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# Green Public Administration

An introduction in 30 pieces

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## Purpose, context and structure

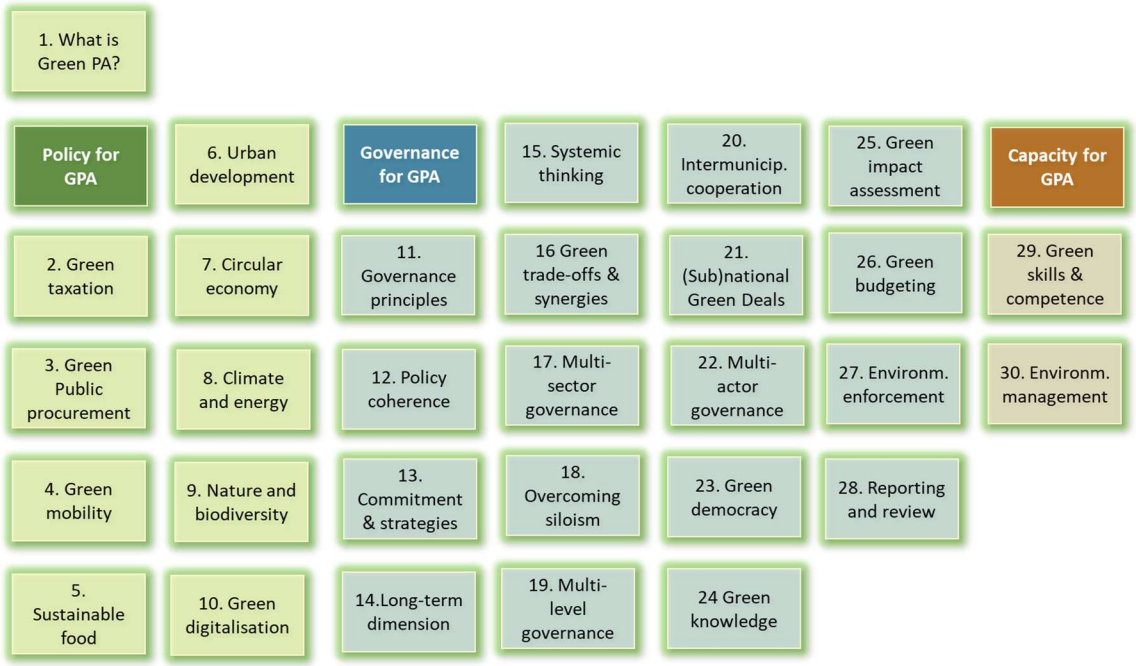
This report aims at bringing together the most important aspects of what 'Green Public Administration' (GPA) entails and how this can be brought about: What is GPA and how to get there? This collection of thematic introductions reflects the growing interest in this topic among public administration and governance practitioners in the Member States and in the EU institutions. It supports the ambition of the ComPAct Communication (Pillar 3): 'Public administrations have a key role in shaping the conditions for economies and societies to deliver on the ambitious 2030 climate and energy targets and should lead by example. They need to mainstream the green transition across all policy areas and governance levels, based on integrated planning, robust evaluations and impact assessments, and wide consultations to ensure that no one is left behind.'

The 30 topics form a concise introduction to GPA with examples and links to further reading.

The topics have the following structure:

1. Introduction
2. Potential impact on the green transition
3. Challenges and solutions
4. Inspiring examples
5. Assessing progress
6. Support, networks, communities of practice, and further reading

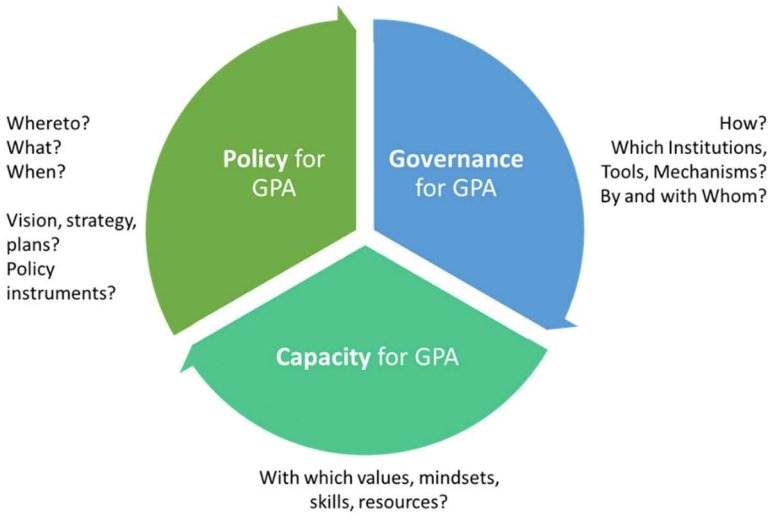
The topics are clustered in three groups: **policy for GPA, governance for GPA**, and **capacity for GPA**:



# 1 Green Public Administration (GPA): What it is and why we need it

## 1.1 Introduction

Public administration creates and manages policies, as well as governance. The latter requires structures and mechanisms 'within government' (and its various levels and sectors), as well as for the interaction with external stakeholders and citizens 'outside government'.




**Green Public Administration (GPA)** can be defined as the processes and structures of decision-making at all levels of government (international, supranational, national, and subnational) which integrate considerations of environmental and climate change issues, to achieve a clean, healthy and sustainable environment for all, in line with the UN Sustainable Development Goals (SDGs) and the obligations under the Paris Agreement.[1] GPA is not only about greening the public administration and its procedures, but also about designing green policies. This report is therefore meant for policy and decision makers in all departments of administrations that are in one way or another involved in green policies, procedures and governance.

With the adoption of the European Green Deal (EGD), the EU has made the green transition a top priority. The green transition is about how the objectives of the EGD can be achieved: Making Europe climate neutral by 2050; protecting biodiversity (life in all its forms and species, and the ecosystems that sustain it, including forests, wetlands and seas); preserving the environment in other ways (e.g. air, water, soil); boosting the economy through green technology, moving towards a circular economy and creating sustainable industry and transport. Turning climate and environmental challenges into opportunities should make the transition just and inclusive for all. These objectives are embedded in the broader, overarching notion of sustainable development,[2] which is anchored legally in EU Treaties as one of the objectives of the EU[3], and politically in the SDGs. This policy context provides the rationale for the green agenda to take shape in public administrations at all levels, and both civil and judicial.

[1] Council of Europe, (2023), Report on Green Public Administration. Available at: https://rm.coe.int/report-on-green-public-administration-final-2784-4437-5304-v-1/1680ad9262

[2] Sustainable development is development that aims to meet the needs of the present while not compromising the ability of future generations to meet their own needs. It combines environmental, social and economic challenges. Source: UN, (1987), Report of the World Commission on Environment and Development: Our Common Future (Brundtland Commission). Available at: https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf

[3] In Article 3 of the Treaty on European Union (TEU); in Article 21 of the TEU concerning the external action of the Union; and in Article 11 of the Treaty on the Functioning of the European Union (TFEU) setting out the integration principle. See https://eur-lex.europa.eu/collection/eu-law/treaties/treaties-force.html#new-2-51

The green transition is also a key priority on the post-COVID-19 Recovery and Resilience Plans (RRPs) of the EU Member States. Each RRP must dedicate 37% of its investments to the green transition. This also applies to the REpowerEU chapters that have been added following the energy crisis, which deal with energy efficiency, among others.

In the 2023 Communication on 'Enhancing the European Administrative Space' (ComPAct), the European Commission has identified **strengthening public administrations' capacity to lead the green transition as one of its three pillars.** Public administrations 'need to mainstream the green transition across all policy areas.' This requires a dedicated focus on three dimensions: (1) the policy process (design, policy instruments, implementation, monitoring and evaluation); (2) governance (the structures, mechanisms and tools to support policy); and (3) capacity, mindsets and skills of public administrators.

## 1.2 Potential impact on the green transition

The multiple crises governments are facing (environmental, health, inequality, geopolitical conflicts) have highlighted the importance of public administration, which has an important role in implementing the state's response to these crises. In that respect, public administrations also play a key role in the EU's response to the climate crisis, by setting rules and standards, creating incentives, participating in actions, and leading by example.

## 1.3 Challenges and solutions

The challenges for GPA are threefold:

- Getting green policies on track and implemented requires political and administrative leadership, and a high priority to solving trade-offs between conflicting interests. This is not a given in all countries, at all levels. Networks of national, regional and local experts, and peer learning between administrations are important means to ensure continuous progress.
- Making sure that green policies have an effective governance framework, and that non-environmental policies have governance mechanisms which try to prevent negative impacts on the green transition. Mainstreaming greening and sustainability in regulatory impact assessments and evaluations is a precondition for this – which is not yet fulfilled in all EU countries, including (and particularly) at the subnational level.
- Providing the resources to enforce existing EU environmental law in the Member States which are across the board insufficient,[4] and the skills and right mindset to address these green challenges.

The green transition is a fundamental, systemic approach, combining long-term thinking with short-term action. Green Public Administration is a comprehensive collection of policies, governance mechanisms and the supporting mindsets, skills and resources to implement the EGD and the SDGs, at all levels, aiming to ensure coherence and to build resilience.

## 1.4 Inspiring examples

Following a conference on 'Green Public Administration in the context of good democratic Governance' and a survey among its 46 member countries, the Council of Europe published a

[4] As shown in the country reports of the EU Environmental Implementation Review (EIR) for 2017, 2019, and 2022.

report with good practice examples of GPA that is one of the key sources for this report. The report contains examples of policies, on governance, and on capacity building:

- **Policy** – Countries integrate environmental concerns such as on climate change, biodiversity loss and resource efficiency in all policy areas, and have established specific strategies and laws to protect the environment. In addition, countries are increasingly using green, sustainable public procurement to integrate climate and environmental considerations into their purchasing activities. Examples include the Netherlands, Belgium, Germany, Greece, Latvia, Lithuania and Slovenia. The European Commission has developed voluntary Green Public Procurement (GPP) criteria for use by national and subnational administrations.
- **Governance** – In Italy the Ministry of Ecological Transition coordinates an Inter-ministerial Committee for Ecological Transition, which is in charge of the national sustainable development strategy.[5] The strategy has a strong focus on governance and promotes policy coherence for sustainable development and on other enabling tools to empower participation and promote a culture for sustainability.[6]
- **Capacity** – Romania has developed a Competence Centre for sustainable development and has already trained 150 civil servants from ministries to become certified sustainable development experts. A second group of around 2 000 subnational civil servants will receive training in 2024-25.

## 1.5 Assessing progress

Monitoring and reporting progress on GPA can be done in the context of the reporting to the EU on the national Recovery and Resilience Plans, in reports on progress on national sustainable development strategies, and/or in Voluntary national/Local reviews of the SDGs. As regards the governance dimension, using the OECD's self-assessment tool on the eight dimensions of policy coherence for sustainable development (PCSD) is recommendable. The tool measures PCSD as one of the targets (17.14) of the SDGs.

## 1.6 Support, networks, communities of practice, and further reading

The European Commission (JRC) has tools, guides and databases available on a range of the topics treated in this report, with a focus on the knowledge dimension. Examples are: the Urban Data Platform Plus; the Food waste prevention calculator; the European Atlas of the Seas; environmental geospatial data of EU countries (INSPIRE).

The United Nations offer a Curriculum on Governance for the SDGs. This is a set of Training of Trainers Toolkits, which contain ready-to-use and customisable training material on key governance measures needed to make the SDGs a reality.

The OECD has prepared guidance and tools supporting public administration to make more coherent policies for sustainable development, among others on institutional capacity and skills. The Centre of Expertise for Multilevel Governance of the Council of Europe offers a number of relevant training and capacity-building tools.

[5] Ibid.
[6] Ibid.

# Part 1. Policies supporting GPA

# 2 Green taxation and green tax shift

## 2.1 Introduction

**Taxing sources of environmental pollution and greenhouse gas emissions** is an efficient and effective way to combat climate change, biodiversity loss and pollution. The aim is to factor environmental damage, or negative externalities, into prices to steer production and consumption choices in an eco-friendlier direction. Carbon pricing is a cost-effective way of reducing emissions, providing incentives for households and businesses to reduce carbon-intensive energy use and shift to cleaner fuels, while also mobilising government revenue.

Not all '**green taxes**' that are meant to support environmental protection are taxes in a strict sense. Charges, duties and levies are also means to finance public activities and can be used to trigger behavioural change. **Environmentally harmful subsidies (EHS)** such as on fossil fuels are the opposite: environmental pollution is rewarded through financial incentives, and hence work contrary to greening. **State aid** – heavily regulated in the EU to protect the internal market – can support or harm environmental policies. The **level of environmental taxation** in a country has been a quality criterion in the European Semester cycle of economic governance from the very beginning in 2011, with relevant Country-Specific Recommendations (CSRs) for around half of the EU Member States during some years.

The European Green Deal (December 2019) promotes **green fiscal reform**. It states that, "**Well-designed tax reforms can boost economic growth and resilience to climate shocks** and help contribute to a fairer society and to a just transition. They play a direct role by sending the right price signals and providing the right incentives for sustainable behaviour by producers, users and consumers. At national level, the European Green Deal will create the context for broad-based tax reforms, removing subsidies for fossil fuels, **shifting the tax burden from labour to pollution**, and taking into account social considerations."

High labour taxes, which are in some EU countries around 50 % of total labour costs, make labour expensive. Decreasing these taxes is therefore generally seen as stimulating economic productivity and competitiveness. The revenues of increased taxes on natural resources and pollution can be used to lower the tax burden on labour and increase (social) spending. This creates incentives to save resources and the natural world, enables job creation and supports those who need it most. The think tank Ex'Tax has underpinned the feasibility of the tax shift with a study which has received broad support from the European Commission, the European Parliament and big players in the private sector.

## 2.2 Potential impact on the green transition

The application of sustainability criteria in the **tax base** of countries (and in as far relevant, subnational governments) has the potential to be one of the most impactful tools at the disposal of governments in their efforts to deliver the Sustainable Development Goals by 2030 and accelerate the green transition.

The **tax shift potential** is assessed by the Commission based on criteria such as distance to EU average of labour tax. In a 2022 report, Ex'Tax assessed the potential for EU Member States and presented a roadmap for rebalancing of the tax mix, both at national levels and in an EU context, and a set of 20 examples of tax shift measures.

**Phasing out EHS** by 2020 was an optimistic objective of the EU's 7th Environmental Action Plan (2013), which failed to materialise. The European Green Deal has put this in a broader context of greening the budget, arguing that a greater use of green budgeting tools will help to redirect public investment, consumption and taxation to green priorities and away from harmful subsidies. Fossil fuel subsidies also figure as a hot topic at recent United Nations Framework Convention on Climate Change (UNFCCC) Climate Conferences of the Parties (COPs), such as COP28 (December 2023).

## 2.3 Challenges and solutions

Despite calls for more environmental taxes at the national, European and global levels, **implementation has been very slow**. In the EU, environmental taxes account for 5.0 % of total taxes, less than the 6.6 % 20 years ago.[7] The long-standing idea of shifting taxes from labour to environment in support of sustainability objectives has largely not been realised.

One argument against shifting taxation from labour to environment (or against raising environmental taxes) is that it will generate less income when it reaches its objective of decreasing environmental pollution. An example of how **environmental taxes may erode** is that changes in the way people travel or heat their homes could lead to drastic revenue losses from energy taxation.

Nevertheless, as the World Bank argues, **green taxes or fossil fuel subsidy reforms are urgent** and can help countries raise revenues at lower cost than other conventional taxes, while accelerating investments in renewables. However, the unfounded idea that decarbonisation is always conflicting with economic growth and the lack of knowledge for best-practice policy design have resulted in insufficient action on climate.

## 2.4 Inspiring examples

Many EU Member States, including **Estonia, Greece, Latvia, Malta** and **Romania**, have incorporated a 'pay as you throw' tax that applies to the weight or volume of waste generated by households and businesses and collected by the waste collection authorities.[8] This instrument supports the waste prevention principle.

[7] EEA 2022. Briefing: The role of (environmental) taxation in supporting sustainability transitions.
[8] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Environmental Implementation Review 2022: Turning the tide through environmental compliance, COM (2022) 438 final, p.19. Available at: https://eur-lex.europa.eu/resource.html?uri=cellar:784da925-2f5e-11ed-975d-01aa75ed71a1.0005.02/DOC_1&format=PDF

In early 2024 an expert group established by the Government of **Denmark** published an extensive report with ideas for the green tax reform.[9]

## 2.5 Assessing progress

Eurostat provides annual data on environmental taxes. Detailed analysis can be found in the annual European Semester country reports. The 2024 country report for Bulgaria states that the high level of environmental tax revenues (15.3 % of total taxation in 2022) is mostly due to energy taxes: 'pollution and resources taxes only account for 0.1 % of total tax revenue, indicating that there is potential to strengthen the application of the 'polluter pays' principle.'[10]

## 2.6 Support, networks, communities of practice, and further reading

Further reading: Green Taxation – in support of a more sustainable future (European Commission). Environmental tax statistics (Eurostat). Tax and the environment (OECD). Environmental Tax (World Bank). Understanding environmental taxation (European Parliament).

The Green Finance Platform (GFP) is a global network of organisations and experts that address major knowledge gaps in sustainable finance.

The European Environment Bureau (EEB) – the Brussels' umbrella of national environmental NGOs - has taken over the work carried out in the past by the Green Budget Europe network of eminent academics and influential economists, on promoting environmental fiscal reform. More information: The EEB Green Budget Working Group. Information can also be found at the Forum Ökologisch-Soziale Marktwirtschaft (FÖS), internationally known as the think tank Green Budget Germany (GBG).

[9] Expert Group for a Green Tax Reform, (2024), Green Tax Reform: Final Report. Available at: https://skm.dk/media/tngh1b4r/green-tax-reform-final-report.pdf

[10] Commission Staff Working Document 2024. Country Report - Bulgaria Accompanying the document Recommendation for Council Recommendation on the economic, social, employment, structural and budgetary policies of Bulgaria, COM (2024) 602 final – SWD (2024) 600 final. Available at: https://economy-finance.ec.europa.eu/document/download/e3051272-7476-414a-bcf8-0c30edb8992c_en?filename=SWD_2024_602_1_EN_Bulgaria.pdf

# 3 Green public procurement

## 3.1 Introduction

Public authorities buy a huge range of goods and services. Public procurement represents, on average, 13 % to 20 % of gross domestic product (GDP).[11] Traditionally, public procurement policy has focused on buying the least expensive products and services. However, every product we buy has a range of environmental impacts, across the product life-cycle.

**Green public procurement** (GPP) means procuring goods, services, and works with a reduced environmental impact throughout their life cycle.[12] This means, for example, requiring high energy efficiency standards for buildings and products; purchasing green electricity; and shifting to zero emission vehicles (and encouraging suppliers to do the same).

GPP happens at all levels of government. It usually starts with a political commitment and an action plan. Then, products or product groups need to be defined, with green and less green options and their price. Existing examples of how to define a green product are helpful, but as the market reacts to demands, GPP is expected to stimulate product innovation. This implies that GPP requirements may need to be adapted over time. Guidance needs to be provided across different government departments on how to decide which products to purchase, and on how to tackle the trade-offs between (green) quality and price. Reporting on progress and challenges is also part of GPP. See further information in the European Commission's Help Desk on GPP, and its Green Public Procurement Toolkit.

**Sustainable public procurement** (SPP) adds to this a focus on social impacts, including human rights. Promotion of sustainable public procurement is an explicit objective of SDG 12. Its target 12.7 includes the commitment to "promote public procurement practices that are sustainable, in accordance with national policies and priorities." This provides an opportunity for countries to move from procuring only from suppliers that deliver the least expensive products to prioritising procurement from suppliers that respect human rights and the environment. The main purpose of SPP is to strike a balance between environmental, social and economic aspects of consumption and production and, more specifically, to lend greater weight to social and environmental factors in the purchasing decisions of manufacturers, suppliers and consumers.

## 3.2 Potential impact on the green transition

Given the large scale of public investment in most countries, the application of sustainability criteria in public procurement is one of the most impactful tools at the disposal of governments

[11] World Bank, Global Public Procurement Database. Available at: www.worldbank.org/en/topic/governance/brief/global-public-procurement-database
[12] https://green-business.ec.europa.eu/green-public-procurement_en

in their efforts to deliver the Sustainable Development Goals by 2030 and accelerate the green transition. Sustainable public procurement (SPP) and green public procurement (GPP) enable governments to lead by example, stimulating markets for sustainable products and services, encouraging innovation and helping steer society towards more sustainable consumption and production patterns.[13]

## 3.3 Challenges and solutions

The clear rationale that public procurement can help accelerate the green and sustainable transitions has not yet resulted in it becoming rapidly a mainstream tool. One reason is that some consider SPP/GPP to represent unwelcome interference in free markets. Another is that public procurement is often viewed as a technical tool with a focus on cost-saving, rather than as a means to achieve policy goals in other areas, such as the environment. In addition, existing institutional mechanisms are often inadequate for ensuring mainstreaming. For example, the absence of a co-ordinating body for GPA; lack of common guidelines on how to launch GPP; and the absence of ex post evaluation of procedures and impact can limit progress on GPP. Moreover, public authorities often do not have the resources or skills to fully assess product attributes and confirm that they really are sustainable, while businesses sometimes overpromise regarding the sustainability characteristics of their products.

The **European Commission** has been leading the way in take-up of SPP/GPP. The Commission has provided legal guidance on how to incorporate green requirements into public procurement processes. The EU GPP criteria are developed to facilitate the inclusion of green requirements in public tender documents. Tools to provide training activities in this area have also been developed and a help desk has been established to allow public procurers to ask questions about the incorporation of green requirements into public procurement processes. The Commission also has an online good practice library. Moreover, the EU Ecolabel helps consumers, retailers and businesses make truly sustainable choices. It targets precisely the difficulty of assessing the environmental footprint of products (which is very common in green procurement). This becomes even more important in cases of 'urgent' purchases (e.g. for hospitals), where there is very little time to assess environmental criteria and therefore it is sometimes avoided.

## 3.4 Inspiring examples

The **Netherlands** plans to become 50 % "circular" by 2030, rising to 100 % by 2050, and progress in the adoption of SPP is expected to accelerate the achievement of those targets. In the first phase of the introduction of SPP in the Netherlands, emphasis was placed on a voluntary, networked style of governance. Starting up **networks** of practitioners and **piloting** new approaches was key to encouraging public procurers, while it also proved that SPP was feasible and not necessarily more expensive than conventional approaches. In the second phase, it was necessary to accelerate the shift towards specific instruments to create a larger volume of sustainable procurement. SPP targets have been incorporated into the country's National Climate Agreement, for example.[14]

**Procura+** is a network of European public authorities and regions that connect, exchange and act on sustainable and innovation procurement, initiated and co-ordinated by ICLEI - Local

[13] UNCEPA, (2021), Sustainable public procurement in the decade of action and delivery for sustainable development. Paper prepared for the Twentieth session of the UN Committee of Experts on Public Administration, 12–16 April 2021. Available at: https://documents.un.org/doc/undoc/gen/n21/025/02/pdf/n2102502.pdf
[14] UNCEPA, (2021), op. cit.

Governments for Sustainability (originally, the International Council for Local Environmental Initiatives, ICLEI).

## 3.5 Assessing progress

To monitor progress on SPP, national statistical offices and the UN have developed a composite **indicator** that measures the implementation status of sustainable public procurement policies and action plans of countries.[15]

Public procurement practitioners often use the Methodology for Assessing Procurement Systems (MAPS) as a diagnostic tool to review public procurement systems. The Methodology assesses procurement systems according to four criteria, covering legal, institutional, market and accountability aspects.

## 3.6 Support, networks, communities of practice, and further reading

The European Commission has a Help Desk on GPP. Some countries have set up a specific institution designated to promote SPP, like the Public Procurement Expertise Centre in the Netherlands. To share its **experiences and learning** from others, the institute is actively working with governments in Asia, North America, Latin America and Africa.

Targeted **training** could enhance skills sets, as part of academic programmes, for example, with a view to ensuring that procurers are fully aware of the SPP methods and tools available to them. Online trainings (the GPP Training Toolkit) are available from the European Commission. For EU countries, the TAIEX/EIR **peer learning tool** can be used to finance and organise peer learning in SPP/GPP between countries.

**Procura+** (see also inspiring examples) is a network of European public authorities and regions that connect, exchange and act on sustainable and innovation procurement, initiated and co-ordinated by ICLEI - Local Governments for Sustainability (originally, the International Council for Local Environmental Initiatives, ICLEI).

[15] See https://unstats.un.org/sdgs/metadata/files/Metadata-12-07-01.pdf

# 4 Green mobility transition

## 4.1 Introduction

Sustainable mobility is a key element to reducing pressures on environment and health, improving energy efficiency, connecting European citizens and businesses and providing the infrastructure for sustainable economic growth. As part of the European Green Deal, the European Commission's **Sustainable and Smart Mobility Strategy** lays the foundation for how the EU transport system can achieve its green and digital transformation and become more resilient to future crises. The strategy aims at boosting the uptake of zero-emission, clean vehicles and the necessary infrastructure, enhancing sustainable mobility, e.g. high-speed rail traffic and cycling infrastructure, greening freight transport, promoting digital and smart multimodal mobility schemes, making sustainable mobility affordable for all and accessible in all regions and completing the Trans-European Transport Network (TEN-T).

**Urban mobility** is at the heart of the sustainable mobility transition. The new European Urban Mobility Framework aims to create more sustainable, inclusive, and efficient urban mobility systems across Europe through Sustainable Urban Mobility Plans (SUMPs) of cities and the promotion of seamless integration of various transport modes to create a more cohesive and user-friendly mobility network, smart and digital mobility solutions, decarbonising urban transport and ensuring its accessibility for all citizens.

The green mobility transition is a good example of a policy area where the **public administration can lead by example** through green public procurement.

## 4.2 Potential impact on the green transition

Shifting towards sustainable mobility has a substantial impact on the green and sustainable transition since the transport sector causes heavy negative impacts on the environment and human health. Transport is responsible for about a quarter of the EU's total greenhouse gas (GHG) emissions, and causes air pollution, noise pollution and habitat fragmentation. Changing urban mobility models provides huge potential for citizens health and life quality.

## 4.3 Challenges and solutions

Transport is the only major economic sector in Europe where GHGs have increased since 1990. It is also the largest contributor to nitrogen oxides emissions harming health and the environment. Progress in emission standards for cars and trucks, planes, and ships is outpaced by the ongoing overall increasing transport volume. The Green Deal objective of a 90 % reduction in transport-related GHG emissions by 2050 cannot be achieved through incremental change but requires a shift towards a different mobility system that prioritises public transport, includes active urban mobility, such as cycling and walking, and also considers mobility reduction, e.g. through work-from-home schemes.

## 4.4 Inspiring examples

The EU Urban Mobility Observatory presents many inspiring examples and case studies on sustainable urban mobility. For example, **Paris** has set up an ambitious plan for bikes (*Plan Vélo)* with the vision of a completely cyclable city with a network of cycling routes and the installation of secure cycle parking spaces, financial support to companies selling and maintaining bicycles, the introduction of speed limits to increase road and cycling safety, training for schoolchildren in cycling safety and many other measures. As a result, over the past years the share of cycling in urban mobility has drastically increased.[16]

Successful mobility transition projects must build on integrated planning processes and citizens participation. **Barcelona** has the objective to develop an urban and social structure where active mobility and public transport have priority instead of the current model of highways and roads planned in the 1970s. As a pilot the planning process for a major metropolitan avenue was carried out in a participative and integrated manner. Interdisciplinary teams addressed not solely transport, but urban planning, the regeneration of space and the building stock, the use of heritage and natural assets, as well as the connectivity of neighbourhoods and between municipalities. Participatory co-creation groups with citizens defined the most important issues to address, to create an inclusive mixed and integrated urban development.[17]

Barcelona's Municipal Infrastructures SA (BIMSA) has shifted its strategy to sustainable transportation through **green public procurement of electric vehicles**.

## 4.5 Assessing progress

The European Commission has developed a comprehensive set of practical and reliable Sustainable Urban Mobility Indicators (SUMI) that support cities to perform a standardised evaluation of their mobility system and to measure improvements that result from sustainable urban mobility practices.

## 4.6 Support, networks, communities of practice, and further reading

The EU is funding the implementation of the Trans-European Transport Network (TEN-T) and investment into smart and sustainable mobility with the Connecting Europe Facility.

The EU Urban Mobility Observatory offers a virtual space for experts working on sustainable urban mobility across the European Union providing news and information, guidance on urban mobility planning and a valuable collection of case studies and good practice examples.[18]

CIVITAS is a network of cities, for cities, dedicated to sustainable urban mobility for peer exchange, networking and training. At the global level the Mobility Academy offers e-learning for sustainable mobility.[19]

[16] Pro-cycling initiatives of Paris, Milan, and Brussels can be found at https://urban-mobility-observatory.transport.ec.europa.eu/resources/case-studies/best-practice-boosting-cycling-modal-share-and-creating-safe-sustainable-cities_en

[17] https://urban-mobility-observatory.transport.ec.europa.eu/resources/case-studies/avinguda-del-valles-barcelona-humanising-n-150-road-metropolitan-avenue_en

[18]

[19] Another sustainable mobility platform is https://greenmobilitycollabplatform.eu

# 5 Sustainable food transition

## 5.1 Introduction

Current food systems are not sustainable. They account for nearly one-third of global GHG emissions, consume large amounts of natural resources, result in biodiversity loss and negative health impacts (due to both under- and over-nutrition) and do not allow fair economic returns and livelihoods for all actors, in particular for primary producers. The shift towards a more sustainable food system has been promoted in the EU through the 'greening' of the Common Agricultural Policy, sustainable fisheries policies, the support to organic farming, the Biodiversity Strategy and the Circular Economy Action Plan. In 2021 the Commission launched an integrated **Farm to Fork Strategy**. As part of the European Green Deal this strategy promotes fair, healthy, and sustainable food systems that have a neutral or positive environmental impact. These systems should help mitigate climate change and adapt to its impacts. They should also help reverse the loss of biodiversity, ensure food security, nutrition, and public health, whilst making sure that everyone has access to sufficient, safe, nutritious, sustainable food.[20] These food systems should also preserve affordability of food while generating fairer economic returns, fostering competitiveness of the EU supply sector, and promoting fair trade.[21]

Governments of EU Member States are equally taking action, and several Member States have issued or are in the process of issuing national food strategies.[22]

Cities are at the forefront to take initiatives. In the **Milan Urban Food Policy Pact,** cities from around the world, including several European cities, committed to achieve a 'planetary health diet' by 2030 by aligning food procurement, promoting a healthy plant-based food consumption, halving food loss and waste and working in multi-stakeholder alliances.[23]

## 5.2 Potential impact on the green transition

Because of the heavy environmental footprint of the food chain (land-use and agriculture, food processing, food consumption and waste), the shift to sustainability is of major importance for the green and sustainability transition, also considering the substantial spillover effects from the EU to other countries. Without substantial changes, greenhouse gas emissions from the food sector globally are expected to increase by 38 % by 2050.

[20] European Commission, (2020), Farm to Fork Strategy: For a fair, health and environmentally-friendly food system. Available at: https://food.ec.europa.eu/document/download/472acca8-7f7b-4171-98b0-ed76720d68d3_en?filename=f2f_action-plan_2020_strategy-info_en.pdf
[21] Ibid.
[22] https://www.iddri.org/en/publications-and-events/blog-post/national-food-strategies-need-coordinated-action
[23]

## 5.3 Challenges and solutions

The EU legislative initiative on sustainable food, part of the Farm to Fork Strategy and intended to be adopted by the end of 2023, is delayed and encountered substantial pushback from the agrifood sector and political groups. Civil society groups, including over 160 organisations, have actively urged the European Commission to proceed with an ambitious proposal in a joint open letter to the President of the European Commission.[24]

On a positive note, national and subnational governments, as well as civil society and businesses are taking initiatives supporting the sustainable food transition.

## 5.4 Inspiring examples

In January 2024, the Government of **Germany** adopted a Food and Nutrition Strategy, based on an inclusive process with stakeholders and citizens councils. The strategy's approach integrates the social, economic and environmental dimensions of food supply and consumption. It aims at supporting a plant-based healthy diet for all citizens, also in schools, childcare and canteens, the promotion of supply chains from food that is produced in a sustainable manner and the reduction of food losses and waste.[25]

**Budapest** is strongly engaged in the promotion of sustainable food. The city established a Food Policy Network for the involvement and cooperation of actors of the city-region's food sphere in the development of food policies and an integrated food strategy for the area. The Network supports the implementation of measures to create sustainable rural-urban food systems.[26]

The website of the **Milan** Urban Food Policy Pact entails more examples for sustainable urban food policy.

## 5.5 Assessing progress

As part of the SDG monitoring, Eurostat monitors the implementation of SDG 2 which includes tracking developments in obesity, the sustainability of agricultural production, and the environmental impacts of agricultural activities on land, water and atmosphere in the EU context.[27] The Farm-to-Fork Strategy foresees the creation of more comprehensive monitoring systems for sustainable food.[28] The Milan Urban Food Policy Pact has developed indicators to monitor the implementation of the Pact.[29]

[24] EuroHealthNet, (2023), Joint open letter: Publish the EU legislative framework for Sustainable Food Systems before the end of this Commission's mandate, 6 September 2023. Available at: https://eurohealthnet.eu/publication/joint-open-letter-publish-the-eu-legislative-framework-for-sustainable-food-systems-before-the-end-of-this-commissions-mandate/
[25] https://www.bmel.de/EN/topics/food-and-nutrition/food-nutrition-strategy.html
[26] https://foodclic.eu/city-regions/budapest-city-region
[27] https://ec.europa.eu/eurostat/web/sdi/database/zero-hunger
[28] See Farm to Fork Strategy, section 2.2. Available at : https://food.ec.europa.eu/document/download/472acca8-7f7b-4171-98b0-ed76720d68d3_en?filename=f2f_action-plan_2020_strategy-info_en.pdf
[29] https://www.milanurbanfoodpolicypact.org/the-milan-pact/

## 5.6 Support, networks, communities of practice, and further reading

In 2020, an expert group of independent scientific advisors put together recommendations to the European Commission in the report 'Towards a sustainable food system'.[30]

A methodology for the creation of national sustainable food action plans has been published by the think-tank IDDRI.

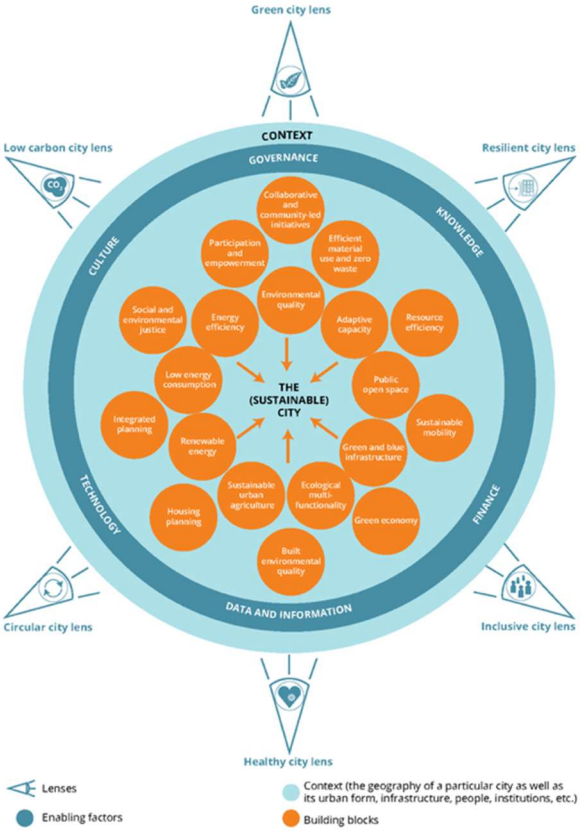
The Milan Urban Food Policy Pact is a concrete working tool for cities providing information and knowledge and good practice examples. Cleverfood is a project promoting Europe's food system and supporting actors with policy, living labs, public engagement toolkits and a FOOD 2030 collaboration network. Another relevant platform is the EU Food Policy Coalition. Further in-depth information has been published by the Ellen MacArthur Foundation and the Institute for European Environmental Policy (IEEP).

[30] European Commission Directorate-General for Research and Innovation and Group of Chief Scientific Advisors, (2020), Towards a sustainable food system – Moving from food as a commodity to food as more of a common good – Independent expert report, Publications Office, 2020. Available at: https://data.europa.eu/doi/10.2777/282386

# 6 Green urban development and building

## 6.1 Introduction

Most Europeans live and work in cities, towns and suburbs. The quality of life in urban areas depends on the quality of the local environment, e.g. on the quality of the air and water, access to nature and biodiversity, levels of noise pollution, and increasingly, the ability to keep cool as temperatures rise. Cities are where most resources are consumed and where many environmental challenges are found. At the same time, cities offer opportunities to tackle environmental issues, with people living and working closer together, managing and sharing resources efficiently using the principles of the circular economy, reducing the need for private motorised transport, and living in more energy efficient buildings.




To protect human health and the environment, the **EU's urban policy** aims to improve the quality of life in cities through clean air and water management, circular economy and waste, sustainable energy and mobility, protecting nature and biodiversity, and ensuring that citizens are not exposed to excessive noise. Green cities integrate these objectives into their urban development planning. **Green infrastructure** in cities, e.g. urban green spaces, provide ecosystem services with substantial benefits for urban life quality.[31]

Greening urban development is an essential element of SDG 11 to make cities and human settlements inclusive, safe, resilient, and sustainable, and are an important part of the broader EU Urban Agenda.

Urban systems are inherently complex. The European Environment Agency (EEA) developed a conceptual model and selected six observation and analysis lenses to assess the role of cities in urban transitions towards environmental sustainability, within the broad European Green Deal framework and the EU Urban Agenda.[32]

To achieve an accelerated energy efficient renovation of buildings the European Commission launched the Renovation Wave for Europe, and the Directive on Energy Performance of Buildings was updated.

[31] https://environment.ec.europa.eu/topics/nature-and-biodiversity/green-infrastructure_en
[32] https://www.eea.europa.eu/en/topics/in-depth/urban-sustainability/how-can-cities-transform-to-become-more-sustainable

## 6.2 Potential impact on the green transition

Green and sustainable urban development has a huge potential to contribute to the green and sustainable transition since a large share of environmental pressures are related to cities and urban life. The EU building stock accounts for 40 % of energy consumption and 36 % of GHG emissions.[33] The 2030 climate and energy targets require a reduction in the greenhouse gas emissions for buildings of 60 %, a reduction in their final energy consumption of 14 %, and a reduction of 18 % in their energy consumption for heating and cooling. Health and the quality of life of most EU citizens depend on the quality of the urban environment.

## 6.3 Challenges and solutions

However, changing the urban environment and infrastructure takes long time spans. Nowadays, most European cities are struggling with 'grey infrastructure', pollution, car traffic and 75 % of the European building stock is energy inefficient. Until 2020 across the EU, deep renovations that reduce energy consumption by at least 60 % were carried out only in 0.2 % of the building stock per year and in some regions, energy renovation rates are virtually absent. At this pace, cutting carbon emissions from the building sector to net-zero would require centuries.[34]

In Europe and worldwide, many cities have included green urban development in their local agenda. Since 2010 the European Commission selected each year a European city for the **Green Capital Award**, and a smaller city for the **Green Leaf Award**. The EU Green Capital & EU Green Leaf Awards website with the winners and finalists of these awards has developed into a compendium of examples for green and sustainable urban development.

Green public procurement can contribute to several aspects of green urban development, such as low-energy buildings, sustainable public transport, and resource efficiency (energy, water, etc).

## 6.4 Inspiring examples

**Grenoble**, the green capital of 2022, has decided to improve the city's living environment using green areas and eco-neighbourhoods. Grenoble is working towards a 50 % GHG emission reduction by 2030, is strongly committed to improved energy performance and created a Commitment Charter engaging local players.

**Tallinn**, the 2023 green capital, adopted the ambitious development strategy "Tallinn 2035", addressing carbon neutrality, climate adaptation, innovation, health, mobility, biodiversity, circular economy, sustainable energy and food production. Public transport in Tallinn is provided for free since 2013. The goal is that citizens should be able to reach all necessary infrastructure within 15 minutes without using their own car.

## 6.5 Assessing progress

As for non-urban areas, progress in implementation of environmental law in cities is monitored in the context of the specific monitoring schemes in the relevant environmental policy areas, such as clean air, water and waste management.

[33] https://commission.europa.eu/news/focus-energy-efficiency-buildings-2020-02-17_en
[34] See COM/2020/662 final, chapter 1. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0662#:~:text=COM%20(2020)%20662%20final.%20COMMUNICATION%20FROM%20THE%20COMMISSION%20TO%20THE

An overarching monitoring framework for the SDG 11 on sustainable cities and communities with specific targets and indicators is applied by Eurostat.

## 6.6 Support, networks, communities of practice, and further reading

The European Green Capital and Green Leaf Awards provides a good network and community of practice for cities dedicated to green urban.

To support the EU Urban Agenda, the European Commission has created URBACT, which is a platform and financing programme to promote networks, good practice exchange and mutual learning between cities who are actively participating in the EU Urban Agenda and implementing sustainable change.

Two TAIEX tools are supporting peer learning between administrations at all levels, on urban development and green challenges: TAIEX—REGIO Peer2Peer+ and TAIEX-EIR.

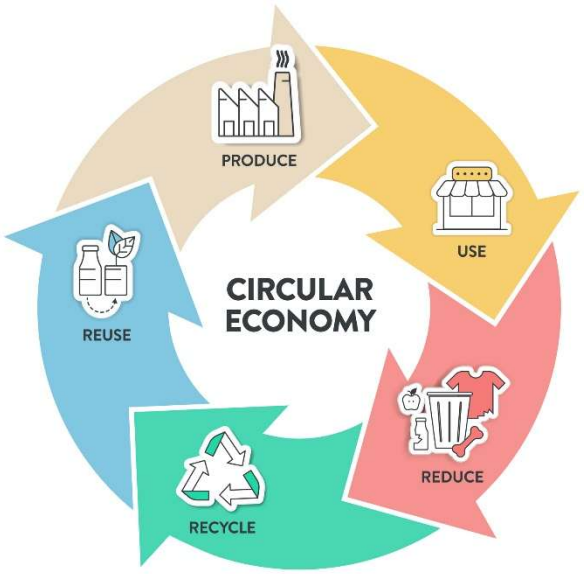
ICLEI-Local Governments for Sustainability Europe provides valuable resources for sustainable local development.

The Oppla platform is a Repository of Nature-Based Solutions in the EU. It provides a knowledge marketplace, where the latest thinking on natural capital, ecosystem services and nature-based solutions is brought together.

# 7 Circular economy

## 7.1 Introduction

**Resource use** is a key driver of what UNFCCC calls the triple planetary crisis of climate change, pollution and biodiversity loss.[35] The current linear economy model continually increases its demands of scarce natural resources. In a circular economy instead, the value of products, materials and resources is maintained in the economy for as long as possible, and the generation of waste is minimized. By using and consuming in a more circular way, we can substantially reduce the impacts of human economic activities on the environment, including on biodiversity. Moving away from the linear "take-make-use-dispose" model and transitioning to a regenerative growth model is essential to keep resource consumption within planetary boundaries.




The transition towards the circular economy is one of the pillars of the European Green Deal. Based on the **Circular Economy Action Plan** from 2020 the European Commission has taken a series of steps promoting this transition. This includes the improvement of eco-design of products, and empowering consumers to choose sustainable consumption options. It also includes measures to reduce the environmental footprint of products along their entire life cycle and strengthening secondary raw materials use and waste recycling.

The circular economy implies transformational changes in production and consumption patterns and lifestyles that can only be achieved by multi-stakeholder action. Public administrations have a crucial role in this. Green public administration implies providing leadership at all levels, setting up legal frameworks and standards for products, reuse and recycling, creating the necessary infrastructure, coordinating stakeholder action, and promoting awareness and knowledge exchange.

## 7.2 Potential impact on the green transition

Half of total greenhouse gas emissions and more than 90 % of biodiversity loss and water stress come from resource extraction and processing. Thus scaling up the circular economy will make a decisive contribution to achieving climate neutrality by 2050 and decoupling economic growth from resource use. It will also contribute to the long-term competitiveness of the EU and leaving no one behind. Applying circular economy principles across the EU economy has the potential to increase EU GDP by an additional 0.5 % by 2030 creating around 700 000 new jobs.[36]

[35] United Nations Framework Convention on Climate Change (https://unfccc.int/news/what-is-the-triple-planetary-crisis)
[36] A new Circular Economy Action Plan For a cleaner and more competitive Europe, COM/2020/98 final, Introduction section. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN

## 7.3 Challenges and solutions

Despite remarkable progress in reducing waste disposal, increasing the waste recovery, and recycling and although a modest decoupling of EU resource use from economic growth can be observed, Europe continues to operate under a predominantly linear model, where products placed on the market tend to have a relatively short use phase. Business models still primarily revolve around mass-producing products, often sacrificing quality, and this results in early breakdown or premature obsolescence.[37] Consumption levels in the EU are high and continue to rise, leading to growing raw material demand and production activity. Fundamental changes to consumption behaviour are required, including favouring products with lower environmental impacts, and shifting to reuse, sharing and product-as-a-service models. Only 11.5 % of the material consumption in the EU comes from secondary raw materials. Closing loops is particularly difficult for certain material streams, such as plastic.

Green administrations at city and regional level are important drivers of the circular economy transition. They are the closest governance level to Europe's citizens and sources of innovation, socio-economic transformation and circular ecosystems. They are thereby well placed to drive change towards a sustainable, regenerative and inclusive circular economy. Many cities and regions are already drawing up their own plans to improve circularity in their economic sectors, value chains and services.

## 7.4 Inspiring examples

**Circular cities** in Europe and around the world embedding the principles of the circular economy across the entire urban area are frontrunners in this context. They aim at operating urban development as an interconnected network of systems that are designed to eliminate waste and pollution, circulate products and materials, and regenerate nature, while being powered by renewable energy. This happens in a collaboration between citizens, government, research facilities, and businesses. In practice this means products, services, infrastructure, buildings, and vehicles are designed to be durable, adaptable, modular, easy to maintain and repurpose, and locally sourced. Everything can be composted, reused, or recycled. Nature is flourishing, abundant, and used as design inspiration. The result is a thriving local economy that provides a vibrant, liveable and resilient way of life.[38]

The **City of Amsterdam**, in the Netherlands, has set itself the ultimate goal of becoming a fully circular city by 2050. The city has developed open-access tools and methodologies that are helping accelerate the transition to a circular economy. These fall under three key sectors: food and organic waste streams, consumer goods, and the built environment.[39]

In Spain, the **Castilla y León Regional Government** adopted its own Circular Economy Strategy in October 2021 with the aim of making the region a competitive and innovative territory by 2030, based on a regenerative and carbon neutral model. The pilot will contribute to the development and implementation of the Circular Economy Action Plan to build a circular economy ecosystem. In this pilot, a systemic circular solution for nutrient recovery will be

[37] EEA, 2024, Accelerating the circular economy in Europe, p. 5. Available at: https://www.eea.europa.eu/en/newsroom/news/now-is-the-time-to

[38] See Ellen MacArthur Foundation, Circular cities website at https://www.ellenmacarthurfoundation.org/topics/cities/overview

[39] See Ellen MacArthur Foundation, Circular cities website at https://www.ellenmacarthurfoundation.org/circular-examples/shaping-a-sharing-economy-amsterdam. Many more inspiring examples of circular cities are presented on this website

developed, making an efficient use of natural renewable resources, developing cascade uses and returning biowaste and biomass to nature.[40]

The Belgian region **Flanders** has created the network and inspiration hub Circular Flanders. This is a partnership of governments, companies, civil society, and the knowledge community that will develop strategies, policies and actions together striving to decouple the material footprint created by Flemish consumption from economic growth and reduce that footprint substantially.

## 7.5 Assessing progress

The European Commission has established the EU monitoring framework on the circular economy to monitor progress towards a circular economy, and its direct and indirect benefits. This allows the EU and national authorities to assess whether policies are effective and to identify best practices.

## 7.6 Support, networks, communities of practice, and further reading

As part the Circular Economy Action Plan the European Commission has launched the Circular Cities and Regions Initiative, which assists stakeholders across Europe's cities and regions, including regional and local authorities, industry representatives, research and technology organisations and civil society. It provides comprehensive support over the whole life cycle of local and regional circular economy initiatives.

The European Investment Bank (EIB) published a guidebook on the circular economy that presents how the EIB supports the circular economy through financing, advisory, and awareness raising. Also, together with the European Economic and Social Committee the European Commission has created the European Circular Economy Stakeholder Platform (ECESP). The Platform was established as a "network of networks" for stakeholders active in the broad field of the circular economy in Europe. It goes beyond sectorial activities and highlights cross-sector opportunities. It also provides a meeting place for stakeholders to share and scale up effective solutions and address specific challenges. The Platform bridges existing initiatives at local, regional and national level, and supports the implementation of the circular economy.

A good knowledge source for the circular economy is the Ellen MacArthur Foundation. Further support platforms are operated by ICLEI-Local Governments for Sustainability, ACR+, and Zero Waste Europe.

[40] https://circular-cities-and-regions.ec.europa.eu/pilots/castilla-y-leon

# 8 Tackling climate change and transition to sustainable energy

## 8.1 Introduction

The EU committed to become climate neutral by 2050 and by 2030 to reduce its net greenhouse gas emissions by at least 55 % compared to 1990. Both targets are enshrined in the EU Climate Law. A framework for the transition towards climate neutrality has been established with the Fit for 55 package providing the necessary rules in the areas of energy, transport, emissions trading and reductions, as well as inland use and forestry. The fast decarbonisation of the electricity production and energy use is a critical first milestone that needs to be complemented by more profound changes in sectors such as construction, transport, commerce, agriculture, waste and water management. Moreover, the EU strategy on **adaptation to climate change** aims for the EU to become by 2050 a climate resilient society that is fully adapted to the unavoidable impacts of climate change.

Public administrations have a key role in shaping the conditions for economies and societies to deliver on the ambitious 2030 climate and energy targets and should lead by example.

National energy and climate plans (NECPs) outline how the EU Member States intend to address the five dimensions of the energy union: decarbonisation, energy efficiency, energy security, internal energy market as well as research, innovation and competitiveness. National climate adaptation plans frame adaption policy and implementation strategically and provide multi-level coordination.

## 8.2 Potential impact on the green transition

The shift towards a low carbon and energy efficient economy and society is at the core of the green economy transition. The implementation of the climate and energy objectives and of the other Green Deal objectives on circular economy, resource efficiency, nature and biodiversity are closely interlinked and mutually reinforcing. E.g. the recycling of waste can help to save energy in the extraction and processing of primary raw materials and sustainable land use and forestry can provide important carbon sinks. To reap potential synergies, it is important for green administrations to develop integrated and coherent approaches across different policy sectors.

Green climate and energy policies also contribute essentially to the implementation of the UN 2030 Agenda and the global SDGs.[41] The European Green Deal is an integral part of the Commission's strategy to implement the SDGs.

[41] United Nations, (2023), Synergy Solutions for a World in Crisis: Tackling Climate and SDG Action Together. Available at: https://sdgs.un.org/synergy-solutions-world-crisis-tackling-climate-and-sdg-action-together

## 8.3 Challenges and solutions

The transition towards climate neutrality implies deep transformational changes in the economy and societies. This requires well-coordinated action of policy makers and the public sector at all levels, from EU to the national, regional and local level. Careful attention must be paid to avoid possible trade-offs between environmental, economic and social objectives. The risk of carbon leakage, either because production is transferred to world regions with less ambition for climate emission reduction, or because EU products are replaced by more carbon-intensive imports, has been addressed with the EU carbon border adjustment mechanism. Furthermore, climate policies are accompanied by social policy measures to avoid negative social impacts and make sure that no one is left behind in the climate and energy transition.

In June 2023 EU Member States submitted their updated national energy and climate plans (NECPs), presenting a broad range of steps towards the 2030 climate and energy targets. All plans are accessible and can be used for knowledge exchange and mutual learning.[42]

The local and regional level has a crucial role in this since this is where implementation happens. In addition, this level is closest to the citizens. It is therefore not surprising that the local and regional authorities are adopting their own climate policies, strategies and action plans, in line with the national plans, and often even more ambitious.[43]

## 8.4 Inspiring examples

The **Flemish** Local Energy and Climate Pact encompasses nearly 300 municipalities and revolves around four key pillars: nature-based solutions, with a focus on urban greening; mitigation policies, with a focus on energy efficiency and renewable energy sources; mobility and development of shared, active, and sustainable solutions; and water management, including re-use and up-use. The Pact envisions to hold a stakeholders' climate dialogue every two years to co-design climate objectives and actions.

In **Hungary**, the 2016 Operational Programme call supported the development of a methodology for municipal climate strategies, based on which a number of municipal climate strategies have been developed, although they were not legally required.

## 8.5 Assessing progress

The Climate Law includes measures to keep track of progress and adjust EU actions accordingly, based on existing systems such as the governance process for Member States' NECPs, regular reports by the European Environment Agency, and the latest scientific evidence on climate change and its impacts.

Progress in the implementation of climate and energy policies is tracked with EU wide monitoring systems.[44] According to a recent EEA report, the EU has reduced net greenhouse gas emissions by 2022 by 31 % compared to 1990 levels, while simultaneously fostering economic growth. In 2023, Member States reported more than 3 000 policies and measures to achieve the energy and climate objectives. They project that measures already in place across Europe would lead to a reduction of 43 % in 2030 for total net greenhouse gas emissions including international aviation, while further measures that are currently being planned would boost reductions to 48 %. Last year, Member States only projected this reduction to total 41 %,

[42] https://www.eea.europa.eu/en/newsroom/news/eus-greenhouse-gas-emissions-dropped-last-year
[43] The following examples are from the 2023 COE Report on Green Public Administration, p. 15. Available at: https://rm.coe.int/report-on-green-public-administration-final-2784-4437-5304-v-1/1680ad9262
[44] https://www.eea.europa.eu/publications/trends-and-projections-in-europe-2023

indicating a joint increase in ambition across Europe in the past year. However, this will still leave a 7 % gap to the 55 % EU climate 2030 target.

## 8.6 Support, networks, communities of practice, and further reading

The Covenant of Mayors for Climate & Energy - Europe is an initiative supported by the European Commission since 2008, bringing together thousands of local governments that want to secure a better future for their citizens. Under the Covenant of Mayors – Europe, a platform for knowledge exchange has been established documenting a comprehensive overview of local climate action, facilitating exchange and learning and informing about resources and funding opportunities. The Covenant of Mayors, launched in 2015, has been capitalising on the experience gained in Europe and beyond, and has become a very influential network of local communities in climate action.

The EU Mission Climate-Neutral and Smart Cities brings together frontrunning cities that commit to becoming climate-neutral by 2030.

The Climate ADAPT **platform** facilitates knowledge exchange in climate adaptation action at EU national, regional and local level.

# 9 Nature and Biodiversity

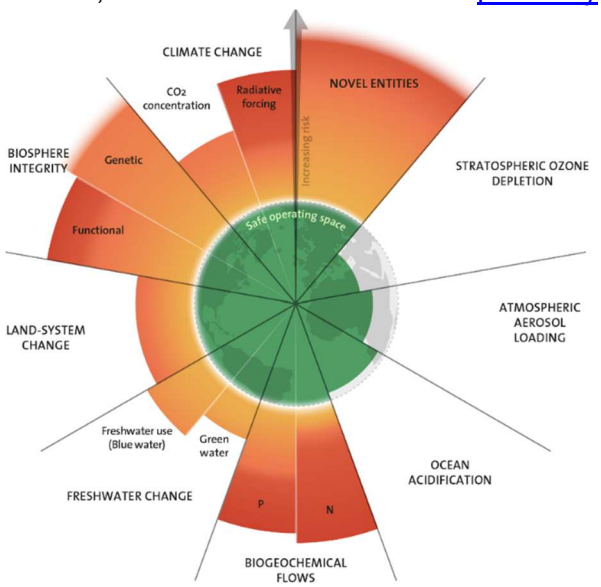
## 9.1 Introduction

**Deterioration of nature and biodiversity** is one of the three main environmental crises, besides climate change and natural resources. Nature and biodiversity make life possible, provide health and social benefits and drive the economy. Nature is also an ally in tackling the climate crisis. The EU protects nature through the biodiversity strategy for 2030 and rules such as the Birds and Habitats Directives.

This widened scope of government actions on nature and biodiversity, at all levels, integrated the environment in many other policy areas. It implies the need for new data and knowledge, experimenting and piloting with nature-based solutions **(NBS)** and new governance structures to help with implementing the objectives. Consequently, the new EU biodiversity strategy adopted in 2020 was complemented in 2021 with a much more elaborated governance structure than the first strategy in 2011 had.

## 9.2 Potential impact on the green transition

Nature and biodiversity are a central component of the European Green Deal, and with that also of the green transition. The environmental SDGs are a foundation for the economic SDGs to achieve human well-being (the social SDGs) in a healthy environment. Nature and biodiversity offer opportunities like ecosystem services, but also indicate limits. The planetary boundaries concept presents a set of nine boundaries within which humanity can continue to develop and thrive for generations to come.




## 9.3 Challenges and solutions

The focus of governments has long been on **protecting** nature and biodiversity. The EU initiative Natura 2000 is the largest coordinated network of protected areas in the world. But this strategy alone is not sufficient to reach the goals. Nature **development** and **restoration** have become as important as protection. Moreover, with the term **natural capital**, the socio-economic value of nature and biodiversity has become more important. Many ecosystems and services they provide are under pressure from urban sprawl, intensive agriculture, pollution, invasive species and climate change. **Nature-based solutions** are being developed for a wide range of socio-economic challenges and developments.

Nature and biodiversity protection, development, restoration and capitalisation require awareness, willingness, knowledge and skills of civil servants, also beyond the environment departments. This is necessary to reduce silo-thinking between ministries, as well as within environmental services which is one of the main obstacles (see also Section 17 in this report).

## 9.4 Inspiring examples

Some of the most cross-sectoral nature and biodiversity actions are in the field of nature-based solutions. The EU-funded research project NetworkNature has put together an online database with inspiring examples of NBS. The US Federal Emergency Management Agency (FEMA) distinguishes (and gives examples of) three types of NBS:

- **Watershed or landscape-scale practices** build interconnected systems of natural areas and open space. They require long-term planning and coordination. Examples include land conservation and greenways.
- **Neighbourhood or site-scale practices** manage rainwater where it falls to reduce stormwater runoff. They can often be built into a site or neighbourhood without much extra space. Examples include permeable pavement and tree trenches.
- **Coastal practices** stabilize the shoreline, reduce erosion and buffer the coast from storm impacts. While many watershed and neighbourhood scale practices work in coastal areas, coastal systems are designed to support coastal resilience.

Other inspiring examples are among the EU LIFE award winners 2024 from across the EU that support the European Green Deal, such as:

- The project LIFE Flusserlebnis Isar, which aims to restore the river Isar and its floodplains through a unique collaboration between Bavarian water and nature authorities (**LIFE Award for Nature)**;
- The project LIFE Waste2Protein, which pilots innovative insect protein-based animal feed produced from biowaste as a sustainable alternative to fish and soy meal ( **LIFE Award for Circular Economy and Quality of Life);**
- The project LIFE TreeCheck, which helps Central European cities tackle climate change using green infrastructure to minimise the urban heat island effect (**LIFE Award on Climate Action).**

## 9.5 Assessing progress

At EU level, online progress tracking tools have been set up including (i) the EU Biodiversity Strategy actions tracker tracking progress in the implementation of the Strategy's actions, and (ii) the EU Biodiversity Strategy dashboard to show progress on each EU biodiversity target.

## 9.6 Support, networks, communities of practice, and further reading

The European Commission has various online platforms offering guidance and tools, on research on nature-based solutions.

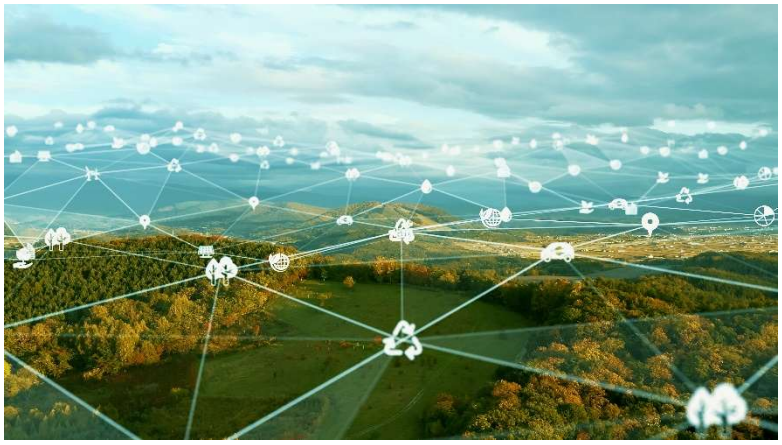
The IUCN Global Standard for Nature-based Solutions is accompanied by a guide and an online self-assessment tool.[45]

Copernicus is part of the **European Union's Space Programme**. One of its services is the Copernicus Land Monitoring Service, providing data on land cover, land use, vegetation state, water cycle, etc. for Europe and the entire globe.

[45] IUCN (International Union for Conservation of Nature) is a membership union of government and civil society organisations.

# 10 Green digitalisation

## 10.1 Introduction



Digitalisation has become a key objective and practical tool for public administration, to offer better services for citizens and economic operators, and to improve and accelerate policymaking and implementation. The EU's twin (green and digital) transition laid down in the Recovery and Resilience Facility is an ambitious way to achieve synergy between these two processes of societal change. Both transitions are also key priorities for public administration capacity building in the 2023 ComPAct Communication.

The European Declaration on Digital Rights and Principles states that digital devices should support sustainability and the green transition. People need to know about the environmental impact and energy consumption of their devices.

## 10.2 Potential impact on the green transition

Digitalisation has many direct and indirect benefits for the green transition. Direct impacts include better availability of environmental data for preparing as well as monitoring environmental policies. Digitalisation reduces mobility through remote work/meeting attendance online. Digital services, such as issuing and downloading a permit at home, instead of commuting to a government service, can also reduce environmental pressures.

Indirectly, digitalisation can strengthen green transition governance, as it is integral to multi-level, multi-sector and multi-actor governance, with the potential to bring all parties together virtually. It also fosters openness and accountability, by enabling citizens, civil society organisations, elected representatives and the media to see and understand the workings of governments, including policies and their implementation, the use of public finance including EU funds, and the process of public procurement.

## 10.3 Challenges and solutions

Digitalisation can also have negative impacts that can hamper the green transition. Blockchain technologies, including cryptocurrencies, can create opportunities for more sustainable business models but generate significant emissions and can incentivise fossil fuel-based power generation. The rapid growth of digital technologies also poses challenges for the generation of electronic and other waste as well as the supply of critical minerals. The development and use of these technologies must be carefully considered to manage their impact. Hence, policymakers must grasp synergies and trade-offs between the digital and the green transitions.[46]

[46] https://www.oecd.org/en/topics/sub-issues/digitalisation-and-the-environment.html

A recent literature review makes the following recommendations for a comprehensive approach to managing the twin transitions:[47]

- Governments should not only focus on positive connections between the digital transformation and the sustainability transformation but also pay attention to the environmental costs of the digital transformation;
- It is important to combine digitalisation with other means, such as structural (institutional and other) reforms, to realise the sustainability transformation: digitalisation alone is not sufficient;
- It is crucial to take an ecological perspective on the digital transformation. This emphasises long-term and comprehensive thinking, and hence a reflection on the need for behavioural change for realising the twin (green and digital) transition.

A paper published by the OECD in 2023 proposes five mutually reinforcing **innovation policy imperatives** that are critical to achieving green and digital transitions:[48]

1) Coordinated government – the integration and alignment of policies across transnational, national, and sub-national levels of government and different line ministries and agencies;
2) Stakeholder engagement – governments actively involving citizens, research institutions and industry to develop and legitimate shared visions and implement collaborative action plans;
3) Policy agility and experimentation – the ability to swiftly respond and adapt to changing circumstances in the design and implementation of policies;.
4) Directionality – intentional efforts to shape the trajectory and focus of socio-technical change towards specific societal objectives;
5) Support for breakthrough innovation – policies aimed at facilitating the development and adoption of disruptive innovations in support of transitions.

## 10.4 Inspiring examples

A good example of how digital and green transitions can be linked is the vCity initiative. One of the participants is the city of **Viladecans** in the region of Catalonia.[49] The initiative developing 'living labs' that are continuously improved through co-creation between local authorities, businesses and citizens, focused on the following five areas:

- Urban mobility - to assess the wider impacts of improving transport networks,
- Bike network - with the aim to plan and implement an efficient network of cycle lanes,
- Air quality - to assess the impact of air quality on citizen's quality of life,
- Sustainability - with the goal of fostering a circular economy to accelerate the green transition, and

[47] Meijer, A., (2024). Perspectives on the twin transition: Instrumental and institutional linkages between the digital and sustainability transitions. *Information Polity*, (Preprint), pp.1-17. Available at: https://content.iospress.com/download/information-polity/ip230015?id=information-polity%2Fip230015
[48] Arnold, E., et al., (2023), *Navigating green and digital transitions: Five imperatives for effective STI policy*, in OECD Science, Technology and Industry Policy Papers, No. 162, OECD Publishing, Paris. Available at: https://doi.org/10.1787/dffb0747-en.
[49] See Toolbox on Quality of Public Administration (2024). Online edition. Forthcoming.

- Proximity City - to bring public services closer to the citizens who need them.

A further inspiring example from Spain is **Madrid**'s strategic approach to **digital sustainability** which envisages the city's sustainable development by facilitating the green and digital transition, mitigating greenhouse gas emissions, and enhancing the city's habitat, well-being and quality of life.

## 10.5 Assessing progress

Progress at EU level is shown with a dashboard of indicators summarising Europe's performance across the four dimensions of Europe's Digital Decade policy programme: digital skills, digital infrastructure, digitalisation of business and digitalisation of public services.

An annual eGovernment Benchmark monitors the digitalisation of public services in Europe.

## 10.6 Support, networks, communities of practice, and further reading

The website on Shaping Europe's digital future contains much information, guidance, and tools around the key aspects of digitalisation.

# Part 2. Governance supporting GPA: Definition and Principles

# 11 Definition and Principles of effective governance for sustainable development

## 11.1 Introduction

**Governance is how public administrations organise and combine their tools, instruments (including finance) and mechanisms to attain the policy objectives set at the political level**. Whereas policy gives direction to achieve objectives and to deliver services, **governance enables implementation**.

**Green public administration includes both policy and governance challenges.** Although it is important to distinguish policy (what and when? - the visions, goals, targets, timelines and policy instruments) from governance (how and by whom? - the mechanisms, governance instruments, tools, skills, etc.), they are intertwined and can even overlap. For example, promoting environmental taxation is a policy decision about a governance tool. The 17 UN Sustainable Development Goals are mostly about policy, but Goals 16 and 17 focus on governance challenges (see Figure).

**Three basic governance styles** are usually distinguished: hierarchical governance (formal structures, rule of law, accountability); network governance (informal structures, consensus, partnerships); and market governance (self-regulation, empowerment, competition, fiscal incentives, and contracts). Public servants should be able and encouraged to select, blend or switch between the most suitable governance style, according to circumstance, each having pros and cons. This way of addressing and managing complexity and variety is called '**metagovernance**'. In research this is often mentioned as typical for EU governance, and it particularly has benefits for the green transition.[50]

## 11.2 Potential impact on the green transition

The impact of effective governance, and of combining the different styles of governance through metagovernance, is huge. It is virtually impossible to reach policy objectives, including the comprehensive objective of a green transition, without having effective governance in place. Policymakers sometimes underestimate this, if they do not realise that policy failure can be caused by governance failure.

[50] Meuleman, L., (2018), Metagovernance for Sustainability: A Framework for Implementing the Sustainable Development Goals. Routledge. See also the section on metagovernance in the 2024 Toolbox Quality of Public Administration (link tbc). Available at: https://www.routledge.com/Metagovernance-for-Sustainability-A-Framework-for-Implementing-the-Sustainable-Development-Goals/Meuleman/p/book/9780367500467

## 11.3 Challenges and solutions

A key challenge is to have a good balance between policy and governance for the green transition. Too much focus on policy objectives may neglect the governance needed for implementation. Too much focus on the governance machinery and processes may distract from the policy direction and objectives.

Another challenge is about dealing with complexity. The green transition is a complex process that necessitates the use of different governance styles in situationally determined combinations. Climate change, for example, is a crisis and hence needs hierarchically coordinated crisis management. At the same time, climate change is a complex, so-called 'wicked' problem that also needs series of small solutions, often bottom-up, informal, and innovative, for which the network and market governance styles offer better tools.

## 11.4 Inspiring examples

The UN **Sustainable Development Goals (SDGs)** to 2030 present a comprehensive framework for action of all Member States and subnational governments, on environmental, social and economic challenges. The SDGs include policy and governance goals and targets. SDGs 1-15 are primarily *policy* Goals. They include one Goal on climate action (SDG 13) and two Goals on biodiversity (SDGs 14 and 15), for example. Goals 16 and 17 focus on governance. In SDG 16, rule of law and quality of public institutions are central. This sets basic conditions for democracy. SDG 17 contains targets on the 'means of implementation', including on 'policy coherence for sustainable development', technology and finance. That the transition to sustainability should also be fair and just, is expressed in several targets of the SDGs.

Combining the governance styles can make GPA more successful, as illustrated by the example of separate collections of biodegradable waste in **Slovakia**. A law prepared by the Ministry of Environment in 2021 made this mandatory for all municipalities (a hierarchical governance measure). However, the implementation of this legal measure showed a high separation rate only in municipalities that had distributed special containers directly to households (to every house and every apartment). Offering such concrete tools helped raising the awareness that there should be a collective change of behaviour. This example showed that hierarchical governance may be more effective when it is combined with ideas from network governance (a joint mindset) and market governance ('nudging' by providing an easy choice for citizens).[51]

## 11.5 Assessing progress: governance principles

It is useful to have **commonly agreed principles** against which a governance framework can be tested. Several frameworks exist, and it is not possible to determine which one is the best: governance principles are normative. In a situation where corruption is a feature of public administration, the principle of accountability may be valued higher than the principle of inclusiveness, for example. The World Bank has for decades maintained a set of governance principles in which efficiency was valued more than effectiveness. The 32 '**Principles of Public Administration**', developed by SIGMA (a joint initiative of the EU and the OECD), cover both policymaking and governance.[52]

Specifically on governance, three sets of principles should be mentioned:

[51] Council of Europe 2023, Report on Green Public Administration, op. cit.
[52] OECD, (2023), The Principles of Public Administration, OECD, Paris. Available at: https://www.sigmaweb.org/publications/Principles-of-Public-Administration-2023.pdf

- The 11 Principles of effective governance for sustainable development, proposed by UN-CEPA and endorsed by the UN ECOSOC Council in 2018. They are accompanied by more than 60 commonly used implementation strategies and are based on the three key requirements of public institutions as formulated in SDG 16 target 6: **effectiveness, accountability and inclusiveness**. An important difference with other sets of principles is the focus on inclusiveness: five of the eleven principles are about this dimension.
- The Eight Principles of policy coherence for sustainable development (PCSD), adopted in 2019 by the OECD ministers. These principles are based on the official SDG indicator for target SDG 17.14 on PCSD and cover important governance themes. The PCSD principles have a stronger focus on the internal machinery of public administration than the eleven CEPA principles.
- The 12 Principles of Good Governance adopted by the Council of Europe (CoE). The CoE Centre of Expertise has developed toolkits to assist local authorities, and in some cases central authorities, in living up to these principles and thus delivering better services to citizens.

## 11.6 Support, networks, communities of practice, and further reading

The European Commission helps EU Member States design and implement reforms that support the green transition and that contribute to achieving the goals of the European Green Deal. It also helps to design the necessary procedures in central and local administrations and establish the coordination structures that are needed for implementing green policies. More information can be found in the Brochure on 'Technical support for implementing the European Green Deal'.

The European Commission, through the European Public Administration Country Knowledge (EUPACK) project, published reports on quality of public administration matters, some of which are directly supporting the green transition.[53] The OECD website on Policy Coherence for Sustainable Development (PCSD) offers many studies and other resources relevant for the governance of the green transition and for greening the public administration as a whole. The website of UNCEPA contains many topical briefings, strategy notes and discussion papers supporting effective governance for the green transition.[54]

Further reading on governance for the green transition:

Council of Europe's 2023 Report on Green Public Administration.

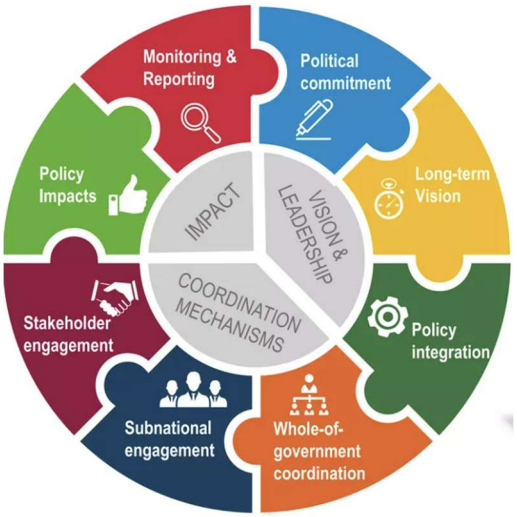
OECD's 2023 publication entitled Better Regulation for the Green Transition.

Meuleman's 2018 Metagovernance for Sustainability: A Framework for Implementing the Sustainable Development Goals.

[53] https://reform-support.ec.europa.eu/public-administration-and-governance-coordination/european-public-administration-thematic-studies_en
[54] https://publicadministration.desa.un.org/intergovernmental-support/cepa

# 12 The eight 'Policy Coherence for Sustainable Development' (PCSD) themes

## 12.1 Introduction




**Policy Coherence for Sustainable Development (PCSD)** is the coherence between policies in general that cover the three dimensions of sustainable development (economic, environmental social). In connection to development cooperation, the concept is known as 'policy coherence for development' (PCD). Besides the comprehensive PCSD approach, PCD is still important to make and keep development policy coherent. Other focused approaches are emerging, such as PC for the Green transition (PCGT) and PC for Environmental Governance (PCEG).

Coherent policymaking implies taking a broad view of government, beyond the borders of political, institutional, and mental silos. Incoherence can result in many types of governance problems, such as compartmentalisation, fragmentation, competing and incoherent objectives, and inconsistent policy mixes. These problems may be aggravated when governments seek to deal with crosscutting policy agendas. Furthermore, a lack of coherence can also result in unclear signals to the public about the relative importance of policy priorities.

Promoting PCSD is a target of the SDGs (17.14) and a Recommendation of the OECD Ministers. The approach covers eight governance themes (addressed in this collection).

1. **Institutionalised political commitment**: '*The country has institutionalised its commitment to policy coherence for sustainable development at the highest central/federal political level'*. Political commitment and leadership are key, for example through a strategy or action plan (see section of this report).
2. **Long-term considerations**: '*The country has mechanisms in place to ensure that long-term considerations are integrated into decision-making, policy development and planning'.* Short-termism can easily result in incoherence later; hence, foresight tools must be in place (see section 13 of this report).
3. **Integration of the three dimension of sustainable development, assessment of policy effects and linkages**: *'The country has mechanisms in place that allow relevant public institutions to integrate the three dimensions of sustainable development into policy and planning processes and systematically to assess the wider effects of policies and cross-sectoral linkages.'* This theme is about concrete tools to address trade-offs and potential synergies (see section 15 of this report).
4. **Interministerial and cross-sectoral coordination:** *'The country has an institutional mechanism in place that periodically brings together relevant ministries and government entities to enhance* coherence across policies (see section 16 of this report) *related to sustainable development, including sectoral policies.'* Ministries often work in mental and organisational 'silos' (see section 17 of this report) which prevent a 'whole-of-government' approach and must be bridged

5. **Participatory processes**: '*The country has mechanisms in place to ensure that laws, policies, plans, programmes and major development projects at different levels of government, including at the overarching/general, sectoral and local levels, are developed through participatory processes that engage relevant stakeholders in a comprehensive manner*'. Stakeholder engagement can help identifying incoherence in an early stage of policy making, introduces new knowledge and ideas, and ultimately creates better support for policies and their implementation (see section 21 of this report).
6. **Consultation and coordination across government levels**: *'The country has mechanisms in place for aligning priorities, policies and plans across the various levels of government'.* Relations between national and subnational administrations should be not only hierarchical and functional, but also collaborative: multi-level policy incoherence can block even the most promising policies (see section 19 of this report).
7. **Policy and financial impacts**: *'The country has mechanisms in place to promote the alignment of private and public financing with policy coherence objectives and to track related expenditure'.* Specific tools to identify the impacts of policy options, such as regulatory impact assessments, make the policy choices more transparent, and green budgeting stimulates green priorities (see sections 24 and 25 of this report).
8. **Monitoring and reporting for policy coherence:** *'The country has mechanisms, including an institutional or regulatory framework, in place to monitor and evaluate systematically the effects of policies on the various dimensions of sustainable development and their impact across sectors and to produce reports to inform adaptive action'.* PCSD actions are no exception to the good practice that progress on targets must be measured, reported and evaluated (see section 27 of this report).

## 12.2 Potential impact on the green transition

The eight PCSD principles represent key dimensions of governance so comprehensively, that PCSD may be considered as a proxy for the quality of governance for sustainable development. A PCSD action plan is a good means to ensure that PCSD actions are implemented and PCSD remains high on the political and administrative agenda. Weaknesses on each of the eight dimensions may hamper the greening of the administration.

## 12.3 Challenges and solutions

Insufficient policy coherence makes managing complicated or complex challenges more difficult. Examples include the challenges related to the green and digital transition addressing greenhouse gas emissions, the transitions in the fields of transport, energy, and agriculture, and tackling emergencies such as pandemics. The European Commission has identified lack of policy integration as one of the main causes of implementation gaps in EU environmental policy and law.[55,56]

[55] European Commission, (2017), Communication on the Environmental Implementation Review: Common challenges and how to combine efforts to deliver better results, COM/2017/063 final. Available at: https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=COM:2017:63:FIN and

[56] European Commission, (2019), Environmental Implementation Review 2019: A Europe that protects its citizens and enhances their quality of life, COM/2019/149 final. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019SC0137

The existence of a silo mentality within public administration organisations means that solutions cannot be only organisational or technical, they will have to include a cultural change towards a mindset of policy coherence, at all levels of administration.

## 12.4 Inspiring examples

Several EU countries have committed to systematically address the challenges offered by the eight PCSD In 2023, **Italy** adopted a PCSD Action Plan as Annex to its updated national Sustainable Development Strategy. Italy structured the Action Plan using the eight domains/principles of PCSD and formulated concrete measures, among others on horizontal and vertical coordination, and stakeholder involvement. During the process of preparing the Action Plan, the national government invested heavily in collaboration with the Italian regions, to boost multilevel governance. Similar work with financial support from the European Commission and assisted by the OECD has been done or is underway in **Luxembourg, Poland, Portugal, and Romania**.

## 12.5 Assessing progress

The methodology for the official UN SDG indicator 17.14.1 on PCSD was developed by UNEP in consultation with the OECD and a group of experts from different disciplines. The OECD and the UN have shown that PCSD can be pursued and assessed at all stages of policy-making, from agenda framing and goal setting, to the process of policy instrument design, implementation on the ground and follow up and evaluation. Up to now (2024) not enough countries are using the indicator to provide a relevant comparative overview; hence, Eurostat has not yet included this indicator in its annual SDG indicators progress report.

The OECD has developed an online toolbox including a PCSD self-assessment tool for the PCSD indicator. Also, a UNEP Handbook on the indicator was published in July 2024.

## 12.6 Support, networks, communities of practice, and further reading

The OECD has published several reports with good practice examples on each of the eight sub indicators of PCSD. UNEP has launched a Global Community of Practice on PCSD.[57] Two EUPACK thematic studies have addressed, respectively, management of PCSD[58] and how to ensure the comparability and overall quality of the self-assessment for PCSD.[59]

[57] Not yet available online (Aug 2024)
[58] European Commission, Directorate-General for Structural Reform Support, Meuleman, L., Valentini, F., Niestroy, I. et al., (2022), Management of policy coherence for sustainable development – Towards measuring progress, Publications Office of the European Union, 2022. Available at: https://data.europa.eu/doi/10.2887/544379
[59] European Commission, Directorate-General for Structural Reform Support, Meuleman, L., (forthcoming), Waking up a Sleeping beauty? Towards a Quality Protocol for Indicator SDG 17.14.1 on Policy Coherence for Sustainable Development (PCSD).

# 13 Leadership & strategies

## 13.1 Introduction

Successfully greening the public administration needs **strong political leadership and political will**. Only a commitment of political leaders that is clearly and publicly expressed can trigger the necessary support from political and societal stakeholders for a green and sustainable transition and steer the different policy areas and governmental sectors coherently in a whole-of-government approach towards sustainable development.[60] Therefore, it is necessary to create political ownership for the green transition amongst political leaders in government, parliament and other bodies involved in policy-making as well as leading representatives in civil society. They must be able to examine political issues from a sustainability perspective and mindset. Political leadership is important not only at national, but also for the regional and local level.

Political commitment can be expressed in high-level public decisions or statements. However, it is even more effective if it is combined with the **adoption of a strategy** laying down concrete actions for a green and sustainable development across different policy sectors. This could be a sectorial strategy, such as the National Climate and Energy Plan or the National Biodiversity Strategy and Action Plan – some countries also adopted national circular economy action plans. Or it could be an overarching National Sustainable Development Strategy, linking environmental sustainability with social equity and the achievement of the SDGs.

Another mechanism for building political commitment and leadership for sustainable development is to allocate the responsibility for steering and coordinating the green and sustainable transition at the core of the government, e.g. in the prime minister's office. Some countries also installed high-level steering groups, high-level sustainability advisory boards or parliamentary sustainability committees.[61]

## 13.2 Potential impact on the green transition

Political leadership and politically backed cross-cutting strategies and action plans are an indispensable driver for the green and sustainable transition. Most EU countries have adopted a national sustainable development strategy which functions as a compass for law-making in all policy areas. Visible support for the green and sustainable transition from the Prime Minister and/or President makes change easier – or at least lowers the threshold for starting green pilots.

[60] OECD, (2024), Unleashing Policy Coherence to Achieve the SDGs, p. 14. Available at: https://www.oecd-ilibrary.org/governance/unleashing-policy-coherence-to-achieve-the-sdgs_44a65057-en
[61] See also OECD, (2023), Driving Policy Coherence for Sustainable Development, p. 23. Available at: https://www.oecd-ilibrary.org/governance/driving-policy-coherence-for-sustainable-development_234cfd68-en

## 13.3 Challenges and solutions

The lack of political support and commitment to the top political level can be a substantial obstacle for the green transition. E.g. in some cases, the overall responsibility for green and sustainable development is allocated in a ministry for environment which does not have to capacity and political power to mobilise whole-of-government action. If a commitment of political leaders has been successfully established, e.g. with the adoption of a National Sustainability Strategy, it can be challenging to keep up and nourish this commitment over longer time spans and electoral cycles. Independent sustainability advisory councils can be a remedy to address this challenge.

## 13.4 Inspiring examples

In **Germany**, a National Sustainable Development Strategy has been adopted by the government in 2016, updated in 2021. The responsibility for the overall coordination of the strategy lies at the centre of the government in the Federal Chancellery. A State Secretaries' Committee has been set up to steer their implementation in a whole-of-government approach. A Council for Sustainable Development with 15 representatives from civil society, business, science and the political area advises the government and mobilises political and societal support.

In **Belgium**, political leadership on sustainable development is based on a National Sustainable Development Strategy from 2017 and a Federal Council for Sustainable Development, as a high-level platform for implementation of the SDGs. Sustainable development is anchored in the Belgian Constitution. The achievement of sustainable development is a common goal in the Belgian Constitution obliging the Federal State bodies as well as local communities and regions to consider the social, economic, and environmental aspects of sustainable development and the principle of intergenerational solidarity.

The **Covenant of Mayors for Climate and Energy** is an excellent example for mobilising political leadership for local climate action. This initiative has brought together over 10 000 local authorities in Europe motivating them to voluntarily commit to meeting or even exceeding EU climate and energy objectives. By placing the local level at the centre of energy and climate action the Covenant of Mayors has contributed substantially to increased international recognition for the importance of the local level in climate action.

## 13.5 Assessing progress

Political commitment and leadership are informal drivers that are difficult to assess. However, for assessment of the implementation of National Sustainable Development Strategies, the global SDG monitoring framework, the Eurostat SDG indicators, and in some cases also national or regional indicators are available. Furthermore, the European Commission monitors the National Climate and Energy Plans. UN Member States have committed to use an online reporting tool to monitor and report on their National Biodiversity Strategies and Action Plans.

## 13.6 Support, networks, communities of practice, and further reading

The OECD has published guidance also entailing survey analysis and advice about organising political leadership, commitment, and coherence for sustainable development and the SDGs.[62]

The European Sustainable Development Network (ESDN) is an association and network of public administrators and other experts dealing with sustainable development (SD) strategies and policies in Europe. ESDN provides knowledge exchange and peer learning on governmental steering of sustainable development and the green transition, including mobilising political support and the implementation of sustainable development strategies.

UNITAR provides a spectrum of courses, including an in-depth and wide-ranging guidance on how to mainstream the 2030 Agenda for Sustainable Development into national strategies and policies, available as an e-tutorial.

[62] See OECD 2023 and 2024, Op. cit. The OECD (2023) report analyses the 2022 Survey on Institutional Capacities and Tools to Enhance Policy Coherence for Sustainable Development (PCSD) which is an unpublished internal document.

# 14 Integrating the long-term dimension of the green transition

## 14.1 Introduction

**The green transition is a long-term challenge**, with a scope way beyond the 2030 milestone of the SDGs. The long-term dimension is an essential part of the definition of sustainable development as "meeting the needs of the present without compromising the ability of future generations to meet their own needs".[63] Long-term policies will always be accompanied by short- and mid-term actions: it is the balance that matters. Lack of a long-term dimension in policy and planning can easily result in incoherence later, causing high costs and irreversible impacts. Long-term thinking is necessary; foresight (horizon scanning, scenarios) will help. The long-term challenge can be addressed in three complementary ways:

- **Institutional mechanisms**. They can ensure that that long-term considerations are integrated into decision-making, policy development and planning. The European Green Deal is such a long-term strategy, and most EU countries have a national Sustainable Development Strategy or SDG Action Plan in place. Climate adaptation is an example of a specific long-term oriented policy.
- **Foresight activities**. Foresight is not about predicting the future; it explores different possible futures, alongside the opportunities and challenges they might present. Ultimately, it helps policy makers to act in the present to shape the future. Many countries are investing in foresight, with tools like as horizon scanning, visions, and scenarios on possible futures.
- **A future-oriented mindset.** Very often, useful ideas and "images" of the future tend to seem ridiculous in the present exactly because they were "not expected" – therefore, foresight should challenge existing beliefs, values, mindsets, and behaviour to avoid being trapped in "business as usual". One way to create awareness of the long-term is to make it mandatory that a 'green' scenario is included in the policy options during an *ex ante* impact assessment.

## 14.2 Potential impact on the green transition

Institutional mechanisms, practical tools, and sufficient awareness of the long-term dimension will give the government's role in framing and guiding the green transition a robust foundation. They also increase resilience and will prevent high costs in the future, for example, when

[63] UN, (1987), Report of the World Commission on Environment and Development: Our Common Future (Brundtland Commission). Available at: https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf

infrastructure or other decisions result in a decades-long lock-in in an unsustainable technology. Green public procurement with a long-term view can help prevent such decisions.

When the green transition is well-integrated in foresight tools like horizon scanning, visioning and scenario-development, this can make the green transition process more resilient. However, when the green transition is not explicitly integrated in foresight, this can damage, delay and block essential parts of the transition pathways.

## 14.3 Challenges and solutions

Short-termism is a typical feature of the **4-5 year election cycle** in democratic systems. This means that long-term thinking does not come easily: it must be a conscious decision. The polycrisis with COVID-19 as a prime aspect has increased the use of **emergency legislation shortcuts** bypassing parliaments, stakeholders, the best available knowledge, and a long-term outlook, risking that such shortcuts will also be used for non-urgent legislation. Another challenge is that many problems to be addressed in the green transition are **wicked problems**. They are difficult to define, have a non-linear dynamic and seem unsolvable. No single country or government department – from a solitary city to the central government – can tackle these issues alone.

## 14.4 Inspiring examples

Good examples of institutional mechanisms include having an Ombudsman for future generations, like the Guardian for Future Generations (a high-level advisory Commission established by the Government) in **Malta**. An all-party Parliamentary Committee on the future can ensure continuity beyond a policy cycle. **Germany** has a Parliamentary Advisory Committee for Sustainable Development; Finland a Parliamentary Committee for the Future; and **Hungary** a Parliamentary Commission for Future Generations.

The **European Commission** publishes a Strategic Foresight Report every year. Strategic foresight is a structured and explicit exploration of multiple futures to inform decision-making. In 2021, the Commission integrated foresight in its Better Regulation Toolbox.[64]

**Finland** has one of the most elaborate systems of foresight in the world. The emphasis on foresight in Finland evolved after an economic crisis in the early 1990s and in response to security concerns related to the country's geography. Foresight networks within national and regional government, academia, civil society and the private sector together form a complex anticipatory ecosystem.[65]

**Spain**'s National Office of Foresight and Strategy aims to better understand the future through the analysis of empirical evidence and the study of megatrends such as climate change, digitalisation and demographic ageing. The Office has produced 'Spain 2050', a collective intelligence and strategic foresight exercise. The Government of **Greece** established in 2022, within the Presidency of the Government, the Special Secretariat for Strategic Foresight tasked with identifying and exploring potential future challenges, trends, risks, and opportunities for

[64] Tool #20. Strategic foresight for impact assessments and evaluations.
[65] OECD, (2021), Foresight and Anticipatory Governance in Practice - Lessons in effective foresight institutionalisation. Available at: https://www.oecd.org/content/dam/oecd/en/about/programmes/strategic-foresight/foresight-and-anticipatory-governance-2021.pdf

the country. The Special Secretariat portfolio currently covers the environment and sustainable development, artificial intelligence, robotics, energy as well as international relations.[66]

## 14.5 Assessing progress

The SDG indicator on PCSD (17.14.1) has the following sub-indicator on multi-sector coordination: *The country has mechanisms in place to ensure that long-term considerations are integrated in policies, plans, programmes and projects, decision-making, policy development and planning*. Such mechanisms could include:

- A commissioner, council, fund or ombudsperson for future generations.
- Other mechanisms of scrutiny or oversight over the possible effects on future generations of policies or legislation (e.g. auditing mechanisms).
- Mechanisms for regular appraisal of policies to ensure that unanticipated effects are integrated over time.
- Impact assessment mechanisms that consider intergenerational effects of major infrastructural developments (not limited to an environmental perspective).
- Other nationally relevant mechanisms.

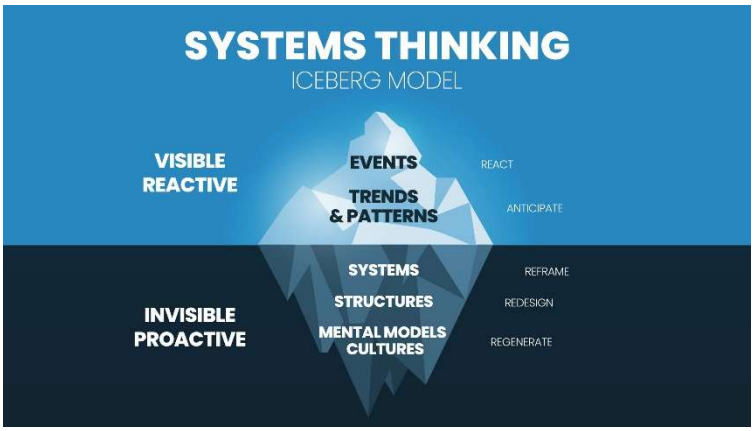
## 14.6 Support, networks, communities of practice, and further reading

The European Commission's Strategic Foresight webpages, including the Competence Centre on Foresight which offers, for example, tools on Horizon scanning, scenario exploration and a megatrend engagement tools. In addition, the tools include a report on reference foresight scenarios of the global standing of the EU in 2040.

[66] OECD, (2024), Unleashing policy coherence to achieve the SDGs: An Assessment of Governance Mechanisms. Available at: https://www.oecd.org/en/publications/unleashing-policy-coherence-to-achieve-the-sdgs_a1c8dbf8-en.html

# 15 Systemic approaches for the green transition

## 15.1 Introduction




Policy integration requires thinking beyond the limits of one policy area and understanding the relations with the systems in which other policy sectors operate. **Systemic thinking is a way of understanding the complexity of the green transition better**: it makes things visible that are invisible at first sight. For example, policy integration in the nexus of environment and agriculture requires some understanding of not only how agriculture functions but also its relations with the wider food production system. Circular economy needs knowledge of product manufacturing chains up to the beginning of the product life cycle.

Other examples of systemic approaches for the green transition include circular economy, nature restoration, nature-based solutions, and the bio-based economy. The financial system can be an enabler – but it needs also to transform. The EU sustainable finance taxonomy has provided guidance.

The call for systemic thinking for the green transition is not new. Already in 2010, the European Environment Agency drew attention to the urgent need for Europe to shift towards a much more integrated approach to addressing persistent, systemic environmental and health challenges.[67]

The EU Green Deal has integrated systemic thinking. It aims at reconfiguring energy, food, mobility, built environment and industrial systems. There are no simple solutions to solve complex challenges, and we are entrenched in social, economic practices and paradigms. The public administration is itself part of and acting in all these systems.

## 15.2 Potential impact on the green transition

Systemic approaches can accelerate the green transition because of their integrated, comprehensive nature. Instead of focusing on multiple partial solutions, systemic thinking allows for a broad and inclusive process of selecting the measures that deliver the best results and have positive spin-offs. This saves time and budget and can create a broader acceptance among stakeholders and citizens.

One of the drivers for systemic change is phasing out unsustainable practices. Examples, some of which are promoted by EU policy and by Member States, are phasing out environmentally harmful subsidies such as on fossil fuels, unsustainable spatial planning, inequality and unsustainable living conditions.

[67] See the EEA's 5-yearly reports on The European environment — state and outlook (SOER). Available at: https://www.eea.europa.eu/soer

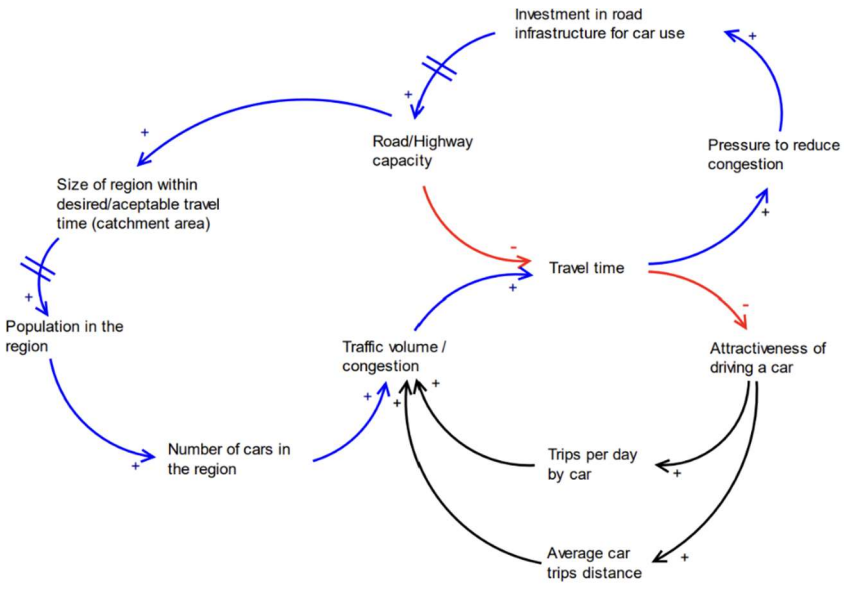
## 15.3 Challenges and solutions

A systemic approach looks at causal and other relations between goals, impacts and actors. Introducing a systemic approach may be difficult because in a traditional public administration, power and influence are linked to separation of tasks and prevent stepping beyond the limits of the precisely described responsibilities of civil servants. A frequently chosen solution is to create a strategy unit close to the senior management team, to develop systems analysis and to recommend how the organisation can address them. This can result in a temporary inter-ministerial directorate, for example.[68] Another option to increase the feasibility of systems thinking is to make the borders between divisions in a ministry more permeable, for example by replacing divisions by flexible 'clusters', and/or 'flattening' the organisation (i.e. taking out one or more hierarchical levels).

## 15.4 Inspiring examples

A good example of a systemic approach The **Netherlands** is the switch from protecting against water by raising dikes, towards 'living with water' by restoring the rivers' natural flood plains. In the context of the Room for the River programme, alternatives were discussed on a regional level with all partners, regarding several river-widening measures that would jointly increase the flow capacity, while simultaneously improving spatial quality. Another example is the river basin management approach of the EU Water framework Directive, which takes a systemic look at all waters within one river basin system.

An inspiring way of mapping systems, especially when this is done with engagement of all relevant authorities and stakeholders, is using **Causal Loop Diagrams (CLD)**. Causal Loop Diagrams allow to visualise system dynamics, i.e. interactions between multiple variables, and to qualify or quantify these interactions. An example is a CLD of the dynamics between road infrastructure investment and regional travel patterns. [69]




Another approach to systems thinking is the **nexus** concept, which points at a network of interactions. For example, the natural resource nexus explores the interlinkages between water, energy and food, land, materials, waste and ecosystems, and other dimensions such as climate and health.[70]

[68] In The Netherlands such a temporary directorate was formed in the 1990s between the Ministries of Agriculture and Environment to address the growing manure surplus from industrial cattle farming.
[69] The blue colour marks a reinforcing loop: more Investment in road infrastructure leads to more investments in the long run. Arrows with a '+' indicate an increasing effect, while red arrows with a '-' symbolise a decreasing effect. The double lines on an arrow mark a delay. Source: EEA 2024. Systemic Properties of Key Production and Consumption Areas.
[70] EEA 2022. Briefing on the Resource nexus and the European Green Deal.

## 15.5 Assessing progress

A qualitative approach to measuring systemic thinking of individuals is the Systemic Thinking Scale (STS).[71] This captures three dimensions: (1) Locus of attention: this dimension pertains to what a decision maker focuses on while making decisions; (2) Inter-relatedness: successful decision making by managers requires an appreciation of the interconnectedness of the parts; (3) Flexibility: in addition to thinking in a holistic way that sees the relationship between various components of a problem, a systemic thinker should also be creative and responsive to changing conditions while solving problems.[72]

## 15.6 Support, networks, communities of practice, and further reading

The **EEA report** 'Governance in complexity — Sustainability governance under highly uncertain and complex conditions' discusses how interconnected crises challenge traditional models of problem-solving and decision-making.

UN ESCAP has published a guide on How to draw Causal Loop Diagrams: Understanding better relationships, causality, and feedback.

Another good entry is a wiki entry on System Thinking & Causal Loop Diagrams.

[71] Halpin, A., and Kurthakoti, R., Can Systemic Thinking be Measured? Introducing the Systemic Thinking Scale (STS), in Vol. 42 (2015) Developments in Business Simulation and Experiential Learning. Available at: https://absel-ojs-ttu.tdl.org/absel/article/view/2925#:~:text=This%20paper%20presents%20an%20exploratory%20study%20to%20measure%20systemic%20thinking

[72] Halpin and Kurthakoti, (2015), op. cit.

# 16 Managing green trade-offs and forging green synergies

## 16.1 Introduction

The European Green Deal calls for careful attention when there are potential trade-offs between economic, environmental and social objectives, and states the need for intense coordination to exploit the available synergies across all policy areas.[73] Indeed, the road to the green transition is paved with dilemmas and trade-offs. A **dilemma** presents a choice (either A or B), while a **trade-off** represents tensions between different objectives. Managing trade-offs is about balancing competing priorities, such as speed versus accuracy, short-term gains versus long-term stability, and innovation versus reliability. Other examples are the balance between breadth vs. depth; exploration vs. adaptation; adaptive vs. locally led; single-point solutions vs. systems-practices; and supporting domestic innovators vs. strengthening local solutions and ecosystems in developing countries. [74]

A trade-off is a situation that involves losing some element of something in return for gaining another element of something else. In a trade-off, the two factors are usually mutually exclusive i.e. we can deliver the project faster but it will cost more money.[75]

There are many solutions to a trade-off. For the acceptability of the results of green/sustainability trade-offs, the following rules have been proposed: [76]

- Any acceptable trade-off must deliver net sustainability gains (over the long-term).
- No trade-off involving significant adverse effect is acceptable unless all alternatives are worse.
- No displacement of significant adverse impact from present to future can be justified unless all alternatives are worse.

## 16.2 Potential impact on the green transition

In the area of Resource-Efficient and Circular Economy (RE/CE), clear examples of synergies and trade-offs can be found. The technologies required for the transition to a low carbon

[73] European Commission, (2019), European Green Deal, COM/2019/640 final. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52019DC0640
[74] Observatory of Public Sector Innovation (OPSI), guest post in 2020 by Benjamin Kumpf, Head of Innovation at the UK Department for International Development, on *Trade-offs and considerations for the future: Innovation and the COVID-19 response.* Available at: https://oecd-opsi.org/blog/trade-offs-and-considerations-for-the-future-innovation-and-the-covid-19-response/
[75] https://www.global-integration.com/brandguidelines/tools/GI_PDF%20Managing%20trade-offs%20v2.pdf
[76] Kravchenko, M., D.C.A. Pigosso, and T.C. McAloone, (2020), Developing a tool to support decisions in sustainability-related trade-off situations: understanding needs and criteria, Cambridge University Press. Available at: https://www.cambridge.org/core/journals/proceedings-of-the-design-society-design-conference/article/developing-a-tool-to-support-decisions-in-sustainabilityrelated-tradeoff-situations-understanding-needs-and-criteria/E9407494144B4F822C1A49E77D32E91C

economy can lead to potential trade-offs with the RE-CE goals. For example, many renewable and low carbon technologies rely on minerals and metals with supply constraints, due to limited reserves, their geographic concentration or due to the overall geopolitical environment.[77]

## 16.3 Challenges and solutions

Trade-offs may be difficult to make if they are linked to different belief systems. Governance styles are value-laden and hence can become belief systems (see also section 11). A typical trade-off is between the reliability value of hierarchical governance, and the flexibility value of market governance: it is impossible to maximise both at the same time.

One way to prevent trade-offs is diversifying the policy mix. The European Commission is known for policy packages that are able to cope with certain trade-offs. They often combine legislation (reliability and legitimacy), financial incentives through EU funds (leaving room for variation and flexibility) as well as awareness-raising campaigns, promoting behavioural change.

Based on extensive literature review, Alt et al (2024) argue that combined monetary incentives and nudges are in general more effective to address climate change than policy mixes of two nudges or two monetary incentives. By choosing both, the trade-off can be overcome between effectiveness and persistence: financial incentives are more effective but only as long as the incentive exists, while behavioural incentives through nudges are less effective but more persistent. [78] Another trade-off is between predictability (through setting legal standards) and the flexibility needed to adapt to new circumstances. An example of solving this trade-off is making an EU framework Directive, which leaves room for adaptation, instead of a Regulation which applies everywhere without the option of national exceptions and adaptations. While green growth can create significant opportunities for growth and offers the chance for sustainable development, it may also require, at least temporarily, trade-offs between achieving environmental sustainability and realising social objectives. This requires a systematic assessment of interactions (i.e. synergies and trade-offs) between the green and inclusive dimensions of growth.[79]

Managing trade-offs may require dedicated training in negotiation with multiple actors with conflicting interests, such as the **Mutual Gains Approach to negotiation** (MGA) or related approaches. MGA is often used in cases where the different interests are hidden behind hard standpoints and positions. Diving deeper to find the real interests can provide the basis for a package deal in which nobody loses, and all parties gain something – even if the gain lies in a different issue that was originally not on the table. In this way, MGA can **turn a trade-off into synergy**. It implies switching away from the traditional, widespread, zero-sum, win-lose mindset.

[77] OECD, (2022), Synergies and trade-offs in the transition to a Resource-Efficient and Circular Economy, OECD environmental Policy Papers, December 2022. Available at: https://www.oecd.org/en/publications/synergies-and-trade-offs-in-the-transition-to-a-resource-efficient-and-circular-economy_e8bb5c6e-en.html

[78] Alt, M., H. Bruns, N. DellaValle, and I. Murauskaite-Bull, (2024), Synergies of interventions to promote pro-environmental behaviours – A meta-analysis of experimental studies, in Volume 84, January 2024, 102776, Global Environmental Change. Available at: https://www.sciencedirect.com/science/article/pii/S0959378023001425#:~:text=Analyzing%2057%20effect%20sizes%20from%2034%20articles%20that%20investigate%20synergy#:~:text=Analyzing%2057%20effect%20sizes%20from%2034%20articles%20that%20investigate%20synergy

[79] GIZ, (2015), Synergies and Trade-Offs Between Green Growth Policies and Inclusiveness. GIZ. Available at: https://www.greenpolicyplatform.org/sites/default/files/downloads/resource/GIZ_Synergies%20and%20trade-offs%20between%20Green%20Growth%20policies%20and%20inclusiveness.pdf

## 16.4 Inspiring examples

While there are many publications, including from the EU, mentioning the importance of trade-offs and synergies, there is relatively little available in terms of concrete methods and tools, besides the elaborate literature on the MGA method. A case study using the MGA method on an inter-municipal groundwater project of seven municipalities situated in the Tampere Region, south-western **Finland**, that developed to an escalated conflict, showed that disputes over facts or blind orientation towards predefined goals may hide common interests of both parties. The case illustrates how even a single third-party intervention (researchers) can help in revealing the potential for consensus building. However, it was also concluded that in an already escalated conflict, a historical load may hinder the search for mutual trust and joint gain.[80]

Already in the 1990s, when environmental planning and policymaking in the **Netherlands** was considered as very advanced, all policy makers and their managers followed a mandatory three-day course introducing them in the MGA method. Heads of Units followed a trainers' course. This created a mutual gains mindset in the whole organisation. The MGA method is meanwhile part of a training course on 'Strategic stakeholder communication' offered by the Academy for Government Communication to all national civil servants. Assessing progress

Measuring the impact of targeted attempts to handle trade-offs and pursuing synergies for the green transition is difficult, but the benefits may include better achieving of goals, saving costs, and finally, broader support for a policy decision than without such an inclusive multi-actor negotiation process.

## 16.5 Support, networks, communities of practice, and further reading

The book 'Negotiating Environmental Agreements: How to Avoid Escalating Confrontation, Needless Costs, and Unnecessary Litigation' introduces the Mutual Gains Approach (MGA) method with examples from environmental policymaking. In creating A Mutual Gains Approach to a Successful Climate Treaty: The Role of Universal Access to Clean Energy Services, the authors explore how using the MGA can result in rethinking and reframing climate policy challenges. More general guidance and case studies can be found in the Consensus Building Handbook.

[80] Kurki, V. and Katko, T.S. (2015), Groundwater as a source of conflict and cooperation: Towards creating mutual gains in a Finnish water supply project. Water Alternatives 8(3): 337-351. Available at: https://www.water-alternatives.org/index.php/alldoc/articles/vol8/v8issue3/295-a8-3-3/file?auid=917

# 17 Multi-sector governance: towards effective coordination of green challenges

## 17.1 Introduction

**Multi-sector governance is how horizontal coordination between policy sectors is organised.** This is part of the SDG indicator on policy coherence for sustainable development (PCSD), which also has sub-indicators on multi-level governance and multi-actor governance. Most EU Member States have established horizontal coordination mechanisms between sectoral ministries/agencies to address cross-cutting challenges like the SDGs or digitalisation.

The mechanisms are typically coordination groups of ministers, underpinned by inter-departmental working groups, both of which meet regularly. In a few cases, these coordination mechanisms are institutionalised as councils or commissions, which can include broad groups of government actors, or even a wider spectrum of stakeholders. Coordination at the ministerial level as well as through working groups shows coherence in leadership as well as at the administrative level. In some cases, such as Ireland, the Netherlands, Poland and Sweden, a new coordination mechanism has been created to address horizontal coordination and policy coherence for the SDGs. Such new coordination mechanisms, as well as the previously existing mechanisms, are often accompanied by a secretariat and consequently additional capacity for coordination is made available.

Another aspect is coordination mechanisms between the external (international) and domestic (national) dimension of policies. Many countries still struggle to maintain this type of horizontal coordination. International relations are often the primary responsibilities of ministries of Foreign Affairs and Development Coordination.

## 17.2 Potential impact on the green transition

Under the European Green Deal, all EU actions and policies have to contribute to the achievement of its objectives.[81] **Better environmental integration can be a game-changer**, but it requires that environmental concerns are taken into consideration in the framing and execution of all public policies with a significant environmental footprint, such as energy, transport and agriculture.[82] One of the main causes of implementation gaps with regard to achieving the objectives of EU environmental policy and law is insufficient policy and institutional coherence.[83] The lack of effective cross-sectoral coordination and integration

[81] European Commission, (2022), Communication on the Environmental Implementation Review 2022, COM (2022) 438 final. Available at: https://eur-lex.europa.eu/resource.html?uri=cellar:784da925-2f5e-11ed-975d-01aa75ed71a1.0005.02/DOC_1&format=PDF

[82] European Commission, (2019), Communication on the Environmental Implementation Review 2019: A Europe that protects its citizens and enhances their quality of life, COM/2019/149 final. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52019DC0149

[83] Ibid.

slows down or blocks policy implementation. The lagging of environmental policy implementation in many EU countries results in an estimated total cost for society in the EU of around EUR 55 billion annually.[84]

## 17.3 Challenges and solutions

Better collaboration between sectoral ministries on green transition topics depends on many factors, including political will, silo-mentality, collaboration skills, and not least the influence of powerful economic lobbies: the political economy is often the elephant in the room as it cannot be solved by public administrators without dedicated political will and leadership.

**The differences across organisational cultures in different ministries** can hinder effective coordination. Interdepartmental committees may also have different traditions. Research on two German inter-departmental committees showed that the policy output of these coordination bodies depended on the specific institutional logic: one committee had a policy logic, and another a political logic, and it was difficult to achieve agreement.[85] A silo mentality can also exist between ministries characterised by different types of specialists with their own professional logic, for example between departments of justice (lawyers) and infrastructure (engineers). To tackle these challenges, it may be necessary to set up and manage dedicated mechanisms to overcome a silo-mentality (see section 18 in this report).

## 17.4 Inspiring examples

**Italy**'s National Action Plan on Policy Coherence for Sustainable Development (NAP) has a strong focus on enhancing co-ordination in the public administration, to more effectively and inclusively mainstream sustainable development across policy sectors and levels of government, including the impact of domestic policies on developing countries. The Plan provides institutional co-ordination mechanisms and tools to enact the whole-of-government, multi-level and whole-of-society approach. It should reinforce the policy-cycle through policy integration across sectors and programming processes and through aligning different monitoring frameworks to facilitate more efficient and effective policy impact evaluation..[86]

The federal government of **Germany** has introduced several formats for interministerial co-ordination, such as the State Secretaries' Committee for Sustainable Development and the working group at director level. Each ministry has appointed a co-ordinator for sustainable development.[87]

## 17.5 Assessing progress

The SDG indicator on PCSD (17.14.1) has the following sub-indicator on multi-sector coordination: *The country has an institutional mechanism in place that periodically brings together relevant ministries and government entities to enhance coherence across policies related to sustainable development, including sectoral policies.* Such mechanisms could include:

- A mandate to make decisions regarding trade-offs;

[84] European Commission: Directorate-General for Environment, *The costs of not implementing EU environmental law study – Final report*, Publications Office 2019, **https://data.europa.eu/doi/10.2779/192777**
[85] https://onlinelibrary.wiley.com/doi/abs/10.1111/padm.12331,
[86] OECD, (2024), Unleashing policy coherence to achieve the SDGs. Available at: https://www.oecd-ilibrary.org/governance/unleashing-policy-coherence-to-achieve-the-sdgs_44a65057-en
[87] Ibid.

- A centralised government body, such as the Office of the Prime Minister or President or other central national governmental entity, responsible for convening the mechanism;
- Representation and coordination at both the political/strategic level and the technical level to ensure that there is political commitment, that it is translated into action and that there is alignment between the two levels;
- A mandate to promote alignment of internal and external policies, including through the involvement of the Ministry of Foreign Affairs (or equivalent bodies).

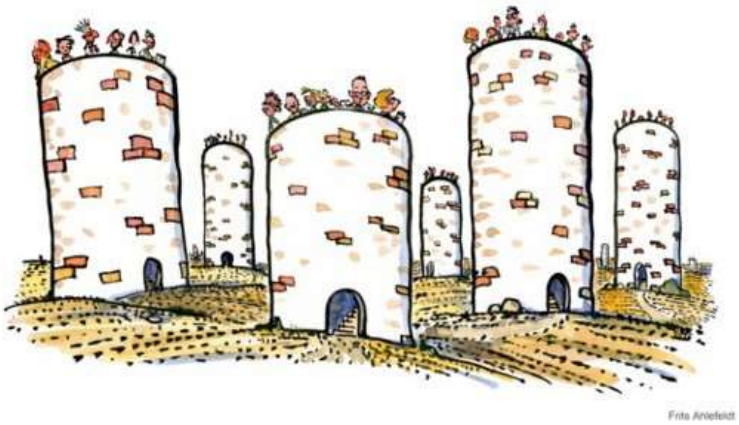
## 17.6 Support, networks, communities of practice, and further reading

The OECD has a series of reports with good practice examples on policy coherence for sustainable development, with multi-sector coordination as one of the eight pillars (see section 12 of this report).

# 18 Overcoming silo-thinking to enhance green mainstreaming

## 18.1 Introduction

Most EU Member States have established horizontal coordination mechanisms between sectoral ministries/agencies, like inter-departmental working groups, to address cross-cutting challenges like the SDGs and the green and digital transition. Effective horizontal coordination is a crucial means to promote policy coherence. However, political, institutional and first and foremost mental silos are often frustrating this.



**Three types of silos can be distinguished: political, institutional and mental**.[88] In democracies, politicians need to win majorities. Individual politicians tend to focus on their file and defend it, to raise their own profiles. This can lead to **political silos**. In some countries, governments have experimented with so-called project ministers for cross-cutting issues that involve more than one ministry (e.g. the Netherlands).

Most governmental organisations organise their work by dividing complex problems into more simple, partial problems, which are dealt with by separate, specialised sectoral or functional bureaucratic entities, which we call **institutional silos**. Third, there are **mental silos**: people have a firm belief that their problem definition and solution are not only the best, but even the only way forward. Different policy sectors like agriculture, transport and environment have their own world view and tend to operate in isolation. There are cultural, political, power- and career-related, cognitive and other reasons why people have 'tunnel views' and argue against change.

An important starting point for addressing silos is to **balance the positive and negative impacts of silos**. Institutional silos (1) give clear lines of command, responsibility and accountability; (2) have a different function and meaning in different administrative cultures; and (3) provide clear, reliable and stable contact points within a ministry for partners and stakeholders.

## 18.2 Potential impact on the green transition

The green transition is not just a series of separate actions but requires collaboration and sharing knowledge and ideas from many different policy areas. All three silo types are preventing this and hence hampering or slowing down the green transition. A typical example is the relation between agriculture and environment departments, where at first sight (and through the eyes of lobby groups) the interests are opposite, but stepping over mental borders has helped understanding that they share common interests, for example moving to a more

[88] Niestroy, I. & Meuleman, L. 2016. Teaching silos to dance: A condition to implement the SDGs. IISD SD Policy & Practice. Guest Article, posted on 21 July 2016 [Online].

sustainable (also in economic terms) agriculture within a broader sustainable food production system.

## 18.3 Challenges and solutions

- How silos are seen differs with the predominant governance style of an administration. *Hierarchical governance* typically aims at maintaining organisational structures that assign tasks and responsibilities to dedicated units, with a clear line of command. This gives structure, accountability, transparency and makes clear who should be contacted. In a *market governance* logic, silos are an inefficient complication of (public) organisations. To enhance efficiency, these silos should be dismantled to foster better collaboration and streamlined operations. *Network governance* promotes building bridges: connecting different silos and establish alliances.
- Effective coordination between ministries or agencies responsible for different policy areas requires establishing and managing dedicated mechanisms to bridge a silo-mentality, which are often missing.
- A silo mentality can be rooted in law, even in the constitution (e.g. Germany).

## 18.4 Inspiring examples

Because it is usually not possible for civil servants to tackle political silos, the priority lies on addressing institutional and mental silos. Institutional silos can to some extent be solved by flattening the organisational structure, but this has also downsides as it makes the division of tasks less transparent (see above).

Examples of arrangements tackling both institutional and mental silos are widespread, e.g. 'inter-service steering groups' (European Commission), state secretaries' commissions or similar bodies for national sustainable development strategies (Germany, Finland), or cross-sectoral project teams. Also establishing a matrix organisation helps bridging silos, although it adds complexity: staff must accept dual leadership: a line manager and a project manager.

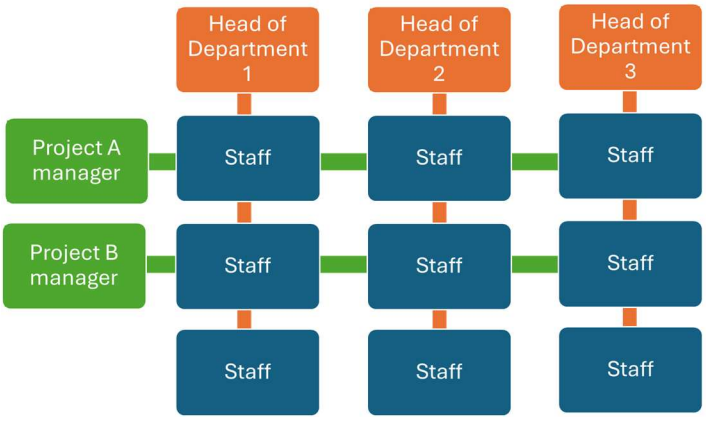
Addressing mental silos requires a focus on facilitating dialogue, with interaction and learning being at the core of opening mental silos. It will likely also require different leadership styles, e.g. switching from commanding to coaching, and capacity building for such adaptive leadership.

Important for opening both mental and political silos are new narratives, such as sustainable production and consumption as presenting business and investment opportunities. New narratives as well as mutual gains approaches widen the perspective and enable awareness of synergies.

Approaches to help 'silos dance' include reframing issues to make them attractive challenges for other sectors or actors; establishing cross-departmental projects with shared responsibility; building trust to transform 'enemies' into 'opponents' and 'coalition partners' into 'friends'; creating a peer support culture to share experiences across sectors/actors; creating informal meeting places, where colleagues from different silos get to know each other.[89]

[89] An example of an event type that is designed to 'teach silos to dance' is the series of live-streamed talk shows with live music organised in Brussels under the name 'Beau Lieu Café'.

Connecting silos can result in diffuse and blurred responsibility and accountability. One way to prevent this is to establish a matrix organisation. A matrix organisation is a work structure where team members report to a project manager as well as their department head. This can be a smart way to combine flexibility with accountability (see illustration of a matrix organisation).




## 18.5 Assessing progress

The impact of institutional silos may be measured through institutional mapping, but often they are a lesser problem than mental silos. There are no direct indicators for measuring a silo mentality (or its absence). A survey could reveal the main (mental) obstacles, such as (untested) narratives about how other ministries think and what each of them sees as problems and solutions for more synergetic collaboration.

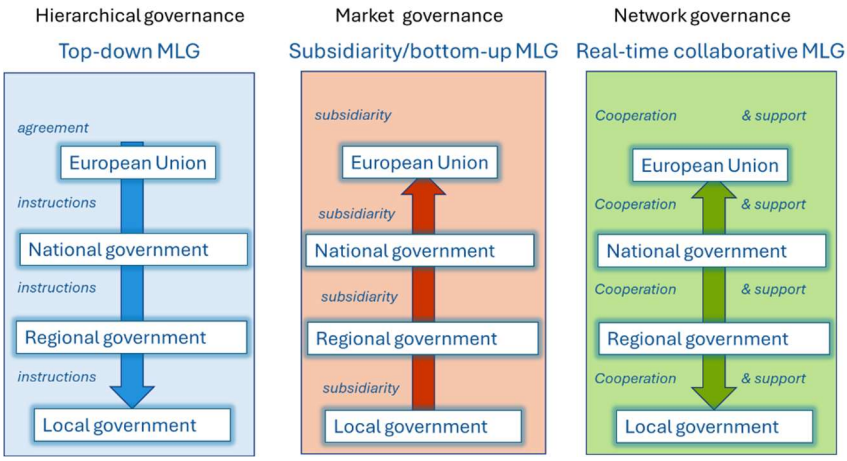
## 18.6 Support, networks, communities of practice, and further reading

The UNDESA report 'Changing Mindsets to Realize the 2030 Agenda for Sustainable Development' contains examples of strategies and approaches at the individual, organisational and institutional levels to change mindsets and behaviours.

The European Commission has a Collaborative Space (Collab), located at the Joint Research Centre's Ispra site in Italy. It is specifically designed to foster (and experiment with) collaborative ways of working and producing knowledge. The Collab is a convivial open space that aims to overcome disciplinary modes of knowledge organisation by embracing new ways of knowing. It is conceived as a retreat to knowledge-holders relevant to a particular issue of concern.

# 19 Green multi-level governance: adding a collaborative style to the mix

## 19.1 Introduction




Effective coordination and collaboration between different levels of government is important for the quality of the performance of the public administration. The European Union is an example of multilevel governance in action, as it is a complex system that involves multiple levels of governance working together. There are three distinct types of multi-level governance.[90]

1) **Top-down multilevel governance** is characterised by a *hierarchical mind-set* regarding the levels, which has several benefits: it emphasises rule of law and offers a clear structure; it defines responsibilities and provides stability; and it is usually slow, which may also be a positive quality, as frequent changes in policy and law create unpredictability for citizens and businesses.

2) **Bottom-up multilevel governance** is based on *subsidiarity* and *empowerment*. Subsidiarity is enshrined in the Treaty on the European Union. It aims to ensure that decisions are taken at the most "appropriate" level to make decisions on an issue and implement the related policies. This approach shares values like empowerment and independency with *market governance*.

3) **Real-time collaborative multilevel governance** is based on the mindset and tools of *network governance*. It is a reaction to the fact that the two traditional approaches to distribute remits across governance levels result in a slow transfer of ideas and knowledge, be it from national to subnational, or the other way around.

All three approaches may be required in effective multi-level governance for the green transition, in a mix that depends on the governance context.

## 19.2 Potential impact on the green transition

Formulation and implementation of policies and rules for the green transition requires effective and efficient multi-level governance. Localisation of the SDGs[91] has illustrated the innovative capacity of cities – but all levels of government need each other to create synergy and address trade-offs in an inclusive way.

[90] Meuleman, L., (2023*), A metagovernance approach to multilevel governance and vertical coordination for the SDGs,* in Governing the interlinkages between the SDGs (pp. 71-89), Routledge. Available at: https://www.ps4sd.eu/wp-content/uploads/2023/09/2023-Metagovernance-for-multilevel-gov-chapter.pdf

[91] The EU's Joint research Centre (JRC) runs the LocalSDGs project that gives focused support to selected regions and cities on how to translate the SDGs into local goals that make sense to local people, and how to develop indicators for them to measure progress. See https://urban.jrc.ec.europa.eu/sdgs?lng=en&ctx=udp

## 19.3 Challenges and solutions

Typical challenges that hamper effective multilevel governance include:[92]

- **Tensions between multiple administrative levels**, requiring conflict resolution mechanisms (e.g., arbitration).
- **Limitations, contradictory rules, or practical constraints** that are not in line with the distribution of competencies between administrative levels.
- **Shifting the focus from formal competencies to problem-solving:** is there agreement about what the problem is, why it is a problem, and for whom?
- Inadequacy of financial and budgetary rules and regulations, and resources at the sub-national levels.
- **Inadequate consultation procedures of the national government with local authorities** in relation to various matters that concern the latter directly (legislative processes, financial/budgetary matters, boundary delineation).
- **Intransparency of decision-making** when decision-making or the coordination, cooperation, delegation, or supervision is organised in such a way that it becomes excessively complex.
- **Accountability problems** may arise when the division of responsibilities between different levels of government is not clear.
- **Lack of multilevel capacity and mindset:** Capacity-building at all levels is needed to help authorities at each level understand the circumstances and responses from other levels of government, and to overcome silo-thinking between levels.

## 19.4 Inspiring examples

The Netherlands, with its long-standing participative governance culture, has a collaborative mechanism for addressing strategic policy issues in a multilevel context. 'Intergovernmental dossier teams' can be established when needed, to discuss what each of the three tiers in the country's administrative system (national, provincial, and local) can contribute to addressing challenges with a strong multilevel dimension. The three governance levels come together in real time to discuss how to tackle specific pressing problems. This 'real-time collaborative multilevel governance' is an additional approach that in no way undermines the subsidiarity principle or the legal hierarchy between the levels.

The collaborative approach also seems to open the borders between government and non-government actors. The Dutch City Deals are a good example. Cities, the government, other public administrations (e.g. provinces and water boards), the private sector, and civil society organisations make concrete agreements with each other to tackle urban issues.

In water management, River Contracts (RCs) are a good example of collaborative multilevel governance. A River Contract is a voluntary, technical, and financial agreement between the public and private partners concerned on the scale of a coherent hydrographic unit. The first RCs were born in France in the 1980s, and then spread to Belgium and many other European

[92] Council of Europe, (2023), Report on Multi-level governance. Available at: https://rm.coe.int/report-on-multilevel-governance-final-2768-6653-0568-v-1/1680ad9120#:~:text=The%20EU%20is%20a%20unique,government%20including%20a%20supranational%20level

and non-European countries. They are signed by all the partners concerned and willing to improve the management of the river territories: Ministries, District Basin Authorities, Regions, Municipalities, Universities, Associations, but also individual local communities, professionals, entrepreneurs and citizens.

## 19.5 Assessing progress

The SDG indicator on PCSD (17.14.1) has the following sub-indicator on multi-sector coordination: *"The country has mechanisms in place for aligning priorities, policies and plans between various levels of government."* This is detailed as follows:

- Consultation and coordination mechanisms to systematically collect the inputs of sub-national government entities and the consideration of their priorities in national policy, strategy formulation and planning processes and to integrate national priorities into the subnational policies, plans and programmes;
- Contractual or other institutional arrangements for regular formal exchange between central government and subnational levels of government for systematic consultation, collaboration, and alignment of efforts;
- Tools to enhance substantive coherence such as policy or planning and budgeting templates or checklists that require demonstration of alignment between sub-national and national level policies before validation and budget allocation;
- Planning cycle timeframes that facilitate the alignment of national and sub-national plans, or systems that allow for the regular review of plans, policies, regulations and programmes to facilitate such alignment.

## 19.6 Support, networks, communities of practice, and further reading

Existing EU programmes for regions and local authorities, such as INTERREG and URBACT help making subnational governments stronger partners for national governments. The INTERREG Partnerships for Regional Innovation (PRI) put an emphasis on developing more effective multi-level governance and fostering synergies between policies and between different funding instruments—such as the Cohesion Policy and Horizon Europe—while broadening stakeholder engagement and participatory governance. URBACT helps cities to develop an integrated set of actions for sustainable change. The programme website states that "Localising the UN Sustainable Development Goals (SDGs) can be a powerful framework for long term impact at local level. Combined with the URBACT Method, the global goals from the Agenda 2030 can be turned into a reality in cities". In 2024, there were 30 URBACT IV Networks with 254 Partner cities.

Joint Research Centre: 'European Handbook for SDG Voluntary Local Reviews'

# 20 Green Inter-Municipal Cooperation

## 20.1 Introduction

The green economy transition strongly relies on the greening of public services which are to a major part provided at the local level, such as public mobility, energy supply, waste management, water management and wastewater treatment. Also, climate action, local ecosystem and land-use management as well as the creation of green infrastructure strongly require the local level.

Frequently, these tasks exceed the capacities of a single municipality, in particular of smaller municipalities in rural areas. **Inter-municipal cooperation (IMC)** can be a most effective solution to this problem. In an IMC, several municipalities work together in the domains falling within their legal responsibilities. With IMC can pool expertise and resources to better achieve common policy objectives.

IMC can help municipalities to provide public services in a way that matches with the higher ambitions and increased standards of the green transition. E.g. advanced waste management and recycling requires equipment and facilities that are cost-effective only at a larger scale and for a higher number of citizens. With a cooperation in the investment and the management of those facilities neighbouring municipalities can achieve economies of scale and meet the increasing technical standards in a cost-effective way. Other tasks can require cooperation across municipal boarders, such as flood prevention in a river basin or the organisation of public transport in larger urban regions.

Levels and preconditions for IMC depend on the relevant national legislation. Most EU Member States promote and enable IMC. There is a wide range of options for the design and format of an IMC and the degree of cooperation and sharing of responsibilities can vary quite substantially: from informal cooperation and sharing of information and resources or the implementation of certain tasks for several municipalities by one municipality that is larger or better equipped, to the creation of joint bodies or the merging of certain departments.

## 20.2 Potential impact on the green transition

IMC has a huge potential to support the green transition in areas that need investment in public infrastructure which cannot be provided by a single municipality in a cost-effective way.

## 20.3 Challenges and solutions

Since municipalities are independent and each of them have their own bodies for political decision making it can be very challenging to reach an agreement on IMC, in particular where it entails a transferral or merging of responsibilities. Therefore, the IMC must be carefully prepared by all parties involved by identifying the tasks, setting objectives and targets, finding the appropriate structural design and format and allocating finance and funding. Sometimes

there is a risk IMC bodies show a 'democratic deficit'. Thus, it is important to agree on a clear framework for monitoring and accountability.

Waste management is an area where the collaboration of European small and medium sized municipalities is well established. The IMC approach allows them to implement measures that would be too costly for them to implement alone and achieve better environmental performance.

## 20.4 Inspiring examples

The city of **Besançon, France**, implemented an incentive-based PAYT (pay-as-you-throw) system financing scheme for waste management. Thanks to the participation of the city in the Greater Besançon waste authority, the scheme was transferred to the ring of 59 municipalities. The measure had an effect after the first year of implementation, decreasing the residual waste by 1 % and increasing the recyclable fraction by the same amount, while the city saved EUR 5.25 per capita per year.[93]

Another good example for the usefulness of IMC is the collaboration in climate adaptation and flood protection across territorial municipal boundaries. The stream of Usserød in the northern part of **Sealand, Denmark** is receiving increasing amounts of water from rainwater and sewage systems because of climate change and the gradual expansion of urban areas in the municipalities of Rudersdal, Hørsholm and Fredensborg. The three municipalities started an IMC to enhance river monitoring, improve emergency preparedness, and set up a Joint Emergency Plan and implementation of a joint climate change adaptation measures.[94]

## 20.5 Assessing progress

IMC can have high failure rates when coordination problems between municipalities in steering and monitoring cannot be resolved. Joint service delivery can lead to free-riding and duplication in monitoring, lobbying by principals, and increased autonomy for agents, leading to inefficiency.[95]

Appropriate frameworks and indicators for the monitoring of the outcome of IMCs must therefore be designed and agreed upon together with the establishment of an IMC, but they are until now rare. Such frameworks tend to focus on cost-reduction through the scale effect of IMC, but would also need to measure progress on the policy objectives with regard to the topics that the cooperation is meant to address.

## 20.6 Support, networks, communities of practice, and further reading

VNG International, founded by the Association of Netherlands Municipalities, has produced an introductory guide to successful inter-municipal cooperation (IMC).[96]

[93] European Commission, Green Best Practice Community, Inter-municipal cooperation among small municipalities, case study. Available at: https://greenbestpractice.jrc.ec.europa.eu/node/108
[94] Intermunicipal cooperation on Water Management and Climate Change Adaptation for the Stream of Usserød (LIFE Stream of Usserød). See https://climate-adapt.eea.europa.eu/en/metadata/projects/stream-of-usserod-intermunicipal-cooperation-on-water-management-and-climate-change-adaptation-for-the-stream-of-usserod.
[95] Voorn, B., Van Genugten, M. and Van Thiel, S., 2019. Multiple principals, multiple problems: Implications for effective governance and a research agenda for joint service delivery. *Public administration*, *97*(3), pp.671-685.
[96] VNG International, (2010), Inter-municipal cooperation: Introduction Guide to the VNG International Approach to a Successful IMC. Available at: https://www.vng-international.nl/wp-content/uploads/2015/06/IMC_EN.pdf

IMC is also the subject of a Toolkit Manual, published in 2010 by the Council of Europe, United Nations Development Programme (UNDP) and the Local Government Initiative (LGI) of the Open Society.

# 21 National and local green deals

## 21.1 Introduction

In the **Netherlands**, the concept of Green Deals has been developed very successfully as a model of multi-stakeholder action for the green transition. Green Deals are collaborative agreements involving the government, businesses, non-profit organisations, research institutions, and other relevant parties. Until 2021 235 Green Deals have been agreed with more than 1800 partners.[97]

Green Deals target various themes and sectors, such as energy and climate, sustainable construction and energy efficient renovation, circular economy, biodiversity, sustainable agriculture, food and the biobased economy as well as green urban development and mobility. E.g. green energy deals often involve extensive collaboration with industry, the agricultural sector, and SMEs, either with individual companies or with joint ventures spanning entire industries or chains.

With **Green Deals at national, regional and local level** the Dutch government facilitates innovative and result-orientated stakeholder initiative and cooperation. In Green Deals legislative and bureaucratic barriers are identified and tackled, and there is scope to experiment. Market incentives can be introduced, such as labels, helping to boost new green products and create new revenue models.

**Local Green Deals (LGDs)** focus on local needs and sustainability challenges, and create alliances between the local government and its urban society, including private companies and civil society organisations. They have been used, for example, to establish or formalise multi-actor cooperation to make neighbourhoods energy-neutral. This approach integrates promoting renewable energy use, improving energy efficiency in homes, and engaging residents and local businesses in the transition. The idea of local Green Deals is promoted by the *Mannheim Message* of mayors and leaders from European cities and regions at the 2020 ICLEI conference.[98,99] A blueprint paper on Local Green Deals has been published by the European Commission with detailed guidance on how to set up LGDs.[100] LGDs are an integrated, cross-disciplinary and multi-stakeholder approach to city governance overcoming the restrictions of traditional silo-based governance forms. This practical guidance outlines key

[97] Government of the Netherlands, Green Deals overview – Progress Report Green Deals 2011-2015; Government of the Netherlands, Green Deals - an overview 2011-2015. Available at: https://www.greendeals.nl/sites/default/files/uploads/2016/03/Progress_report_Green_Deals_ENG.pdf

[98] See About the Mannheim Message on the Sustainable Cities Platform website at https://sustainablecities.eu/mannheim-message/about-the-mannheim-message/

[99] See also ICLEI, (2023), Towards a just transition: What does this really mean for cities and towns? Available at: https://iclei-europe.org/publications-tools/?c=search&uid=m3eOzYmW

[100] European Commission: Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, Executive Agency for Small and Medium-sized Enterprises, Durieux, E. and Hidson, M., (2021), *Local green deals – A blueprint for action – The European Commission's 100 intelligent cities challenge*, Publications Office, 2021. Available at: https://data.europa.eu/doi/10.2826/94389

principles of a local green deal (such as building on what is there and taking an integrated approach) and two key stages for implementation: building momentum and scaling up.

## 21.2 Potential impact on the green transition

Green Deals at national, regional and local level are a powerful instrument for multi-stakeholder action. Due to their pragmatic, action- and result-orientated approach they can create significant impacts to transition goals at the different levels and in relevant economic sectors.

## 21.3 Challenges and solutions

When Green Deals are set up, the public sector must ensure a high level of ambition in the objectives as well as the agreement on tangible and measurable results. An active management of the Green Deal must keep a dynamic participation of stakeholders in the implementation and the adaptation to unexpected results and change.

## 21.4 Inspiring examples

In the **Netherlands**, a whole range of Green Deals have been launched to promote green mobility and the use of electric vehicles, e.g. in the **'Zero Emission City Logistics' Green Deal**, a broad-based consortium of companies, industry associations, and local authorities aimed to achieve the emission-free provisioning of city centres. The goal is to reduce the emissions of CO2, NOx and fine particulates produced by city logistics to zero and avoid noise nuisance. A wide range of regional pilot projects explored where and how Zero Emission deliveries of goods might be possible, e.g. through improving vehicle technology or how means of transport are utilised and loaded or innovative logistics concepts.[101] As part of this effort, the more than 100 participants in the Green Deal launched so-called Living Labs in 2016. Living Labs are research collaborations involving all the parties involved in city-level logistics: shippers, recipients, logistics services providers, fuel suppliers, vehicle manufacturers, knowledge institutions and local authorities. Under the programme, these parties come together to find workable operational solutions that will make city logistics more sustainable.[102]

In the **Belgian region Flanders**, the agency Circular Flanders, in collaboration with The Shift, the Flemish Association of Cities and Municipalities, and Bond Beter Leefmilieu, in 2017 established the **Green Deal Circular Procurement**. Over the course of two years, more than 150 organisations committed to collectively procuring circular products or facilitating circular procurement projects. Each of these procurers has committed themselves to successfully completing two circular purchasing projects between June 2017 and June 2019. The Green Deal provided a unique learning network for all partners, with lessons learned shared on the Circular Flanders website.

## 21.5 Assessing progress

A 'deal' is an agreement, not just an intention or a plan. While the deals are voluntary and non-binding, they typically include provisions for monitoring progress and reporting on the outcomes to which the participants had committed themselves collectively as well as individually. This helps ensure transparency and accountability and allows for adjustments to be made, as necessary.

[101] Government of the Netherlands, Green Deals overview, p. 29. Available at: https://www.greendeals.nl/sites/default/files/uploads/2016/03/Progress_report_Green_Deals_ENG.pdf
[102] https://www.iea.org/policies/3011-green-deal-on-zero-emission-city-logistics-green-deal-zes

## 21.6 Support, networks, communities of practice, and further reading

Publications and websites of the Dutch government provide detailed information about Green Deals, practical examples, and the experiences.[103]

The Commission's publication Local Green Deals provides detailed guidance. ICLEI Europe, the association of local governments for sustainability supports the idea of making the European Green Deal local and has explored the potential of local Green Deals.[104] Several EU funded projects provide an opportunity for knowledge exchange and further learning, bringing together cities from different EU Member States and other partners using the concept of Local Green Deals that are developing it further (partly ongoing).[105,106]

[103] For more information on Green Deal in the Netherlands, see https://www.greendeals.nl/english
[104] For ICLEI Local Green Deal website, see https://sustainablecities.eu/local-green-deals/about-lgds/ It provides support and contact for cities who are interested in piloting Local Green Deals.
[105] See ALLIANCE Local Green Deals at http://alliance.localgreendeals.eu, CLIMAA Local Green Deals at https://climaa.localgreendeals.eu, and also the philanthropically funded project Fair Local Green Deals at https://sustainablejustcities.eu/fair-local-green-deals
[106] For further reading in this area, see European Committee of the Regions' Green Deal Going Local: An initiative aiming to support the implementation of the EU Green Deal in cities and regions. Available at: https://cor.europa.eu/en/engage/Pages/green-deal.aspx

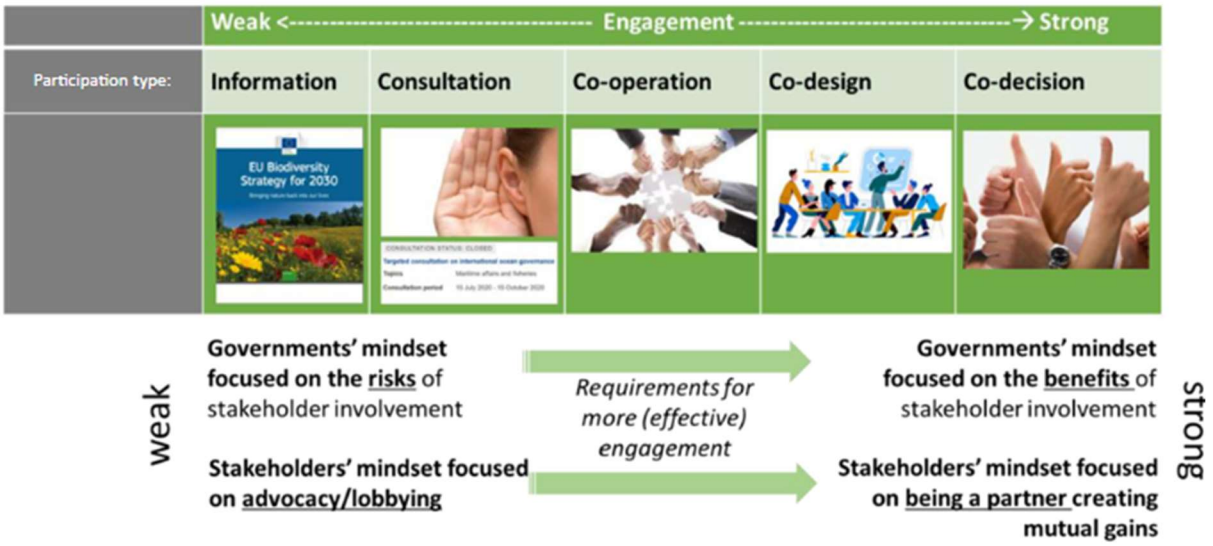
# 22 Multi-actor engagement: between consultation and co-creation

## 22.1 Introduction

Engaging proactively with stakeholders in all phases of the policy cycle, including through the exchange of knowledge and expertise, helps to ensure a holistic perspective on global challenges and sustainable development priorities. It also helps to give voice to diverse interests, identify potential trade-offs, raise public awareness and create ownership. Engaging stakeholders and understanding their needs ensures a broader range of solutions, practical knowledge beyond scientific evidence, and potentially more support for political decisions.

Traditions of stakeholder engagement differ between countries. Some governments consider stakeholder engagement optional, while in other countries with a more consensual tradition, such engagement is an age-old tradition.[107] However, across all EU countries, the understanding has grown that governments cannot govern anymore without some form of structured engagement of organised civil society and business, science, media and loosely organised citizen's groups.

The intensity of participation can range from low (being informed) to high (co-production and co-decision), with several intermediate stages.[108]




Stronger engagement (from left to right in the figure) implies a higher level of trust. Therefore, successful practices on the right side (co-design, co-decision) are found more often in countries with a high-trust culture than in those with a low-trust culture. Another variable is the mindset accompanying each of the types. From 'information' to 'co-decision' (left to right) the

[107] See, for example, Walter Kickert, 2003. Beneath consensual corporatism: traditions of governance in the Netherlands. Erasmus School of Social and Behavioural Sciences, Rotterdam. Available at: https://pure.eur.nl/en/publications/beneath-consensual-corporatism-traditions-of-governance-in-the-ne

[108] Note: The five levels of stakeholder participation are also referred to as: *inform, consult, involve, collaborate and empower*. Source: OECD, (2023), Driving Policy Coherence for Sustainable Development. Available at: https://www.oecd-ilibrary.org/governance/driving-policy-coherence-for-sustainable-development_234cfd68-en, based on Meuleman, 2022, 'From Action Plan to Implementation, and from Policy to Governance'. Presentation at the International conference: The National Action Plan for the implementation of Romania's Sustainable Development Strategy 2030. Bucharest. https://www.ps4sd.eu/2024/10/11/sd-conference-bucharest/

mindset of government actors may vary between risk reduction to open to benefits (on the government side), and from advocacy to partnership (on the stakeholder side).

## 22.2 Potential impact on the green transition

As regards the SDGs, four ways of structuring stakeholder participation were identified in EU countries: (1) a (sometimes) one-off consultation; (2) an enhanced process of participation, with a forum or other informal body; (3) a dedicated body, either established as an independent sustainable development council; (4) or as a body intertwined with the government coordination structure which also includes stakeholders in an integrated manner (e.g. 'Government Council').[109] Some countries have additional elements for participation, often in relation to a specific occasion or aspect of policy.

## 22.3 Challenges and solutions

Promoting stakeholder engagement is particularly important in a context of low levels of trust in government and dissociation of some groups of citizens from traditional democratic institutions.[110] Not involving stakeholders in determining the knowledge base for policymaking can result in long-lasting disputes on the validity of the evidence underpinning the decisions; a specific method to cope with this is 'joint fact finding'.[111] Stakeholder participation may bring more conflicts into the policy process, but this can be mitigated by organising deliberations based on the mutual gains approach to negotiations and other co-creation tools. Policies are more likely to be implemented if they incorporate mutual benefits for all parties and create a sense of ownership through engagement of diverse stakeholders.

It is important that stakeholder engagement is not limited to the 'usual suspects'. More participation of established interest groups may lead to greater exclusion of unheard interests. One way to support weakly organised stakeholders is by supporting them, financially or in other ways, to organise themselves and hence make it easier for them to make their voice heard. For example, as part of the governance of the protection of the 'Green Heart of Holland' in the centre of the ring of cities where six million people live, the Ministry of Spatial Planning funded cultural heritage experts and small recreational entrepreneurs.[112]

It is evident that effective and fair stakeholder engagement requires that the governance/stakeholder environment be adequately understood. This requires a careful mapping of all relevant stakeholders and their relations: who are the main stakeholders, who do they represent, and how is the balance between vocal minorities and silent majority? What are their interests and relative power position? Which stakeholder groups are (too) weakly organised to play a serious role (and hence might need to be supported), what do we know about relations between key stakeholders (e.g. they may have a coalition on another theme, they have a long history of conflict or of collaboration)?

[109] Niestroy, I., Hege, E., Dirth, E. and Zondervan, R., 2020. Europe's approach to implementing the Sustainable Development Goals. *Governance for sustainable development*, *4*.
[110] OECD (2022), OECD Guidelines for Citizen Participation Processes, OECD Public Governance Reviews, OECD Publishing, Paris, https://doi.org/10.1787/f765caf6-en.
[111] Joint Fact-Finding is a process in which separate coalitions of scientists, policymakers, and other stakeholders with differing viewpoints and interests work together to develop data and information, analyse facts and forecasts, and develop common assumptions and informed opinions. See van Buuren et al. (2007), Interactive governance in the Netherlands: The case of the Scheldt Estuary.
[112] Meuleman, L., (2003), The Pegasus Principle (Open Access book), Utrecht; Lemma publishers. Available at: https://www.ps4sd.eu/wp-content/uploads/2017/12/2003-The_Pegasus_Principle-book.pdf

## 22.4 Inspiring examples

Citizens' science initiatives are a good example of how relatively weakly organised initiatives – at least not organised like a lobby organisation – can support the quality of policy making and implementation. The EU-funded CitiMeasure project, finalised in 2023 and funded through the Technical Support Instrument, developed measurement tools for citizens to support developing smart, sustainable and inclusive cities. The tools help citizens collect and monitor data related to various environmental indicators. An online European Knowledge Centre was established and hosts the final version of the CitiMeasure instruments, training material, webinars, as well as all public deliverables of the project.

## 22.5 Assessing progress

The SDG indicator on PCSD (17.14.1) has the following sub-indicator on multi-actor coordination: *The country has an institutional mechanism in place that periodically brings together relevant ministries and governmental entities to enhance policy coherence for sustainable development*. Such mechanisms could include:

- A mechanism for regular coordination established at the national level and bringing together ministries (and other governmental entities) to facilitate information sharing and consultation among different ministries/sectors most relevant to sustainable development.,
- A mandate to make decisions regarding trade-offs and other unintended negative impacts.
- Convened by a centralised government body such as the Office of the Prime Minister or President or other central national governmental entity (ex. Ministry of Planning).
- Representation and coordination at both political/strategic level and technical level, to ensure political commitment as well as its translation into action and alignment between the two levels.
- Explicit mandate to consider transboundary issues and enhance coherence of internal and external policies including through the involvement of the Ministry of Foreign Affairs (or equivalent bodies).
- Other nationally relevant mechanisms.

## 22.6 Support, networks, communities of practice, and further reading

In an early (2003) but still relevant overview of tools for stakeholder mapping, the following approaches were described and illustrated with examples:[113]

**Factor analysis**: What is the problem? Whose problem is it? Why is it a problem now? Is it a simple or a complex problem?

[113] Meuleman, L., (2008), Public Management and the Metagovernance of Hierarchies Networks and Markets: The Feasibility of Designing and Managing Governance Style Combinations, p.284. Available at: https://link.springer.com/book/10.1007/978-3-7908-2054-6 More elaborated in Meuleman, L., (2003), The Pegasus Principle (Open Access book). Available at: https://www.ps4sd.eu/wp-content/uploads/2017/12/2003-The_Pegasus_Principle-book.pdf

**Actor analysis**: Making a list of the stakeholders that may be interested/needed; discussing their possible roles, assessing their interests and standpoints, and how to select their representatives.

**Strength analysis**: Identification of power and positions of actors. Can we trust them? Are their interests opposite or congruent with government's interests? What are the strategies for dealing with 'enemies', 'opponents', 'coalition partners' and 'friends?

**Network analysis**: What are the relations between the stakeholders; are they involved in other networks/co-operations?

**Argumentation analysis:** What is the present state of the debate? Who argues on an ideological level, on a technical level, on a problem level, etc.?

**Risk analysis**: What are the risks during the policymaking process or internal project, in relation to stakeholder involvement? Are these risks important, and can they be influenced or not?

**Organising specific meetings**: Examples of types of meetings for specific situations include: an internal start-up meeting (internal partners, such as other ministries, also have interests), an external start-up meeting (if this is about creating many ideas, the 'open space' technique could work well), an expert meeting, an opinion-forming meeting, a reflection meeting, a decision-making meeting and an evaluation meeting.

**Mutual Gains Negotiation**: The Mutual Gains Approach (MGA) is especially suited to complex issues in which many stakeholders are involved, such as sustainable development. Core concepts of MGA include distinguishing between positions and interests, and not trying to simplify the issue, but on the contrary, to make the problem more complex, to find more elements for a package deal.

Other sources include:

OECD, (2022), Guidelines for Citizen Participation Processes.

UNDESA 2021. What is a 'good practice'? A framework to analyse the quality of stakeholder engagement in implementation and follow-up of the 2030 Agenda.

# 23 Green deliberative democracy: how citizens become part of the solution

## 23.1 Introduction

The green and sustainable transition is a whole-of-society challenge that cannot be undertaken by public authorities alone but needs broad participation of and cooperation with civil society and other stakeholders. Vast experiences have been gathered in Europe and other world regions with engagement of organised stakeholders, as well as directly with citizens, in a broad range of formats, in particular in the areas of sustainable development and environment. In addition, citizens are becoming more involved in gathering data on environmental pressure such as bad air quality (**citizen's science**).[114]

Beside those traditional forms of stakeholder engagement governments more and more apply **innovative formats of deliberative democracy** to improve public decision making. Such formats involve everyday people in solving complex issues, thus complementing representative democratic institutions. They support the policymaking process by incorporating diverse views and harnessing collective knowledge and they help strengthening public understanding of outcomes, promote policy uptake, and reinforce trust in public institutions. The OECD observes a "deliberative wave" in the past years, with environment and long-term policy issues as the main topics addressed by deliberative processes.

**Citizens' Assemblies**[115] are a specific format of deliberative democracy that has been implemented in various countries and contexts and is seen as the most robust and elaborate model. They usually gather a number of randomly selected citizens (90 citizens on average), are spread over several events or weekends and on average take one year. After the participating citizens have been made familiar with the topic in an initial learning phase, they conduct hearings of stakeholders and the public and followed by an interactive deliberation phase and resulting in policy recommendations which are adopted by all participants. Since the entire process is public, Citizens' Assemblies can attract a lot of public attention and can

[114] Citizen science is an approach which involves citizens participation in the measurement of aspects such as air quality, temperature, soil moisture biodiversity etc. See https://citimeasure.eu/wp-content/uploads/sites/3/2022/05/CitiMeasure_D1.2_4-case-studies-on-good-practice-2021-FINAL_compressed.pdf By engaging citizens in these activities, the CitiMeasure initiative aims to create smarter, more sustainable and inclusive cities. See https://eurocities.eu/projects/citimeasure/ For more information on citizen science, see https://citimeasure.eu/wp-content/uploads/sites/3/2022/05/CitiMeasure_D1.1_Report-of-landscape-review-2021-FINAL-compressed.pdf

[115] Picture: European Commission: https://citizens.ec.europa.eu/document/download/52a3608d-662c-4b0e-b463-684a9dbef302_en?filename=Final%20recommendations%20European%20Citizens%60%20Panel%20on%20Energy%20Efficiency.pdf

have a large impact on the general political debate on the issue at stake.[116] Therefore, Citizens' Assemblies and other forms of deliberative democracy are a very powerful element of Green Administration governance structures.

## 23.2 Potential impact on the green transition

Deliberative democracy models, such as Citizens' Assemblies have a large potential to improve policy making in the green transition through including first-hand knowledge and experience from citizens. Moreover, they can help to overcome gaps in citizens' trust in governmental policy making and mobilize support for green transition themes in the public opinion.

## 23.3 Challenges and solutions

Deliberative democracy processes should not be regarded as an alternative to representative democracy, but rather as a complementing element. When models such as Citizens' Assemblies are applied in practice tasks, objectives and processes must be carefully defined. All processes must be transparent and led by independent moderators to ensure that the outcome can find public acceptance.

## 23.4 Inspiring examples

**Ireland** is regarded as a frontrunner in the introduction of innovative forms of deliberative democracy. In 2016 it introduced the **Irish Citizens' Assemblies**, each comprised of 100 randomly selected citizens, which have since then considered a series of important legal and policy issues: the 8th amendment of the constitution on abortion; ageing populations; referendum processes; fixed-term parliaments, biodiversity loss and climate change. The Assembly's recommendations were submitted to parliament for further debate. Based on its recommendations, the government called a referendum on amending the 8th amendment and declared a climate emergency.[117] Other EU countries followed the Irish example and established national Citizens' Assemblies.[118]

**Lisbon**'s **Citizen Council** (50 members) deliberated in 2022 on how to enable the city to face the climate crisis and, in 2023, on how to make Lisbon a *15-minute city*.[119]

National and local **Climate Assemblies** have been successfully implemented in many European countries and cities. The KNOCA project provides a comprehensive mapping of these cases. **Tallinn**, while being the green capital of Europe during 2023, piloted the **climate assembly** as an innovative citizen engagement method. The "mini-Tallinn", as the assembly was known, gathered for five days over three weekends, deliberated in Estonian, Russian, and English, and proposed climate-proof ideas for preserving and adding more urban green in Tallinn.

The **Citizens' Assembly** approach has been used also at EU level in the in the Conference on the Future of Europe and on other subjects, such as energy efficiency and on tackling hatred

[116] OECD, (2020), Innovative Citizen Participation and New Democratic Institutions: Catching the Deliberative Wave, p. 36. Available at: https://www.oecd.org/en/publications/innovative-citizen-participation-and-new-democratic-institutions_339306da-en.html
[117] Ibid, p. 38.
[118] For example, for Austria and Spain examples see, The REAL DEAL Handbook: Citizen Consultation and Participation for the European Green Deal, p. 68. Available at: https://www.realdeal.eu/230331_deliverable_1_3
[119] https://medium.com/participo/lisbons-citizens-council-embedding-deliberation-into-local-governance-a4e366755c0f

in society.[120] During three weekends between February and April 2024, the European Citizens' Panel on Energy Efficiency brought together 150 European citizens to discuss how energy is used in the EU and how the energy system may change in the future. This was timely in light of the recent energy crisis that confirmed the need for a cleaner and more secure EU energy system.

## 23.5 Assessing progress

The composition, functioning and impact of Citizens' Assemblies must be carefully monitored with appropriate indicators on, for example, representativeness of the citizens composing the assembly, quality of moderation and of expertise offered, and recommendations communicated. The Knowledge Network on Climate Assemblies (KNOCA) published an impact evaluation framework for climate assemblies.

## 23.6 Support, networks, communities of practice, and further reading

The OECD published a comprehensive study with guidance and recommendations on Innovative Citizens Participation and New Democratic Institutions.[121]

The Knowledge Network on Climate Assemblies (KNOCA) is a network aiming at improving the commissioning, design, implementation and impact of climate assemblies, using evidence, knowledge exchange and dialogue. KNOCA provides practical guidance and case studies.

REAL DEAL is an EU funded action research project. It is a partnership of research institutions and civil society organisations aiming at testing various models of environmental deliberation, with an ultimate aim to develop a new model of **environmental citizenship** for Europe, placing Europeans at the heart of the decision-making process.

Further reading (besides the sources already mentioned in footnotes) include other international platforms and agencies dedicated to the promotion of deliberate democracy provide further information and support.[122]

[120] https://citizens.ec.europa.eu/index_en; https://www.bertelsmann-stiftung.de/en/publications/publication/did/evaluation-report-european-citizens-panel-on-the-future-of-europe
[121] OECD, (2020), op. cit.
[122] For example, **Participedia** (https://participedia.net) is a global network and crowdsourcing platform for researchers, educators, practitioners, policymakers, activists, and anyone interested in public participation and democratic innovations. **Involve** (https://involve.org.uk/about) is a UK public participation charity which puts people at the heart of decision making. Other similar initiatives include **the DD Foundation** (https://dd.foundation) and **Center for Blue Democracy** (https://bluedemocracy.pl).

# 24 Ensuring evidence-informed policy for the green transition

## 24.1 Introduction

Making progress on the green transition requires policies and implementation that are informed by the best available knowledge.

This is not only about environmental data but also about integrated evidence composed of multiple sources and on multiple policy areas, and where needed, through a systemic lens. The European Environment Agency, its Eionet network of national environmental protection agencies, as well as the European Commission's JRC work together to produce the best knowledge for the EU and its Member States. However, evidence-informed policymaking (EIPM) does not stop there. A key dimension is how to get this knowledge used in policy making and implementation, at an early stage (through impact assessments), during the policy process, and afterwards (monitoring and evaluation).

## 24.2 Potential impact on the green transition

Without good knowledge at the right moment(s) and the right places, the green transition will not make much progress. Combined data from air quality and health have shown that exposure to air pollution caused approximately 400 000 premature deaths in the European Union (EU) in 2016.[123] This fact has been an important argument for stronger air quality rules in the EU. In its 2024 report, the EEA finds that 96 % of the EU's urban population is exposed to unsafe concentrations of fine particulate matter ($PM_{2.5}$).[124]

Besides data on the state of the environment and on environmental pressures caused by economic activities and human behaviour, it is also important to develop data on the cost of inaction. In the past, the EEA published around 60 case studies on the societal costs of late political action on environmental pollution (e.g. asbestos). The reports illustrate how damaging and costly the misuse or neglect of the precautionary principle can be, using case studies and a synthesis of the lessons to be learned and applied. [125]

## 24.3 Challenges and solutions

**Relevant, accurate, and reliable knowledge** depends on analysing data series of various kinds. Due to different reporting requirements in EU law, data on different environmental parameters (e.g., air, water, soil, noise) differ on freshness. Real-time data are often not

[123] EEA, (2019), Air quality in Europe – 2019 report. Available at: https://www.eea.europa.eu/publications/air-quality-in-europe-2019
[124] EEA, (2024), Briefing: Europe's air quality status 2024. Available at: https://www.eea.europa.eu/publications/europes-air-quality-status-2024
[125] EEA, (2013), Late lessons from early warnings: science, precaution, innovation. Available at: https://www.eea.europa.eu/publications/late-lessons-2

available. Together, this creates a time gap between data collection and use of integrated knowledge.

A JRC study (financed by DG REFORM's TSI) on building capacity for evidence-informed policymaking has analysed the whole EIPM ecosystem in seven EU countries, and prepared tailor-made suggestions for improvement.[126] The study showed clear differences in terms of **maturity of the EIPM systems**. It also made clear that the largest challenge may not lie on the side of the knowledge producers or the intermediaries ('knowledge brokers') but in the uptake of available evidence by policymakers, who are too focused on other aspects of their task.

Another challenge is that evidence always can and will be **disputed**. With the rise of social media, unchecked fasts sometimes receive more attention than expert-based evidence. In a time where 'fake news' and 'fake facts' compete with authoritative expertise, the governance of and communication of EIPM have become a serious challenge.

Not **involving stakeholders** in determining the knowledge base for policymaking can result in long-lasting disputes on the validity of the evidence underpinning the decisions; a specific method to cope with this is 'joint fact finding'. Integrating citizens' knowledge in knowledge production and brokering is a growing way to increase the total societal capacity for EIPM.

Finally, science to policy systems should be **accountable** through, among others, independent oversight, but which format works best differs across politico-administrative systems. Preferred mechanisms to ensure oversight in a predominantly hierarchical governance context are 'authoritative', centralised and formalised. In a more 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.[127]

## 24.4 Inspiring examples

**Finland** has a long-standing multi-stakeholder Sustainable Development Commission – with the task to organise dialogue between stakeholders and (different) government departments. Over time, it was realised that a stronger input from science is needed and hence a scientific advisory body was established. [128]

**Spain** established in 2024 a National Office for Science Advice (*Oficina Nacional de Asesoramiento Científico,* ONAC). ONAC is strategically placed at the heart of the Spanish Government as a subdirectory of the 'General Secretariat for Public Policy, European Affairs and Strategic Foresight' at the Presidency of the Government. The Office is in charge of establishing institutional mechanisms to facilitate science advice, identifying and encouraging good advisory practices within and outside the public sector, and supporting the connection

[126] The seven countries include Greece, Belgium, Czech Republic, Estonia, Latvia, Lithuania, and the Netherlands.
[127] Niestroy, (2022), Constructing assessment indicator dashboards for evidence-informed policymaking: Insights from the perspective of public administration, institutions, and governance. Krieger, K. and Melchor, L., editor(s), Publications Office of the European Union, Luxembourg. Available at: https://publications.jrc.ec.europa.eu/repository/handle/JRC130062
[128] Ibid.

between the Government and the scientific talent that exists in research centres and universities.[129]

## 24.5 Assessing progress

A 2021 report proposed 14 'low hanging fruit' indicators to measure EIPM, linked to five building blocks, and based on analysis in four EU Member States:[130]

- 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.

## 24.6 Support, networks, communities of practice, and further reading

The European Commission's JRC has an **online platform for evidence-based policymaking** (Knowledge4Policy (K4P)). The objective is to bridge the science-policy gap by bringing together evidence for policy from scientists across Europe, to policymakers across Europe. The platform gives access to:

- High quality, relevant and scientifically robust knowledge created and curated by 19 teams of European Commission scientists.
- Content and interfaces specially created and tailored for policymakers.
- A single database of interconnected knowledge to inform policy.
- An online community where scientist and policymakers collaborate to transfer scientific knowledge into public policy.

The EU Green deal Knowledge Hub brings together relevant publications. Also the EEA and the OECD provide important knowledge for the green transition, and for green EIPM. Every five years the EEA publishes a State and Outlook of the Environment (SOER) report; a new SOER report is due to be published in 2025.

Science for Environment Policy (SfEP) is a free news and information service published by the Directorate-General for Environment (DG ENV) of the European Commission. It is designed to help busy policymakers keep up-to-date with the latest environmental research findings needed to design, implement and regulate effective policies.

[129] https://knowledge4policy.ec.europa.eu/blog/science-policy-ecosystem-spain-recent-developments_en
[130] Mackey, I., Fobé, E., S, Škarica, M., Reinholde, I., and Virtanen, T., (2021), Evidence-Informed Policy Making: Building a Conceptual Model and Developing Indicators. Report for European Public Administration Country Knowledge (EUPACK 2021), ICF. Available at: https://op.europa.eu/en/publication-detail/-/publication/b673ed06-751f-11ed-9887-01aa75ed71a1/language-en

# 25 Mainstreaming sustainability in regulatory impact assessment (RIA)

## 25.1 Introduction

The current environmental problems and challenges are closely interlinked with many sectors of our economy and society. Environmental policy can only be successful if it is integrated into other policy areas, such as policies on industry, agriculture, regional as well as rural and urban development, social affairs and education, research and innovation, digitalisation and other sectorial policies. Environmental policy integration helps to avoid trade-offs, e.g. policies on farming and biodiversity, and – more importantly -enables to reap synergies between different policy objectives, e.g. the creation of economic growth and jobs through the green economy.

To make all policies and laws contribute to sustainable development, it is essential to understand the potential risks, negative impacts, and trade-offs, as well as synergies, in a very early stage of policy preparation. Using ***ex ante* Regulatory Impact Assessments (RIA)**[131] in the development of new laws, policies or programmes is an excellent way to mainstream environmental sustainability and the SDGs in all policymaking. Similarly, this is an important approach to achieve **policy coherence for sustainable development**, as required in SDG 17.

With its Better Regulation Agenda the European Commission has developed one of the most advanced systems for evidence-informed policy making. Economic, social and environmental impacts must be assessed in the preparation of all legislative and policy proposals. According to the **Green Deal's 'green oath'** it must be ensured that all policy measures **'do no significant harm'** to the environment.[132] In 2021 the Commission also fully integrated the SDGs into the Better Regulation-Agenda. Environmental and sustainability aspects have also been integrated into ex-post policy evaluation, thus completing the mainstreaming of environment and sustainability in the full policy making cycle.

All EU Member States have set up RIA systems, though with a great variety of scope and thoroughness. Several Member States have already established advanced practices for integrating aspects of sustainability into their RIA systems. In doing this, countries are better

[131] Regulatory Impact Assessment (RIA) is a systematic process used to assess/evaluate the potential effects of proposed or existing regulations, including their economic, social, and environmental impacts, to ensure informed and effective policymaking. See https://www.oecd.org/content/dam/oecd/en/publications/reports/2020/02/regulatory-impact-assessment_0bf78a03/7a9638cb-en.pdf.

[132] More specifically, Art 6 of the European Climate Law introduced mandatory **climate consistency checks** of existing and upcoming EU policies with the climate policy objectives. See https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R1119.

able to judge the environmental, economic, and social impacts of various policy options, allowing for improved decision-making and better societal outcomes.

## 25.2 Potential impact on the green transition

The triple crisis of climate change, biodiversity loss and pollution is closely connected with socio-economic developments and crises in Europe and globally. To advance the green/sustainable transition it is indispensable to improve the evidence base of policy making, integrate foresight and consider the interconnectedness of policies through governance mechanisms such as impact assessments and policy evaluation.

## 25.3 Challenges and solutions

Traditionally, regulatory impact assessment (RIA) systems focused on economic impacts of policy initiatives, and on reducing administrative burden. Although the inclusion of the other two dimensions of sustainable development (social and environmental impacts) in RIA has gained popularity, RIA is still not seen everywhere as an *ex ante* sustainability assessment.. Some RIA systems added only superficial SDG-checks instead of truly integrating the sustainable development dimensions. The European Commission's internal Impact Assessment system had the three dimensions integrated from the onset in 2001. In 2021, the Commission made full integration of sustainability and the SDGs mandatory in its IAs.[133] The Commission's Better regulation Guidelines and Toolbox oblige the Commission staff to make an explicit reference in all Impact Assessment reports to the impacts of initiatives on each of the 17 SDGs (See Better Regulation TOOL #19). Several Member States are following this example, and the OECD has stepped up efforts to produce guidance on this. A series of peer learning workshops between Member States, with involvement of the Commission and OECD showed that there are still many obstacles, such as the lack of capacity and skills of policy officers, the lack of cooperation across government departments (silo-thinking), and methodological issues.[134] The European Commission's Better regulation Toolbox was revised in 2021 to cover among others how to integrate the SDGs in impact assessments.[135]

## 25.4 Inspiring examples

Countries such as the Czech Republic and Italy have recently invested in mainstreaming green challenges in RIA. Germany and the Netherlands are examples where a revised system is already operational. In **Germany** the government has made a sustainability impact assessment mandatory in the preparation of all legislative initiatives. The assessment is performed within the framework of the regulatory impact assessment by the ministry responsible for the legislative project and coordinated with the other relevant ministries. The German sustainability impact assessment contributes to better regulation, as the impacts of laws on the implementation of the German Sustainable Development Strategy as well as on SDGs can be identified at an earlier stage. The sustainability impact assessment is carried out through a digital test tool called eNAP (electronic *Nachhaltigkeitspruefung*). Experience in practice will show to what extent this test will be more than a 'ticking the box' operation. The same applies to the example of the **Netherlands**, where the government in 2023 launched the

[133] https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_1902.
[134] Meuleman, L., Versmann, A, Niestroy, I and Valentini, F., (2022), Peer 2 Peer for Mainstreaming the SDGs in Regulatory Impact Assessment. Part 1. Final Report. Part 2. Workshop Reports. Brussels: PS4SD, 14 July 2022, p.19. Available at: https://www.ps4sd.eu/projects/project-peer-to-peer-for-sustainability-in-impact-assessment/
[135] TOOL #19. Sustainable development goals. See https://commission.europa.eu/law/law-making-process/planning-and-proposing-law/better-regulation/better-regulation-guidelines-and-toolbox/better-regulation-toolbox_en

"policy compass" initiative to promote the integration of sustainability into RIA. The new policy compass is a core approach to designing national policies covering all the essential components of the policy making process and structuring the law-making process. The assessment focuses on impacts on the people, society, and environment. It requires all policymakers to answer five questions: What is the problem? What is the policy goal? What are the options? What are the likely impacts of these options? What is the preferred option? [136]

In order to ensure the quality of RIA, in e.g. the Czech Republic and the European Commission, an independent RIA or Regulatory Scrutiny Board is established.

## 25.5 Assessing progress

For the monitoring of progress towards SDG 17.14.1: policy coherence for sustainable development several sub-indicators in several governance domains have been developed. The integration of SDGs into RIAs is part of one of the sub-indicators.[137]

The European Commission's Better Regulation approach has integrated sustainability not only in impact assessments but also in evaluations. This should help monitoring and evaluation.

## 25.6 Support, networks, communities of practice, and further reading

The Better Regulation toolbox of the European Commission is a valuable source of information and practical guide for RIAs, including how to integrate environmental impacts and SDGs in assessments.[138] Additional tools for the consideration of SDGs in RIAs have been published by the Joint Research Centre of the Commission.[139]

The results of the above-mentioned series of online peer learning workshops and two in-person meetings in 2022-23 on mainstreaming the SDGs in RIA, are available in two reports. 22 Out of 27 EU Member States participated, as well as the European Commission, the OECD, and representatives of civil society organisations.

The OECD continuously supports countries regulatory reform and policy coherence for sustainable development.[140] A recent publication provides detailed insight and guidance on how to use Better Regulation for the Green Transition.[141]

[136] For information on the Policy Compass, see https://www.kcbr.nl/beleid-en-regelgeving-ontwikkelen/beleidskompas ; a PPT introduction: https://www.ps4sd.eu/wp-content/uploads/2023/05/NL-Policy-Compass-Brussels-4-May-2023.pdf
[137] UNEP's Policy Coherence for Sustainable Development Handbook on indicator 17.14.1 of the Sustainable Development Goals, p. 26. Available at: https://www.unep.org/resources/publication/policy-coherence-sustainable-development-handbook-indicator-17141-sustainable
[138] See, Better Regulation toolbox (in particular, in particular tools 19 and 36) available at https://commission.europa.eu/law/law-making-process/planning-and-proposing-law/better-regulation/better-regulation-guidelines-and-toolbox/better-regulation-toolbox_en
[139] See KnowSDGs Platform at https://knowsdgs.jrc.ec.europa.eu
[140] See, Regulatory Reform at https://www.oecd.org/en/topics/regulatory-reform.html and Policy coherence for sustainable development at https://www.oecd.org/en/topics/policy-coherence-for-sustainable-development.html
[141] OECD, (2023), Better Regulation for the Green Transition, OECD Public Governance Policy Papers, November 2023. Available at: https://www.oecd.org/en/publications/better-regulation-for-the-green-transition_c91a04bc-en.html

# 26 Green budgeting

## 26.1 Introduction

**Green budgeting** refers to the use of budgetary policy-making tools to better understand environmental impact of spending choices, and ensure public budgets are aligned with climate and environmental objectives.

According to the OECD, there are different ways to integrate environmental issues in public budgets. Which one is best depends on the desired objective. For example, environmental impact assessments ensure that all policy proposals consider their possible externalities on environment. Green budget tagging allows to measure public spending on green goals but does not provide information about the impact of the expenditure on these. Other tools such as carbon assessments of budget measures provide a more direct link between public expenditure and carbon emissions. Integrating green considerations in macro-fiscal projections or in fiscal risk analysis helps to evaluate the impact of climate change transition and climate mitigation policies on public finances (for example increases in catastrophe spending, or the structure of public budgets).[142]

## 26.2 Potential impact on the green transition

Greening national budgets is key for climate action and the green transition. This is because budgets are one of the main expressions of how a government intends to implement its political ambition. Green budgeting is relevant to all stages in the budget cycle, specifically budget planning, formulation, approval, implementation and oversight. The 2019 European Commission's Green Deal Communication highlights that 'a greater use of green budgeting tools will help to redirect public investment, consumption and taxation to green priorities and away from harmful subsidies.'

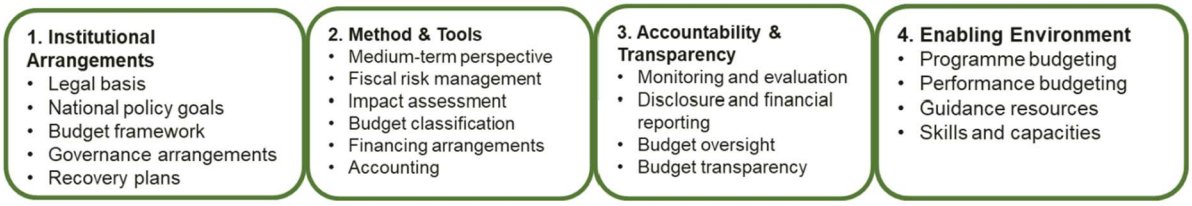
## 26.3 Challenges and solutions

Countries face a range of challenges when implementing green budgeting, including a lack of expertise, data and methodology to assess environmental effects, limited political will and a lack of resources. To support governments, international institutions have developed green budgeting frameworks, provided technical support and actively encouraged the exchange of best practice.[143]

The OECD has put forward a framework on how to implement green budgeting, which consists of four building blocks:

[142] https://www.oecd.org/en/topics/sub-issues/green-budgeting.html#:~:text=Green%20budgeting%20refers%20to%20the,with%20climate%20and%20environmental%20objectives.
[143] European Commission, IMF and OECD 2021. Green Budgeting: Towards Common Principles.

- Institutional arrangements, including strategic and fiscal planning.
- Budgeting tools for evidence generation and policy coherence.
- Accountability and transparency.
- An enabling budgeting environment.




## 26.4 Inspiring examples

The 2022 OECD Survey on Green Budgeting identified many green budgeting methods and tools in OECD countries, such as:

- Carbon pricing instruments: In 2022, 22 countries implemented carbon pricing instruments including fuel and carbon taxation and emissions trading systems. The existence of these instruments contributed to the use of a shadow price of carbon in budgeting to evaluate public policies in 10 countries.[144]
- Green budget tagging: In 2021, 13 OECD countries implemented green budget tagging.[145]
- Tax expenditure: In 2022, 14 countries implemented an environmental tax reform and 12 a regular review of environmentally harmful tax expenditures and subsidies.
- Environmental impact assessment: In 2022, 18 countries had implemented environmental impact assessments in the budgetary process.
- Green spending reviews: In 2022, six countries integrated a green perspective into spending reviews. The purpose of green perspective in spending reviews is to better understand the cost implications for ministries from including climate and environmental objectives in the delivery of public services.

In the city of **Mannheim**, Germany, the 2022-23 budget cycle is based on the Mannheim 2030 city strategy and the SDGs. The city reports how much is spent on SDG-related initiatives, such as education or the environment. Mannheim integrates impact and performance targets into budget documents, including specific indicators for strategic objectives linked to the SDGs. Similarly, in the **Basque Country**, Spain, the regional government conducts an annual assessment of how much of their budget was spent on each SDG and informs policymakers with a detailed breakdown.[146]

In **Denmark**, the Danish Energy Agency, an agency under the Ministry of Climate, Energy and Utilities, in collaboration with the relevant ministries, assesses the impact on CO2-emissions

[144] The shadow price of carbon is used in economic analysis - it's a monetary value assigned to the impact of carbon emissions on society, even if these costs are not reflected in current market prices, to help evaluate broader economic and environmental impacts of projects, policy decisions etc. For more information on shadow price of carbon see, for example, https://kpmg.com/ie/en/home/insights/2024/04/shadow-price-of-carbon-values-strategy-deal-adv.html and https://www.ebrd.com/news/2019/what-is-shadow-carbon-pricing.html
[145] OECD (2021), *Green Budget Tagging: Introductory Guidance & Principles*, OECD Publishing, Paris, https://doi.org/10.1787/fe7bfcc4-en
[146] OECD (2024) OECD Contributions to the 2030 Agenda and Beyond

of those new policy initiatives that are expected to influence climate. Furthermore, when possible, shadow prices of new policy initiatives are also calculated.[147]

## 26.5 Assessing progress

The European Commission's Green Budgeting Survey gathers information on green budgeting practices in Member States and plans for future developments. Identifying and tracking those budgetary items that may have an impact on the environment (i.e., green budget tagging) can provide an overarching view of how green a budget is.

## 26.6 Support, networks, communities of practice, and further reading

The European Commission, jointly with the EU Member States, has developed a EU Green Budgeting Reference Framework (GBRF) as a toolkit for Member States willing to implementing or upgrade green budgeting practices.

The Commission also has a training supporting the alignment of the current or planned national green budgeting practices with the European Commission's Green Budgeting Reference Framework.

The OECD has guidance and many good practice examples available on its webpage on green budgeting. Its report Green Budgeting in OECD Countries 2024 takes stock of OECD countries' progress in bringing climate and environmental considerations into budgeting frameworks and processes.

[147] European Commission 2022. Environmental Assessments within Green Budgeting.

# 27 Environmental permitting and effective environmental enforcement

## 27.1 Introduction

Environmental protection and the green transition need a legal framework. Awareness raising, incentives and financial support are important, but not sufficient to drive the transition. Over the past decades the EU has set up a comprehensive framework of environmental law which has been complemented by the Green Deal legislative initiatives. Greening public administration also implies that EU **Member States' authorities effectively implement and enforce this legislation**. Otherwise, Green Deal policies are losing effectiveness and credibility, e.g. circular economy recycling targets can only be achieved if illegal waste dumping is prevented and prosecuted successfully. Therefore, the European Green Deal (EGD) also launched an initiative for a strengthened Directive on Environmental Crime.

The implementation and enforcement of EU and national environmental law is in the responsibility of the EU Member States. They must provide an effective multi-level governance structure and equip the authorities with sufficient capacity, resources and skills. The **digitalisation of public administration** facilitates environmental implementation and compliance, e.g. improving the accessibility of environmental and geospatial data, digital monitoring tools, and enhancing information flows between authorities from different sectors and levels.[148]

The green transition implies the establishment of new infrastructure at a large scale, such as energy nets or urban projects, as well as green economy facilities, such as renewable energy or recycling plants. Member States must ensure that the necessary administrative procedures for environmental and other permits are applied in a way that is quick and efficient, whilst maintaining the highest possible standard of environmental assessment and protection and involving stakeholders and citizens. This requires the **streamlining environmental assessment and permitting procedures**, e.g. through 'one-stop-shop' approach to permitting, early planning, 'road mapping' and scoping of assessments, early and transparent public participation and a good coordination of the different authorities involved.[149]

[148] For example, the INSPIRE (Infrastructure for Spatial Information in the European Community) geoportal is a central access point for discovering and accessing spatial datasets and services from across Europe. It aims to create an EU spatial data infrastructure to facilitate the sharing of environmental spatial information among public sector organisations and improve public access to spatial information across Europe. See https://inspire-geoportal.ec.europa.eu/srv/eng/catalog.search#/home and https://wiki.osgeo.org/wiki/INSPIRE

[149] See, for example, European Commission, (2013), Guidance for streamlining environmental assessment procedures for energy infrastructure 'Projects of Common Interest' (PCIs). Available at: https://energy.ec.europa.eu/publications/guidance-streamlining-environmental-assessment-procedures-energy-infrastructure-projects-common_en

**Civil society and environmental NGOs** have an important 'watchdog' role in ensuring a proper implementation and enforcement of environmental law. They also contribute to effective environmental permitting procedures by facilitating the involvement of the public and they can provide 'citizens science' in environmental monitoring. This is why, according to the Aarhus Convention, they have access to information, public participation in decision-making and access to justice in environmental matters.[150]

## 27.2 Potential impact on the green transition

The green/sustainable transition can only work with a proper implementation of the legal framework of the Green Deal and other environmental legislation.

## 27.3 Challenges and solutions

The effectiveness of EU environmental policy and legislation is challenged by serious **implementation gaps i**n EU Member States. While some Member States are taking more effective action others are lagging. The degree of proper implementation also varies between environmental policy sectors. Common underlying factors for poor implementation are the insufficient capacity in administrative bodies responsible for enforcing the legislation, insufficient data, a lack of skills at the subnational level, a lack of policy coherence at government level and lack of multi-level policy coordination. Finally, also the absence of the political will to implement environmental law is substantially weakening environmental authorities. Implementation gaps are costly to economy and society, e.g. air pollution creates enormous health costs in Europe.[151]

## 27.4 Inspiring examples

In **Sweden**, Environment Courts were established alongside Sweden's Environmental Code in 1999 to address complex environmental issues within the framework of the general judicial system. These courts have become pivotal in enforcing environmental laws and promoting sustainable development. The courts' multidisciplinary approach, featuring law-trained judges, environmental technical experts, and lay members with specific scientific knowledge, ensures comprehensive evaluation of environmental cases. The establishment of these courts reflects Sweden's proactive stance on environmental governance and provides a model for other nations seeking effective legal frameworks to address environmental challenges and uphold environmental rights. Several other Member States have established specialized environmental review bodies or courts. Existing examples include the Finnish Administrative Court, the Danish Nature Protection and Environmental Board of Appeal, the Maltese Environment and Planning Review Tribunal, the Irish Planning Board and the Belgian Council for Permit Disputes (*Raad voor Vergunningsbetwistingen*). In Belgium, an environmental section (*chambre de environment*) was established in the Court of Appeal of Mons for both civil and criminal cases.[152]

In the **Netherlands,** the municipality of Utrecht has set up a ground-source heat pump (GSHP) service desk to facilitate the introduction of geothermal heating and make best use of the

[150] For further information see the Aarhus Convention and the EU at https://environment.ec.europa.eu/law-and-governance/aarhus_en

[151] European Commission: Directorate-General for Environment, (2019), *The costs of not implementing EU environmental law study – Final report*, Publications Office, 2019. Available at: https://data.europa.eu/doi/10.2779/192777

[152] European Commission, (2022), Communication on the Environmental Implementation Review 2022: Turning the tide through environmental compliance, COM (2022) 438 final, p.19. Available at: https://eur-lex.europa.eu/resource.html?uri=cellar:784da925-2f5e-11ed-975d-01aa75ed71a1.0005.02/DOC_1&format=PDF

limited surface area for this renewable energy source that was becoming increasingly popular. The GSHP service desk accelerates and simplifies processes like feasibility studies, permit procedures and harmonisation with the plans and procedures of the province and the water board. The service desk functions as a one-stop-shop for citizens or other stakeholders who want to install a heat pump and ensures that the client gets the most sustainable energy solution possible.[153]

## 27.5 Assessing progress

In 2016 the European Commission introduced the Environmental Implementation Review (EIR) as a regular reporting tool to improve the implementation of EU environmental laws and policies by the Member States.[154] The EIR country reports are put together by the European Commission, based on the data it has available. The EIR identifies and addresses the main implementation gaps and their underlying root causes and provides solutions in the form of priority actions, and finances exchange of good practices amongst Member States through the TAIEX-EIR Peer-to-Peer tool.

## 27.6 Support, networks, communities of practice, and further reading

The EU supports Member States with guidance and information as well as through the establishment of expert networks for knowledge exchange and learning and through EU funding of projects, networks and resources. In 2018 an action plan on environmental compliance and governance has been issued and an 'Environmental Compliance and Governance Forum' established with high-level experts from Member States environmental authorities, police, prosecutors and judges.[155]

The TAIEX-EIR PEER 2 PEER tool facilitates learning between environmental authorities, providing tailored support to national authorities implementing environmental policy and legislation through EU funded expert missions, study visits, and workshops.[156]

European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) is an international non-profit association of the environmental authorities of the European countries, aiming at an effective implementation and enforcement of European environmental law by promoting professional collaboration, information, and best-practice exchange between environmental regulators.

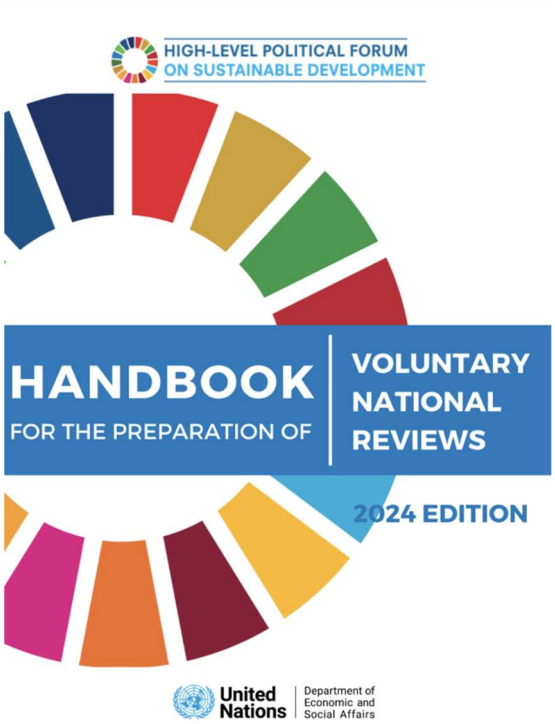
See also OECD 2024 Towards the green transition: Stimulating investment and accelerating permits for low emissions infrastructure.

[153] Government of the Netherlands, (2016), Green Deals overview: Progress Report Green Deals 2011-2015, p. 24. Available at: https://www.greendeals.nl/sites/default/files/uploads/2016/03/Progress_report_Green_Deals_ENG.pdf
[154] https://environment.ec.europa.eu/law-and-governance/environmental-implementation-review_en
[155] https://environment.ec.europa.eu/law-and-governance/environmental-compliance-assurance/commission-support_en
[156] https://environment.ec.europa.eu/law-and-governance/environmental-implementation-review_en

# 28 Voluntary national, regional and local reviews on sustainability and greening

## 28.1 Introduction

Sound policy making needs periodical review of progress on goals and on potential new challenges. The UN 2030 Agenda of 2015 has triggered all countries to present and discuss at the UN their progress on implementation of the 17 SDGs and 169 targets. This very comprehensive policy framework that strongly supports the green transition has by design numerous interlinkages between goals and targets. The commitment to prepare progress reports is therefore also a commitment to take interlinkages seriously. Most countries prepare a **Voluntary National Review (VNR)** report every three or four years.




Over the years, and supported by UN guidance, the preparation of the VNR has become considered as a highly inclusive process that has added value far beyond the report itself, in terms of whole-of-society capacity building for sustainability.[157]

Although the SDGs have been adopted by national governments, many goals and targets mention that action is needed “at all levels”. In 2018, local and regional governments started to engage in sub-national reviews of SDG implementation, usually called **Voluntary Local Reviews (VLRs)**. Although there is no formal relation between VNRs and VLRs, it is obvious that producing VNRs and VLRs at the same time in the same country can be a good accelerator of effective multilevel (meta)governance for the SDGs. VLRs can support reinforcing vertical coherence and with this complement the VNR process. Through VLRs, local and regional governments can engage with their communities in a much more transparent and accountable way, while advancing the mainstreaming of the SDGs in their functions and service delivery to meet resident’s needs and leave no one behind.[158] UN Habitat reports that global movement of Voluntary Local Reviews (VLRs) is growing exponentially; cities, local and regional governments worldwide are using VLRs to track and report on SDG progress.[159]

This SDG reporting and review mechanism can also help monitoring **progress on the green transition**. In addition, sectoral progress and review reports on environmental themes remain useful.

[157] See UNDESA 2024. Handbook on preparing Voluntary National Reviews, 2024 edition. Available at: https://hlpf.un.org/sites/default/files/vnrs/hand-book/VNR%20Handbook%202024%20EN_0.pdf
[158] UN Habitat 2021. Towards a new generation of Voluntary Local Reviews: Connecting VLRs and VNRs. Available at: https://unhabitat.org/towards-a-new-generation-of-voluntary-local-reviews-connecting-vlrs-and-vnrs-0
[159] https://unhabitat.org/topics/voluntary-local-reviews#:~:text=Overview,localizing%20the%20Sustainable%20Development%20Goals (Accessed 12.08.2024).

## 28.2 Potential impact on the green transition

The VNRs and VLRs contribute to the green transition in several ways, by:

- Improving collaboration between national and subnational authorities.
- Increasing awareness, understanding and broad ownership of the objectives of greening objectives.
- Increasing transparency and accountability of government.

## 28.3 Challenges and solutions

An analysis of 48 VLR reports that were published in 2023 by local and regional governments suggests three conditions for success of VLRs to help accelerate the implementation of the UN 2030 Agenda:[160] (1) equipment with enhanced resources—including access to finance, capacity building and human resources; (2) embedding of VLRs into local governance structures and strategic planning - vital for improving policy integration, follow-up and review, and stakeholder engagement; (3) ensuring that local actions deliver tangible results, by innovation and scaling of successful initiatives.

## 28.4 Inspiring examples

The EU's Joint research Centre (JRC) runs the LocalSDGs project that gives focused support to selected regions and cities on how to translate the SDGs into local goals that make sense to local people, and how to develop indicators for them to measure progress. First it developed a 'European Handbook for SDG Voluntary Local Reviews' with examples from 14 reviews presented since 2018. In another report, three regional case studies were presented on monitoring the SDGs, in the **Basque Country** and **Navarre** in Spain, and **Flanders** in Belgium. In 2021 the JRC published reports on 'Regional indicators for the Sustainable Development Goals', and on 'European SDG Voluntary Local Reviews: A comparative analysis of local indicators and data'.

The 2022 VNR report of **Italy** highlighted the implementation, monitoring, and revision of the National Sustainable Development Strategy (NSDS), emphasising the roles of regions, provinces, and cities. It focused on policy coherence, multilevel governance, and stakeholder and youth engagement.

## 28.5 Assessing progress

Each year the United Nations publishes a review of the VNRs that were presented at the High-Level Political Forum on the SDGs in New York.[161] On VLRs, both JRC and UNDESA have provided Handbooks with guidance.

## 28.6 Support, networks, communities of practice, and further reading

UNDESA: Handbook on preparing Voluntary National Reviews, 2024 edition.

JRC: European Handbook for SDG Voluntary Local Reviews

[160] IGES, (2024), The State of the Voluntary Local Reviews 2024: Strengthening the Local Implementation of the 2030 Agenda. Available at: https://www.iges.or.jp/en/pub/vlrs-2024/en

[161] The 2023 Synthesis Report on Voluntary National Reviews. Available at: https://hlpf.un.org/sites/default/files/2023-12/2023_VNR_Synthesis_Report.pdf

UNSTATS: Practical guide for evidence-based VNRs

Repository of Good Practices in the VNR Reporting

*Other Sources:* https://www.kuleuven.be/lusi/research; https://www.eipa.eu/epsa-projects/?filter_epsa-policyareas=central-local-administration&filter_epsa-levelofgovernance=local

# Part 3: Capacity building to support GPA

# 29 Integrating green competences, skills and recruitment criteria

## 29.1 Introduction

The green and sustainable transition needs new skills and competences in the entire society as well as in the public and private sector. The European Green Deal recognizes the crucial role of education, life-long learning and training for the green transition.[162]

**ComPAct** is the Commission's first ever comprehensive set of actions to support the modernisation of national administrations and to strengthen their cross-country collaboration so that they can address common challenges together. Pillar 1 of ComPAct supports national administrations in improving the skills for public administration systems, while Pillar 3 focuses on strengthening the capacity of public administrations to lead the green transition and build resilience, in combination with pillar 1 on skills.[163]

Apart from the technical knowledge and skills required in green transition sectors, broader sustainability competences must be promoted. They include learning sustainability values, understanding how to deal with complex systems, enhancing justice and equity for all, and generating visions for sustainable futures. A **European Sustainability Competence Framework (GreenComp)** has been developed by the Joint Research Centre of the Commission describing more specifically the required knowledge, skills and attitudes.

Traditionally, in public services competences are focused on law implementation and enforcement and technical expertise in specific policy areas. This kind of competences are also important for the green transition, e.g. technical expertise in urban planning, energy supply, waste and water management. However, they must be complemented with sustainability competences, in particular for the leading and managerial level and for coordinating staff. In the **OECD public sector 'SDG skills framework'** these are summarised with: the capacity to turning vision into plans (strategic vision), delivery high quality policy, measuring progress and adapting to change, transversality and long-term perspective,

[162] See European Green Deal, p. 19. This is also underlined in the Council Recommendation on learning for environmental sustainability from 16.06.2022 (https://data.consilium.europa.eu/doc/document/ST-9242-2022-INIT/en/pdf), in the European Education Area Communication on achieving the European Education Area by 2025 (COM(2020) 625 final) (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0625#:~:text=COM(2020)%20625%20final%20COMMUNICATION%20FROM%20THE%20COMMISSION%20TO%20THE%20EUROPEAN), and in the European skills agenda for sustainable competitiveness, social fairness and resilience' (COM(2020) 274 final) and on 'Proposal for a Council recommendation on vocational education and training (VET) for sustainable competitiveness, social fairness and resilience' (COM(2020) 275 final) (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020AE1303&qid=1728051884457).

[163] https://reform-support.ec.europa.eu/our-projects/flagship-technical-support-projects/tsi-2025-flagship-compact-pillar-i-skills-public-administration-systems_en

involving stakeholders and promoting dialogue, holistic and value-based leadership and a culture of evidence.[164]

The learning programmes of HR departments and training units of public administrations as well as the curriculum of the European and national schools of administration should increasingly include training in sustainability competences and skills. E-learning can support the training of staff. At the same time, sustainability competences and skills should also be integrated in the recruitment criteria for new staff. This kind of innovative competences could also increase the attractiveness of public service on the labour market.

## 29.2 Potential impact on the green transition

Only with staff with sustainability competences and skills the public service will be able to take a leading role in green and sustainability transition. This is important for all for all the areas and themes mentioned in this report, for example in policymaking for sustainability, designing and implementing sectoral policies, overcoming silos, long-term planning for sustainability, and the greening of RIAs.

## 29.3 Challenges and solutions

Promoting the green transition needs a strong whole-of-government approach in the public sector. Challenges to introduce new skills in the administration may include training curricula that are not up to date, funding difficulty for skills training amidst other, higher, funding priorities, and organisational resistance.

Frequently, organisational resistance appears in the form of a 'silo mentality': the reluctance to share information with employees of different divisions in the same organisation. The origin of a silo mindset can be cultural, political, power-and career-related, or cognitive. This means that focusing on skills development, although crucial, may not be sufficient. Additional solutions may include recruiting new staff with a mindset and experience on cross-sectoral cooperation; organisational interventions to merge or connect different departments more easily; or even simple logistical measures such as housing two 'competing' teams in the same building on the same floor. An illustrative example from the latter is that three units in the same directorate of one ministry but on different floors, which had trouble communicating with each other, were put together on the same floor when a new director came in. This increased the number of informal encounters and helped mutual understanding.[165]

## 29.4 Inspiring examples

Since 2006 the European Commission successfully uses the '**Participatory Leadership**' approach to promote collaborative working methods.[166] More than seven hundred Commission staff members went through three-day-training seminars. Participatory Leadership uses strategic dialogue within institutions and with external stakeholders to support innovation and decision-making.

Funded by the EU's Technical Support Instrument, the OECD has supported the government of the Republic of **Poland** with a capacity building programme for the public administration to support the implementation of the SDGs. The project entailed an assessment of Poland's

[164] OECD, (2021), Diagnostic Report – Poland, Design of 'Capacity building programme for public administration to support the implementation of the Sustainable Development Goals', p. 41.
[165] Example described in Meuleman 2008, Metagovernance of Hierarchies, Networks and Markets, p. 145. Springer, Heidelberg.
[166] For further information see https://artofhosting.org/connect/contact/

institutional mechanisms for enhancing policy coherence for sustainable development as well as the skills and leadership capabilities of its civil service. It identified skills sets for maximising the positive impacts of policies on sustainable development and the managerial support and organisational processes needed to develop and apply such skills in practice. The project also produced an e-learning capacity-building programme with seven modules that are tailored to the different needs of civil servants and management, and combine general skills with sectoral and functional expertise.[167] Particular care was taken to make this content interactive, practical and accessible to all. This was crucial in helping the reform take off and ensuring that it is operational. Finally, a prototype for an e-learning platform will host an inventory of best practices, available trainings and collaborative working methods for implementing the SDGs.

To intensify municipal sustainable development, municipalities not only need networking and financing, but also advice and expertise tailored to the specific situation of each municipality. The German state of **Baden-Württemberg** has introduced an offer to provide advice and support for sustainable local development, which represents an interesting example for other federal states. The Baden-Württemberg State Office for the Environment commissions qualified consultants selected from a pool of experts by the respective municipality to support them on site with sustainable municipal development. After comprehensive perspective consultation, consultations are organised on important modules of sustainable local development.[168]

## 29.5 Assessing progress

Like the other EU competence frameworks, GreenComp is non-prescriptive. It provides a conceptual reference model that everyone involved in lifelong learning can use with various objectives in mind. It addresses the increasing need for individuals to acquire knowledge, skills, and attitudes necessary for sustainable living, working, and acting. It aims to support education and training programmes for lifelong learning. It is intended for all learners, regardless of age, education level, or learning context—be it formal, non-formal, or informal. The OECD has developed an assessment framework on competencies for the SDGs.[169] It starts with a gap analysis based on an identification of the desired state, followed by a differential analysis of the observed public administration, grounded in the evidence directly collected from public servants. It first identifies a set of skills needed to deliver the SDGs on the basis of the state of art and analytical concepts identified. Secondly, it isolates the most probable existing gaps in civil service competences. Third, it proposes an analytical framework to assess them.

## 29.6 Support, networks, communities of practice, and further reading

As part of the European Public Administration Network (EUPAN) the Common Assessment Framework (CAF) provides an easy-to-use tool for a self-assessment of public sector organisations and their development towards excellence: stronger citizen orientation, process, resource and performance management and empowerment of employees, whilst fostering transparent and open organisational culture.

**UN** SDG:Learn is a United Nations initiative that aims to bring relevant and curated learning solutions on sustainable development topics to individuals and organisations. UN SDG:Learn

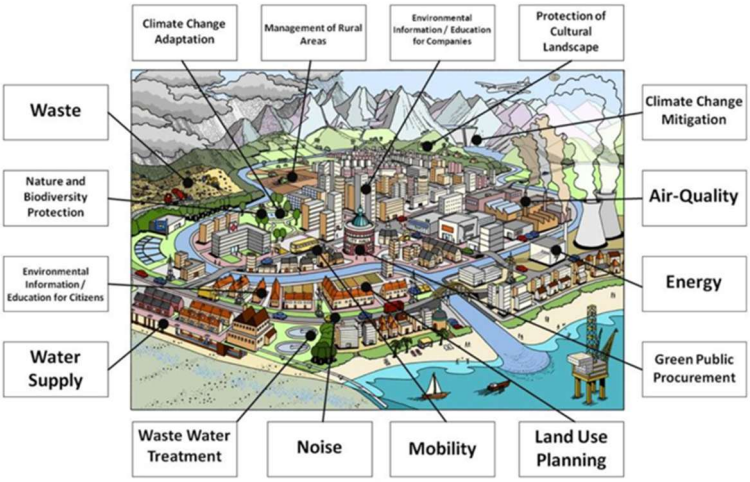
[167] OECD, (2021), Diagnostic Report – Poland, Design of 'Capacity building programme for public administration to support the implementation of the Sustainable Development Goals'
[168] https://www.nachhaltigkeitsstrategie.de/kommunen/angebote/n-beratung
[169] OECD 2021. Civil service capacities in the SDG era: An assessment framework.

provides an extensive and well-structured e-learning section, as well as sections with blogs and podcasts. UNPAN is a global network that connects relevant international, regional, subregional and national institutions and experts worldwide working on effective governance and public administration for sustainable development, in line with Goal 16 of the 2030 Agenda for Sustainable Development. The United Nations Institute for Training and Research (UNITAR) provides innovative learning solutions to individuals, organisations, and institutions to enhance decision-making and SDG implementation.

Training Toolkits are also included in the Curriculum on Governance for the SDGs developed by UN DESA.

# 30 Environmental Management and Audit Schemes (EMAS)

## 30.1 Introduction




With more than 90 000 organisations and 25 % of the workforce in Europe the public sector has a large influence on our economy, society and the environment. It provides a broad range of services to citizens, from urban development and land use planning, from mobility, waste and water management to education, culture, with most of these activities having significant direct or indirect impacts on the environment. Indirect environmental aspects are related to activities that the public administration does not control completely, such as the management of public buildings, but influences to a certain extent, e.g. through the administration's interactions with citizens and businesses.

Many governments and administrations have begun to check these impacts and move towards greener public administration practices. In doing so they also lead by example, demonstrating what is possible and stimulating others to follow.

The Joint Research Centre of the European Commission has elaborated an Eco-Management and Audit Scheme (**EMAS) Sectoral Reference Document** with a compilation of **'best environmental management practices' (BEMP) for the public administration sector**, with a focus on municipalities and local authorities.[170,171] It provides cities and towns with detailed descriptions of techniques, feasible and practical measures to minimise their environmental impact, based on practices of frontrunner municipalities. The areas range from the environmental management of public administration office buildings (e.g. energy efficiency and waste reduction) and the adoption of green public procurement, to services provided by local public administrations (e.g. wastewater and waste management) and to local action (e.g. on sustainable energy and climate change, mobility, air quality, land use, noise pollution, green urban areas, and environmental education and awareness raising).

[170] Commission Decision (EU) 2019/61 of 19 December 2018 on the sectoral reference document on best environmental management practices, sector environmental performance indicators and benchmarks of excellence for the public administration sector under Regulation (EC) No 1221/2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS)Text with EEA relevance. C/2018/4424. Available at: https://eur-lex.europa.eu/eli/dec/2019/61/oj and https://susproc.jrc.ec.europa.eu/activities/emas/public_admin.html

[171] Canfora, P., Antonopoulos, I.S., Dri, M., Gaudillat, P. and Schonberger, H., (2019), *Best Environmental Management Practice for the Public Administration Sector: Learning from frontrunners*, JCR Science for Policy Report. Available at: https://susproc.jrc.ec.europa.eu/product-bureau/sites/default/files/inline-files/PublicAdminBEMP.pdf

## 30.2 Potential impact on the green transition

The public sector plays a crucial role in the green economy transition by setting regulatory frameworks, providing incentives for sustainable practices, and investing in green infrastructure and technologies. Additionally, public sector initiatives, such as green procurement policies and funding for research and development, drive innovation and create markets for environmentally friendly products and services, thereby accelerating the shift towards a more sustainable economy.

## 30.3 Challenges and solutions

Challenges for greening the public sector include a lack of expertise and awareness about green practices among public officials, and the complexity of integrating sustainability into existing administrative processes and regulations. Investment in long-term sustainable solutions, e.g. in energy efficient renovation of public buildings may be hampered by budgetary rules that favour short-term cost saving.

## 30.4 Inspiring examples

**Slovenia** is currently preparing a Strategy for Sustainable Public Administration aiming to integrate principles of sustainable development into the institutional structure of the public administration. It also aims at building capacity at the level of employees, so they are capable of developing solutions in changing social and other circumstances.[172]

**Frankfurt-am-Main** has been exemplary in long-standing energy management activities for municipal buildings, in particular, in using meters to monitor the use of energy throughout their buildings portfolio. Automatic meter reading has been installed at 330 buildings, involving the installation of over 1 000 data loggers for heat, electricity, and water. Energy use profiles are stored by the data loggers and downloaded centrally once per day. This allows tight monitoring of energy use, the checking of settings (e.g. switch off during night/weekends), and the detection of losses.[173]

In the **Brogården** area in Sweden social housing buildings from the seventies were extensively refurbished with the aim to achieve the passive house energy standard and to create a good and sustainable living environment. Through the measures energy consumption of flats was reduced by up to 40 %. An important aspect in the renovation measure was the social inclusion of elderly people, e.g. through barrier free houses and flats.[174]

## 30.5 Assessing progress

Administrations can use the Environmental Management and Audit Scheme (EMAS) to monitor their activities. EMAS is a voluntary management tool for companies and other organisations designed to improve their environmental performance by encouraging them to evaluate, report, and enhance their environmental impact. It involves regular audits and transparent reporting, verified by an independent environmental verifier.

The EMAS Sectoral Reference Document on best environmental management practices (BEMP) for the public administration sector introduces environmental performance indicators that municipalities can use to monitor their environmental performance.[175] It also proposes

[172] Council of Europe report on Green Public Administration, p.23, op cit.
[173] https://greenbestpractice.jrc.ec.europa.eu/node/593
[174] https://greenbestpractice.jrc.ec.europa.eu/node/669
[175] https://greenbestpractice.jrc.ec.europa.eu/node/10

benchmarks of excellence that allow municipalities to compare their performance against frontrunners and thus understand their environmental performance improvement potential.

## 30.6 Support, networks, communities of practice, and further reading

The JRC of the European Commission has launched the Green Best Practice Community. This is a dynamic knowledge platform that allows organisations to find relevant best practices to help them become greener, and on which experiences and achievements can be shared, while providing opportunities to work with other experts and practitioners at identifying further best practices. Detailed descriptions of successful practice are accessible with a description of the techniques, their environmental benefits, economic implications, driving forces and other important topics.