



European  
Commission



Toolkit

# Transition strategies

How to design effective strategies  
for coal regions in transition

## SUPPORT MATERIALS

### Providing support materials to coal regions in transition

The Platform for coal regions in transition developed the following support materials to assist practitioners in coal regions across Europe.

#### Transition strategies toolkit

Guidance on how to:

- develop a transition strategy in coal regions;
- identify actions and projects to support the strategy;
- monitor, evaluate and continuously adapt the strategy.

[↗ Link](#)

#### Governance of transitions toolkit

Guidance on how to:

- design the right governance model to support a transition process in coal regions;
- facilitate stakeholder engagement;
- enhance the role of social dialogue and of civil society in the transition process.

[↗ Link](#)

#### Sustainable employment and welfare support toolkit

Addresses the issues of:

- skill needs and reskilling for coal regions in transition;
- cooperation among stakeholders;
- support options for workers who are at risk of losing their jobs;
- economic diversification of coal regions as a means for long-term job creation.

[↗ Link](#)

#### Environmental rehabilitation and repurposing toolkit

This toolkit gives advice on:

- securing finance;
- knowledge and tools;
- governance and institutions to support mine closure, environmental rehabilitation of mines and repurposing of coal related infrastructure.

[↗ Link](#)

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## How to use this toolkit

### Slides / Pages 4-13

This section features key ideas and concepts behind the elaboration of transition strategies.

It can also be used as a stand-alone presentation. For each slide, more detailed information can be found in the accompanying notes.

### Accompanying notes / Pages 14-27

The accompanying notes follow the same structure as the slides and offer a more in-depth look at each section, including further resources, links, examples, and case studies.

## AIMS AND SCOPE

These guidelines give an overview of key elements of **strategy development**:

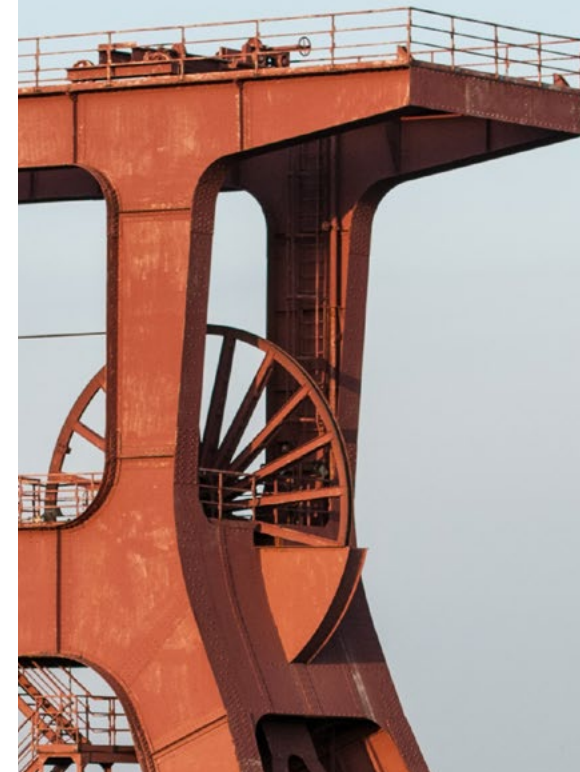
- problem analysis;
- defining objectives;
- selecting actions;
- evaluation;
- policy adaptation.

## WHO IS THIS TOOLKIT FOR?

- Policy makers in regional government.
- Stakeholders engaged in strategic industrial transition processes.

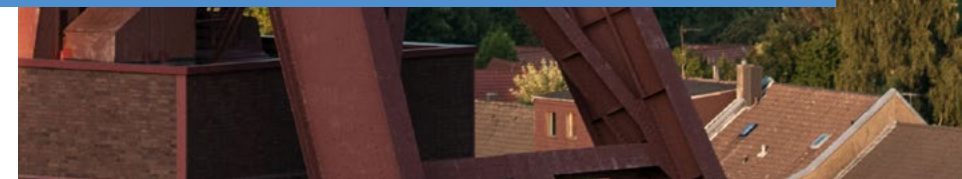
## WHY DO WE NEED THIS GUIDANCE?

- A robust regional strategy guides regions on choices and actions in the transition process.
- Structural change is a long-term process.
- An overall strategy is important to guide the various stakeholders and decision makers in transition processes and to align their actions with a coherent and effective approach.



### NO «ONE-SIZE-FITS-ALL»

Coal regions in the EU differ in culture, economy, size, governance systems and political framework conditions as well as financial, infrastructural, geological or know-how related capacities. Therefore these guidelines focus on the process of developing a strategy, and not the content of the strategy. We include examples of current practice in coal regions in order to inform practitioners what their peers are currently doing. We do so to provide inspiration more than strict recommendations, acknowledging that designing transition strategies in coal regions is a learning journey for all actors in all regions across Europe.



**APPROACH**

# The policy cycle

These guidelines are structured along a simplified version of the policy cycle that can be used by practitioners to develop a transition strategy for coal regions.

## Steps of the simplified policy cycle

**THE LEARNING**  
Monitoring, reporting, evaluation  
and policy adaptation

**THE ACTION**  
Identifying and selecting options  
Implementing actions



**THE PROBLEM**  
Problem analysis and  
agenda setting

**THE TARGET**  
Defining the vision and  
objectives of the strategy



# ? The problem

## Defining the problem and agenda setting

- **Defining the problem** is an important step in the agenda setting process, and will largely define next steps, including what an appropriate strategy is, what suitable actions are, and which stakeholders need to be involved.
- **Consulting with a wide range of stakeholders** can help define the problem more holistically and ensure that not only a sub-set of problems are addressed.
- **The governance of the transition process** must be set-up to correspond to the identified problems.
- **Participatory processes** not only help to improve the quality of strategies but also lay the foundation for ownership by actors needed for its implementation.



### FRAMING THE PROBLEM

If the problem is framed as “the future of today’s miners”, then government, mining companies and trade unions can be considered key stakeholders. If the problem is framed as “the economic future of our region”, then universities, business associations, NGOs and other local actors have an important role to play.

## GETTING THE FACTS RIGHT

### Information to be gathered

Strategic planning needs a sound knowledge base. Gathering information should follow a two-track approach:

- quickly gather key facts for the first cycle of strategy development
- in parallel build capacities in the region (skills, institutional capacity and cooperation between different stakeholders) to provide the knowledge for future adaptations of the strategy (gathering and assessing missing data as well as continuously updating most important data).

Analysing the context based on:

- geographic characteristics about the size and extent of the region, but also about the type of mining and natural assets;
- social and demographic factors, including information about employment and the labour market;
- economic characteristics, including technical and knowledge infrastructure;
- the institutional setting which frames the possibilities of development led by decision makers.



EXAMPLE

### INFORMATION PLATFORM FOR POST-INDUSTRIAL AND DEGRADED AREAS IN SILESIA (OPI-TPP)

In Silesia, the regional government and a local research institute developed a database of abandoned industrial sites, after realising that new companies often struggle to find a good location to setup their business.

[Read more](#)

# The target

## Defining a vision and objectives

A transition strategy needs to specify its target with respect to the direction towards which it wants to develop. This should include:

### A long-term vision

Given that transition and structural change processes generally take several decades, the vision should have a long-term view and include an outlook with a 30 year time horizon. Such a vision is generally qualitative and describes a narrative.

### Development objectives

The general vision should be underpinned by clear concrete objectives. These objectives can address a shorter time frame (e.g. 5 to 10 years).



### Leadership and political mandate

A visioning process needs high-level political buy-in from the beginning and the institutions responsible for strategy implementation will need to lead the process.



### Stakeholder engagement

Engaging a broad variety of stakeholders helps make the results more robust and is the first step toward implementation. A sense of ownership among the stakeholders ensures buy-in and support.



### Tools and facilitation

Developing a strong vision and objectives, in a participatory process needs methodological skills and a dedicated facilitator.



# The target

## Align with existing targets

Visions and objectives need to respond to the specific conditions of the region, but they also need to be in line with national, EU, and international goals.

### The European Green Deal

This new strategic priority of the European Union represents an all-encompassing strategy for achieving long-term, sustainable growth in Europe, creating wealth and jobs while significantly cutting emissions and pollution, with the ultimate objective of making the EU the first climate-neutral bloc by 2050.

[➔ Read more](#)

**“A just transition for all towards an environmentally sustainable economy ... needs to be well managed and contribute to the goals of decent work for all, social inclusion and the eradication of poverty.”**

**ILO GUIDELINES ON JUST TRANSITION, 2015**



### IMPORTANT OVERARCHING GOALS

- Sustainable Development Goals
- Paris Agreement
- EU Green Deal
- European Industrial Strategy
- EU Cohesion Policy
- EU Clean Energy Package

[➔ Read more](#)



# The action

## Identifying strategic options

Once a long-term vision for the region is created and concrete objectives are defined, strategic actions to reach these objectives need to be identified.

Practitioners often already have concrete ideas for possible actions. This is a valuable knowledge base which should be explored. However, formalised approaches can help with “out of the box” thinking and can help ensure individual steps add up to a coherent portfolio of actions. Such approaches include:

- scenarios;
- backcasting;
- the Logic Model;
- the Theory of Change.

[➔ Read more](#)

### SCENARIO TECHNIQUES

Scenario techniques help to shed light on the question: “What would happen if we did xyz?”

- Scenarios can be quantitative (using computer assisted modelling) or qualitative, describing possible futures by narrative stories or pictures.
- Scenarios should explore a wide variety of futures: seemingly likely as well as rather unlikely ones. Desired futures and undesirable ones.

Robust scenario development processes generally need the support of expert facilitators like consultants or research institutes.

### EXAMPLE

Scenario modelling has been used in the process of developing a “Roadmap for the Transition of the Western Macedonia Region to a post-lignite era”, mainly to estimate and partly quantify future economic impacts of regional development options.

[➔ Read more](#)



## The action

### Selection of options and activities

Implementing a strategy bears quite a few risks and challenges. Processes need to be in place to ensure that individual actions really contribute to the overall objectives.

#### Risks and Challenges

- Conflicting targets.
- Vested interests.
- Lack of innovation.
- Institutional capacity.
- Short-term concerns vs. long-term vision.
- Lack of synergies.

### Keys to selecting actions



#### Transparency

The minimum requirement is that the selection process (including selection criteria and selected actions) is made transparent, so that the public have the possibility of assessing whether and how the actions relate to the overall development objectives.



#### Engaging a broad range of stakeholders

Engaging stakeholders needs professional facilitation to balance power and knowledge differences among the different actors and interests.



#### Formalised procedures

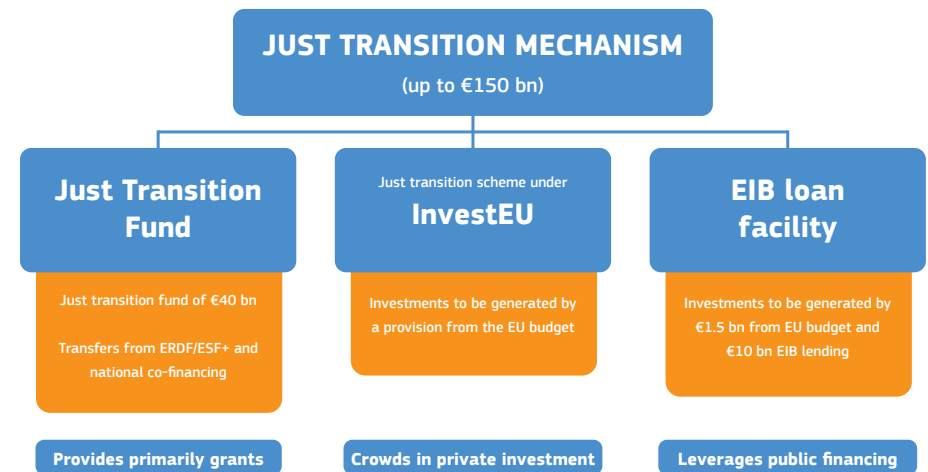
Formalised procedures can help to facilitate selection processes. Multi-criteria-analysis (see box on [page 25](#)) is one approach, which helps to align potentially conflicting objectives and is suitable to reduce power differences.



# The action

## Developing a tailored funding strategy is key

- **Developing an effective funding strategy, identifying suitable financing options** and gaining access to appropriate funds is a key challenge for many regions in the process of selecting actions for implementation.
- Coal regions need to **build institutional capacities and expert knowledge** for accessing public funds and blending them with private finance.
- **Many financing options exist for coal regions** in transition; including a wide variety of **EU funds**. New dedicated resources for coal regions will become available in the EU's next Multi-Annual Financial Framework (MFF), e.g. the Just Transition Mechanism (see box).



*This visualization is based on the EC's proposal currently debated by the European Parliament and the Council in the context of the negotiations for the next EU budget, including the revision of 27 May 2020 taking into account the EU recovery plan.*

[Read more](#)



## The learning

### Monitoring, reporting, evaluation and policy adaptation

This last step will inform the next policy cycle, adapting the strategy based on what was learned in the first round.

#### Monitoring and evaluation (M&E) systems:

- should include **quantitative** (prioritising what is important over what is merely “measurable”) and **qualitative indicators**;
- must **reflect the various objectives of the strategy**. For just transition processes in coal regions, a balanced mix of economic, environmental and social assessment criteria is key;
- are **helpful for future decision making**, but they require a significant effort and regional authorities need institutional capacities of their own to ensure that results of M&E processes can be taken up in the revision of the strategy;
- monitoring and evaluation needs to be considered and implemented from the **very beginning of the policy cycle**.

### Key monitoring and evaluation levels



#### Input

Which resources have been mobilised? (e.g. how much money was spent?).



#### Output

What has been done? (e.g. number of workshops held, number of participants, outreach).



#### Outcome

What has been achieved? (e.g. level of knowledge on an issue has increased).



#### Impact

How has this contributed to the overall goal? (e.g. decrease of CO<sub>2</sub> emissions).





## The learning

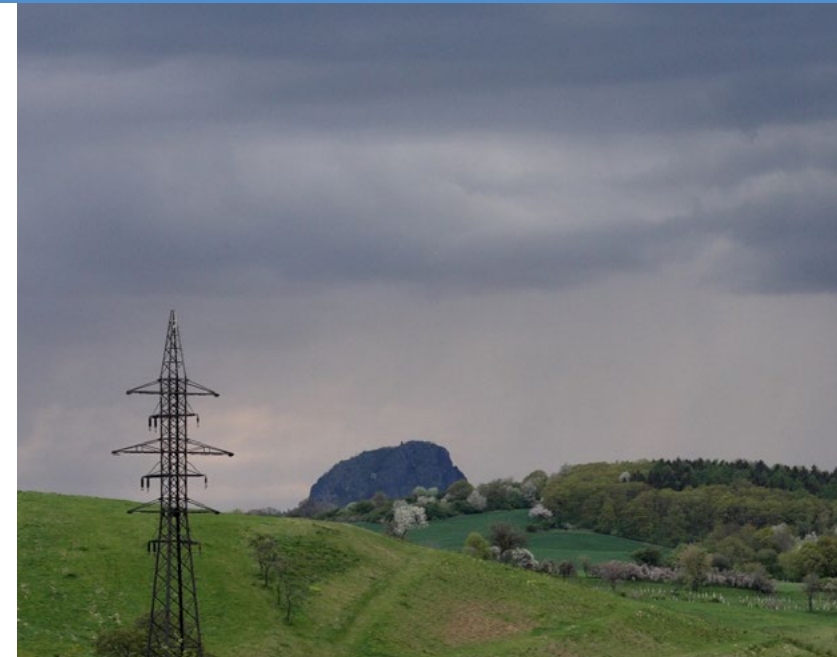
### Optimisation: strategy and policy adaptation

The institutionalisation of an adaptive policy cycle depends on the specific governance structures in the respective region, but there are elements that can be helpful for all regions.

**Plan in cycles:** revising the strategy should be an element planned from the beginning.

**Transparency and public debate:** not only can it help to increase the ownership and commitment of the stakeholders involved, and the public, it also forces implementing agencies to rethink and possibly improve their activities.

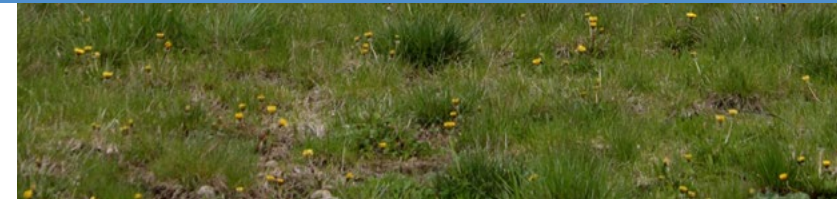
**Ownership and leadership:** key decision-makers must openly promote monitoring and evaluation results and commit to an adaptive learning process.



#### EXAMPLE: THE CZECH RE:START STRATEGY

The RE:START strategy for economic restructuring of Czech coal regions has, from the very beginning, established an evaluation framework with biannual updates of the strategy.

[↪ Read more](#)



# Accompanying notes

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## Overview: support materials

### The overall picture: coal regions are facing transition challenges

Transitioning towards a net-zero-carbon economy is a process which puts specific challenges on regions for which coal mining and coal use accounts for an important share of the region's economic activity. Coal regions in Europe already face a wide variety of challenges today, in addition to those which can be foreseen in the future. Megatrends such as globalisation, urbanisation and digitalisation have led to severe structural change processes globally. Due to these effects, many coal regions across Europe have already experienced dramatic transition processes in the last decades, ranging from a decline of heavy industry (including coal and steel) to depopulation. These processes have also had positive effects for the regions: increasing living conditions, decreasing environmental pollution and health risks, and providing safer and cleaner jobs. However, many current and former coal regions still struggle with the economic impacts of the structural change process, which have been ongoing in coal regions over the last decades.

Against this background, the European Commission has a commitment to assist coal and carbon-intensive regions in harnessing the benefits of the clean energy transition

and has proposed, under the «Clean Energy for All Europeans» package, a comprehensive set of measures with the goal of providing the stable legislative framework needed to facilitate that transition.

As a practical follow-up, in the summer 2017 the European Commission set up the Coal regions in transition initiative. In the initial phase, the initiative responds to the challenges in regions where coal-mining activities are still ongoing.

With a broader scope, the European Green Deal is the European Commission's approach to combine ambitious climate and sustainability targets with economic development. It sets the roadmap to become climate neutral by 2050, including action plans for investing in environmentally-friendly technologies, supporting industry to innovate and decarbonizing the energy sector. To provide the people, businesses and regions with both technical assistance and financial support, the Just Transition Mechanism shall mobilize at least €100 billion over the period 2021-2027 for the most affected regions.

### Providing a set of support materials to coal regions in transition

As part of this initiative, a series of support materials are being developed to assist practitioners in coal regions across Europe. These support materials can be accessed [here](#). This toolkit is the first of a series of toolkits. It can be used as a starting point to the series of support material, which has been developed and will be extended in the future.

## Support materials

### Transition strategies toolkit

This toolkit gives advice on how to:

- develop a transition strategy in coal regions;
- identify actions and projects supporting the strategy;
- monitor, evaluate and continuously adapt the strategy.

[↪ Link](#)

### Governance of transitions toolkit

This toolkit gives advice on how to:

- design the right governance model to support a transition process in coal regions;
- facilitate participation processes and engage with stakeholders;
- activate and best use the potentials of civil society.

[↪ Link](#)

### Sustainable employment and welfare support toolkit

This toolkit addresses the issues of:

- skill needs and reskilling for coal regions in transition;
- cooperation between stakeholders to enhance local job creation;
- support options for workers who risk losing their jobs;
- economic diversification of coal regions as a means for long-term job creation.

[↪ Link](#)

### Environmental rehabilitation and repurposing toolkit

This toolkit gives advice on:

- how to secure finance;
- knowledge and tools;
- governance and institutions for mine closure, environmental rehabilitation of mines and repurposing of coal related infrastructure.

[↪ Link](#)

Other support materials by the Coal regions in transition Initiative are referenced in the respective section of this toolkit.

## LESSONS LEARNED

Based on two decades of accompanying coal mine closures, the World Bank identifies nine comprehensive lessons learned - ranging from appropriate institutional set-ups to financial mechanisms - in their publication: [Managing Coal Mine Closure - Achieving a Just Transition for All](#).

# Introduction

## Why do we need this guidance?

### Regional transition needs a strategy

Many stakeholders from coal regions in Europe have expressed the need for a robust regional strategy, which guides their choices and actions in the transition process they are facing. The various elements of a robust strategy should combine responses to short-term needs with long-term aspirations. They need to be coherent with respect to the targets and objectives of the transition, reflecting the needs of the different stakeholders in the region.

There is always a need for quick responses to immediate needs. Daily policy and other coal and carbon-intensive transition decision-making processes are often forced to react spontaneously and, in consequence, “muddle through”. However, structural change is a long-term process. Some elements are foreseeable even decades ahead of time (e.g. planned mine closures after mine depletion). And even for those regions who are caught by surprise from sudden changes in framework conditions, some reactive measures need many years or decades to unfold their full impact (e.g. building up the knowledge base in a region for a diversified economy may include setting-up new research and educational facilities).

In such transition processes, an overall strategy is important to guide the various stakeholders and decision makers and to align their actions into a coherent and effective approach.

### Aims of this toolkit and scope

This toolkit gives an overview of key elements of strategy development, from problem analysis, to defining objectives and selecting actions, to evaluation and eventually policy adaptation.

It is meant as a support document for policy makers in regional governments, but is also useful for all other stakeholders in coal regions across Europe, who may want to engage in a more strategic transition process.

There is no “one size fits all” approach. Coal regions in the EU differ with respect to many characteristics, such as culture, economy, size, governance systems and political framework conditions, as well as financial, infrastructural, geological and knowledge related capacities. Densely populated urban regions have different potentials for transitioning compared to peripheral and rural regions. Some regions have already closed down mining years and decades ago (e.g. in the United Kingdom), while in other regions a larger share of the economy still depends on coal.

Therefore, this toolkit focuses on the process of developing a strategy and not the content of the strategy. To minimise the risk of being too generic, we include examples of current practices in coal regions, including their strengths and shortfalls, in order to inform practitioners about what their peers are currently doing. We do so to give inspiration,

more than strict recommendations, acknowledging that designing transition strategies in coal regions is a learning journey for all actors in all regions across Europe.

## A simplified version of the policy cycle

This toolkit is structured along a simple version of the “policy cycle”. The policy cycle is a robust and established framework, which helps practitioners structure and plan their actions. It was developed in 1956 by Howard D. Lasswell and is based on empirical observations of how policy works in practice. The policy cycle is thus a heuristic process, and not a theory. However, it describes an idealised process, and “real-life” processes will differ.

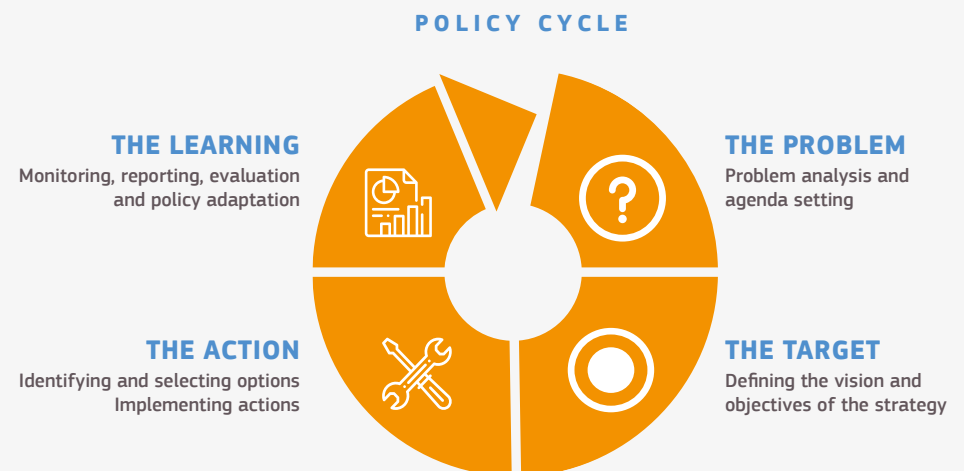
### Not always sequential

In practice, several steps are often addressed in parallel. For example, an outdated strategy may already exist and actions based on this strategy might be in the process of being implemented, while a new revised version is to be developed.

Most importantly, while optimisation based on an evaluation of experiences comes at the end of each cycle, the basis for this evaluation must be laid out from the beginning by implementing an effective monitoring system from the start.

### Not always complete

The policy cycle describes an iterative process and, after completion, it will be started all over again if additional policy action is needed. However, within one cycle not all steps may be covered completely: e.g.



urgent challenges call for quick action and there might be no time for a deeper problem analysis. This gap may be filled in the next iteration.

Despite these caveats, in our view, the policy cycle is a good structure which can be used by practitioners to develop a transition strategy for coal regions.

For various cases, different versions of the policy cycle have been developed (e.g. the Integrated Management Cycle, see Annex I). For this toolkit, we use a simplified version of the policy cycle, as we consider it appropriate for the needs of practitioners at the level of detail this toolkit can cover. The steps are:

- the problem: defining the problem and agenda setting;
- the target: defining the vision and objectives of the strategy;
- the action: identifying and selecting options, and implementing actions;
- the learning: monitoring, reporting, evaluation and policy adaptation.

This toolkit describes the strategic choices practitioners need to address at each step, as well as examples of current practices and references to other support materials like tools, guidebooks etc., including material which was specifically developed for the Platform for Coal Regions in Transition.

## The problem

### Defining the problem and agenda setting

Defining the problem is an important step in the agenda setting process and will largely define next steps, including what an appropriate strategy and suitable actions are, and which stakeholders need to be involved. Choosing a narrow focus risks only taking a partial approach to addressing the problem, and not doing so holistically (e.g. only addressing symptoms but not root causes, or only short-term, but not long-term needs). Choosing a wide focus risks decision makers being overwhelmed by the complexity of the problem and the views and opinions to be considered. Discussion seems endless before action can happen.

Consulting with a wide range of stakeholders can help define the problem in a more holistic way and ensure that not only a sub-set of problems are addressed. Opening up to consult widely is even more important, because a narrow definition of the problem may be misleading when identifying key stakeholders.

For example, if the problem is framed as “the future of today’s miners”, then government, mining companies and trade unions can be considered key stakeholders. If the problem is framed as “the economic future of our region” then additionally universities, business associations, NGOs and other local actors such as companies,

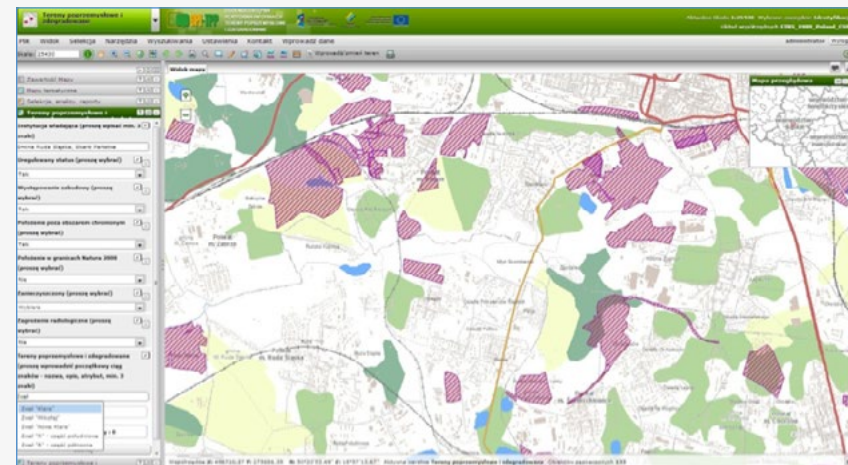
SMEs, start-ups or intermediaries are important to consider.

Agenda setting is a highly political process and the various stakeholders have different interests when framing the problem - generally wanting to frame it in a way that aligns with their key interest.

One key aspect in coal transitions is that the transition is often perceived as being driven by exogenous factors: the region is affected by processes and changing framework conditions from outside the region. Specifically, decarbonisation is a driver, which is directly linked to deliberate decisions by policy makers (e.g. “bureaucrats” in the national capital or Brussels), which contrasts

### INFORMATION PLATFORM FOR POST-INDUSTRIAL AND DEGRADED AREAS IN SILESIA (OPI-TPP)

In Silesia, the Marshal’s Office of Silesia Voivodeship, in partnership with the Central Mining Institute (Główny Instytut Górnictwa-GIG) developed a data source on abandoned industrial sites, the Information Platform for post-industrial and degraded areas in Silesia (OPI-TPP), after realizing that new companies often struggle to find a good location to settle in.



[Read more](#)



with changes in economic framework conditions such as market forces reducing the competitiveness of some coal regions. As a consequence, local stakeholders may feel powerless, narratives of “losers” and “victims” may emerge (which can result in strong efforts to safeguard the status quo, at potentially high costs, e.g. subsidies), whilst generating barriers to constructive and creative forward looking solution development. Therefore, the ownership of the agenda-setting and problem formulation is of importance and needs local leadership.

Finally, describing the problem in a holistic way does not necessarily imply that all aspects of the problem need to be addressed at once. Sometimes it is helpful to define different processes in which the various problem fields are to be addressed.

For example, in many mining regions, the population is strongly divided into pro-coal and anti-coal factions (e.g. miners afraid of losing their jobs argue in favour of coal, while homeowners who face the threat of their houses being demolished in open pit mining extensions, or parents afraid of air pollution and health risks for their children, may strongly argue against coal). However, both factions may join forces, if the agenda were: “today, we will not discuss the future of coal, but how we can create a region that we want to live in”.

### Getting the facts right: information to be gathered

Strategic planning needs to be based on sound knowledge concerning the regional challenges, facts and figures.

However, gathering information is a long-term process, which requires skills, institutional capacity and cooperation between different stakeholders. Often, data does exist, but is fragmented and not easily comparable.

As a result, information gathering and assessment needs to be undertaken as an iterative process with a short term perspective: key facts need to be gathered and analysed – to serve as a basis for the first cycle of strategy development. At the same time, long-term processes should be set-up, which provide input to implementation and adaptation of the strategy (future policy cycles). This includes gathering and assessing missing data, and continuously updating most important data.

A key strategic question for regions at this point is “make or buy?”. There are pros and cons to each option. Outsourcing data analysis can help to speed up the process, but developing own capacities supports longer-term prospects. Decisions need to be made based on the specific situation in the region, and building local capacities (in administration, nearby universities, research institutes and the local private sector) should be part of any regional development strategy.

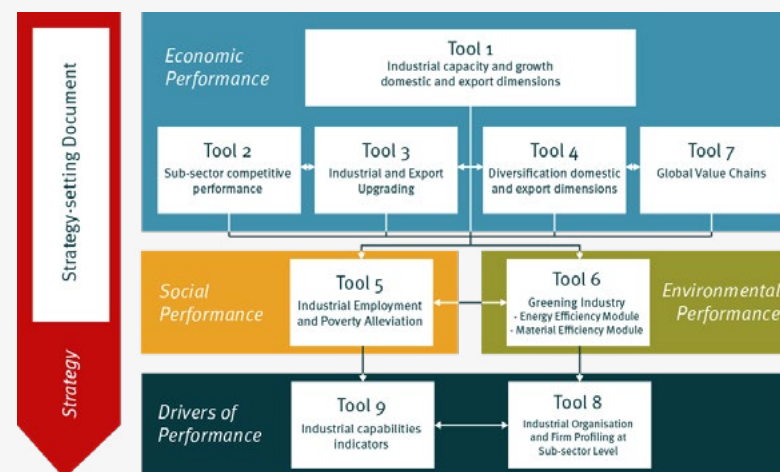
Gaining knowledge of the region’s assets is crucial, as strategy development must be based on the region’s conditions and reflect

### TOOLS TO GATHER KEY INFORMATION FOR REGIONAL DEVELOPMENT

To gain relevant information about the region, the **ONLINE-S3 toolbox** covers seven tools that should help to aggregate and compare regional profiles and indexes with already existing data, but also to find research infrastructure that can help to analyse the context by: mapping (1) regional assets, (2) research infrastructure, and (3) clusters, incubators and innovation ecosystems; as well as with (4) benchmarking analysis and reporting, (5) profiling science and technology performance, (6) creating indicators through an interactive dashboard for scientific and economic activities, and (7) providing a guide on how to use a SWOT analysis

Another valuable source is the **EQuIP toolbox**, which compiles globally available industrial performance and capability measurement approaches (targeting developing countries). The EQuIP tools offers stakeholders a range of methodologies to consider for industrial diagnosis and strategy design in their countries, covering topics such as industrial growth, sub-sectoral competitive performance, diversification, productive employment generation, and greening of industry.

#### EQUIP TOOLS OVERVIEW



the existing opportunities. This phase should yield thorough knowledge about the region's strengths and weaknesses. Furthermore, each region needs to identify innovation bottlenecks and challenges for both the society and the economy. To form a robust development strategy, it is nevertheless also necessary to look beyond the region itself and understand its positioning compared to other regions. This can help understand if it will be better to specialise in a certain area, collaborate with other regions when they have similar economic structures, or change the region's prioritisation.

Understanding the region in detail is the backbone of every strategic development. The question is: what kind of information and data needs to be gathered and how do we analyse these insights? This process is determined by various restrictions, such as time, money etc.

Generally speaking, an analysis of context should be based on:

- **geographic characteristics** about the size and extent of the region, but also about the type of mining and natural assets;
- **social and demographic factors**, including information about employment and labour market;
- **economic characteristics**, including technical and knowledge infrastructure;
- an **institutional setting** which frames the possibilities of development led by decision makers.

With this core stocktaking, policymakers will

have a solid database to understand the strengths and weaknesses of the region. To make use of all the information, there are several analysis methods, both quantitative and qualitative, which can help to understand the status quo, including the coal value chains and economic interconnections, but also the region's future potential:

- SWOT analysis;
- market analysis;
- value-chain analysis;
- dynamic shift share analysis;
- comparative advantages analysis / "Porter's Diamond" (also known as the Theory of National Competitive Advantage of Industries, this is a diamond-shaped framework that focuses on explaining why certain industries are innovative and competitive internationally, whereas others might not. It is framed by four pillars of analysis: firm strategy, structure and rivalry; related supporting industries; demand conditions; and factor conditions).

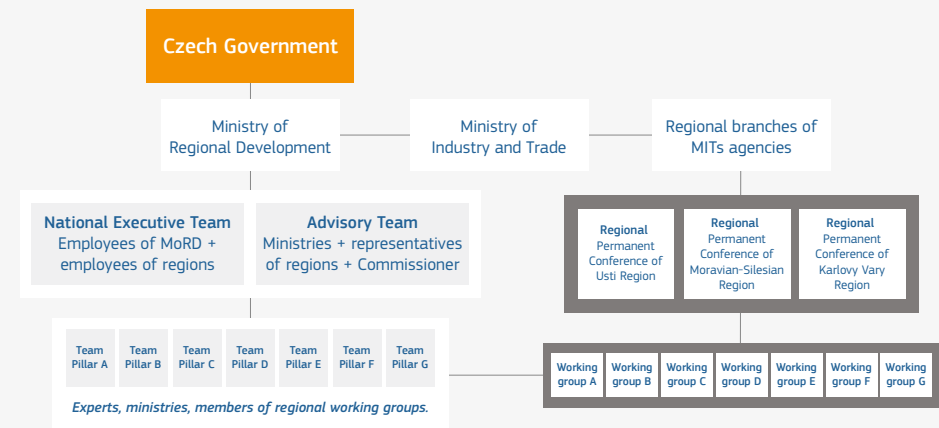
Some of these methods have been previously used by other regions to understand their potential for transition strategies (see Annex II).

## THE CZECH RE:START STRATEGY

The difference of coal regions within one country is also something which has been acknowledged in the Czech RE:START strategy. RE:START is one example of a national strategy process for the regional development of coal mining areas.

It has been the objective of the Czech government to develop one common strategy under the leadership of the national Ministry of Regional Development. But it was also clear that expertise on the specifics of the regions lies with experts from the regions. And that furthermore, even within the Czech Republic, the three coal mining areas do in fact show quite some differences with respect to socio-economic characteristics, specific challenges and possible solutions. As a result, a governance structure has been devised that matches national institutions with regional counterparts, acknowledging each region's specific needs and potential.

[Read more](#)



### GOVERNANCE OF THE RE:START STRATEGY

Data source: Governance model of implementation of RE:START Strategy in Czech Republic, Presentation by Karel Tichý to Coal Regions in Transition Platform, Brussels, 8th April 2019.

## INTERNATIONAL AND EU SUSTAINABILITY PATHWAYS

### The Paris Agreement

The Paris Agreement sets out a global framework limiting global warming to well below 2°C and pursuing efforts to limit it to 1.5°C. Vertical integration of these goals are processed through National Determined Contributions (NDCs). The EU's current NDC pledges to achieve a domestic reduction in greenhouse gas emissions of at least 40% compared to 1990 levels by 2030 as part of the EU roadmap to reach carbon-neutrality in 2050. This goal, among other national sub-goals, should be absolutely taken into account for the development of the region's visioning.

### UN 2030 Agenda / Sustainable Development Goals (SDGs)

In 2015, the United Nations formally adopted the 2030 Agenda for Sustainable Development, along with a set of 17 SDGs and 169 associated targets. The goals largely focus on national government's legislation, however, the SDG's sub-targets of 1, 7, 8, 10, 11, 12 and 13 may be especially relevant for the development of a vision for coal regions.

### European Green Deal

The Green Deal represents a new strategic priority of the European Union, which summons all-encompassing measures for achieving long-term, sustainable growth in Europe, creating wealth and jobs while significantly cutting emissions and pollution. The ultimate objective of the Green Deal is to make the EU climate-neutral by 2050. To reach that goal, the EC proposes a full set of new actions such as the European Climate Law, a new climate adaptation strategy, and the Just Transition Mechanism, which will be an important tool for the regions for both technical assistance and financial support.

### EU Clean Energy Package

The "Clean energy for all Europeans" package consists of eight EU directives that will be implemented into national law by the end of 2020, covering energy performance in buildings, renewable energy efficiency, electricity market design and new governance objectives to create a national energy and climate plan (NECP) for 2021-2030. The package substantiates the climate targets in the respective sectors and is another important set of documents to take into consultation for development strategies.

### European Industrial Strategy

The European Commission has presented a new European industrial strategy strategy, which aims to maintain the industry's global competitiveness, while making Europe climate-neutral by 2050 and shaping Europe's digital future.

### EU Cohesion Policy and pilot projects

The EU cohesion policy serves as a main instrument to address structural changes linked to energy and industrial transition. For the post-2020 period, 65-85% of investments are proposed to be targeted towards the objectives of "Smarter Europe" and "Greener Europe". To test new approaches and support economic diversification and innovation, the European Commission launched pilot actions for "regions in industrial transition", "coal regions in transition" and "creating new value chains through interregional investment in innovation".

### The European Semester

The European Semester provides a framework for the coordination of economic policies across the European Union. It allows EU countries to discuss their economic and budget plans and monitor progress at specific times throughout the year. It furthermore gives guidance to Member States on what should be priorities, when using EU funds.

## Excursion: regional differences and similarities

Coal regions across Europe have very different characteristics. Even in one country, coal-mining regions vary with respect to many socio-economic indicators and may face very different challenges.

In Poland, for example, Upper Silesia is an urban, highly industrialised region, home to Katowice which is an important city. In contrast, Konin is a rural lignite mining area,

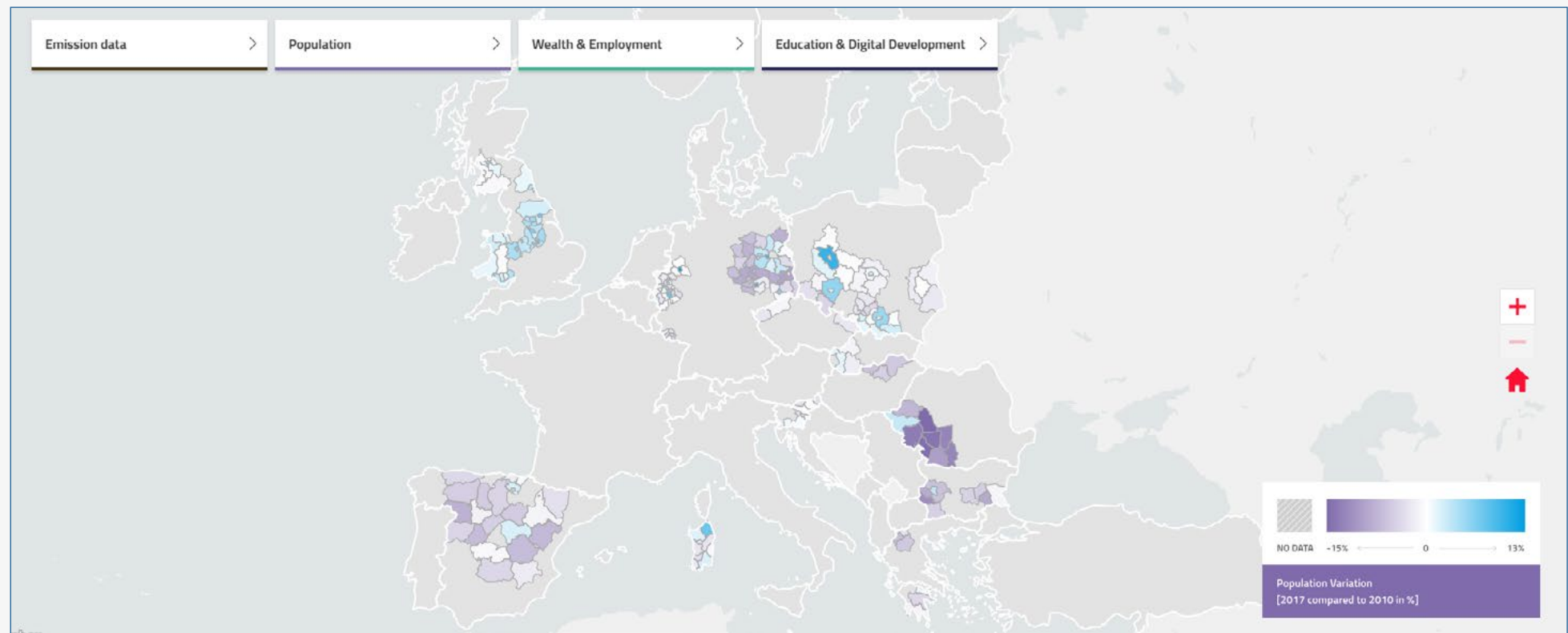
and is a region that shares many features and challenges with other rural areas across Europe.

Some conditions such as political frameworks are similar for both regions. However, practitioners may find more similarities with regions with similar structures: for Konin, it might be interesting to engage with regions such as Lusatia in Germany and Western Macedonia in Greece. Silesia, on the other hand, more closely resembles the Ruhr Area in Germany.

First efforts have been made to map similarities and differences of coal regions across Europe in order to help facilitate exchange among regions, assuming that regions with similar socio-economic characteristics (population density, distance to urban centres, density of universities and other research and educational facilities) would face similar challenges in their transition and would possess similar capacities, which would allow them to better learn from the experiences of their peers in other countries. A map outlining the socio-

economic characteristics of coal regions in Europe can be found [here](#).

Furthermore, the role of the current coal sector and its institutional structure needs to be taken into account as this may lead to different challenges, such as coal regions with standalone power plants. Using imported coal might need a very different approach than vertically integrated companies with state ownership.



### INTERACTIVE MAP ON SOCIO-ECONOMIC DATA OF EU COAL REGIONS

EU coal regions do strongly differ, e.g. in terms of growth / decline of population in the last years and decades

Source: Re-Industrialise, Climate-KIC

# The target

## Defining a vision and objectives

A transition strategy needs to specify its target with respect to the direction towards which it wants to develop. This should include:

- **a long-term vision:** given that transition and structural change processes generally take several decades, thus a vision should be directed towards the desired state of the region in 30 years. A vision is generally qualitative and describes a narrative;
- **development objectives:** the general vision should be underpinned by clear objectives. These objectives should be more concrete and can address a shorter time frame (e.g. 10 years).

Vision and development objectives need to be region-specific and need to align with local framework conditions. Furthermore, the vision and objectives need to be in line with existing international, EU and national development goals. This includes the climate objectives of the Paris Agreement, the Sustainable Development Goals Agenda 2030 / SDGs, the EU Green Deal, European Industrial Strategy, EU Cohesion Policy and the European Union's Clean Energy Package. This specifically means that both the long-term visions and short term objectives need to be in line with a zero carbon pathway before 2050.

The process of how to develop a regional vision and define development objectives will also vary from region to region and will strongly depend on the respective structures and understanding of what good and effective governance is:

- leadership and political mandate: a visioning process needs high-level political buy-in from the very beginning. The institutions who will be responsible for implementing the strategy will need to lead the process (or to mandate the lead to a chosen representative or facilitator);
- stakeholder engagement: on one hand, engaging a broad variety of stakeholders in the process of vision development and identification of objectives for the transition process helps to make the results more robust (integrating more views and knowledge), but on the other hand is the first step towards implementation. A strong sense of ownership among a broad array of stakeholders ensures buy-in and support. This is especially important as structural change is a long-term process over several decades. The more Stakeholders involved in the strategy, and the more diverse they are, the better the chances are of implementation continuing effectively even when the elected government changes;
- tools and facilitation: developing a good vision and objectives, especially when this should be done in a participatory process needs methodological skills and a dedicated facilitator.

## TOOLS FOR VISIONING AND IDENTIFYING KEY OBJECTIVES

Specific tools for visioning and to identify key objectives are contained in:

- the **ONLINE-S3 toolbox on smart specialisation;**
- the **EIT Climate-KIC visual toolbox.**

Find more information on these tool boxes in the annex.

### EIT CLIMATE-KIC VISUAL TOOLBOX





EXAMPLE

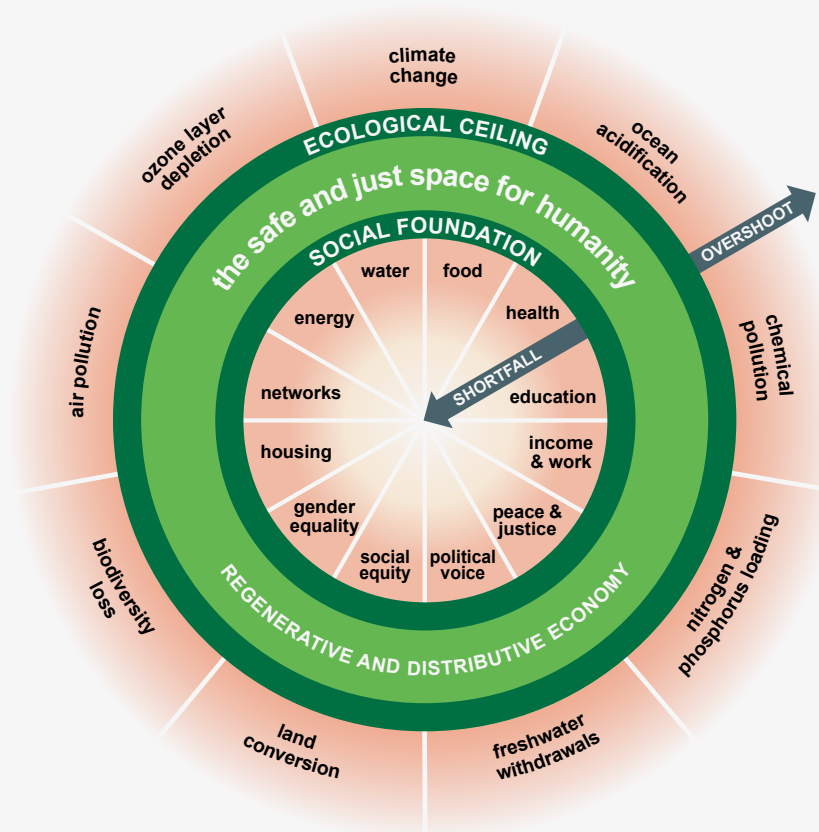
### AMSTERDAM CITY DOUGHNUT - A TOOL FOR TRANSFORMATIVE ACTION

Setting a new basis for its future development, the city of Amsterdam presented a ‘city portrait’ that applies the economic ‘doughnut model’ for problem analysis and defining a vision. The main goal of this approach is to re-frame economic problems in a more holistic way: An economy is considered prosperous when all social foundations are met without overshooting any of the ecological ceilings.

In the Amsterdam model, the inner ring of the doughnut represents minimum standards of living, based on the UN’s Sustainable Development Goals, comprising basic essentials such as access to food, clean water, gender equality, and adequate housing. The outer ring of the doughnut represents the ecological limits of the planet, from biodiversity loss and air pollution to climate breakdown. The space between these two rings represents the represents possible actions that respect both social and economic boundaries.

The assessment of these variables provides a holistic snapshot of the city’s strengths and weaknesses and together with the outlined boundaries, form an overarching comprehensive, yet ambitious vision of future development. The model shall now serve as a tool to support the city’s policy makers identifying (policy) actions.

[Read more](#)



## What is a just transition?

**A just transition can be defined as a Transition which captures the opportunities of the transition to sustainable, climate neutral systems, whilst minimising the social hardships and costs.**

For strategy development, the challenge is not only to break down the concept of a just transition to regional circumstances, each region must develop its own concept of what a just transition entails and what it means to the region. We have collected some key concepts and approaches which may inspire you in defining your vision and development objectives.

### International Labour Organisation (ILO) Guidelines on just transition

The ILO has been a key stakeholder in driving the concept and term of just transition.

The ILO's vision of just transition is broad and primarily positive. It is a bridge from where we are today to a future where all jobs are green and decent, poverty is eradicated, and communities are thriving and resilient. More precisely, a systemic and holistic economic approach.

According to the ILO, the required massive development efforts to reach a zero-carbon economy will create millions of new jobs. But the ILO Guidelines also highlight the need to secure the livelihoods of those who might be negatively affected by the green transition.

To manage that transition, social dialogue between governments, workers and employers is seen as essential. The ILO's '[Guidelines on a Just Transition towards environmentally-sustainable economies and societies for all](#)' can be seen as a

major source for the just transition concept. It encompasses a range of principles and policy proposals as well as a set of practical tools for governments and social partners in managing this transformation process, focusing on the following aspects: macroeconomic, sectoral, and enterprise policies; rights and occupational safety and health; social protection; skills development; active labour market policies; social dialogue and tripartism.

### Trade unions

#### Conceptual ideas for further development of the just transition approach

The International Trade and Union Confederation (ITUC) published a comprehensive policy brief on just transition, including nine recommended policy areas and summarises comprehensively the developments towards a just transition to date, featuring short examples. The ITUC's understanding of a just transition follows the ILO's concept above, but puts forward ideas on how the concept can be developed further at the end of the paper.

#### Read more

The Just Transition Centre was established in 2016 by the ITUC and the ETUC. The Centre brings together workers and their unions, communities, businesses and governments in social dialogue.

Key documents refer to the ILO guidelines with a strong focus on social dialogue: 'A Just Transition secures the future and livelihoods of workers and their communities in the transition to a net-zero-carbon economy. It is based on social dialogue between workers and their unions, employers, government and communities. A plan for Just Transition provides and guarantees better and decent jobs, social protection, more training opportunities and greater job security for

all workers affected by global warming and climate change policies.'

#### Read more

The European Trade Union Confederation (ETUC) calls for a 'radical move towards an economic model that promotes global sustainable development, while at the same time guaranteeing a just transition for workers whose jobs are affected, through social protection, skills training and trade union involvement in decision-making'.

#### Read more

The industriAll European Trade Union - calls for 'sustainable industrial policies ... that target investments in both the greening of present-day industrial sectors as well as job creation in emerging greener industrial sectors'. The process of a just transition needs to be backed by 'the full spectrum of social programmes and protections' and "creative labour force adjustment programmes".

#### Read more

The Trade Union for Energy Democracy (TUED) goes a step further demanding a more radical approach focusing on 'social power' instead of social dialogue. The paper below sets up ideas how to expand public ownership in key economic sectors and institutions.

#### Read more

### German Advisory Council on Global Change (WBGU)

#### Just and in-time transition

The WBGU, an independent research-focused advisory body to the German Government, proposes a slightly different approach, focusing on the aspects of climate justice under temporal, geographical and social restrictions, combined with a call to act, especially through the creation of

financial instruments: 'With a just & in-time transformation, the WBGU aims to combine timely decarbonisation with just solutions for the people affected. This approach takes into account the demand for justice of (1) the people affected by the structural change towards climate compatibility (e.g. in coal-mining regions), (2) the legal rights of people harmed by climate change, (3) the dignified migration of people who lose their native countries due to climate change, and (4) the creation of financing instruments.'

#### Read more

### European Union

The EU has taken up the concept of a just transition on various levels. In the European Commission's communication on the European Green Deal it is stated that the aim is to "transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use" and that "this transition must be just and inclusive." Moreover, the 2020 Communication on 'A strong Social Europe for Just Transitions' highlights the key role of the European Pillar of Social Rights, which lays special emphasis on better working and living conditions in Europe, promoting the parallel pursuit of social and environmental sustainability objectives.

The different dimensions of what a Just Transition entails are mirrored in proposed actions, i.e.: "The need for a socially just transition must also be reflected in policies at EU and national level. This includes investment to provide affordable solutions to those affected by carbon pricing policies, for example through public transport, as well as measures to address energy poverty and promote re-skilling."

#### Read more

## The action

### Identify strategic options

Once a long-term vision for the region is created and concrete development objectives are being defined, strategic options, which address how these objectives can be reached, need to be identified.

In practice, the process of identifying options and defining objectives often goes hand in hand, in smaller iterative loops: in order to define where a region wants to go, it is necessary to know where it could go. Scenarios (see box) are one approach of exploring options of future development and analysing which likely consequences or impacts certain actions may have. Scenarios are often combined with backcasting in order to identify pathways to reach a desirable future: first, roughly sketch what a desirable future for the region would look like, and then work backwards. The desirable future can be described in broad terms, using images or analogies that relate to the specific region. Then, in an iterative process, pathways and steps which address how this desirable future can be reached are identified. More information on backcasting methods can be found in the [Climate-KIC visual toolbox](#).

There are simpler approaches of identifying options for action, such as collecting options in interviews, discussions rounds, expert consultation, or transfer of international good practice. These approaches do have their merits: the effort of identifying options is generally lower. In many cases, a lot of local

knowledge exists on what could be done or improved. When time pressure to implement is high, these approaches allow a kick-starting of action on the ground. They can be used to achieve quick wins in parallel to the process of developing a robust and holistic strategy. But precautions should be taken that quick decisions do not contradict long-term objectives. Especially investments in infrastructure may irreversibly set framework conditions for many years or even decades and risk putting regions on undesirable onto undesirable development paths or cause stranded assets.

Two established approaches to identifying options in a more strategic way are the **Logic Model** and the **Theory of Change** (see box). Both aim at describing potential processes from intervention to results. This analytical process helps to better understand how certain objectives can be reached. Often displayed as an impact chain, logic models and theories of change do not have to be linear, but can (if applied well) also be used to identify correlations of different measures (synergies, gaps in strategies etc.). They can be combined with scenarios as well as backcasting and can be used in, or developed within participatory processes.

### Be creative and engage with many experts and stakeholders

Exploring possible options needs to be a creative process. It is important not to zoom in too early on a small number of options but to start thinking outside of the box. A wide variety of techniques exist, which support creativity in this process (e.g. the Design Sprint method, see Annex I).

## SCENARIO TECHNIQUES

Scenario techniques are a useful tool in this process. They help to shed light on the question: “What would happen if we did xyz?”

- Scenarios can be quantitative using computer assisted modelling or qualitative, describing possible futures by narrative stories or pictures
- Scenarios should explore a wide variety of futures: seemingly likely as well as rather unlikely ones. Desired futures and undesirable ones.

Robust scenario development processes do generally need the support of (methodological) experts like consultants or research institutes.

### Example

Scenario modelling has been used in the process of developing a “Roadmap for the Transition of the Western Macedonia Region to a post-lignite era”, mainly to estimate and partly quantify future economic impacts of regional development options, certifying positive outcomes for the economic development and job situation for all three scenarios.

➔ [Read more](#)

## GUIDEBOOKS FOR IDENTIFYING STRATEGIC OPTIONS

Guidebooks for identifying strategic options:

- the Logic Model - “W.K. Kellogg Foundation Logic Model Development Guide”;
- the Theory of Change - “Theory of Change: A Practical Tool For Action, Results and Learning”.

It is also important to include many views. Options should not only be identified by a small number of “insiders”, but should make use of the knowledge and ideas of a broad mix of stakeholders (more on participatory planning can be found in the [Governance of transitions toolkit](#)).

At this stage there is the risk that powerful actors of the “old” system dominate the discussion and bring forth ideas which predominantly help to preserve the status quo instead of looking for new opportunities. At this point, it might be helpful to involve “outsiders” like artists, experts from very different fields or “neighbours” to stir up the imagination. Finally, creative processes do need professional facilitation. This is more true in environments where strong imbalances due to power, resources and expertise exist.

## Identifying finance options

Finance is a key issue, when it comes to selecting projects for implementation. A range of funding options exist for coal regions in transition, including public EU and national funds. Within the [Green Deal](#), EU funding will in the future increasingly address multiple targets: economic development and climate ambition. Low-carbon innovations will receive an increasing share in existing funding lines. Additionally, new dedicated funds like the Innovation Fund will support the transition. Specifically for coal regions this means that additional sources of EU funding will be available, e.g. through the Just Transition Mechanism (see also box).

Successful cases of actions in coal regions often used a blend of public funds and private investments. A key difficulty for actors in coal regions is to identify which funding sources are suitable for the specific actions they wish to implement. A number of tools exist which can help practitioners in identifying suitable funding options.

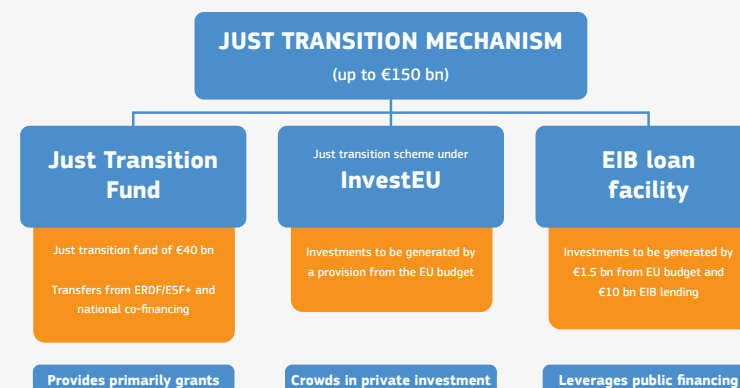
Strategically, it is important to develop capacities in the region to leverage public and private financing. This concerns both knowledge about existing finance options and skills in development of public and blended finance projects. A number of regions support local actors (companies, research institutes, individuals) with tailor-made support e.g. by agencies and information centres who offer technical advice on finance options, but also by offering co-funding for proposal writing.

## THE JUST TRANSITION MECHANISM (JTM)

In January 2020 the [European Commission announced the JTM](#) as a dedicated instrument to support coal, peat, oil shale and carbon intensive regions in transition. It is planned to consist of three elements:

- i. **Just Transition Fund: allocating direct funds to the regions.**
- ii. **A dedicated window under InvestEU: allowing to de-risk investments with a guarantee mechanism.**
- iii. **Public loan facility: operated by the EIB.**

The Just Transition Fund explicitly targets regions with high shares of employment in coal and lignite mining, but also regions with high shares of carbon-intensive industries, oil shale, and peat production (read more on the [allocation method](#)). The fund aims to support a wide variety of actions in the regions [including innovation, job creation, re-skilling, land rehabilitation](#) (read more on the [intended outputs and results](#)). To steer the investments, beneficiary regions are to develop “transition plans”.



### Read more

*This visualization is based on the EC's proposal currently debated by the European Parliament and the Council in the context of the negotiations for the next EU budget, including the revision of 27 May 2020 taking into account the EU recovery plan.*

Furthermore, the financing of projects within coal regions in transition is likely to be more effective if aligned with the broader finance and investment strategies of the region, including infrastructure investments and use of structural funds.

### Information on funding options

The Covenant of Mayors provides an Interactive Funding Guide for financing opportunities for sustainable energy and climate action at local and regional level.

#### 🔗 Read more

The H2020 Project TRACER collected an overview of funds available, specifically for coal regions in Bulgaria, Czech Republic, Germany, Greece, Poland, Romania, Serbia, Ukraine and Wales (UK)

#### 🔗 Read more

## Selecting and deciding options and activities

After the options have been explored, it is time to hone in on concrete actions to take. Some processes are thoroughly designed from overall objective to specific actions and formulated as a roadmap in which the desired state is operationalised by measurable targets and timetables. Other processes just define an overall vision and then support a multitude of individual projects which contribute to these frameworks. Both processes have their pros and cons. However, measures need to be in place to ensure the second approach does not become arbitrary.

### Risks and challenges

New approaches often lack protagonists with a strong institutional capacity. Therefore, the whole project can be fragile and should be managed conscious of the following risks and challenges:

- **conflicting targets:** as a vision for regional development generally comprises various targets (e.g. economic, social and environmental), individual actions will most likely support one target stronger than others or have adverse effects. Those conflicts with respect to the various objectives result in the need for trade-offs, which in most cases need to be negotiated. On the other hand, often potentials for mutual benefits exist and can be tapped by developing new creative solutions with out-of-the-box thinking;

- **vested interests:** incumbents and established actors generally have much larger bargaining power and often long standing contacts and means of influence over regional public decision makers. So there is the risk that they influence the process of selecting actions to be implemented with regards to their own interests, which do not necessarily match the overall interest of the region. Similar to the development process of the overall vision and objectives (see above), there is the risk that newcomers have less potential to influence the selection process;
- **lack of innovation:** feasibility should obviously be a key selection criteria for actions. However, there is a risk that “more of the same” is systematically preferred over new and innovative ideas, which are by definition less well known and do entail some risk of failure;
- **institutional capacity:** in fields where large public financial support is involved, there is a risk that a certain budget needs to be spent within a certain timeframe. This favours some measures over others (e.g. for a public administration it is much easier to spend 100 million Euro in building roads, than in supporting start-ups). Developing systematically new approaches is a long-term process and needs institutional capacity, both on behalf of funders (being able to administer a large number of small scale projects) and on behalf of recipients (being able to develop high-quality projects). Institutional support and funding schemes which are available for a number of years can help to support more transformative innovation systems;
- **short-term concerns vs. long-term vision:** there is the risk that even though a long-term vision exists, the selection of actions is strongly guided by short-term concerns. Thus, it is important to critically assess whether quick win actions are really future proof and in line with long-term objectives;
- particularly, **further support of unsustainable practices** could lead to unintended dependencies and lock-in effects, which hampers the ability of regions to reach the climate neutrality objective. (Read more about lock-in risks in EU power sector [here](#));
- **lack of synergies:** existing structures (sectors and administrative responsibilities) often hinder the harvesting of synergies. For example, while it is obvious that actions in the energy sector need to comply with climate targets, a climate proofing or climate mainstreaming in other areas, like business development is a new issue, which is not yet implemented (see the [Sustainable employment and welfare support toolkit](#)).



## Keys to selecting actions

In light of the diversity of coal regions in Europe, there is no one-size-fits-all answer when it comes to how to deal with these challenges. However, the process of selecting actions is key, including:

- **transparency:** the minimum requirement is that the selection process (including selection criteria and selected actions) is made transparent, so that the public has the possibility of assessing whether and how the actions relate to the overall development objectives;
- **engaging a broad range of stakeholders** in the selection process is an option to ensure that a multitude of objectives are met. However, this needs professional facilitation to balance power and knowledge differences among the different actors and interests (see [Governance of transitions toolkit](#));
- **formalised procedures** can help to facilitate selection processes;
- **multi-criteria-analysis** (see box) is an approach which helps to align potentially conflicting objectives and is suitable to reduce power differences.

## MULTI-CRITERIA ANALYSIS (MCA)

Multi-criteria analysis (MCA), or multiple-criteria decision analysis (MCDA) can be a useful complement or alternative to a cost benefit analysis and is particularly relevant at the stage of analysing options, both for assessing the economic, social and environmental dimensions of each option and comparing policy options. Multi-criteria analysis techniques become especially relevant when decision-makers have to handle large amounts of complex information in a consistent way.

MCA techniques can therefore be used to identify a single most preferred option, to rank options, to short-list a limited number of options for subsequent detailed appraisal, or simply to distinguish acceptable from unacceptable possibilities.

MCA has many advantages over informal judgement unsupported by analysis:

- the choice of objectives and criteria that any decision making group may make can provide an important means of structure, communication and adds legitimacy to the overall process;
- scores and weights, when used, are explicit, developed according to established techniques and can provide an audit trail. They can also be cross-referenced to other sources of information on relative values, and amended if necessary;
- performance measurement can be sub-contracted to experts.

However, the variety of different techniques, often with rather similar sounding titles, is a common source of confusion, and some kinds of MCA do not at present offer much help for practical decision taking. For further information, the guidebook referenced below provides an excellent overview for practitioners.

➔ [Read more](#)

## SELECTING TRANSFORMATIVE PROJECTS

*Transformative change converts a current system or systems (ecological, social, political, economic, scientific, or technological) into a fundamentally new one that, from there on, forms the new mainstream.*

The transition process towards a zero-carbon society is nothing less than a fundamental transformation of our society. It is not only a technological question (substituting fossil energy with zero-carbon technologies) but it brings along changes in all dimensions: new business models and new companies emerging, changes in consumer practice, social behaviour and cultural habits, or new legislation and institutions. In many cases we need and will encounter fundamental paradigm shifts in the future.

The challenge in selecting projects to support this transformation is that no one individual action or project will bring about the full transformation. The question is then, how can we choose and design projects that, together, lead the path to the necessary transformation?

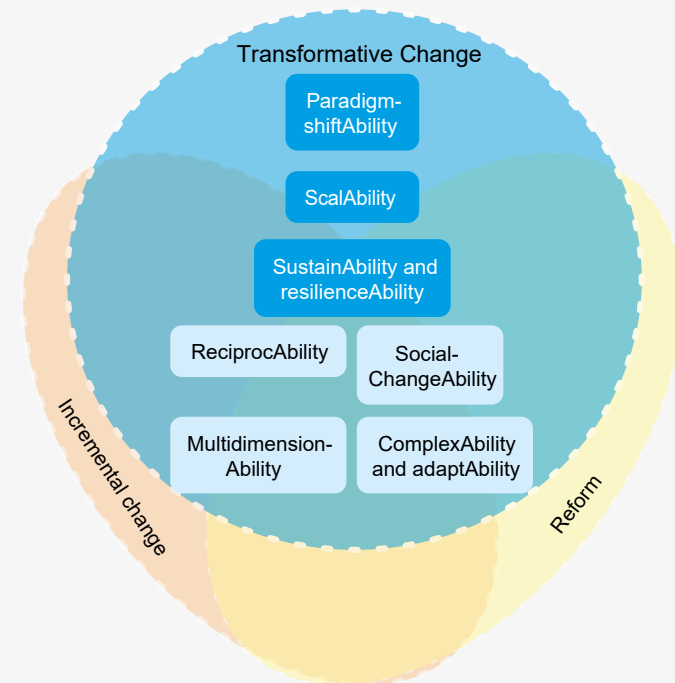
### TransformAbilities - Design principles for transformative change

Following a holistic vision of a transformation towards a zero-carbon society, GIZ developed design principles that should help practitioners identify options that are as transformative as possible under the current systemic conditions. The guidebook features the TransformAbilities framework which can serve as indicators for a successful facilitation of change.

Each project or action needs to support the following “obligatory” key elements:

- **ParadigmsshiftAbility:** does the actions support the necessary fundamental paradigm shift?
- **ScalAbility:** is the action scalable? And if scaled would it be in line with transformation targets?
- **SustainAbility and resilienceAbility:** Is the action fit to weaken the resilience of the existing (unsustainable) system? And does it facilitate stability of the new, desired system?

The guidebook provides, tools, background information and concrete check-lists to assess potential projects.



➡ Read more: GIZ (2019) Transforming our work: Getting ready for transformational projects

# The learning

## Monitoring, reporting, evaluation and policy adaptation

Monitoring and evaluation is often a forgotten pillar in strategy development. However, the end of one policy cycle actually marks a new beginning: entering into the next cycle, adapting the strategy based on learning from the first round. In practice, regions normally undergo a continuous process. Even after the first or second year into a new strategy, experiences and learnings call for adaptation.

Some changes are immediately necessary, because of changes in the framework (e.g. new government and policy priorities on national level, new funding options, changes in markets etc.) others stem from very obvious learning (a certain approach did not work the way it was expected). But to make a strategy truly effective it is important to have a closer look at what worked and what did not. To do so a proper monitoring and evaluation system needs to be set-up.

Although we describe monitoring and evaluation at the end of the policy cycle, it is something which needs to be considered and implemented from the very beginning.

Key elements of a good monitoring and evaluation (M&E) system are:

### Monitoring and evaluation systems should include both quantitative and qualitative indicators.

Quantitative indicators (e.g. CO<sub>2</sub> emissions, money spent, workshop participants) are a key element of any monitoring and evaluation system. They are easy to communicate (e.g. in graphs) and allow comparisons (e.g. across regions or across time). However, qualitative indicators and assessments are equally important. There is a risk that a focus on quantitative indicators leads to a focus on what is “measurable” instead of what is important.

For example, it is easy to measure how much money was spent, but this does not tell us whether it was spent wisely. It is easy to measure how many people participated in a workshop. But were they actively engaging? Did they feel that what they said really mattered?

It is feasible to monitor CO<sub>2</sub> emissions in the housing sector and it is fair to assume that efficiency gains through enhanced retro fitting will certainly help to reduce emissions. A support scheme may include financial support, information campaigns and training for local workers. While it is possible to estimate the impact of the whole policy package, it is impossible to measure the impact of individual elements (e.g. the question: “How many tons were saved due to the information campaign?” is impossible to answer). A solution can be a mix of quantitatively assessing some elements (e.g. overall CO<sub>2</sub> emission, but also job creation

## KEY MONITORING AND EVALUATION LEVELS



### Input

Which resources have been mobilised? (e.g. how much money was spent?).



### Output

What has been done? (e.g. number of workshops held, number of participants, outreach).



### Outcome

What has been achieved? (e.g. level of knowledge on an issue has increased).



### Impact

How has this contributed to the overall goal? (e.g. decrease of CO<sub>2</sub> emissions).

contribution) and qualitatively assessing other (e.g. in interviews: how should information campaigns for homeowners, training support for workers be improved to be more effective).

### Topics of monitoring and evaluation processes must reflect the various objectives of the strategy.

This may sound trivial, but there is a risk that monitoring and evaluation systems focus only on a subset of topics, often those, which are easy to measure or those which are the priority of the implementing agency. For just transition processes in coal regions, a balanced mix of economic, environmental and social assessment criteria would be key;

### Stringent monitoring and evaluation

Stringent monitoring and evaluation is very helpful for future decision making but it is quite an effort. Evidence-based monitoring, evaluation and policy-learning can be supported with accompanying research (and if a regional research institute does it, more local knowledge on transitions is created). Elements of it can be outsourced to consultants. But in any case, **regional authorities do need some institutional capacities of their own to ensure that results of M&E processes can be taken up in the revision of the strategy.**

## MONITORING AND EVALUATION EXAMPLES

### SUSTAINABLE CLEVELAND DASHBOARD

In Cleveland, USA, the city developed the “Sustainable Cleveland Dashboard”, an online resource to track regional (economic) progress. 40 variables were identified, summed up into a framework of eight dashboard indicators. The dashboard indicators serve as a continuous monitoring system that makes the region’s development both transparent and easily accessible.

[Read more](#)

### THE CZECH RE:START STRATEGY

From the beginning, the Czech RE:START set up an evaluation framework with biannual updates of the strategy. This process is a key element, which ensures that learning from the implementation of actions are taken up in an optimisation of the overall strategy. So far no strong monitoring system has been put in place yet. This is something that would need to be established over time. But, the general structure already exists and allows for the experiences of staff and stakeholders involved in implementation to be taken up to improve the effectiveness of the strategy.

[Read more](#)

Irrespective of who is responsible, proper budget for monitoring and evaluation needs to be set aside. This needs to be considered as part of the strategy from the beginning.

Monitoring and evaluation should address various levels:

- i. input: which resources have been mobilised? (e.g. how much money was spent?);
- ii. output: what has been done? (e.g. number of workshops held);
- iii. outcome: what has been achieved? (e.g. level of knowledge on an issue has increased);

iv. impact: how has this contributed to the overall goal? (e.g. development of CO<sub>2</sub> emission).

In a complete monitoring and evaluation system, all four levels are addressed. However, there is a methodological difficulty. It is very difficult to strictly link outcomes and especially impacts to specific actions. As a result, it is important to give at least estimates for all of the above levels for specific actions undertaken (e.g. how many new jobs in a new factory). This needs to be

complemented by high-level data such as development of jobs in all sectors across the region.

### Optimisation: strategy and policy adaptation

A good process needs to be set-up, which allows for learning and improving the strategy. The institutionalisation of an adaptive policy cycle depends strongly on the specific governance structures in the respective region. But despite the differences, the following elements can be helpful for all regions:

- plan in cycles: revising the strategy should be an element planned for right from the beginning;
- transparency and public debate: making the results of M&E activities public can help with not only increasing the sense of ownership and commitment among involved stakeholder and the public in general, but it can also force implementing agencies to rethink and possibly improve their activities. This obviously takes some effort and is politically sensitive (especially when results are not so great in the beginning), but has the potential to create very positive long-term effects;
- ownership and leadership: key decision makers must openly promote M&E results and commit to an adaptive, learning process.

#### TOOLBOX ON MONITORING AND EVALUATION

The **ONLINE-S3 toolbox on smart specialisation offers comprehensive support materials regarding the monitoring and evaluation of the overall progress, tracing its effects and adapting the strategy to the changing context of the region. In detail, the toolbox covers the (1) development and adoption of monitoring mechanisms, as well as the implementation process, (2) the setting-up of output and result indicators, (3) an introduction to the planning and management system called “Balanced Scorecard (BSC)”, and provides help to get feedback through a (4) satisfaction survey and (5) social media analysis.**



## Annexes

### Annex I: helpful tools and handbooks

#### Toolbox on smart specialisation

##### ONLINE-S3

The EU research and innovation strategy for Smart Specialisation (RIS3) is a relatively new policy concept developed by the European Union. It has been adopted as part of the EU cohesion policy and has become a precondition for receiving funding from the European Regional Development Fund (ERDF). In brief, 'smart specialisation' is about identifying a region's key activities, areas or technological domains that given them a competitive advantage, and, as a result, to focus transformative efforts on those activities.

In that context, ONLINE-S3 has been developed as an e-policy platform, augmented with a toolbox of applications and online services, able to assist national and regional authorities in the EU to elaborate their smart specialisation agenda. It contains a guidebook to accompany the smart specialisation process as well as a toolkit, covering 28 tools among six phases: (1) identifying the process stakeholders and forming the process organisation; (2) analysis of context, (3) strategy formulation, (4) priority setting, (5) defining a policy mix, and (6) monitoring and evaluation. These phases are suggested to be done in close collaboration between the public authorities,

academia, the business community and the innovation users. The phases can be assessed consecutively, or parallel to each other.

➔ [Read more](#)

#### Toolbox on enhancing the quality of industrial policies

##### GIZ and UNIDO: EQUiP toolbox

The EQUiP toolbox offers stakeholders a range of methodologies to consider for industrial diagnosis and strategy design in their countries. It covers topics such as industrial growth, sub-sectoral competitive performance, diversification, productive employment generation, and greening of industry. By structuring diagnosis and strategy formulation around the adoption of a version of the policy cycle, it follows a similar approach to this toolkit.

While targeting developing countries, it may also support more developed countries to formulate and design evidence based strategies for inclusive and sustainable industrial development.

➔ [Read more](#)

#### Tool on short-term visioning and strategy development

##### Climate KIC: Design Sprint

The Design Sprint is an approach to create an innovative concept within a short time that has received a lot of recognition over the last couple of years in the business world, but can be used in all kind of contexts. In form of a workshop, the design sprint makes use of a variety of design thinking methods to create truly innovative solutions to challenges or

problems of the status quo. Instead of ending with a vague idea, the design sprint ends with a well-advanced prototype serving as a roadmap for implementation.

➔ [Read more](#)

#### Visual toolbox for system innovation

##### EIT Climate-KIC (2016): Visual Toolbox

A resource book for practitioners to map, analyse and facilitate sustainability transitions by Javier de Vicente and Christian Matti offers a wealth of creative methods to support system thinking and transition processes. Methods support among others: mapping of challenges and options, facilitation of stakeholder engagement, visioning and backcasting.

➔ [Read more](#)

#### Handbook on MCA

##### Dodgson et al. (2009): Multi-criteria analysis: a manual

This extensive manual provides practical guidance for Government officials and other practitioners on how to undertake and make the best use of multi-criteria analysis (MCA) for the appraisal of options for policy and other decisions, including but not limited to those having implications for the environment. It covers a range of techniques, which can be of practical value to public decision makers and was designed to help non-specialist staff to gain a broad understanding of the advantages offered by MCA. It focuses on techniques that do not necessarily rely on monetary valuations, carried out in a non-technical language.

Chapters 2–4 of the manual provide a

broad overview of the techniques for non-specialists, while Chapters 5–7 provide more detailed guidance, including how to set out the stages involved in carrying out a multi-criteria analysis, how to wrap up a scoring system and highlight examples by presenting case studies.

➔ [Read more](#)

#### Handbook for the evaluation of Socio-Economic Development

##### European Commission (2013): EVALSED

EVALSED is an online resource providing guidance on the evaluation of socio-economic development. While EVALSED has a specific focus on evaluation in EU cohesion policy, it is also relevant to the evaluation of other socio-economic development tools.

EVALSED consists of two parts: the guide and the sourcebook. The guide is designed primarily for decision-makers, specifically those who design and manage evaluations to enhance decision making on socio-economic development policies. It defines the role of evaluation in socio-economic development, discusses various ways to develop evaluation capacity and elaborates on evaluation approaches as well as providing guidance on how to design and implement evaluations and how to ensure their quality.

The sourcebook on evaluation methods and techniques is of particular interest to practitioners and those wishing to impart or acquire evaluation skills. It has been updated in 2013 to include new sections on theory based impact evaluation, regression analysis and beneficiary surveys. It is now organised alphabetically to facilitate online searches.

➔ [Read more](#)

## Handbook Monitoring and Evaluation

### World Bank (2004): Ten Steps to a Results-Based M&E System

The Ten Steps to a Results-Based M&E System course is aimed at policy and decision-makers who need help to organize thinking around strategy and planning while recognizing the need to measure and monitor the success of what is planned. This handbook provides a comprehensive ten-step model that will help guide development practitioners through the process of designing and building a results-based monitoring and evaluation system. These steps begin with a ‘readiness assessment’ and take the practitioner through the design, management, and importantly, the sustainability of such systems. The handbook describes each step in detail, the tasks needed to complete each one, and the tools available to help along the way.

This handbook can be accomplished by the very extensive “Making Monitoring and Evaluation Systems Work: A Capacity Development Toolkit” which is designed for technicians and development practitioners to actually develop a functioning monitoring and evaluation system.

[🔗 Handbook](#)

[🔗 Toolkit](#)

## Handbook Urban Transformation Strategies

### ICLEI Europe (2019): Road to Replication – Guiding Cities on Smart Urban Development

This report focuses on urban development in the GrowSmarter project. It thus provides helpful insights for the replication of the Integrated Management Cycle, a slight adaptation of the policy cycle as described in this toolkit. It covers the development of a baseline assessment and implementation planning. Furthermore, the report presents key lessons learned and a set of recommendations for decision-makers in local and regional governments to accelerate the adoption of smart city development strategies, which are especially interesting for coal regions with a more urban profile.

[🔗 Read more](#)

## Annex II: strategy and background documents for coal regions in Europe

In recent years and in various coal regions, processes were started which should support or lead into the development of a regional strategy. Some processes were initiated by regional governments, others by civil society or other stakeholders like business associations, municipalities or research institutes. These processes vary with respect to political mandate and ambition. Especially processes driven by NGOs have the intention to inform and inspire, and would thus rather be an input or sometimes a starting point for a regional transition strategy.

In this section, we give an overview of existing regional strategy and background documents for coal regions in Europe, which emerged from these processes. We focus on documents in English, to allow regions to learn from each other. However, it must be noted that additionally a much larger number of documents exist which are in the respective national language. This especially is the case for strategies with a strong political mandate – such strategy documents are generally exclusively available in national language.

### Roadmap for the Transition of the Western Macedonia Region to a post-lignite era (2016)

#### Authors, development process and mandate

Commissioned by the WWF Greece and written by A. Rovolis and P. Kalimeris (University of Athens) the report represents a contribution from civil society to the debate on the future of Western Macedonia. However it has no official mandate for developing a transition strategy.

#### Purpose and guiding principles

The report develops and assesses a scenario for a future of the Western Macedonia economy without lignite that is consistent with the 2015 Paris Agreement on the one hand and ensures social and economic prosperity on the other hand.

#### Information contained (status quo and historic, regional and global)

The report contains an overview of:

- the historical and current role of lignite for Greece’s electricity generation and industrial development;

- the region’s current economic and development profile, including information about geographical characteristics, population composition, economic activities and employment;
- international Best Practice examples for transition processes to a post-mining era;
- already existing initiatives, proposals or recommendations made by local stakeholders, citizen organisations, chambers, the academic community and local or national NGOs for the post-lignite future of the Western Macedonia region;
- national or European funding resources.

#### Options for future development

The report presents six scenarios of economic development for the Western Macedonia region and comparatively assesses them regarding impacts on local added value and job creation, using data from more than one source.

[🔗 Summary](#)

[🔗 Full report](#)

### From restructuring to sustainable development: The case of Upper Silesia (2018)

#### Authors, development process and mandate

Commissioned by WWF Poland, written by WiseEuropa and prepared in cooperation with the Marshal Office of the Silesian Voivodeship.

**Information contained (status quo and historic, regional and global)**

The report analyses three main challenges the Silesian Voivodeship dealing with:

- economic challenge (raising the level of GDP per capita);
- demographic challenge (stopping the decline in the number of inhabitants in the region and the process of fast ageing of the population);
- social challenge such as the improvement of the quality of life in the region regarding air pollution, unemployment, poverty.

[🔗 Read more](#)

**Just Transition in Hunedoara: Economic Diversification in a fair and sustainable manner (2019)**

**Authors, development process and mandate**

Romanian Centre for Economic Policies for Greenpeace Romania and Bankwatch Romania.

**Purpose and guiding principles**

The report outlines scenarios for the post-coal development of Romania’s coal region Jiu Valley.

**Information contained (status quo and historic, regional and global)**

The study aims to present a development model in a carbon-free economic environment based on the concept of a just transition and considering models of good practice in other

regions affected by the decline of the mining industry, as well as proposing development scenarios on alternative mining activities.

**Options for future development**

The study finds that the secondary sector has the greatest potential for development, but interventions cannot be done without supporting the primary and tertiary sector activities, due to the close interactions between the three. Above all, to attract new opportunities the following recommendations can be carried out in all scenarios: increasing connectivity and mobility of people and goods, creating a coherent framework for education and training, increasing administrative capacity and developing an identity to promote the area.

[🔗 Read more](#)

**Just Transition development scenarios: For the coal-mining regions in southwest Bulgaria (2019)**

**Authors, development process and mandate**

RegioPlan EOOD for WWF Bulgaria within the “Just Transition in Eastern and Southern Europe” project, which is funded by the European Climate Initiative Program (EUKI).

**Purpose and guiding principles**

The analysis presents solutions to the problems related to the transition from coal industry to a sustainable economy in Southwest Bulgaria.

**Information contained (status quo and historic, regional and global)**

The study examines the economic development opportunities covered in three scenarios: maintaining the status quo, taking only internal opportunities and advantages of the region, or realizing a “creative upgrade” with the participation of foreign investors.

It features an assessment of the regional characteristics, including air and water quality, demographics, education, and economic profiling. Therefore, the study uses a set of up-to-date methods: A dynamic shift share analysis, a SWOT analysis and a comparative advantages analysis (“Porter’s Diamond”).

**Options for future development**

The study suggests a set of recommendations for the national, district and municipal level, including legislative changes on national and district levels, further outreach to European funding mechanisms and several regional and local analysis.

[🔗 Read more](#)

**Socio-economic transformation in coal transition regions: analysis and proposed approach: Pilot case in Upper Nitra, Slovakia (2018)**

**Authors, development process and mandate**

Donnari, E. et al. (Joint Research Centre) for the European Commission.

**Purpose and guiding principles**

The aim of the study is to provide the initial diagnostic evidence, together with a proposal of a possible strategic approach, to address the challenge of the closure of the last remaining coal company situated in Upper Nitra.

**Information contained (status quo and historic, regional and global)**

The analysis contains four methodological approaches: a value chain analysis, energy/power system modelling, as well as an extensive analysis on the basis of the EU smart specialization approach (RIS3) and its application on research and innovation strategies.

For the analysis, the authors gathered the following information: geographic (including accessibility, land use and settlements); demographics (population, employment and skills) as well as a business sector profile.

**Options for future development**

- Further developing the tourism sector.
- Skills transition and training initiatives for former coal miners.

[🔗 Read more](#)

**References and further resources**

- [🔗 Platform for coal regions in transition.](#)
- [🔗 World Bank \(2018\). Managing Coal Mine Closure - Achieving a Just Transition for All.](#)
- [🔗 European Environment Agency \(2016\). Transforming the EU power sector: avoiding a carbon lock-in.](#)

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## Platform for coal regions in transition

The Platform for coal regions in transition is an initiative by the European Commission.

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