



STRATEGIC GOVERNANCE FOR SD: NEW DEVELOPMENTS AND APPROACHES IN THE CONTEXT OF THE 2030 AGENDA AND SDGS

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Table of contents

Introduction	4
1. Governance for SD.....	5
2. Policy Coherence for Sustainable Development	12
3. New Governance Trends	20
4. The Science-Policy Interface.....	25
5. Strategic Foresight for Policy Planning	31

Introduction

This background paper provides input for the **ESDN Conference 2017**, entitled “**Strategic Governance for SD: New developments and approaches in the context of the 2030 Agenda and SDGs**”, which will take place in **Prague on 22-23 June 2017**. This ESDN event is organized by the ESDN in cooperation with the Office of the Government of the Czech Republic (Department of Sustainable Development). The conference will be a 1.5-day event that will bring together policy-makers and experts from different stakeholder groups from all over Europe. The conference will provide an excellent chance to learn about new governance approaches and concepts required to address and implement the 2030 Agenda for SD and the SDGs, which will be coupled with different examples from European countries. Additionally, in-depth discussions and hands-on activities will be introduced to help put these new governance approaches into practice. The conference will start with a welcome and opening session, followed by three sessions, each being comprised of two parts:

- **Session 1:** Practical Steps Towards Policy Coherence for Sustainable Development
 - Part 1: Conceptual Framework for Policy Coherence
 - Part 2: The Reality of Policy Coherence for the SDGs at the National Level
- **Session 2:** Good Governance – From New Public Management to Systems Thinking and Knowledge Brokerage
 - Part 1: Paradigm Shifts and New Approaches in Governance
 - Part 2: Knowledge Brokerage for SD
- **Session 3:** Strategic Foresight – From Vision Building to Policy-making
 - Part 1: The Conundrum of Policy Planning for the Future
 - Part 2: Learning the Methods and their Policy Link

The chapters of this ESDN Discussion Paper will provide an introduction to the different conference sessions in order to give participants a glimpse of what will be presented and discussed during the Conference. In brief, Chapter 1 will give an outlook on the concept of Governance for Sustainable Development. Chapter 2 will introduce the OECD Policy Coherence for Sustainable Development framework. Chapters 3 and 4 will give a short overview about new governance trends and the science-policy interfaces. Finally, Chapter 5 will briefly introduce four different strategic foresight approaches.

A full documentation of the keynotes, discussions, and group work at the conference will be published in a report shortly after the event.

1. Governance for SD

After the adoption of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs) in September 2015, new or updated governance systems are needed in order to promote the transition towards a socio-economic system that is characterized by greater sustainability for all, as well as to actively steer this comprehensive Agenda. **‘Governance for SD’ is a concept that focuses on steering policy towards achieving the objective of sustainable development.** As clearly indicated by the word ‘for’, the concept is prescriptive of steering requirements in terms of processes and cooperation between different actors that are needed to pursue this continuously evolving objective. ‘Governance for SD’ faces clear challenges that are inherent in the complexity of the sustainable development concept. Setting short-term goals to reach the overreaching, long-term objectives of sustainable socio-economic relationships requires a clear understanding of complex causal relationships and systemic processes that are often lacking. With the task of implementing the 2030 Agenda for SD and the SDGs, ‘Governance for SD’ becomes more important than ever in **addressing the broad nature of the policy objectives set out in the new 2030 Agenda in a society that has itself become increasingly complex and manifold.**

Building Governance for SD

Sustainable development and governance are two complex, but ultimately interrelated concepts. Prominently defined in the Brundtland Report of 1987, sustainable development is still mainly referred to as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”¹. Central to meeting these needs is finding a way to **balance the famous three policy dimensions of SD (economic, social and environmental)², but ultimately to balance all different sectoral policies to be able to reach sustainable development objectives.**

The concept of governance refers to the process of governing, the managing, steering and guiding of public affairs by governing procedures and institutions in a democratic manner, especially in relation to public policy decision-making³. The ambitious and comprehensive 2030 Agenda for Sustainable Development requires a broad definition of governance, similar to the one formulated by

¹ United Nations World Commission on Environment and Development (1987) [‘Report of the World Commission on Environment and Development: Our Common Future’](#), page 43.

² Baker, S. (Ed.) (2012) *Politics of Sustainable Development*, Routledge.

³ Baker, S. (2009) *In Pursuit of Sustainable Development: A Governance Perspective*, Paper presented at the 8th International Conference of the European Society for Ecological Economics (ESEE), Ljubljana, Slovenia, 29 June – 2 July 2009

Kooiman (1993), which defines governance as “the patterns that emerge from the governing activities of social, political and administrative actors”⁴. The concept of governance is central to conceptualize how different social, economic and political actors relate to each other in a complex environment across various sectoral areas (e.g. economic development, land-use, transport, etc.) and scales (e.g. from global to multi-national, national, and local). **Considering the complexity of sustainable development, the governance concept becomes essential in making sense of efforts to achieve the sustainable development vision.**

Meadowcroft (2007) defines ‘Governance for SD’ as the “processes of socio-political governance oriented towards the attainment of sustainable development. It encompasses public debate, political decision-making, policy formation and implementation, and complex interactions among public authorities, private business and civil society – in so far as these relate to steering societal development along more sustainable lines”⁵. In short, ‘Governance for SD’ encompasses the steering requirements and mechanisms that enable the formulation of concerted and adaptive policies that foster the cooperation of diverse actors in delivering sustainable development. The holistic approach taken by sustainable development in focusing on social, economic and environmental concerns further increases the complexity of trade-offs between different objectives. Governance for SD should thus have “a dynamic posture, oriented to exploiting the diffusion of power to promote adjustment of the development trajectory”⁶. This puts emphasis on the importance of reflexivity and learning, participation of different stakeholders, and horizontal and vertical integration. Therefore, the critical features of governance, for the promotion of sustainable development, can be classified in the four ‘Governance for SD principles’⁷ listed in Figure 1 below.

⁴ Kooiman J (Ed.), (1993) *Modern Governance* (Sage, Newbury Park, CA) page 2.

⁵ Meadowcroft, J. (2007) Who is in Charge here? Governance for Sustainable Development in a Complex World, *Journal of Environmental Policy and Planning*, 9/3-4, pp. 299-314:299

⁶ Idem p. 308

⁷ Pisano, U. et al. (2015), [ESDN Quarterly Report n. 38](#): The 2030 Agenda for Sustainable Development: Governance for SD principles, approaches and examples in Europe

Figure 1. Overview of Governance for SD principles

Governance for SD principles	Rationale	Operationalization of principle
LONG-TERM PRINCIPLE	Governance for SD calls for <i>long-term visioning and respective short-term action</i> to pursue <i>intra-</i> and <i>intergenerational equity</i>	<u>Long-term strategies</u> that incorporate intra- and intergenerational impacts; and <u>short-term policies and targets</u> to manage short-term necessities without compromising the long-term vision
INTEGRATION PRINCIPLE	Governance for SD calls for <i>coordination and integration</i> of economic, social and environmental policies across and between different levels of governance	<u>Mechanisms of vertical integration</u> that promote policy integration across multiple political-administrative levels, coordination between EU, national and sub-national activities
		<u>Mechanisms of horizontal integration</u> that support and foster policy integration between the different ministries and administrative bodies on the respective political level for the delivery of SD policies
		<u>Integration of the three dimensions of sustainable development:</u> social equity, economic development and environment protection
PARTICIPATION PRINCIPLE	Governance for SD calls for the incorporation of <i>stakeholders</i> into the decision-making process	<u>Participatory arrangements</u> of different stakeholders, such as civil society organizations, business, academia, etc. in the policy-making process in order to integrate different types of knowledges
REFLEXIVITY PRINCIPLE	Governance for SD calls for <i>reflexive processes</i> based on continuous reflection and policy learning cycles	Effective <u>indicators and monitoring</u> systems and practices
		Effective <u>evaluation and review</u> practices that enable continuous and adaptive learning

Source *Pisano et al, 2015, [ESDN Quarterly Report 38](#)*

In the following subsections, we present each of the four Governance for SD principles in some more detail.

Long-term principle

The Declaration of the United Nations Conference on the Human Environment, the outcome of the 1972 Stockholm Conference, stated that “to defend and improve the human environment for present and future generations has become an imperative goal for mankind a goal to be pursued together with, and in harmony with, the established and fundamental goals of peace and of worldwide economic and social development”⁸. Furthermore, the World Conservation Strategy (1980) stresses that we “must take account of the needs of future generations”⁹. Similarly, Agenda 21 (1992) called for all countries to develop National Sustainable Development Strategies (NSDSs) with the aim to “ensure socially responsible economic development while protecting the resource base and the environment for the benefit of future generations”¹⁰. This has been reaffirmed in ‘The Future We Want’, adopted by the UN General Assembly in 2012, which confirms the “commitment to sustainable development and to ensuring the promotion of an economically, socially and environmentally

⁸ UN (1972) Declaration of the United Nations Conference on the Human Environment, para 6

⁹ IUCN-UNEP-WWF (1980) ‘World Conservation Strategy’, foreword

¹⁰ United Nations Conference on Environment and Development (1992) ‘Agenda 21’, Rio De Janerio, Brazil, para 8.7

sustainable future for our planet and for present and future generations”¹¹. In the same vein, the 2030 Agenda has been developed to be implemented “for the full benefit of all, for today’s generation and for future generations”¹². To ensure progress and long-term accountability in implementing the Goals and targets over the next 15 years, but to also start with short-term actions, the 2030 Agenda provides systemic follow-up and review mechanisms. At the global level, the High Level Political Forum, under the auspice of the General Assembly and the Economic and Social Council, plays a central role in overseeing immediate and long-term follow up actions.

All these key documents clearly put a strong emphasis on a **long-term perspective** that takes into account the needs of future generations. Efforts to commit to **short-term actions** to achieve a sustainable long-term vision of intra- and intergenerational equity face inherent uncertainty, as well as short-termism fostered by electoral cycles. A system of governance should enable long-term decision-making and commitment to common goals, while opening pathways of flexibility to adapt to changing circumstances. Governance for SD, thus, calls for long-term strategies that incorporate intra- and intergenerational issues, as well as short-term policies and targets to manage short-term necessities towards that long-term vision.

Integration (or coherence) principle

The **coordination, integration and balancing of different sectoral policies across government ministries (horizontal policy integration)** and between **different levels of governance (vertical policy integration)** is a central feature of governance for SD. This need for integration of, or coherence between, the different dimensions and different institutions at different levels is also clearly stated in the internationally agreed policy documents. Cooperation between different countries and levels of governance was a central theme in Agenda 21¹³. Similarly, the ‘Rio+20 Summit’ concluded that “the institutional framework for sustainable development should integrate the three dimensions of sustainable development in a balanced manner and enhance implementation by, inter alia, strengthening coherence and coordination, avoiding duplication of efforts and reviewing progress in implementing sustainable development”¹⁴. Enhancing policy coherence for sustainable development is also part of the 2030 Agenda. This principle is reflected in the ‘Systemic Issues’ section (SDG

¹¹ United Nations General Assembly (2012) ‘The Future We Want’, resolution 66/288

¹² United Nations General Assembly (2015) ‘Transforming our world: the 2030 Agenda for Sustainable Development’, resolution A/RES/70/01

¹³ United Nations Conference on Environment and Development (1992) ‘Agenda 21’, Rio De Janeiro, Brazil, para 8.10

¹⁴ United Nations General Assembly (2012) ‘The Future We Want’, resolution 66/288, para 75

17.14), as well in the 'Means of implementation and the Global Partnership' part, which highlights the commitment "to pursuing policy coherence and an enabling environment for sustainable development at all levels and by all actors",¹⁵ as well as the commitment to achieve "sustainable development in its three dimensions – economic, social and environmental in a balanced and integrated manner"¹⁶.

Improving horizontal integration in administrative settings that are traditionally organised in different ministerial departments (i.e. 'silo thinking', 'departmentalisation') has been a long-lasting challenge in SD governance that has not yet been solved. However, various attempts have been made to address it. Also in the context of the implementation of the 2030 Agenda for SD and the SDGs¹⁷. Incentivising individuals in public administrations to work across silos with other departments and the relevant stakeholders will be a central issue for the success of implementing the 2030 Agenda and the SDGs, in particular. The latter comprise 17 goals that are interrelated and involve across-the-government and across-governance-levels responsibilities and, therefore, will inherently need a strong integration and coherence effort. Efforts to **enhance the level of vertical integration** in Europe will have to take into account the many institutional differences in terms of competences of various administrative levels. It will be challenging to formulate a common agenda and, furthermore, share competences and implementation responsibilities for this Agenda. However, different approaches towards the promotion of sustainable development in different countries could also prove to be an opportunity for innovation and testing which approaches are most effective under changing circumstances.

Participation principle

The **participation of different stakeholders in decision-making processes** has been a central principle of sustainable development since the concept emerged. For instance, Agenda 21 put great emphasis on local community participation as a means of implementation¹⁸, and the Rio+20 Outcome Document, 'The Future We Want', stresses its aim to "enhance the participation and effective engagement of civil society and other relevant stakeholders in the relevant international forums, and, in this regard, promote transparency and broad public participation and partnerships to implement

¹⁵ United Nations General Assembly (2015) 'Transforming our world: the 2030 Agenda for Sustainable Development', resolution A/RES/70/01

¹⁶ Ibid.

¹⁷ Niestroy, I. & Meulemans, L (2016) '[Teaching Silos to Dance: A Condition to Implement the SDGs](#)', International Institute for Sustainable Development, Guest Commentary.

¹⁸ United Nations Conference on Environment and Development (1992) 'Agenda 21', Rio De Janeiro, Brazil, para 14.40, b

sustainable development”¹⁹. Participatory arrangements of different stakeholders, such as civil society organizations, business, and academia in the policy-making process, is, thus, a central steering tool for sustainable development governance.

The ambiguity of the SD concept and its goals, and the need to adapt to changing circumstances, calls for a constant redefinition and reinterpretation of SD principles. Sustainable development calls for decision-making that has an adaptive and participatory character to account for changes and uncertainty, harness different types of knowledge, and foster cooperation and shared objectives. Participatory arrangements of different stakeholders, such as civil society organizations, business, and academia in the policy-making process is a central steering tool for sustainable development governance. The importance of the participation principles has increased with the 2030 Agenda, which aims to be ‘**an agenda for everyone**’ and highlights the determination “to mobilize the means required to implement this Agenda through a revitalized Global Partnership for Sustainable Development, [...] with the participation of all countries, all stakeholders and all people”²⁰.

Reflexivity principle

Finally, ‘Governance for SD’ calls for reflexive processes based on **continuous reflection and policy learning**. As discussed above, technological, social and/or environmental changes warrant an adaptive process, in which policies, strategies and institutional arrangements are evaluated and adapted to effectively address the challenges of a changing environment and to foster innovation. The Outcome Document of the 2012 Rio+20 Conference, ‘The Future We Want’, puts a strong emphasis on monitoring different areas of sustainable development, from capacity building efforts to environmental indicators. To enable problem-specific processes of policy learning, effective indicators, monitoring systems and practices need to be in place to form the basis for effective evaluation and review practices that enable continuous and adaptive learning.

In the context of the 2030 Agenda, Member States are required to commit themselves to engage in a “systematic follow-up and review framework”²¹ to ensure the implementation over the next 15 years. The framework set out by the 2030 Agenda includes the national, regional and global level and establishes a

¹⁹ United Nations General Assembly (2012) ‘The Future We Want’, resolution 66/288, para 76, h

²⁰ United Nations General Assembly (2015) ‘Transforming our world: the 2030 Agenda for Sustainable Development’, resolution A/RES/70/01

²¹ Ibid.

series of principles to guide the follow-up and reviews at all levels²². In addition, the SDGs and targets set out in the 2030 Agenda will be followed up and reviewed according to a set of 232 global indicators developed by the Inter-Agency and Expert Group on Sustainable Development Goal Indicators and agreed by the Statistical Commission in March 2016²³. The national level has a fundamental role in the follow-up and review process, and the 2030 Agenda refers several times to the need for a “national policy space” and the need to consider the “different national realities, capacities and levels of development”, respecting national policies and priorities”²⁴. At the global level, a central role is played by the HLPF, which oversees the network of follow-up and review processes and facilitates sharing of experiences, provides political leadership, guidance, recommendations, and promotes system-wide coherence and coordination of sustainable development policies²⁵.

²² Ibid., p. 36

²³ See [global indicators framework](#)

²⁴ Beisheim, M. (2016). [Follow-up and Review. Developing the Institutional Framework for Implementing and Reviewing the Sustainable Development Goals and Partnerships](#). Stiftung Wissenschaft und Politik (SWP), SWP Working Paper FG 8, 2016/02, May 2016
German Institute for International and Security Affairs

²⁵ United Nations General Assembly (2015) ‘Transforming our world: the 2030 Agenda for Sustainable Development’, resolution A/RES/70/01

2. Policy Coherence for Sustainable Development

The challenges for ‘Governance for SD’ discussed in the previous chapter indicate that promoting sustainable development will require **coordination between different political levels, policy areas and a multitude of stakeholders** in the formulation of objectives and policies, as well as in implementation efforts. In this regard, it is also important to avoid policies that create negative spillover effects. Avoiding the potential negative effects of one country’s policies on the development prospects of other countries, and simultaneously supporting development objectives is at the center of the concept of **Policy Coherence for Development (PCD)**²⁶.

The 2030 Agenda and the Addis Ababa Action Agenda require all countries to “pursue policy coherence and an enabling environment for sustainable development at all levels and by all actors”²⁷. Policy Coherence is a persistent challenge in international development and for effective governance alike. Currently, governments are mainly addressing this challenge by developing institutional mechanisms. Nevertheless, the OECD report, “Better policies for sustainable development 2016: A new framework for policy coherence” (2016)²⁸, shows that institutional mechanisms are instrumental for raising awareness and building commitment, but are not enough to achieve results, and generally, a weak understanding and ownership of the Policy Coherence concept within administrative bodies, parliaments and the public sector often impede progress.

Especially with the adoption of the 2030 Agenda for SD, its 17 SDGs and their 169 associated targets, the necessity for a **whole government engagement, strengthened coordination, enhanced policy coherence**, and a more effective mobilization and allocation of available resources increased. A shift in the PCD mechanism is required due to the nature of the 2030 Agenda and the SDGs, which, according to the OECD Report, is²⁹:

- **Universal:** aim to extend the benefits of development to all, and recognition that all countries and actors are responsible for building a sustainable world.

²⁶ OECD (2016), Better policies for sustainable development 2016: A new framework for policy coherence, p. 38.

²⁷ United Nations General Assembly (2015) ‘Transforming our world: the 2030 Agenda for Sustainable Development’, resolution A/RES/70/01

²⁸ OECD (2016), Better policies for sustainable development 2016: A new framework for policy coherence

²⁹ Idem, p. 46

- **Integrated:** aim to achieve the balance among social, economic, and environmental dimensions that is necessary for sustainable development (horizontal coherence).
- **Transformative:** involves aggregated and coherent actions at the local, national, regional and global level (vertical coherence).

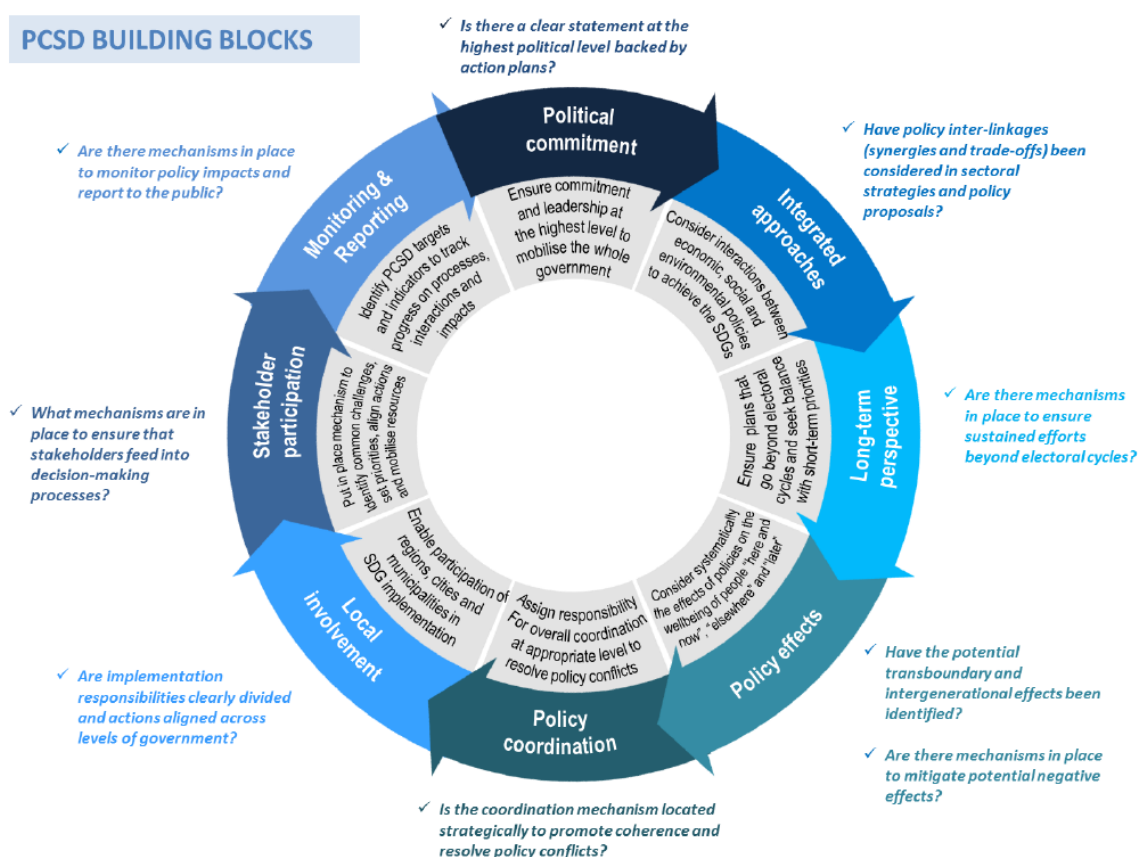
Thus, the OECD developed a new framework that introduces the concept of **Policy Coherence for Sustainable Development (PCSD)**. PCSD is an integral part of the means of implementation for SDGs included in target 17.14 that underlines the need to ‘enhance policy coherence for sustainable development’. **Policy coherence is key in identifying synergies among SDGs and targets, between different sectoral policies, and between actions at the local, regional, national and international level.** PCSD is essential in informing decision-making and managing potential trade-offs and tensions between policy objectives. **PCSD’s main objectives are to³⁰:**

1. Foster ***synergies across policy areas*** to support sustainable development;
2. ***Increase governments’ capacities*** to identify trade-offs and reconcile domestic policy objectives with internationally agreed objectives; and
3. ***Address the negative spillover effects*** of domestic policies on long-term development prospects.

The PCSD Framework is part of the OECD’s strategic response to the SDGs, and it provides guidance on how to analyze, apply and track progresses on PCSD. At the 11th Meeting of the National Focal Points for Policy Coherence, held in Paris in October 2016, the OECD presented **eight key elements for policy coherence** for sustainable development (Figure 2).

³⁰ Idem, p. 53

Figure 2. Key elements for PCSD as defined by the OECD



Source [OECD, 2016](#)

Recently, the OECD further developed these eight key elements for policy coherence in its report entitled "Policy Coherence for Sustainable Development 2017: Eradicating Poverty and Promoting Prosperity"³¹. This report, released in June 2017, adds an overview of the SDG implementation actions undertaken by nine OECD countries that presented Voluntary National Reviews (VNRs) at the 2016 High Level Political Forum (Estonia, Finland, France, Germany, Mexico, Norway, Korea, Switzerland and Turkey). However, this discussion paper will take into account only Estonia, Finland, France, Germany, Norway and Switzerland.

In the following part, this discussion paper will briefly explain what each of the 8 key elements of PCSD refers to, highlighting the challenges that can be faced when it comes to implementation. Based on the recently released OECD report,

³¹ OECD (2017), Policy Coherence for Sustainable Development 2017: Eradicating Poverty and Promoting Prosperity, OECD Publishing, Paris

it will also give a general idea on some actions undertaken by European countries concerning each key element³².

(1) Political commitment

Political commitment is essential to enhance policy coherence for the implementation of the SDGs. It needs to be **clearly stated at the highest level and combined with a strategic policy framework** to coherently support governments in their pursuit of a national SDG agenda. This entails specific measures for SDG integration within the mandate of each national institution, strong political leadership, building ownership across institutions and actors, and ensure that policies in different sectors do not conflict and hamper each other. In this regard, a key challenge is to raise public awareness about the 2030 Agenda and the economic, social and environmental challenges that need to be addressed in a coherent way.

Challenging questions in this regard are: How does one gain political commitment? What happens if political commitment cannot be achieved? How can SDG ownership be effectively enhanced?

Implementation example: To enhance political commitment, a common approach among the countries mentioned above is to update and align existing National Sustainable Development Strategies as a first step towards implementation. In addition to the already existing strategic framework, some countries are also developing specific action plans for the implementation of the 2030 Agenda.

(2) Integrated approaches

SDG implementation requires the government's ability to work across policy sectors, and adopt integrated and coherent approaches to sustainable development. **Embracing all three dimensions of sustainable development** is essential to ensure that progress in one goal contributes to the progress of other goals, as well as avoid progress at the expenses of another goal.

Challenging questions in this regard are: Should governments stick to these three dimensions, or is time to consider coherence across all policy sectors? Should a monitoring mechanism specifically dedicated to SDG coherence be established?

³² For more detailed explanation and more country specific examples see OECD (2017), Policy Coherence for Sustainable Development 2017: Eradicating Poverty and Promoting Prosperity, OECD Publishing, Paris

Implementation example: Examples here are the Multiannual Development and International Solidarity Policy Act adopted by France in 2014 that focuses on the different sustainable development dimensions and highlights the need for an integrated approach and the involvement of non-governmental actors.

(3) Long-term perspective

A long-term perspective in policy-making is important for balancing the needs of current and future generations. The well-being of future generation depends on the stock of assets the current generation leaves behind, including: economic capital, natural capital, human capital, and social capital. SDG implementation requires **strategic choices for the longer term and capacities to maintain commitment over time**. A key challenge is to seek a **balance with short-term challenges**, which often take priority, and ensure continuous efforts on SDG implementation that go beyond electoral cycles, government programmes, or cabinet compositions.

Challenging questions in this regard are: How could this balance between long-term objectives and short-term needs be achieved? How can long-term decision-making be achieved in a world that is largely characterized by short-term planning, combined with decisions based on party politics and election cycles?

Implementation example: To face the short-term vs. long-term challenge, Finland changed the term of the National Commission on Sustainable Development, in order to overlap with, rather than follow, the electoral cycle. The term has been extended until 2019 to make sure that the Commission tasks are not strictly tied to Government programs, but rather considered in long-term sustainable development issues.

(4) Policy effects

Coherence also refers to the international context. In this regard, it is important to consider **transboundary impacts**. Transboundary impacts refer to the fact that **a country's pursuit of sustainable development and its citizens' well-being may affect the well-being of citizens of other countries**. Therefore, strengthening analytical capacity is fundamental in understanding how one country's activities can affect other countries in achieving the SDGs. Analytical capacity is crucial to make sense of the data collected, as it can help in assessing whether policies are performing sustainably, and how to support policy-makers in refining or re-prioritising policy objectives.

Challenging questions in this regard are: How can transboundary impacts be assessed efficiently? How to achieve a better understanding of the effects of one country's policies and actions on other countries?

Implementation example: Germany aims to contribute to the achievement of the SDGs both nationally and internationally. To do so, Germany is outlining the global impact of national policies by taking into account the international dimension and considering its implementation impacts on three levels: national, on other countries and global public goods, and in support to other countries.

(5) Policy coordination

SDG implementation requires the active involvement of all policy communities and a wide range of stakeholders. **Involvement and coordination of a wide range of government departments and other stakeholders** allows the development of plans and strategies with a holistic perspective of the addressed issues, reflect diverse interests, address trade-offs across policy areas, create ownership and raise public awareness. Appropriate policy coordination mechanisms are essential to enhance **horizontal coherence** (synergies and inter-linkages) and **vertical coherence** (from local to national to international) in SDG implementation.

Challenging questions in this regard are: How can sectoral ministries be made to acknowledge their 2030 Agenda/SDGs obligations? What can be done if sectoral objectives run counter to the specific SDGs?

Implementation example: To foster policy coordination, Estonia is planning to use the already functioning national coordination mechanism for sustainable development led by the Government Office Strategy Unit at the central government level. In general, responsibility for overall coordination of SDG implementation is placed directly under the Head of Government's office.

(6) Local involvement

In an increasingly interconnected world, the implementation of the SDGs requires enhancing **policy coherence across different governance levels**. Some challenges need to be addressed at the global level, at the national or regional level, and at the local level. Local governments are the closest level of government to citizens, and are, therefore, in a suitable position to identify and respond to sustainable development gaps and needs. It is widely recognised that a successful implementation of the SDGs will depend on local action in coordination with all other levels of governance.

Challenging questions in this regard are: How much coordination at the European level is needed to achieve the 2030 Agenda/SDGs at the lower levels of governance? How much steering and support is needed at the national and sub-nation level to steer the 2030/SDGs implementation process at the local level?

Implementation example: Norway is planning to use existing coordination mechanism for cooperation with local and regional authorities. An example is the [Norwegian Association of Local and Regional Authorities](#), an association of national members from municipalities, counties and public enterprises.

(7) Stakeholder participation

Even if policy coordination mechanisms by government are essential, they are not sufficient to ensure policy coherence in SDG implementation. A coherent way to address the SDGs is by adopting a **participatory approach**. This requires mechanisms for dialogue and participation, where governments and key stakeholders can identify common challenges, define priorities, align policies and actions, and mobilise resources for sustainable development, to be developed.

Challenging questions in this regard are: What should be done in a situation of different or conflicting stakeholder objectives/interests? Business and NGOs might differ widely in their view on the SDGs. Therefore, how should these different stakeholder approaches be balanced?

Implementation example: In France, a multidisciplinary committee of international expert has been set up. In addition, France also launched a public consultation to involve civil society organizations, businesses, unions and specialized associations. Another example is Germany, which involved non-governmental stakeholders in the preparation of the VNR, and, through the '[Charter for the Future](#)', attempts to further involve civil society actors in global sustainable development promotion.

(8) Monitoring and reporting

The successful national implementation of the SDGs requires a **mechanism for monitoring progress**, to report to governing bodies and the public, making use of appropriate assessment tools. Monitoring mechanisms are essential in ensuring that strategies or national plans for SDG implementation, as well as sectoral policies, can be adjusted in light of progress, new information, and changing circumstances.

Challenging questions in this regard are: Discussions during previous ESDN events highlighted that it will be challenging to: (a) link the current SD indicator set to a new SDG indicator set; (b) address those indicators that are not easy to measure (issue of data availability); and (c) measure only those issues that are favorable to the respective country.

Implementation example: In Norway, the plan is to identify and adapt the most relevant global sustainable development indicators to the national context and define additional indicators necessary to ensure follow-up. Similarly, in Estonia, a new list of indicators that help in measuring performances and achievements in the fields of the SDGs in the country is under development.

The elements briefly presented above are the results of what is stated in the 2030 Agenda, as well as lessons learned and good practices collected by the OECD . As explained in the Background Note for the National Focal Point meeting, key elements are used by the PCSD Framework as a lens for identifying challenges and good institutional practices to enhance policy coherence in SDG implementation. The PCSD Framework has been developed with the aim of supporting governments on how to analyse, apply, and track progress on PCSD. Governments are not supposed to use all these elements, but they can select the sections that better match their priorities, institutional settings and governance processes, as well as practical capacities and needs³³.

³³ Idem, p. 54

3. New Governance Trends

The increasingly changing relationship between state and society, characterized by the rising importance of business and civil society actors in the policy processes, is central when speaking about governance. As discussed in the [ESDN Quarterly Report 38](#), on the one side, governance is an empirical phenomenon characterised since the 1980s by a shift in public organization, whereby state governments increasingly collaborate with private and voluntary actors and organisations to manage and deliver services³⁴. On the other side, governance is an abstract theory³⁵ to conceptualize the interactions of governing. Thereby, Meuleman (2008) suggests a broad definition: “Governance is the totality of interactions, in which government, other public bodies, private sector and civil society participate, aiming at solving societal problems or creating societal opportunities”³⁶. To conceptualise these processes, three ideal types of governance have been framed: hierarchy, market and network³⁷ (see Figure 3 below on ‘Ideal Types of Governance’). These three ideal types can also be categorized, especially when denoting public administration approach, as Bureaucracy, New Public Management (NPM) and New Public Governance (NPG). These governance types are, in reality, mostly hybrid forms, in which the contradicting internal logics of the ideal types of governance compete or, even more likely, blend. An example of such hybrid forms, displaying characteristics of these three ideal types, are public-private partnerships, in which hierarchical government bureaucracies coexist with market mechanisms and collaborative relationships between different actors. In this sense, theories of governance attempt to conceptualize an empirical shift from hierarchical state bureaucracies towards a greater role of market and networks of different actors and stakeholders.

³⁴ Bevir, M. (2012). Governance: A very short introduction (Vol. 333). Oxford University Press, page 2

³⁵ For different uses of the term governance please see Rhodes, R. A. (1997). Understanding governance: policy networks, governance, reflexivity and accountability. Open University Press

³⁶ Meuleman, L. (2008). Public management and the metagovernance of hierarchies, networks and markets: the feasibility of designing and managing governance style combinations. Springer Science & Business Media. Page 11

³⁷ Bevir, M. (2012). Governance: A very short introduction (Vol. 333). Oxford University Press.

Treib, O., Bähr, H., & Falkner, G. (2007). Modes of governance: towards a conceptual clarification. Journal of European public policy, 14 (1), 1-20.

Figure 3. Ideal Types of Governance³⁸

From of governance	Internal logic and characteristic	Role of the government	Typical output
Hierarchical / Bureaucracy	Authority, legality, accountability, compliance to rules and control procedures	Government rules society	Laws, regulations. Control procedures. Reports, decisions, compliance
Market / New Public Management	Price-mechanisms, efficiency, competitive advantage, performance contracts, deregulation	Government delivers services to society	Services, products, contracts, out-sourcing
Network / New Public Governance	Co-operation and co-production of services between government and societal actors; trust, mutual learning and deliberation	Government is a partner in network society	Consensus, agreements, covenants

Source *Pisano, et.al, 2015, [ESDN Quarterly Report 38](#)*

In the following subsections, the three major governance types that largely define how the public sector works are briefly explained in more detail.

Hierarchical Governance / Bureaucracy

The concept of bureaucracy is strongly influenced by the efforts of rationalization and labour division in factories, based in the works of the US engineer Frederick Taylor (therefore “Taylorism”), and rooted in the theory of bureaucracy as described by Max Weber³⁹. A bureaucracy is described best as an unambiguous structure of departments, each headed by a minister who is responsible for all actions of the departmental sub-units. Bureaus are designated to fulfil very specific and clearly defined tasks in a rule-bound way, in order to create a system with the highest possible level of technical efficiency⁴⁰.

Overall, bureaucracies imply sectoral specialisation (or “departmentalisation”) rather than policy integration, and the public sector can be described as a compilation of “administrative silos” that are constructed around policy domains, ignoring related policies or problems⁴¹. The still existing sectoral administrative silos are a factor that has to be taken into account when dealing with SD strategies, policies, and the challenge of policy integration.

³⁸ Meuleman, L. (2008). Public management and the metagovernance of hierarchies, networks and markets: the feasibility of designing and managing governance style combinations. Springer Science & Business Media. Page 12.

³⁹ Weber M. (1968). Economy and Society: An outline of interpretive sociology. New York: Bedminster Press

⁴⁰ Hughes, O.E. (2003) Public Management and Administration: An introduction. New York: Palgrave Macmillan

⁴¹ Steurer, R. and Berger, G. (2009). [ESDN Quarterly Report n.13](#): Horizontal Policy Integration and Sustainable Development: Conceptual remarks and governance examples.

Market Governance / New Public Management

During the 1980s, a more managerial point of view of the public sector emerged and seriously criticised the Weberian bureaucracy narrative as inefficient. This new point of view became known as New Public Management (NPM) and it favours the governance mode of markets to the one of hierarchies. While bureaucracies are mainly concerned with state accountability and public order maintenance through a hierarchical mode of governance, the key concern of NPM is to “focus on management, not policy, and on performance appraisal and efficiency”⁴².

Overall, NPM does not moderate, but rather enhances the “silo-character” of public administrations by further disaggregating them into specific agencies (“agencification”), and due to its focus on intra-organisational management, NPM may help to increase the efficiency of the public sector⁴³. However, it also tends to disregard (and hinder) inter-organisational collaboration across sectors, which can often be regarded as a prerequisite for effective policy integration⁴⁴.

Network Governance / New Public Governance

The dispersion of authority to a series of actors pursuing different interests produces a shortage of coordination in governance⁴⁵ and, even if governments are likely to remain the primary coordination mechanism for human activity, the limitations of state and inter-governmental mechanisms in addressing global challenges created favorable conditions for non-state actors to assume an increasing role in global governance⁴⁶. Accordingly, in recent years, the concept of **New Public Governance (NPG)** was proposed by Osborne⁴⁷ to describe the plural nature of contemporary states, “where **multiple different actors contribute to the delivery of public services and the policymaking system**”⁴⁸ and the focus is on **collaboration between individuals and**

⁴² Bevir, M.; Rhodes, R.A.W. & Weller, P. (2003) “Traditions of Governance: Interpreting the Changing Role of the Public Sector”, *Public Administration*, 81/1: 1-17, p. 1

⁴³ Steurer, R. and Berger, G. (2009). [ESDN Quarterly Report n.13](#): Horizontal Policy Integration and Sustainable Development: Conceptual remarks and governance examples.

⁴⁴ Hood, C. (1991) “A Public Management for all Seasons”, *Public Administration*, 69: 3-19; Jackson, P.M. (2001) “Public Sector Added Value: Can Bureaucracy Deliver?”, *Public Administration*, 79/1, 5-28; Hughes, O.E. (2003) *Public Management and Administration: An introduction*. New York: Palgrave Macmillan.

⁴⁵ Ibid. see also Huh, T. (2014). Dynamics and Discourse of Governance for Sustainable Development in South Korea: Convergent or Divergent?, *Journal of Environmental Policy & Planning*, 16:1, 95-115

⁴⁶ European Environmental Agency (SOER 2015). *Global Megatrends: Diversifying approaches to governance* (GMT 11)

⁴⁷ Osborne, S.P. (2006). [The New Public Governance?](#) *Public Management Review*, 8:3, 377-387 and Osborne, S.P. (2010). *The New Public Governance*. London: Routledge

⁴⁸ Dickinson, H. (2016). [From New Public Management to New Public Governance: The implications for a ‘new public service’](#) in Butcher, J.R. and Gilchrist, D.J. (2016) *The three sector solution*, p. 42

agencies. In particular, the NPG logic underlines the transition of citizens from relatively passive and anonymous consumers to a more pro-active involvement in service provision and decision-making⁴⁹. Overall, the guiding principle of New Public Governance is not efficiency but **effectiveness**. Regarding the challenge of policy integration, the network mode of governance is often assumed to deal effectively with complex and cross-sectoral issues (such as SD), and, therefore, networks are often seen as the most appropriate paradigm to deal with complex issues. However, some doubts remain concerning the actors participating in networks, and how willing they are to collaborate and act in a trustworthy way⁵⁰.

Clearly, the implementation of the SDGs poses a particular challenge concerning their governance aspects. Meuleman and Niestroy (2015) argue that for the implementation of the SDGs, **differentiated governance frameworks** are required at all levels. To support this idea, they introduce the concept of “Common But Differentiated Governance”⁵¹. *Governance frameworks* can be described as “the totality of instruments, procedures, processes and role division among actors designed to tackle a group of societal problems”⁵². The challenge of **Governance for the SDGs** is about how to combine the three different governance approaches (hierarchical, market and network governance or bureaucracy, NPM and NPG), in an effective manner. Meuleman and Niestroy thereby suggest a **Metagovernance approach** in order to deliver differentiated governance for the SDGs and to deal with hybrid governance modes that may emerge. In this context, *Metagovernance* is broadly defined as being “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”⁵³. On the same track, Sorensen states that “in order to ensure that governance networks contribute to an effective and democratic governing of society, careful metagovernance by politicians, public managers and other relevant actors is necessary”⁵⁴. Examples of the adoption of the metagovernance approach for SD transition are presented

⁴⁹ Wiesel, F. and Modell, S. (2014), From New Public Management to New Public Governance? Hybridization and Implications for Public Sector Consumerism. *Financial Accountability & Management*, 30: 175–205

⁵⁰ Koppenjan, J. and Koliba, C. (2013). [Transformations towards new public governance: Can the new paradigm handle complexity?](#). *International Reviews of Public Administration*, Vol. 18, No. 2

⁵¹ Meuleman L., Niestroy I., (2015). Common But Differentiated Governance: A Metagovernance Approach to Make the SDGs Work. *Sustainability* 2015, 7.

⁵² Meuleman L., (2014). *Governance Framework*. In *Global Environmental Change*; Freedman, B., Ed.; Springer: Dordrecht, the Netherlands p. 886.

⁵³ Meuleman L., Niestroy I., (2015). Common But Differentiated Governance: A Metagovernance Approach to Make the SDGs Work. *Sustainability* 2015, 7, p. 12303

⁵⁴ Sorensen, E. (2009). Making governance networks effective and democratic through metagovernance. *Public Administration* Vol. 87, No. 2, p. 234 – 258.

in the article of Meuleman and Niestroy⁵⁵ and include the energy transition (*“Energiewende”*) in Germany, and the 4th National Environmental Policy Plan (NEPP-4) in the Netherlands. The energy transition in Germany was initiated by the German Chancellor in 2011. The energy transition process started with the government initiative to establish a Commission for this particular purpose, which coordinated stakeholder and citizen consultations. The German government adopted the Commission’s conclusion with a legal provision and an action program. Following this, ample investment was dedicated to creating public support. In the Netherlands, government incentives often resulted in new research focus and innovative practices. However, the authors highlight a high predominance of network governance in the country and a weak implementation of hierarchical governance. While the former can foster the development of innovative practices, the latter can be the reason why the energy transition towards renewables has not materialized yet.

Finding the most suitable governance combination or governance approach for implementing the SDGs seems challenging. An out-of-the-box thinking might help to find the most effective combination or approach. Questions however might arise when deciding who the stakeholder are that need to be brought together for finding the best way to implement each SDG and how to deal with different values and worldviews.

⁵⁵ Meuleman L., Niestroy I., (2015). Common But Differentiated Governance: A Metagovernance Approach to Make the SDGs Work. Sustainability 2015, 7, p. 12308

4. The Science-Policy Interface

The logic behind the need of a **link between the scientific and sustainable development policies** is that the latter should be informed by the best available knowledge and scientific practices. This view entails a deliberative learning process that aims to strengthen the societal uptake of scientific knowledge and delivering better informed and more effective policy practices⁵⁶ that ultimately should lead to **evidence-based policy-making**. In this context, the 2016 Policy Brief of the Scientific Policy Advisory Board of the UN Secretary General states that to contribute to the 2030 Agenda success, “the implementation of the new development agenda needs to be based on an integrated scientific approach, guided by a holistic understanding of science and must be grounded in the best available knowledge”⁵⁷. However, knowledge has often been described as being complex, multi-faceted, tacit, specialized and ambiguous, and, consequently, it is difficult to create efficient knowledge exchange channels within and across organizations⁵⁸.

Scientific support for sustainable development policies can be organized in different ways depending on the number of available resources, the political will and culture, and pre-existing institutional frameworks⁵⁹. The study conducted by the Finnish Innovation Fund (SITRA) identifies **seven ideal types of science-policy interfaces for sustainable development policies**⁶⁰ summarized in Figure 4 below. The concept of science-policy interface refers to “organizations, initiatives or projects that work at the boundary of science, policy and society to enrich decision making, shape their participants’ and audiences’ understandings of problems, and so produce outcomes regarding decisions and behaviours”⁶¹. There is not one model that is, by prescription, better or more impactful than the other, but rather the aim of the SITRA Study is to highlight actions undertaken to improve networking activities between policy-makers and scientists and show some examples of what can be done. In this regards, some models and related examples provided in the SITRA report are:

⁵⁶ Kaaronen, R. (2016). [Scientific Support for Sustainable Development Policies](#), SITRA Studies 118, p. 14.

⁵⁷ UN Secretary-General (2016). [Science for Sustainable Development](#). Policy Brief by the Scientific Advisory Board. 5 October 2016

⁵⁸ Drew, H., Ritchie, F. and King, A. (2014). [How do knowledge brokers work? The case of WERS](#). Working Paper. University of the West of England, Bristol

⁵⁹ Kaaronen, R. (2016). [Scientific Support for Sustainable Development Policies](#), SITRA Studies 118, p. 20

⁶⁰ Ibid.

⁶¹ Sarkki et al., (2015:506) in Kaaronen, R. (2016). [Scientific Support for Sustainable Development Policies](#), SITRA Studies 118, p. 14

Independent model: independent groups or panels of experts providing scientific advice and conducting assessment and monitoring. An example is the [German Advisory Council on Global Change](#), an independent scientific advisory body created to periodically assess global environmental change and its consequences and to help the institutions responsible for environmental policy, as well as the public, to develop an opinion on these issues.

Integrated model: group of experts integrated into the governmental sphere. It does not only include scientific experts, but also parliamentarians, political decision-makers and other stakeholders. An example is the [German Council for Sustainable Development](#) (RNE), an advisory body for sustainable development operating on the mandate of, and reporting back to, the German Federal Government. RNE seeks to make sustainable development a fundamental goal in all political, economic and societal areas, and develops contributions to the national sustainable development strategy. Another example is the [Belgian Federal Council for Sustainable Development](#), a mixed membership SD advisory body for the Belgian Federal Government, which coordinates Belgium's federal policy on sustainable development. The Council also aims to include civil society on the making of policies on sustainable development.

Assignment model: demand-driven scientific support is provided for policymakers when required. In New Zealand, for example, [Envirolink](#) is a regional council driven funding scheme administrated by the Ministry of Business, Innovation & Employment – Science and Innovation. Envirolink funds research organizations to support and advise regional councils on identified environmental topics and projects, with the aim to translate environmental science knowledge into practical advice.

Nested model: scientific support is organized for policymakers via institutionalized arrangements of nested expert hierarchies (i.e. research institutes). An example is [the Netherlands' Scientific Council for Government Policy](#), an independent advisory body and think tank, which directly advises the Dutch government on several issues relevant for governmental policy. The Council is not limited to a single policy perspective, but integrates a variety of themes, several of which, that are associated with a broad definition of sustainable development. Another examples is the [Federal Planning Bureau](#) in Belgium that conducts studies, reports and foresight on economic, social and environmental policy issues and their integration in the context of sustainable development. Its aim is to support the political decision-making process by sharing its expertise with the government, parliament, social partners and national and international institutions.

Adviser model: scientific advisers are directly informing the highest political actors. For example, the UK [Government Chief scientific Adviser](#) provides scientific advice to the prime minister and cabinet members, advises government on science and technology policies, and monitors the quality and use of scientific evidence and advice in government. A network of departmental Chief Scientific Advisers, in turn, advises the GSCA.

Platform model: deliberative and co-productive knowledge brokering arenas for science-policy interaction. An example is the European Commission funded project [RESPONDER, which](#) focused on sustainable consumption and economic growth and aimed to develop, implement and evaluate a knowledge brokerage system to manage the contradictions between these two often disconnected scientific and political fields.

Mixed model: two or more features of the above mentioned models coexist. An example is the Finnish [Expert Panel on Sustainable Development, which was](#) established ‘to inspire action on sustainable development by giving science a voice on the Finnish political scene’. The panel contributes to public discussions and supports the Finnish National Commission on Sustainable Development.

Knowledge brokerage for sustainable development

Numerous challenges persist while speaking about sustainable development and science-policy interfaces. In the book “Knowledge Brokerage for Sustainable Development” (2016), the authors discuss these challenges and provide recommendations for researchers and policy-makers on how they can enhance mutual understanding. Broadly, knowledge brokerage refers to the link between researchers and decision-makers and the way in which research outcomes actually influence policy-making. In this regard, it is possible to distinguish between **three types of knowledge brokerage conceptualization**⁶²:

1. *Simplified approaches to evidence-based policy-making:* These approaches follow a linear model of knowledge flow. For the simplified approaches, the gap between science and policy is primarily a problem of communicating complex scientific content. Scientific information should be designed and presented in a way that makes its dissemination easier.

⁶² Martinuzzi, A. and Sedlacko M., (2016). Knowledge Brokerage for Sustainable Development. Innovative Tools for Increasing Research Impact and Evidence-Based Policy-Making, Greenleaf Publishing, p. 308.

2. *System-theory-based approaches*: Research and policy-making are perceived as different social systems and, consequently, operationally different and closed networks of communications. This leads to very complicated patterns of exchange between research and policy-makers.

3. *A network-based approach*: This refers to the assumption that exchange is not only about knowledge transfer, but also about elements that allow science and policy-making to enhance their connectivity through social processes, such as long-term interactions in formal and informal settings, trust building over time, and mutual understanding of contexts, rationalities, perspectives and interests.

Science and policy clearly employ different types of interaction formats, and, in addition, they develop temporary organization structures. These **different interaction formats** can be categorized into four archetypes, coined by Martinuzzi (2016) as “**games of knowledge brokerage**”⁶³:

Knowledge brokerage as a “question-and-answer game”: Knowledge brokerage is considered as an exchange of information, which is implemented through an exchange between actors that formulate questions (mostly policy-makers) and actors that formulate answers (mostly researchers).

Knowledge brokerage as an “agenda setting game”: The future of research or policy-making is negotiated in the course of knowledge brokerage. Researchers are involved in policy agenda-setting to improve the evidence base of policies, and policy-makers are involved in research agenda-setting to increase the relevance and practical orientation of research. Such co-creation will produce higher quality and acceptance of the respective agenda.

Knowledge brokerage as a “community-format game”: The community formation game highlights the similarities and shared understanding between policy-makers and researchers, rather than their differences. Perceiving policy-makers and scientists as a community can foster trust and a sense of common purpose, develop collaborative problem solving, organizational capabilities and coordinated activities.

Knowledge brokerage as a “reframing game”: This considers the multitude of paradigms, belief system and world views that shape research and policy-making. Both in research and policy-making, framings have a decisive influence on what is perceived as relevant and desirable. Knowledge brokerage as a reframing game aims to stimulate a debate around this paradigmatic and normative based assumption and offer alternative framings.

⁶³ Idem., p. 310.

Knowledge brokerage plays an increasing role in the context of achieving the SDGs, and in order to reach the Goals, “policymakers, scientists and practitioners from a broad variety of policy fields and disciplines will have to collaborate in a more substantial way”⁶⁴. In this direction, drawing from experiences, Martinuzzi (2016) underlines **important challenges to keep in mind when speaking about sustainable development and knowledge brokerage**⁶⁵:

Sustainable development is a normative and ethical concept: It includes a set of goals based on natural and social science, as well as economics, but with a fundamentally political character representing a particular value system. Knowledge brokerage is, therefore, easier to achieve if researchers and policy-makers have similar paradigms, mind-sets and word-views, otherwise it will be necessary to use knowledge brokerage methods that enable differences in normative-ethical orientations.

Sustainable development is a cross-cutting issue: sustainable development is not a defined policy field nor a single scientific discipline. Consequently, knowledge brokerage for sustainable development is mostly limited to individual issue areas and includes relevant policy-makers and researchers in this area.

Sustainable development requires long-term and global perspective and follows a holistic approach: When it comes to the long-term forecast, knowledge brokerage primarily relies on scientific modelling and predictions that do not always account for tipping points and transition pathways. However, it is essential that policy-makers are familiar with scientific results of such models, as well as being aware of how they function, their underlying assumptions, and their limitations.

Sustainable development has to integrate different societal groups: Knowledge brokerage has to deal with trade-offs, worldviews, cultures, and preferences of stakeholder groups. Irreversible and societally challenged decisions cannot be delegated to scientists, but rather must be taken by policymakers and supported by the inclusion of stakeholders in the decision-making process. In this case, the science-policy interface is extended to include citizens.

Sustainable development research and policy are characterized by a broad variety of paradigms and contested results: Issues like climate change, the dangers of genetic engineering, nuclear energy or economic growth are central to sustainable development. However, these policy areas are characterized by conflicts and significant value differences. Consequently, knowledge brokerage

⁶⁴ Idem., p. 315.

⁶⁵ Ibid.

for sustainable development must communicate content, as well as context, and meta-information to enable contextualization and assessment.

Consider the principle of sustainable science: The scientific debate around sustainability science has already taken up some of these challenges and developed concepts of ideal-typical transdisciplinary research processes (collaborative problem framing and team-building, co-creation of solution-oriented and transferable knowledge, reintegration and application of the co-created knowledge)⁶⁶.

In this context, Niestroy (2007) argues that "moving towards a more sustainable development is a process widely understood as a learning process"⁶⁷. While the scientific community stresses the need for a systems approach to sustainable development, policy-makers are more focused on implementing the SDGs and simultaneously achieve progresses across the economic, social and environmental dimension⁶⁸. The International Council for Science report provides a starting point to understand how a science-informed analysis of interactions across the SDGs can produce a more coherent and effective decision-making, as well as facilitate follow-up and monitoring processes⁶⁹. As Glaser and Bates (2011) pointed out, it is important to foster a connection between the scientific and policy-making communities in order to "make research and scientific information more policy-relevant, and policy development and implementation more science based"⁷⁰, and enhancing, in this way, the transition towards sustainable development.

⁶⁶ Idem., p.317

⁶⁷ Niestroy, I. (2007). Sustainable development governance structures in the European Union. In [Institutionalising sustainable development](#), pp. 67–94. Paris: Organisation for Economic Cooperation and Development.

⁶⁸ International Council for Science (2017). [A Guide to SDG Interactions: from Science to Implementation](#), p. 20

⁶⁹ Ibid.

⁷⁰ Glaser, G. and Bates, P. (2011). [Enhancing Science-Policy Links for Global Sustainability](#). Stakeholder Forum.

5. Strategic Foresight for Policy Planning

The world we live in is characterized by a rapidly changing and complex reality, which makes policy-making, in general, and future policy planning, in particular, very demanding. Strategic foresight can be defined as “the capacity to anticipate alternative futures and an ability to visualize multiple possible outcomes and their consequences”⁷¹. Consequently, it can help to address some contemporary challenges that can be difficult to solve or even to identify. Also described by the UNDP as “processes of anticipation that identify opportunities and threats which may arise in mid- to long-term versions of the future”⁷², foresight can be realized through different approaches. Below, this discussion paper will present four examples of strategic foresight that will be discussed in more detailed during the ESDN Conference 2017 group discussions in Session 3.

Foresight and Scenario Development

In the 20 years since the European Environmental Agency (EEA) published its first SOER, EEA’s understanding of environmental challenges has evolved. They have a better understanding of the links between issues and their interplay with a wide range of economic and social trends. To some degree, this has been reflected in European policy. Policies are increasingly being formulated to address different time and spatial scales which also reflect our growing recognition of the complexity of the issues.

The changing nature, time perspective and context of environmental problems also calls for changing assessment approach and types of information used. More forward-looking environmental integrated assessment calls for the application of methods that will provide insights into future uncertainties and complexities. Foresight becomes an increasingly more relevant approach to support policy and strategy making for at least two reasons: first to deliver information for the forward-looking perspective, second, due to its participatory nature, to integrate various stakeholders’ perspectives at early stages of policy-making. Many tools exist. Visioning and scenario building are important, key approaches to bring light into the possible options for the future, trade-offs, risks and opportunities. Different types of information and methods are needed to

⁷¹ Fuerth, Leon S. (2009). Foresight and anticipatory governance UNDP Global Center for Public Service Excellence (2014). Foresight as a Strategic Long-Term Planning Tool for Developing Countries, p. 6

⁷² UNDP Global Center for Public Service Excellence (2014). Foresight as a Strategic Long-Term Planning Tool for Developing Countries, p. 4

contribute to different purposes and to different phases of the policy cycle. For example, horizon scanning for agenda setting, scenarios building for policy development, stakeholders' perspectives for policy implementation and checking of the robustness of policies through different scenario lenses in the phase of policy evaluation.

For the SOER 2020, the EEA will upgrade traditional thematic trends assessment with a system assessment in the forward-looking perspective. Many new policies have been introduced with clear, long-term perspectives (i.e. low carbon, circular economy, SDGs biodiversity etc), which need to be understood in the context of the EU vision "living well within the limits of our planet". Even if the EEA will not build new scenarios for this purpose, the existing research and other institutions' scenarios and transitions knowledge base will be used to enlighten the environmental forward-looking perspective.

The long term future is very uncertain, there is no data for the future. Different character of the evidence base makes it a very difficult to bring foresight and forward-looking analyses directly into policy-making. The EEA wanted to evaluate success factors and factors of failure of the use and impact of foresight in the policy-making. To learn and raise awareness for that problem, it launched the study "Strategic foresight for sustainability transitions: A review of policy uses and impacts of foresight in selected EEA member countries.

Roadmapping

Roadmapping, as a forward-looking tool, is based on a collective knowledge and expertise of various approaches, and is a suitable tool for framing, structuring and visualising future activities. Although roadmapping is one of the important methods in future-oriented activities, the use of the term "roadmap" in the context of strategic planning in the business sector can be traced back to the 1940s. Motorola is generally acknowledged as playing a key role in popularising "technology roadmapping" in the late 1970s. Since then, the approach has been adopted by many different organizations, at company, sectoral and national levels, to support many different strategic and policy goals.

The Roadmapping session will focus on an introduction of the roadmapping method as a tool for an extended look at the future of a chosen field of inquiry. Participants of the session will get acquainted with the principles of roadmapping and will be walked through the steps of creating a roadmap. Part of the session will also be dedicated to a practical exercise.

Horizon Scanning

Horizon scanning is a technique for detecting early signs of potentially important developments of drivers of change through a systematic examination of potential threats and opportunities⁷³. It aims to help governments analyse if they are adequately prepared to address these potential opportunities and threats, and to ensure that policies are resilient to different future environments. Horizon Scanning determines what is constant, what is subject to changes, and what is constantly changing. This approach can be applied to both, a completely explorative and open research, as well to a specific field.

Horizon scanning is often based on desk research, in order to develop a bigger picture behind the issues under examination⁷⁴. Desk research involves sources, such as Internet, ministries and other governmental agencies, non-governmental organisations, international organisations and companies, research communities, and on-line and off-line databases and journals. Horizon scanning can also be undertaken by small groups of experts that share their perspectives and knowledge with each other, so as to 'scan' how a phenomenon might influence the future⁷⁵.

Strategic Policy-Making

Strengthening the capacity for strategic policy-making by the Government has long been a systemic challenge in Finland. During the present Government term, a new strategy process has been set up, aiming at focusing on clear political priorities and positioning Government policies in a longer perspective, overcoming the regular four year electoral period.

A cornerstone of the new system is a Strategic Government Programme (coalition agreement). This states ten year vision and goals and five prioritized policy areas, as well as major structural reforms of the governance system. The Government's working methods have been changed to support the implementation of the Strategic Government Programme: Every second Monday the Government convenes to a longer Strategy session to discuss the strategy and analyze progress in priority policies. The Government Strategy Secretariat has been established to provide the Government with monitoring and evaluation of its Programme and support the new working methods.

As part of the policy-making reform, a development process has been launched to better integrate sectoral strategies into the Government's Strategic

⁷³OECD, [Overview of methodologies](#)

⁷⁴ Ibid.

⁷⁵ Ibid.

Programme and limit the number of separate Government strategies. Steps have also been taken to strengthen the connection between the Government Strategy and Financial Planning.

