstanding and tensions.

2.3   Policymaking conditions to improve science uptake

In their research on how scientific knowledge can have an impact on policy concepts, Edler, Karaulova, and Barker (2022) conclude that most literature has been focusing on improving the 'supply' side (science) and not the 'demand' side (policymakers). Table 1 addresses common knowledge challenges for the policy side and what is needed to improve the position of the demand side, by e.g. making sure that entry points like inspection systems are being used. For example, at the stage of decision-making on a legislative proposal to ban single-use plastics, it is essential for the acceptance of the decision that possible negative impacts are known and anticipated. Without ex-ante regulatory impact assessment, covering cost-benefit and risk assessments and other types of assessments, one cannot be certain that most or all impacts are identified. Such impact assessments – with a broad sustainability scope - are obligatory for the EU institutions, but this is not the case in all EU member states.

Table 1. Scientific knowledge challenges and needs during the policy process.

Policy stage	Common Knowledge Challenge	Knowledge need and entry point
Agenda setting	Need and legitimacy for public action and its direction. Unclear or excessive policy goals	Understanding the nature of an issue and its formulation as a policy problem
Policy formulation	Investigate causes and probable effects of policy alternatives to deal with "wicked" problems	Sufficient insights into causation mechanisms and alternative solutions
Decision-making	Failing to anticipate adverse or unintended policy consequences	Cost-benefit and risk assessment of different policy options
Policy implementation	Overcoming lack of funding, principal-agent problems, oversight failures, etc.	Monitoring and inspection systems, learning support
Policy evaluation	Appropriate learning, functional monitoring and feedback	Adequate measurement and reflection techniques

Source: (Edler, Karaulova, and Barker 2022) modified from Howlett (2009) and Strassheim (2018).

2.4   Governance, governance styles and metagovernance

In order to understand science to policy mechanisms we need an understanding of governance. Policy and governance are two sides of the same coin. If **policy** is about *what* and *when* (the goals, targets, milestones), then **governance** is about *how* (which tools, instruments, processes) and *who* (actors, stakeholders) (Meuleman 2021). Governance can then be defined as *"the totality of interactions in which government, other public bodies, private sector and civil society participate (in one way or another), aimed at solving public challenges or creating public opportunities"* (Meuleman 2008).

How national government systems take up (or not) evidence can among others be explained using the analytical lens of ideal-typical **governance styles** which usually appear in mixtures which align best to values and traditions in a country. Governance styles can be defined as *"the processes of decision-making and implementation, including the manner in which the organisations involved relate to each other"* (Kersbergen and Waarden 2004). Many scholars distinguish three basic governance styles which have their own values, logics and tools: hierarchical, network and market governance (see e.g. (Barnett 2021; Howlett, Capano, and Ramesh 2021; Kooiman 2003; Meuleman 2008; G. Peters 1998; Pollitt and Bouckaert 2011).

The three styles have a strong internal logic and can be synergetic (e.g., hierarch/rules to strengthen a network-type joint fact-finding process), or undermining (e.g., hierarchy promotes reliability which can be inflexible, while market governance promotes flexibility). They represent different ways of thinking about the role of knowledge

for policymaking, and have their specific strengths and weaknesses (Figure 3). This includes different strategies to undermine unwelcome evidence, by undermining the authority of the researcher (hierarchical governance)[3], undermining the trustworthiness of the researcher, and/or undermining the cost-effectiveness of research and studies. Authority has a different meaning in a high-trust society than in a low-trust society. In a high-trust society, authority logically comes with trust (and leaves quickly when trust turns into distrust). In a low-trust society, authority comes with a position (famous professor, famous university, former prime-minister, etc); trust has little to do with it.

Figure 3. Roles of knowledge under three typical governance styles.

Source: Own compilation.

The three governance styles have different operational forms on at least 50 features (Meuleman 2018), some of which are important for science to policy ecosystems (Table 2).

Table 2. Views on governance of evidence linked to governance styles.

	Hierarchical governance	**Network Governance**	**Market Governance**
Epistemological lens	Natural-structuralist	Hermeneutic-structuralist	Naturalist-agency
Theoretical background	Rationalism, Positivism	Social constructivism, social configuration, theory, contingency theory	Rational choice theory, Public choice, Principal-agent theory
Mode of calculation	Homo hierarchicus	Homo politicus	Homo economicus
Usable knowledge	Authoritative knowledge	Agreed, shared knowledge	Cost-efficient knowledge
Relations	Dependent	Interdependent	Independent
Actors	Subjects	Partners	Clients
Coordination through	Control and authority	Trust and empathy	Price
"Dark side"	Abuse of power Nepotism	Abuse of trust Manipulation	Abuse of price and individualism Corruption

Source: (Meuleman and Tromp 2010).

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[3] This (undermining authority) is the main purpose of the four-step method to undermine any research report, as presented in the BBC satirical TV series "Yes, Minister" (see as from 9'55) – made in the 1980s but still spot-on.

Since all three governance styles have their own strengths, failures and drawbacks, and usually appear in combinations, which influences the performance of science to policy systems, it is relevant to know that public managers can practice what is called **metagovernance** (Jessop 1997, Meuleman 2008); they do this intuitively or consciously. A metagovernance approach helps overcoming the weaknesses of the culturally dominant governance style (mixture).

Metagovernance (governance of governance) is about designing and managing situationally workable combinations of the three governance styles. It can be defined as "*a means by which to produce some degree of coordinated governance, by designing and managing sound combinations of hierarchical, market and network governance, to achieve the best possible outcomes from the viewpoint of those responsible for the performance of public sector organizations: public managers as 'metagovernors'*" (Meuleman 2008). The basic logic of metagovernance is one of oversight and balance (Pierre and Peters 2021).

What metagovernance means in practice depends on how governance is defined. The two main approaches in academic literature indeed focus on different aspects of governance. The mainstream approach of metagovernance looks at the complete 'governance toolbox', with hierarchical, network and market values, principles, mechanisms and tools.[4] A second approach takes a partial approach and focuses on network governance.[5] Governance is then managing networks, while metagovernance is a way to strengthen/improve the management of networks. This approach is mainly used in Denmark and other Scandinavian countries, and is based on mostly local case studies where networks of practitioners and stakeholders play a central role (see e.g., Sørensen and Torfing 2017). As the applicability of this approach is culturally limited to countries with an underlying network culture (see e.g. Kickert 2003), we need the broader approach of governance to be able to present appealing elements for all EU countries, we will need the broader approach of governance, and for being able to navigate different pathways.

Annex 1 elaborates these key terms a little further.

ATTRIBUTE 3. METAGOVERNANCE CAPACITY

To conclude, the capacity (willingness, skills, knowledge, mechanisms) to design and implement functional combinations of governance styles to support the performance of science to policy systems, in a culturally sensitive way, i.e. applying metagovernance, seems to contribute to making science to policy ecosystems effective. Therefore, metagovernance capacity should be an attribute of a science for policy system.

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[4] The approach in Strand (2022) comes close to this, as he distinguishes hierarchy and networks, but does not mention the market governance style.

[5] The approach in Oliver (2022) seems to focus on the network governance approach.

3 Conceptual model

3.1 What widely generalizable attributes does a science for policy / evidence advisory ecosystems need to have?

A normative policy framework for the quality of public institutions is the UN 2030 Agenda's Sustainable Development Goal 16, adopted by all UN member states and the EU. It calls for effective, accountable and inclusive institutions.[6] These three conditions form the headline principles for the eleven principles of effective governance for sustainable development, proposed by the UN Committee of Experts on Public Administration (CEPA) in 2018 and endorsed by the UN ECOSOC Council.[7] Effectiveness, accountability and inclusiveness are also key attributes of a science for policy / evidence advisory ecosystem, from a public administration and governance perspective.

3.1.1 Effectiveness

Under the headline principle of effectiveness, three more specific principles are distinguished:

— **Competence**: To perform their functions effectively, institutions are to have sufficient expertise, resources and tools to deal adequately with the mandates under their authority.[8]

ATTRIBUTE 4. COMPETENCE TO DEAL WITH SCIENCE TO POLICY CHALLENGES

A professional public sector workforce, strategic human resources management, leadership development and training of civil servants, should cater for a basic understanding of knowledge systems and science to policy relations.

— **Sound policymaking**: To achieve their intended results, public policies are to be coherent with one another and founded on true or well-established grounds, in full accordance with fact, reason and good sense.

ATTRIBUTE 5. TRANSDISCIPLINARITY

The JRC concept note argues that policies and regulations can be better designed if scientific knowledge helps better understand a policy issue (conceptual use) and identify a wide range of policy options with different costs, benefits, consequences (instrumental use). This should not be interpreted as if only scientific knowledge fulfils these functions. In practice, also non-scientific knowledge based on practical experience from various stakeholders plays a role, as well as knowledge based on interpretation of statistical data. In reality, therefore, evidence-informed policymaking is using transdisciplinary knowledge, and science-policy systems require a built-in transdisciplinary scope to be effective.

ATTRIBUTE 6. A FUNCTIONING, COMPREHENSIVE EX ANTE (REGULATORY) IMPACT ASSESSMENT SYSTEM

Regulatory impact assessment systems, and the European Commission's Impact Assessment system with its integration of regulatory, economic, environmental and social impacts and since 2021 also the Sustainable Development Goals and foresight as internationally acknowledged excellent example, have developed as one of the most important institutional mechanisms for bringing science to policy. Having such a system – not only on paper but functioning - is therefore an essential attribute of a science to policy system.

— **Collaboration**: To address problems of common interest, institutions at all levels of government and in all sectors should work together and jointly with non-state actors towards the same end, purpose and effect.

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[6] Target 16.6: "Develop effective, accountable and transparent institutions at all levels".

[7] https://publicadministration.un.org/en/Intergovernmental-Support/CEPA/Principles-of-Effective-Governance

[8] Source of the descriptions of the principles: https://publicadministration.un.org/Portals/1/Images/CEPA/booklet.pdf

A collaborative science for policy system would have mechanisms to organise joint fact-finding processes about, among others, which knowledge is disputed (and why), and which is commonly agreed. This is essential information for policymakers, if they want to prevent long delays caused by disputes about evidence (see e.g. the report on five case studies in the Netherlands, In 't Veld 2000).

3.1.2 Accountability

Under the headline principle of accountability, three specific principles are distinguished. All three principles could be considered as attributes of accountable science-to-policy systems.

— **Integrity**: To serve in the public interest, civil servants are to discharge their official duties honestly, fairly and in a manner consistent with soundness of moral principle.

ATTRIBUTE 8. INTEGRITY MECHANISM

An accountable science for policy system should have mechanisms to prevent corruption, such as codes of conduct for public officials, conflict of interest policies, and whistle-blower protection.

— **Transparency**: To ensure accountability and enable public scrutiny, institutions are to be open and candid in the execution of their functions and promote access to information, subject only to the specific and limited exceptions as are provided by law.

ATTRIBUTE 9. TRANSPARENCY

In order to be accountable, a science for policy system would need to include proactive disclosure of information, provisions to maintain sources of data and knowledge transparent; policymakers who understand key concepts of evidence such as the use of primary or secondary sources, or the difference between research and a study. An open data policy would be a key functionality.

— **Independent oversight**: To retain trust in government, oversight agencies are to act according to strictly professional considerations and apart from and unaffected by others.

ATTRIBUTE 10. INDEPENDENT OVERSIGHT

In order to be accountable, a science for policy system needs to include independent oversight mechanisms such as – in the context of regulatory impact assessment – impact assessment boards, and in the wider context of effectiveness of science-to-policy relations, Supreme Audit Institutions. In addition, also less formalised, participatory oversight approaches are possible, for example by using peer review and/or an evidence ombudsman approach (see e.g. Hines and Brand (2021)).

3.1.3 Inclusiveness

The headline principle of inclusiveness contains five more specific principles. Each of them could be linked to an attribute, but it may also be possible to integrate them into one overall 'inclusiveness' attribute.

— **Leaving no one behind**: To ensure that all human beings can fulfil their potential in dignity and equality, public policies are to take into account the needs and aspirations of all segments of society, including the poorest and most vulnerable and those subject to discrimination.

ATTRIBUTE 11. PRO-ACTIVE INCLUSIVENESS

A science for policy system needs to be aware of possible exclusion of e.g. unorganised and/or vulnerable societal interests. This means taking into account epistemic diversity: the existence of a diversity of knowledge, and the recognition of and respect for such diversity (Xu 2022).

— **Non-discrimination**: To respect, protect and promote human rights and fundamental freedoms for all, access to public service is to be provided on general terms of equality, without distinction of any kind as to race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth, disability or other status.

ATTRIBUTE 12. ACCESSIBILITY

A science for policy system needs to be accessible based on equality.

— **Participation**: To have an effective State, all significant political groups should be actively involved in matters that directly affect them and have a chance to influence policy.

ATTRIBUTE 13. PARTICIPATION MECHANISMS

A science for policy system needs to be supported by a regulatory process of public consultation, as well as multi-stakeholder forums or similar structural mechanisms for stakeholder participation.

— **Subsidiarity**: To promote government that is responsive to the needs and aspirations of all people, central authorities should perform only those tasks which cannot be performed effectively at a more intermediate or local level.

ATTRIBUTE 14. MULTILEVEL GOVERNANCE

A national science for policy system needs a mechanism to ensure that knowledge which is produced or available only at e.g. local level, will be included in the knowledge base for decision-making.

— **Intergenerational equity**: To promote prosperity and quality of life for all, institutions should construct administrative acts that balance the short-term needs of today's generation with the longer-term needs of future generations.

ATTRIBUTE 15. FORESIGHT MECHANISMS

A science for policy system needs provisions to ensure that long-term impacts are taken into account. Integration of foresight in regulatory impact assessment (obligatory now at the level of EU institutions) should become the rule.

3.2 Are the attributes "abstract" enough to be relevant in different politico-institutional, politico-cultural settings?

The attributes in 3.1 are relevant in different politico-institutional-cultural settings, but in different ways and to different extents.

One way to describe these differences is by using the concept of governance styles. For example, the attribute that a science to policy system should be accountable through, among others, independent oversight can have different operational forms in different countries. Generally, preferred mechanisms to ensure oversight in a predominantly hierarchical governance context are 'authoritative', centralised and formalised. In a rather network governance environment, oversight may be organised in a more collaborative form, involving the most important stakeholders in a semi-formalised process. In a market governance context, principles such as competition (ranking, awards) could be used to stimulate self-accountability, or a consultancy could be hired to do the work. None of these accountability types is better than the other but each functions best in a specific governance tradition and culture. This was observed in education systems (Kang and Groetelaers 2018), and is probably also true for science to policy systems.

To further elaborate this with examples, insights can be used from existing EUPACK studies and reports on national PAG systems in the EU, with additional knowledge on PA systems in comparative perspective from Kuhlmann and Wollmann (2019), institutionalising the SDGs in EU countries from Niestroy *et al.* (2019), and using the overview of 50 features of governance which have different operational forms under hierarchical, network or market governance styles Meuleman (2018).

3.3   Science to policy attributes at different levels of organisation

The attributes suggested in sections 2 and 3.1, could play a different role at different levels of the policy organisation (e.g. a Ministry). Table 3 could be used in comparative research to understand strengths and weaknesses of national systems by operationalising it as a SWOT analysis or for scoring, for example. The principles are designed for the quality of public institutions and governance in general. Here we have the specific case of sci-po, therefore these attributes might be weighted differently; most notable, numbers 8-15 might need to be weighted lower than the others.

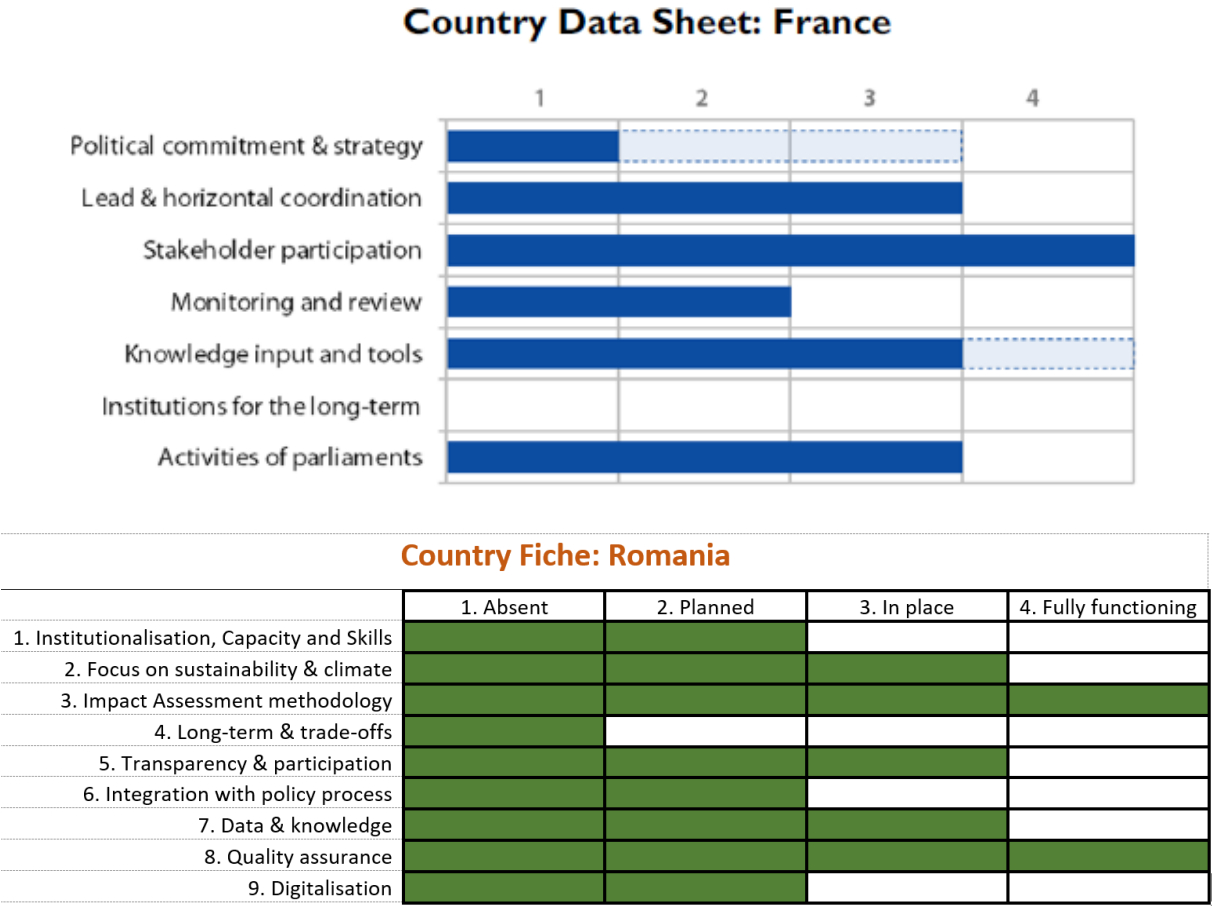**Table 3.** Science to policy attributes related to organisational levels on the policy side.

Attributes	Policy-organisational level			
	Between organisations	Within organisations (senior management level)	Within organisations (policy-makers' level)	Individual level
1 **Intermediary / boundary mechanisms**				
2 **Discourse analysis skills**				
3 **Metagovernance capacity**				
4 **Competence on science-to-policy challenges**				
5 **Transdisciplinarity**				
6 **Functioning (regulatory) impact assessment system**				
7 **Joint fact-finding mechanisms**				
8 **Integrity mechanisms**				
9 **Transparency**				
10 **Independent oversight**				
11 **Pro-active inclusiveness**				
12 **Accessibility**				
13 **Participation mechanisms**				
14 **Multilevel governance**				
15 **Foresight mechanisms**				

Source: Own compilation.

4 Scoring: How do we distinguish different levels/grades of performance?

A dashboard could include assessments of different levels of institutionalisation (for example four levels), for a number of key attributes.[9] Figure 4 shows two recent examples of such a scoring as part of country fiches (with otherwise descriptive content), about integrating SDGs in national governmental and policy processes (Niestroy *et al.* 2019), and of mainstreaming SDGs in regulatory impact assessment systems (Meuleman *et al.*, forthcoming).[10]

Figure 4. Examples of how qualitative performance grades can be presented in a semi-qualitative way.

Country Data Sheet: France

	1	2	3	4
Political commitment & strategy	█	░	░	
Lead & horizontal coordination	█	█	█	
Stakeholder participation	█	█	█	█
Monitoring and review	█	█		
Knowledge input and tools	█	█	█	░
Institutions for the long-term				
Activities of parliaments	█	█	█	

Country Fiche: Romania

	1. Absent	2. Planned	3. In place	4. Fully functioning
1. Institutionalisation, Capacity and Skills	▓	▓		
2. Focus on sustainability & climate	▓	▓	▓	
3. Impact Assessment methodology	▓	▓	▓	▓
4. Long-term & trade-offs	▓			
5. Transparency & participation	▓	▓	▓	
6. Integration with policy process	▓	▓		
7. Data & knowledge	▓	▓	▓	
8. Quality assurance	▓	▓	▓	▓
9. Digitalisation	▓	▓		

Source: Own compilation.

In the first example (EP study, example France), for each of the themes/aspects/dimensions that were assessed, four specific categories were defined (See figure 5 for the theme 'stakeholder participation'). For the theme knowledge input and tools, the focus of the categories was on the use of tools, and just counted the number of tools in place. This is therefore less illustrative than the categories of stakeholder participation, which better shows the degree of institutionalisation. The second study (on SDGs in Impact assessments, example Romania), does not have such specific sub-categories.

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[9] Similar to the 4 star model described in Strand (2022); question is, which visual metaphor comes closest to representing steps/grades in performance?

[10] Meuleman *et al.*, forthcoming: final report of the (ongoing) project Peer to Peer for Sustainability Impact Assessment. www.ps4sd.eu.

Figure 5. Example of performance categories on the stakeholder participation theme of SDG mainstreaming.

	0	1	2	3	4
Q4. Stakeholder participation	No coordination	Consultation on SDS (and/or VNR)	Enhanced process and/or regular participation/ deliberation, some kind of coordination mechanism, forum, or dialogue	Institution or mechanism for multiple stakeholders (e.g. SD council) (a), also linked/ with government (b)	All previous aspects plus additional steps (such as, stakeholder engagement w/ HLPF, speaking slots, additional bodies)

Such a scoring method could be further developed for specific aspects of the subsystem knowledge input / science-policy interface. One such aspect is one institutional model for the science policy interface, namely advisory bodies. This example (Box 1) shows that countries have different pathways, different preferences and strengths and weaknesses, and different response in terms of governance style combinations.

Box 1. Examples of different pathways: advisory bodies for environment & Sustainable Development[11]

Finland has the longest standing multi-stakeholder Sustainable Development Commission – with the task to organise dialogue between stakeholders and (different) government departments, chaired by the Prime Minister. Working Groups were installed for elaborating underpinning analysis and recommendation. Over time, it was realised that a stronger input from science is needed and hence a scientific body was established with advisory function. The transdisciplinary approach (co-design of the research questions, for example) is meant to take place in the interplay between the main multi-SH body and the scientific body. How this works would need to be checked.

The Netherlands is a country traditionally very advanced in such institutionalisation. It was the only one to have a system of specific knowledge advisory bodies. However, there are also pitfalls: It has shown not to be adaptive enough when times become more difficult and problems more wicked (something the country culturally has problems with), and there was an overall lack of strategy and coordination. Stalemates occurred, lead to frustration, and the advisory system was in the end radically reduced, without an alternative being set up. Some of the policy advisory councils have survived, but all knowledge advisory councils had been abolished end of the 2000s, with the Advisory Council on Environment, Nature and Spatial Planning (RMNO[12]) as the last one to be abolished, per 2010.

An example of very same starting point in different context is the establishment of expert environmental advisory bodies in Sweden (Environment Council), UK (the RCEP) and Germany (the SRU) in the early 1970 (NB: we are "celebrating" 2022 the 50th anniversary of the Stockholm Conference – the first UN Environmental Conference). All of them have remained very stable for 40 years, then the financial crisis was a nice occasion for the UK government to dissolve the RCEP, the Swedish government swapped and demonstrated that it is now focussing on other things than environmental protection. Only the German SRU remained and will celebrate its 50th anniversary in May 2022. Along that journey it has itself adapted in work style and communication, remained academic in its composition, but with scientist who themselves are often more policy and society oriented than a traditional academic. The scientific composition was also maintained, because other bodies were added in the system, with a more mixed composition. For strengthening the focus on the science-policy interface, the Science Platform Sustainability 2030 was established some years ago, but is currently in a phase of finding a new strategy, partly due to power struggles between different players.

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[11] Source: Niestroy, I., *et al.* 2019.

[12] The three Ministries who were the 'clients' of the RMNO have not archived the Council's almost 30 year's work, but a small part of it is secured here: https://www.ps4sd.eu/rmno/.

In table 4, the approach shown in Figure 5 of four performance categories is suggested to be used for the proposed attributes of effective science to policy systems. We have elaborated such categories for the first three attributes.

Table 4. Qualitative scoring of attributes: some examples.

		Assessment/scoring			
Attributes		**1**	**2**	**3**	**4**
1	**Intermediary / boundary mechanisms**	A dedicated intermediary body exists	The intermediary body meets regularly	Regular and open interaction with policymakers exists	Composition is balanced (experts and stakeholders)
2	**Discourse analysis skills**	Policymakers are trained to be aware of discourse conflicts	An 'early warning system/place' for discourse conflicts exists	Discourse conflicts are addressed at science-policy workshops/ meetings	Discourse conflicts are reported in e.g. regulatory impact assessment reports
3	**Metagovernance capacity**	Policymakers are trained to be aware of governance style conflicts	Managers are responsible for optimising the governance mix for science and policy	Science and policy mechanisms combine the three key features (authority, trusted, cost-effect)	Metagovernance is used to design and maintain an effective, reflexive, and adaptive science-policy system
4	**Competence on science-to-policy challenges**				
5	**Transdisciplinarity**				
6	**Functioning (regulatory) impact assessment system**				
7	**Joint fact-finding mechanisms**				
8	**Integrity mechanisms**				
9	**Transparency**				
10	**Independent oversight**				
11	**Pro-active inclusiveness**				
12	**Accessibility**				
13	**Participation mechanisms**				
14	**Multilevel governance**				
15	**Foresight mechanisms**				

5 Measurement: How can the attributes be operationalised for measuring the quality / performance of the ecosystem?

5.1 On the role of indicators

The purpose of the exercise for which this paper was written is to develop a science-to-policy dashboard. Indicators can be a means to reach the purpose, but do not have to be the only means. UNAIDS[13], for example, argues that "indicators can be very resource-intensive, requiring more time, money and staff to implement than alternatives. Also, they are not well-suited for collecting information in highly complex environments." In the context of development cooperation, they provided three alternatives:

— **Beneficiary assessment**. Beneficiary assessment is a qualitative approach designed to tap the knowledge of people who are the identified beneficiaries of a particular policy, programme and/or project
— **Focus group discussions**. Focus group discussions are a structured approach to collecting qualitative data from a small group of people drawn from a specific target population.
— **Key informant interviews**. Key informant interviews can be an efficient and effective way to collect information about a given situation and/or topic.

The official (UN) SDG indicators include some on institutional quality (SDG 16) and on policy coherence for sustainable development, and stakeholder involvement (SDG 17). This indicator set which is negotiated annually with UN member states in the UN Inter Agency and Expert Group on the SDG Indicators, and is larger than the Eurostat SDG indicator set. However, specific PAG indicators focusing on science to policy are virtually absent, both in the UN and the Eurostat lists.

The JRC concept note for this exercise rightly argues that the indicators currently in use in relation to governance and regulation draw on a limited number of data sources and methods; most of them rely on a small number of country experts that prepare a report and/or respond to a questionnaire. In addition, "most indicators are perception rather than fact-based, reflecting the fact that many governance issues for which an indicator would be useful elude direct objective measurement."

A case in point is the report in the context of the European Public Administration Country Knowledge (EUPACK) programme of the European Commission, which proposed 14 'low hanging fruit' indicators, linked to five building blocks, and based on analysis in four EU member states (Mackey *et al.* 2021). The building blocks are:

— Policymakers demonstrate their openness to EIPM.
— Policymakers seek to access all available and relevant sources of expertise to inform their decision-making.
— Both policymakers and knowledge generators are willing and able to play active roles in EIPM.
— Policymakers and knowledge generators have formal mechanisms to bring them together.
— Policymakers have processes in place to identify, seek and request evidence to meet their EIPM needs.

This pragmatic approach could indeed result in data on the science-policy relation, but it can be questioned whether these data will generate insight in how science is (or is not) taken into account during decision-making. Indicators related to building blocks 1-2 can be answered with 'yes' or 'no' but this only proves a (self-)perception of an attitude – not of a behaviour. Building blocks 3-4-5 may be more relevant and could be used in a scoring approach, but formulated as they are above, they only ask about the existence of roles, mechanisms and processes, not whether they are functioning.

5.2 Towards joint assessment procedures?

A recent exercise on the applicability of the official SDG indicator 17.14.1 on 'policy coherence for sustainable development' showed a number of obstacles to generate data based on a governance indicator (Meuleman *et al.* 2022). Firstly, the indicator is in fact an index with eight dimensions; apart from the implicit weighing of the dimensions (equal, i.e. weight = 1), this leads to one composite number that hides where the challenges are. Participants in the exercise (policymakers from Finland, Italy and Romania) agreed that it makes more sense to present the dimensions separately in a dashboard rather than in one number. Although the indicator methodology had been accepted by UN STAT and the associated UN member states, Eurostat argued that it was not usable because it would not generate reliable and replicable data, as the basis is self-assessment.

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[13] https://www.unaids.org/sites/default/files/sub_landing/files/8_2-Intro-to-IndicatorsFMEF.pdf.

One of the surprises during the project on SDG indicator 17.14.1 was that the 'users' (policy officers in three countries) of the indicator were not concerned about the apparent difficulty to use the indicator to measure progress on policy coherence for sustainable development. For them – and also for the OECD experts on PCSD – the added value of the indicator was that it stimulated a structured conversation within a government administration, across different ministries, about several crucial aspects of public governance. Having the indicator with its self-assessment questionnaire was seen as a very useful means to have meaningful discussions and reach conclusions on what to improve and how. The indicator also functions as a common reference for exchanges between policy officers from different countries. A similar insight is currently emerging in an ongoing project on mainstreaming the SDGs in national regulatory impact assessment systems: data about where countries stand, based on a detailed survey, are not used to measure of rank countries, but to bring them together in peer to peer workshops to learn from each other.[14]

Given the fact that there are no broadly accepted indicators (yet) to measure the quality and performance of science-to-policy systems, it would probably be recommended to focus from the onset on a composite measurement approach, which combines participatory assessment processes and some indicators. Such an approach could be called a 'joint assessment procedure', and could be adapted to different governance traditions by making it, for example, more expert-based (hierarchical culture) or more stakeholder-based (network culture). This is also along the lines of what Renn *et al.* (2020) are proposing, where they emphasise the need to engage in joint narrative constructions with diverse sectors of society in future forums and workshops on practice and policy, analysing the drivers behind the indicators, and implementing a step by step, regional and bottom-up strategy.

This might mean that the value of indicators may go further than 'indicating' and that indicators become anchor points of collaborative learning processes to improve the quality of public administration and governance. There will always be useful indicators, and matching data. But if the objective is to improve the quality of PA&G, indicators may not be the most important means to reach the objective, and setting up collaborative, cross-silo and cross-organisational learning processes might lead us to tastier 'low-hanging fruit' than mentioned in 5.1. Maybe we do not always need indicators, as we can organise fruitful conversations directly based on the attributes.

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[14] The project Peer 2 Peer for Sustainability Impact Assessment is financed by the German Ministry for the Environment, Nature Conservation and Nuclear Safety and carried out by Public Strategy for Sustainable Development, Brussels. See https://www.ps4sd.eu/peer-to-peer-for-sustainable-impact-assessment/

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Annexes

Annex 1. Key terms

There are many ways to define governance, governance frameworks, metagovernance, and related concepts. Below, several key terms are defined, following a rather mainstream approach.[15]

Governance - If policy is about what and when (the goals, targets, milestones), then governance is about how (which tools, instruments, processes) and who (actors, stakeholders)(Meuleman 2021). A policymaker would limit its options if she or he defined governance only as involving stakeholders, or as promoting accountability, or as focusing on cost-efficiency. Only if governance covers all these perspectives, well-reflected choices are possible and governance frameworks can be designed which are contextualised. Case study research (Meuleman 2008) has shown that policymakers often understand this intuitively. A broad definition of governance that covers all typical governance styles and the whole repertoire of institutional mechanisms, rules, tools and forms of actor involvement is that "Governance is the totality of interactions in which government, other public bodies, private sector and civil society participate (in one way or another), aimed at solving public challenges or creating public opportunities" (Meuleman 2008).

Governance styles – Many scholars distinguish three ideal-typical governance styles which have their own values, logics and tools (see e.g. Kooiman 2003; Meuleman 2008; G. Peters 1998; Pollitt and Bouckaert 2011). The styles are normative as they are carriers of values: network governance embraces consensus and empathy, market governance entrepreneurship and competition, and hierarchical governance authority and control (Meuleman 2018). Hierarchical, network and market governance usually occur in combinations but some of their characteristics are incompatible and may undermine the effectiveness of a specific governance style combination. The three styles differ in at least fifty features (Meuleman 2018). How effective they are in practice largely depends on the context.

When a central government relies on a hegemonic, top-down and power-based approach, one cannot expect subnational governments to risk stepping out of their (narrow) comfort zone and develop innovative approaches. At the same time, when a national government relies solely on informal arrangements with subnational authorities, reaching national policy targets may become very difficult. As (Fleming and Rhodes (2005) have stated pointedly: "The future will not lie with either markets, or hierarchies or networks but with all three. The trick will not be to manage contracts or steer networks but to mix the three systems effectively when they conflict with and undermine one another".

Metagovernance – The complexity and dynamics of the governance environment require permanent reflection and management of governance frameworks. This 'governance of governance' is called metagovernance (Jessop 1997; Kooiman 2003). It can be defined as "a means by which to produce some degree of coordinated governance, by designing and managing sound combinations of hierarchical, market and network governance, to achieve the best possible outcomes from the viewpoint of those responsible for the performance of public sector organizations: public managers as 'metagovernors'" (Meuleman 2008). The basic logic of metagovernance is one of oversight and balance (Pierre and Peters 2021).

As the meaning of metagovernance depends on how governance is defined, there are scholars who focus their research on network mechanisms (leaving aside the hierarchical and market styles). Their meaning of metagovernance is, logically, to structure and manage network governance (Sørensen and Torfing 2017). As this approach is culturally limited to countries with an underlying network culture (see e.g. Kickert 2003), for an approach which contains appealing elements for all EU countries, we will need the broader approach of governance, including all three ideal-typical governance styles.

Many examples of metagovernance practice have been observed in the EU's regional development and environmental policy. A main reason is that there are large differences between the Member States as regards their administrative cultures, traditions and history. EU rules and policies tend to work out differently in different countries – and often also within countries. This means that EU laws and policies need to be designed as packages that contains various approaches, instruments and tools. In North-Western countries, informal institutions and a relative norm-free approach may work better, in Southern- and Eastern European countries, the governance mix often needs a strong legal basis that prescribes what needs to be done and how.

Governance frameworks – A governance framework can be defined as "the totality of instruments, procedures and processes designed to tackle a societal problem", followed by a normative recommendation

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[15] Source: Meuleman, L. (forthcoming): A metagovernance approach to multilevel governance and vertical coordination for the SDGs (book chapter for Routledge).

that "(t)hey should be adapted to legal, cultural and physical conditions of the problem environment and internally consistent; the normative assumptions (values, hypotheses) should be clear" (Meuleman 2014).

Multilevel governance – According to Pierre and Peters (2021), multilevel governance has long been thought of as "central, regional and local government neatly organised in a hierarchy", but there are many different forms of MLG – some indeed hierarchical, others more based on collaboration and/or more on an ad hoc basis. In the EU system, the European Commission is a powerful fourth level. The UN can be seen as a fifth level, which is more influential than powerful. Hooghe and Marks (2003) distinguished two types of multi-level governance. In one type, every citizen is "located in a Russian Doll set of nested jurisdictions, where there is one and only one relevant jurisdiction". The second type is fragmented into functionally specific pieces, for example selecting a particular software standard or monitoring water quality of a particular river. The EU has often been described and analysed as a MLG system, with a combination of a classical hierarchical polity and other, more informal forms of governance (e.g., Kull 2016). The balance between formal and informal MLG is tricky. Peters and Pierre (2004) warned that "the absence of distinct legal frameworks and the reliance on sometimes quite informal negotiations between different institutional levels could well be a "Faustian bargain" where actors only see the attractions of the deal and choose to ignore the darker consequences of the arrangement".

Governance failure - In terms of the triptych policy – polity – politics, governance is about polity (structures) and politics (processes). In this view, governance and policy are two sides of the same coin namely of the functioning of public administration. This may be logical from a theoretical perspective, but it is not always clear in the often ambiguous (Noordegraaf 2015), complex, dynamic and 'wicked' (Termeer, Dewulf, and Biesbroek 2019) reality of public administration, at all levels, especially in a political environment such as a ministry. Policymakers may be so much driven by policy objectives and targets imposed by political leaders that they neglect the governance dimension. A case in point is perhaps the European Green Deal (European Commission 2019). This is a comprehensive policy programme with a range of strategies and legislative proposals, which itself has no governance section. Some of the Green Deal deliverables such as the EU climate and energy package (*EU 2018 – Regulation (EU) 2018/1999) contain elaborated governance sections, but strategies under the same Deal lack such a dimension. For example, the 2020 EU Biodiversity Strategy (European Commission 2020) did not include a governance section, but announced it as separate deliverable.

It is important to distinguish policy failure and governance failure. When a policy is unsuccessful, the reason may seem policy failure, but the underlying cause could well be governance failure. Governance failure can be defined as "The ineffectiveness of governance goals, a governance framework or the management thereof, to achieve policy goals" (adapted from Bovens, 't Hart, and Peters 2001). Three types of governance failure have a different action perspective (Meuleman 2018). Governance design failure results from the mismatch of problem context and governance style, when e.g. a governance style (combination) is incapable to address successfully a specific problem type. Governance capacity failure results from the mismatch of governance style and governance capacity. Governance management failure is a third category, resulting from ineffective management of governance frameworks.

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