Transformation Options Framework

Guidance for identification and assessment of options for the transformation of former mining and industrial sites

Preface

The Transformation Options Framework (TOF) has been developed for the Marshal's Office of Silesia by the START technical assistance facility of the EU Coal Regions in Transition (CRiT) Initiative.

Due to its economic history and industrial structure, Silesia has numerous former mining and industrial sites (brownfield sites). These sites have differing characteristics and offer varying opportunities and challenges for redevelopment. Although the region has catalogued these sites (via the OPI-TPP, replaced in 2022 with OPI-TPP 2.0), there is not a tool to assist public administrations and other stakeholders consider potential end-uses and to optimise Just Transition outcomes, especially for the gminas and the communities affected by industrial restructuring.

The purpose of the TOF is to encourage inclusive identification, consideration, and selection of transformation options for brownfield sites. The TOF also aims to build common ambition at the local level and to reveal and explore and potentially mitigate tensions among diverse groups concerning the future uses of brownfield sites.

Although the introduction of the Just Transition Mechanism is a welcome development, the scale of government resources at the regional and local levels in Silesia is finite, whilst the scale of required site rehabilitation and repurposing is significant and growing. Therefore, realism must guide its implementation. Hence, the TOF is scalable and should be applied a manner that is proportionate to site specific opportunity and challenge, and local and regional capacity and resources for regeneration.

Finally, it is apt that the TOF places an emphasis on facilitating a Just Transition in Silesia, given that the seminal Solidarity and Just Transition Silesia Declaration was agreed at COP24 in Katowice in 2018[1].

1 https://www.ioe-emp.org/index.php?eID=dumpFile&t=f&f=134978&token=91237abd5b4e38c1e7c2e4364b2b8e7095d8e0fd

Acknowledgement

The TOF was developed based on a review of good practice literature and consultation with representatives of public administrations and organisations concerned by the redevelopment of brownfield sites and revitalisation efforts in Silesia, together with discussions with experienced practitioners from other European regions and international organisations. Field visits to the municipalities of Suszec and Siemianowice Ślskie helped better understanding of the current brownfield transformation context. In Siemianowice Śląskie processes related to the transformation of tube rolling mill "Jedność" were analysed, while in Suszec we looked at redevelopment plans for "Krupiński" mine. More information about the two locations can be found in Annex 3. The authors would also like to thank all the consultees and contributors for their invaluable and constructive cooperation and inputs.

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Introduction

Purpose and Audience

The Transformation Options Framework (TOF) looks beyond the purely economic and commercial return on investment aspects of brownfield site transformation by encouraging consideration of wider Just Transition and socio-economic benefits. It provides guidance to decision makers and other concerned stakeholders on how to identify and consider potential options for transformation which may be most suited to local circumstances and aspirations. The TOF will promote:

- generation of transformation options in an inclusive, structured, and transparent manner
- consideration of a range of options and benefits in the context of local and regional needs
- alignment of options with EU and national policy goals and funding opportunities and instruments, including the new Just Transition Mechanism

The TOF is not intended as a comprehensive guide to rehabilitating and repurposing brownfield sites but rather aligns with other existing tools and resources (see Annex 1). Nonetheless, the TOF can be helpful to diverse actors concerned with achieving a Just Transition through the development of brownfield sites, including sub-national government, development agencies, special economic zones, and site owners and potential investors. As the scale of challenge and the required level of activity to unlock transformation opportunities will vary from site to site, so too will the potential users of the TOF.

However, the TOF has been developed under the assumption that a critical primary user will be public administrations at the *gmina* (municipal or commune) level of government. This assumption is based on the recognition that a Just Transition should involve the affected communities.

This document provides guidance to decision makers and other concerned stakeholders on how to identify and consider potential options for transformation which may be most suited to local circumstances and aspirations.

Introduction

Institutional context

Municipalities (*gminy*) are critical actors for leading the process of brownfield site transformation. Not only do they have a direct interest in the successful transformation of post-industrial sites in their localities, they also possess relevant powers and a mandate to promote the wellbeing of their residents.

In the context of the repurposing post-mining and post-industrial areas, municipalities have policy instruments that can shape transformation. For instance, they can use local development strategies or documents developed by the local communities in bottom-up processes that define desirable development directions for a given territory. Such documents are created based on diagnosis and identification of the local needs. Municipalities are also responsible for the preparation of local spatial development plans, a key instrument in the statutory system of municipal spatial development. The Local Spatial Development Plan determines the intended use of land within the area, the distribution of public purpose investments, and the methods and conditions of development and construction on specific sites. An associated document, the local Spatial Study, provides a development vision for the municipality, although it is not a statutory instrument, it must be considered in the preparation of Local Spatial Development Plans. Municipalities can also make use of the non-compulsory Municipal Revitalization Programme *(Gminny Program Rewitalizacji)*, an instrument to prepare, coordinate, and create conditions for revitalization in a designated area with the participation of the local community. The revitalization act[1] allows the municipalities to develop a Local Revitalization Plan. This is a special form of a local spatial development plan, which enables stronger determination of the way land within the territory assigned for revitalization can be used. However, given the Polish legislative and regulatory system, it should be noted that municipalities can face obstacles in acquiring ownership rights to or shaping the development of post-mining land and assets.

1 http://isap.sejm.gov.pl/isap.nsf/download.xsp/WDU20210000485/T/D20210485L.pdf

The National Strategy of Regional Development 2030 describes the scope of cooperation and collaboration between regional and local government units in the context of revitalisation of degraded areas and specifies responsibilities of the regional level as follows:

- Conducting regional analyses of development trends in municipalities, taking into account intra-municipal differences and identifying, in cooperation with the local government, the specific needs of urban and rural areas.
- Developing financial support instruments (utilising EU and national funds) for municipalities to stop and reverse degradation trends.
- Providing opinions on / verifying revitalisation programs and rural renewal programs.

The Mine Restructuring Company (in Polish, *Spółka Restrukturyzacji Kopalń* or *SRK*) is responsible for the closure of mines and securing neighbouring mines against water, gas or fire hazards during and after mine closure. In addition, the company is the manager of the properties and assets on closed mining sites. As the effective owner of sites, from the decision of closure, a crucial aspect of the company's mandate is to prepare former mining sites for sale.

According to Art. 23. of the Act on the functioning of the hard coal mining industry, a mining enterprise can donate property to a mining municipality or a housing cooperative, with their consent, for purposes related to the implementation of technical infrastructure or other public purposes, as well as to stimulate economic activity in the mining municipality. However, the financing arrangements of SRK do not incentivise the transfer of land to municipalities (rather SRK prefers to sell sites via auction). SRK's mandate also does not encourage engagement with other local/regional stakeholders or promote a comprehensive approach to site transformation. Thus, the sale of individual parcels of land can lead to fragmentation of former mining sites. In turn, this can result in the dispersion of economic activities and creation of new urban spaces lacking continuity with existing ones, which can be a negative phenomenon from the perspective of cities and towns.

Introduction

Strategic context

The revitalisation and repurposing of former mining and post-industrial sites are a strategic priority of the Silesian region and is a key dimension of the Voivodeship Development Strategy - Silesia 2030. Effective use of post-industrial areas for economic, environmental, and social purposes is also one of the key objectives of the region's Territorial Just Transition Plan. Furthermore, reclamation and revitalisation of degraded areas is considered one of the key challenges in the central and western sub-regions of Silesia, which are the two sub-regions with the highest level of mining activity in the Silesian Voivodeship.

Guiding principles

The TOF systematically supports the policy aspirations, encapsulated in the European Green Deal, that workers, regions, and communities most affected by the transition to a climate neutral economy should be treated fairly. Moreover, it recognises that many stakeholders have an interest in the process of transformation of former mining and industrial sites, resulting in multiple and potentially conflicting perspectives on transformation needs and desired outcomes. Accordingly, compromise may be required to reconcile different perspectives and achieve a balance between narrower financial considerations, such as return on investment, and wider economic, social, environmental, and sustainability goals.

Moreover, the TOF recognises that transformation of former mining and industrial sites is concerned not only with issues of land use (e.g., restoration of land to meet post-closure use requirements) but also the potential for rehabilitation and repurposing of infrastructures and other legacy assets. The guidance aspires to address both backward-looking commitments to return sites to their previous state, and forward-looking ambitions based on perceived future needs, whether economic, social, or environmental.

At the same time, the TOF recognises that the scale of government resources is finite, whilst the scale of required transformation is significant. Therefore, both ambition and realism should guide its application, The TOF should be used in a manner that is proportionate to site specific opportunity and challenge, and local and regional capacity for regeneration. However, the guidance has been developed in the expectation of additional resource and capacity being available from EU, national and regional sources.

Recognising the above, the TOF is guided by the following six principles, It should:

1. **Promote a Just Transition towards a climate-neutral economy**, which is consistent with European and national policy goals and commitments.
2. **Be responsive to regional and local needs and aspirations** not only for economic growth and employment but also concerning inter alia energy transition, environment, social cohesion, and community identity and development.
3. **Encourage alignment – and where relevant, reconciliation – of strategic priorities** across governance levels (local, regional, national and EU).
4. **Promote innovation and experimentation** in project options (within the constraints of proportionate cost, affordability, deliverability, and risk).
5. **Enable integration of viewpoints of differing stakeholders** – e.g., from site owner to public authorities, from potential developer/investors to affected communities etc. – in identifying transformation goals and support the building of consensus and legitimacy and reduction of tensions.
6. **Support alignment of project options with potential private and public financing sources,** including potential matching of project options with available or planned public funding mechanisms (e.g., Cohesion Funds, Next Generation EU, including the Just Transition Mechanism).

How to use this guidance

1

Part I: ‘Summary Slides’

This section summarises the guidance and gives an overview of each of its six components. The section can be used as a stand-alone summary / presentation.

2

Part 2: ‘Stakeholder Engagement’

Given the importance of involving differing interests in the transformation process, this section provides an overview of the TOF’s stakeholder engagement process.

3

Part 3: ‘Accompanying notes on the TOF’s six components’

This section gives a more in-depth account of each of the six components, and provides resources, links and examples. Further detail on stakeholder engagement as it relates each component is also provided.

Nomenclature

The box below includes a list of key terms that are used in this document. The definitions included are contextual to the content and purpose of the Transformation Options Framework.

Brownfield redevelopment refers to different processes related to site development – remediation, reclamation, and repurposing – to restore the physical, environmental, economic, and social/community aspects of a brownfield site. Those different processes are briefly explained below.

- **(Environmental) remediation** is the process of removing pollution or contaminants from sites that have been polluted during mining or other industrial activities. It refers to removal of pollution from environmental media such as soil, groundwater, sediment, or surface water.
- **Reclamation** are actions performed during or after a mining operation to shape, stabilize, revegetate, or otherwise treat the land in order to return it to a safe, stable condition consistent with the establishment of a productive post-mining use of the land and the safe abandonment of a facility in a manner which ensures the public safety, as well as the encouragement of techniques which minimize the adverse visual effects.
- **Repurposing** refers to the beneficial reuse of a closed mining or other industrial operation, whether through value-added changes or reuse of the land (e.g., energy generation or residential use), reuse of infrastructure at its present location or at another site, or derivative business opportunities that create new economic activity.

Energy transition refers to the energy sector's shift from fossil-based systems of energy production and consumption — including oil, natural gas, and coal — to renewable energy sources like wind and solar. The need to reduce energy-related CO2 emissions to limit climate change is at heart of energy transition. Adoption of renewable energy and energy efficiency measures are needed to achieve the required carbon reductions.

Governance model refers to the arrangement put in place by public authorities to deliver its coal transition strategy in a way that is effective within the broader prevailing governance context. Successful governance models rely on close cooperation among the various governance levels (local, regional, national) and the various actors (public, private, social) in the concerned coal region(s).

Just Transition encapsulates the principle that the transition to a climate neutral economy should happen in a fair way, whereby the benefits and costs of transition are distributed equitably, and where those that stand to lose economically or socially from the transition are adequately supported to ensure that none are left behind. Consequently, just transition focus on jobs and livelihoods, and on advancing social and economic justice. It also incorporates the principle that transition processes should be based on dialogue and cooperation between workers, employers, communities, and governments to draw-up and drive the concrete policies, plans, and investments to achieve transition.

Legacy infrastructure relates to physical structures, utilities and machinery that were previously used in the extraction, preparation and transportation of coal or during other manufacturing activities in the region, and which are no longer utilised due to the cessation of mining or industrial activities. These can represent both assets and liabilities; their status being dependent on their condition, maintenance, investment, and future plans for a site or a locality.

Social dialogue refers to negotiations, consultations or simply exchange of information between, or among, representatives of government, employers, and workers, on issues of common interest typically relating to economic and social policy. It can exist as a tripartite process, with the government as an official party to the dialogue or it may consist of bipartite relations only between labour and management (or trade unions and employers' organisations), with or without indirect government involvement. Social dialogue processes can be informal or institutionalised, and often it is a combination of the two. It can take place at the national, regional or at enterprise level. It can be inter-professional, sectoral or a combination of these.

Social impacts in the context of mine or industrial plant closure refer to its socio-economic and cultural aspects. Some of the common social impacts of closure include changes to the affected community's economic structure (e.g., loss of employment and business opportunities) and dynamics (e.g., demographic changes, departure of employees). In the context of coal phase out, social impacts can also encompass gender dimension (e.g., gender-related economic and employment inequalities), health and well-being of miners.

1 Overview of the Guidance

Components

The TOF consists of six interrelated components:

1. **Initial partnership building**, covering the formation of a coalition of core actors to initiate and lead the identification and assessment of transformation options and the related stakeholder engagement process.
2. **Baseline assessment,** covering the collection and review of information to assess the status, characteristics, and the wider economic and social context of the site, with input from stakeholders.
3. **Vision setting,** covering the identification of the main socio-economic challenges and opportunities at local and regional levels and the setting of longer-term transformation goals, with input from stakeholders.
4. **Options scanning,** covering the generation and development of project ideas for transformation of the site, with the aim of developing a 'portfolio' of potential end-use options. Existing proposals and ideas can be augmented by the views of stakeholders.
5. **Options assessment,** covering the assessment of potential end-use options based on objective criteria that encompass relevant economic, social, and environmental dimensions, and feasibility considerations.
6. **Project preparation,** covering the formulation of a plan, including funding, for the transformation of the site, corresponding to the project initiation stage of the project life cycle.

The TOF does not dictate a specific sequential order in which these components should be applied but provides process elements that can be used to for the identification and assessment of options. Moreover, components may be used as stand-alone processes or implemented in parallel to each other. However, the components can be deployed in a sequential manner if it is deemed appropriate. The guidance recognises that differing users may be at different stages of their transformation process; for example, a development partnership may exist or preliminary proposals may have already been identified. Also, users may differ in relation to the resources at their disposal to identify and assess different transformation options. Overall, the guidance does not intend to prescribe a definitive or comprehensive approach for identification and assessment of potential transformation options but aims to provide a framework that can assist differing localities devise a tailored plan of action suitable to their unique circumstances.

Figure 1

Simplified visualisation of the TOF framework

Stakeholder engagement and consultation

Stakeholder engagement refers to the to the process by which an organisation leading the transition away from coal or leading the process of brownfield site redevelopment engages with and involves those who are concerned or affected by the decisions that are made. Stakeholder engagement goes together with partnership building, both of which allow stakeholders to pool their resources to solve common problems. Effective stakeholder engagement can enhance the quality of decisions and outcomes, strengthen public trust, and enhance broad acceptance. If implemented properly, stakeholder engagement fosters legitimacy, especially through improving transparency and inclusivity. The inclusion of a broad and diverse set of stakeholders, including citizens, is considered a key element to successful stakeholder engagement.

In addition, stakeholder engagement and consultation is considered a crucial and central element of TOF, especially for accommodating and promoting Just Transition principles, that connects to all components of the TOF.

Stakeholder engagement and consultation is crucial for accommodating and promoting Just Transition principles, and connects to all TOF components.

INITIAL PARTNERSHIP BUILDING

Purpose

Initial partnership building aims to bring together key development actors who have authority and power to enable and influence site transformation but also those who have significant knowledge or association with the site and the locality.

Headlines

Securing cooperation of the site owner is critical in the partnership building process; without the co-operation of the owner, the application of these guidelines will be problematic.

Identification and recruitment of relevant actors who can provide necessary leadership and authority for the process of option identification and assessment, and who are willing to actively pursue transformation of the site.

Achieving consensus on purpose and areas for cooperation, based on mutual understanding of each partners interests and aspirations, and recognition of a common willingness to promote broader policy goals, such as a Just Transition.

Formalising commitments of the partners by agreeing on respective roles and responsibilities, actions and stakeholder engagement and communication arrangements, which in turn will foster early momentum.

INITIAL PARTNERSHIP BUILDING

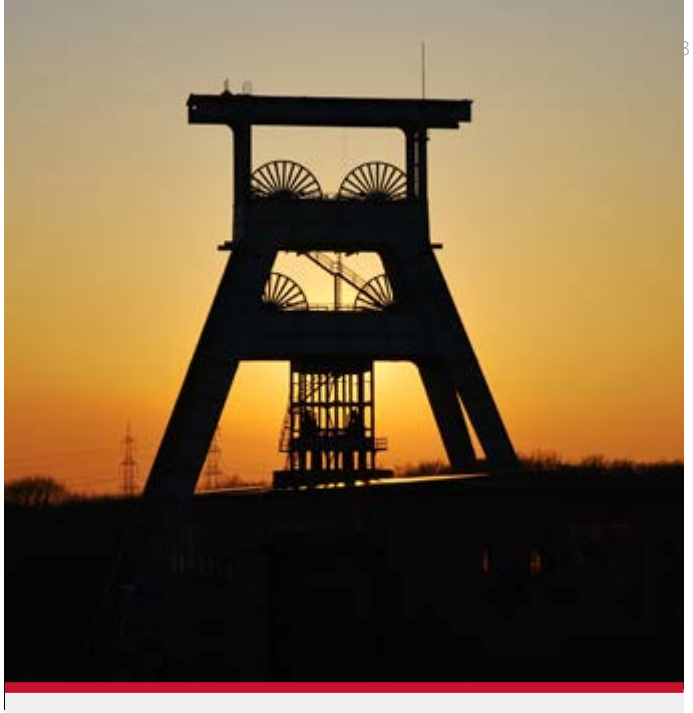
Implementation

The impetus for formation of an initial partnership for transformation may come from a variety of actors, including the site owner, a developer affected stakeholders. Alternatively, it may be that a higher level (regional or central) body may provide the initial push for partnership formation. By default, if no other actor steps forward, it may rest on the municipality (*gmina*) to take on the role of catalyst.

Implementation will require common agreement on the goals and operation of the partnership. Even if there is no preferred end-point, the partners need to agree to work collectively towards identifying site transformation options that are not only informed by their specific self-interests but also meet broader development goals, including those of a Just Transition.

In parallel, clarity on roles and responsibilities of partners and decision-making needs to be established. Critically, a communications and stakeholder engagement plan needs to be agreed and implemented.

More information in Part 3, Component 1.



Conditionality of Site Owner's Involvement

If the site owner is resistant to collaboration this may represent an insurmountable obstacle to the progression of an inclusive approach to the identification of transformation options for a site. However, where there is a need for public funding to develop a site, this can provide leverage for public actors to influence the owner's sentiment and modify proposed end-use options. Should public funding be required for the implementation of proposed transformation projects, the proposals should reflect the policy priorities of the sought public funds (e.g., Just Transition Mechanism, ERDF).

The site owner's support is a key condition of all six TOF components.

BASELINE ASSESSMENT

Purpose

A baseline assessment aims to collect the required information to inform and support the identification and assessment of credible transformation options. The baseline assessment also contributes to establishing whether there are grounds for public intervention to support the transformation effort.

Headlines

Understanding of site characteristics (assets, liabilities, land capability etc.) to assess the challenges and opportunities for the site's reuse and for informing the identification of viable transformation options.

Clarity of ownership to establish the mandate and willingness of the site owner to engage in an options development and assessment process, and subsequent transformation.

Comprehension of regulatory, policy and funding considerations, including planning regulations, land-use conditions, funding instruments, that will determine and shape potential options for the site.

Assessment of the site's wider socio-economic context and market conditions is required to inform the identification of potential transformation options that are appropriate to local and regional demand, and which can support a Just Transition.

BASELINE ASSESSMENT

Implementation

To implement a baseline analysis, different types of information need to be collected and assessed. This will require identification and engagement with a range of local and regional data sources. The component also provides an opportunity to engage local stakeholders in the process e.g., in terms of assessing community need.

Although the baselining process can be proportionate to the size and nature of the site, it will consist of gathering core information, including information on ownership, current or previous development proposals, physical and technical site characteristics, the wider socio-economic and environmental context, local and regional demand and supply, and relevant public policies and instruments. The collection of such data will lead to the preparation of a SWOT assessment to inform the identification and assessment of options for the site.

More information in Part 3, Component 2.

VISION SETTING

Purpose

Vision setting aims to identify long-term transformation goals for the site which reflect both site specificities and the local and regional context, whilst promoting broader policy objectives, such as a Just Transition. The component also supports the identification of criteria for project assessment and prioritisation.

Headlines

Ensuring adequate stakeholder involvement in order that the aspirations and opinions of affected communities and groups are reflected in the process.

Reconciliation of competing site transformation aspirations and finding approaches and solutions to solve tensions.

Aligning the vision for the site with local and regional development ambitions, strategies and plans, and regulatory conditions.

Ensuring coherence with other local and regional site transformation projects to avoid competition and duplication and promote synergies across potential projects.

VISION SETTING

Implementation

Informed by the baseline assessment, vision setting requires engagement with stakeholders to identify key social, economic and environmental ambitions that could be addressed by site transformation, whilst taking account of site specificities and the local and regional context. Such engagement will, through moderated means, facilitate collective consideration and identification of the longer-term aim for transformation of the site. Identification and management of tensions arising from competing interests and ambitions and corresponding potential trade-offs and compromises is a critical aspect of implementation of vision setting.

More information in Part 3, Component 3.

OPTIONS SCANNING

Purpose

Options scanning is undertaken to identify potential end-uses for the site which contribute to the delivery of the vision and correspond with defined opportunities, needs and aspirations in the locality and region. It is an opportunity to augment existing proposals and supplement or further define ideas that emerged through visioning. The scanning should be sensitive to site-specific circumstances, including the requirement for public intervention and funding.

Headlines

Understanding economic, environmental, social and technological drivers of change that will provide opportunities for the site's future development.

Balancing ambition and realism as market and regulatory factors may prohibit desired end-uses or actors with power may oppose certain potential end-uses.

Identifying national and international good-practice examples of brownfield site regeneration projects to broaden and inspire thinking of partners and stakeholders.

Understanding potential for zoning and phasing of options, especially for large sites which can accommodate various end-uses and which can be developed in stages.

OPTIONS SCANNING

Implementation

Identification and consideration of existing project proposals and new end-use options are at the core of options scanning. The generation of new options can involve targeted or broader engagement with private, public, research, civil society and community stakeholders. Reviewing national and international good practices of brownfield site redevelopment is a productive way of identifying tested and innovative options for the site transformation. Consideration should also be given to the development plans and characteristics of other regional sites to identify gaps in provision or potential oversupply (e.g., using the OPI TPP).

In addition, mapping options against defined opportunities, needs and aspirations (ideally linked to approved policy and planning documents e.g., local spatial development, the Voivodeship Development Strategy - Silesia 2030), including those of affected local communities, assists in identifying a broad set of relevant and representative options.

More information in Part 3, Component 4.

OPTIONS ASSESSMENT

Purpose

This component aims to provide an objective assessment of different end-use options for the site transformation (and/or sub-components therein) to identify which option or options offer the best potential to contribute to the goals of the long-term vision for the site (Component 3), while remaining realistic in light of available capacities and financial means. Findings from the objective assessment can be used to inform discussion among a wider stakeholder group, thereby promoting an inclusive dialogue on opportunities and options for transformation.

Headlines

Determining appropriate assessment criteria and corresponding (objective) indicators. A multitude of factors or characteristics can be used to assess transformation options, making it important to identify those that are most relevant for the specific site and the goals expressed in the transformation vision.

Integrating Just Transition and sustainability considerations. Options assessment should include consideration of economic, financial, social, and environmental issues in the context of Just Transition and sustainability, including the move to a climate-neutral economy, in the short and longer terms, which will illuminate policy utility of each option.

Determining relative importance of different criteria/indicators. Resolving conflicting opinions and reaching consensus on the relative importance of different criteria in the overall evaluation of competing transformation options.

Transparency of options assessment process. Ensuring that the approach and methods used for the options assessment is transparent, enabling stakeholders to understand the resulting identification and selection of 'preferred' options.

Effective stakeholder consultation. Ensuring the involvement of key stakeholders, including affected communities and other groups, in an informed and inclusive dialogue that provides an opportunity for them to express their views and indicate their preferences and, ultimately, validate the eventual choice of an end use transformation option(s).

OPTIONS ASSESSMENT

Implementation

Undertaking the options assessment requires formulation of criteria and corresponding indicators that can be used to measure and compare the expected contribution of different options to achieving short and longer-term transformation goals. The assessment can, and usual should, include economic, social, and environmental criteria, including optimisation of Just Transition goals and decarbonisation targets. It should also consider how options match to prevailing demand and supply conditions for different types of sites. Finally, it should cover technical and financial viability and risks, and any expected requirement for public intervention to support transformation activities. Necessary data and information to construct indicators will need to be collected and processed.

More information in Part 3, Component 5.

PROJECT PREPARATION

Purpose

Project preparation relates to the preliminary stages of the project life cycle, namely project initiation, and project planning. This component should be proportionate to the scale of the project. Delivery of this component ensures that relevant partners, required expertise, skills and knowledge, and resources are co-ordinated to plan a fully scoped and appraised project.

Headlines

Developing a master-plan (for larger sites), breaking the site into several development zones with different end-uses.

Increasing project certainty through the development of a detailed business case; for larger sites this can be a long-term iterative process as differing appraisals are undertaken.

Sourcing project funding, from private and public sources.

Securing regulatory and planning permissions required for site transformation.

Maintaining stakeholder engagement and communications as preparations are progressed.

PROJECT PREPARATION

Implementation

Project preparation requires mobilisation of relevant delivery partners and the development of management systems and capacity for delivery of preparatory activities guided by a work programme. A crucial early stage will be developing a business plan based on rigorous analysis (e.g., technical, economic, financial appraisals). Once the project scope is clarified, there is a need to address required regulatory and planning permissions. It is also critical to identify the private and public funding mix and EU, national and local funding sources and co-financing at this stage.

More information in Part 3, Component 6.

2

Stakeholder engagement and consultation

Stakeholder engagement and consultation

Throughout this document, possible approaches, and actions to engage and consult stakeholders are described, corresponding to the TOF components. This section introduces the rationale and some overarching principles for stakeholder consultations as part of TOF implementation.

Why should you organise stakeholder consultations?

A collaborative and consultative transformation process, especially one promoting Just Transition principles, requires structured and credible consultation with relevant stakeholder groups. While some groups inevitably will be parties to planning and implementing the site's transformation (such as local government, site owners, investors etc.), others (residents, workers, educational and labour market institutions etc.) require careful and targeted involvement at different stages of the process. Well-planned and executed consultations enrich and advance the planning process and help prevent or mitigate tensions among stakeholders representing conflicting interests and ambitions.

The size of the site and its importance to the future of a locality and the region - economically, environmentally, and socially - should influence the scale and nature of consultation. Similarly, if the envisioned transformation could adversely impact on local communities, the possibilities for conflict and opposition is greater, therefore stakeholder engagement and consultation should be commensurate with such tensions.

The necessity of carrying out stakeholder consultations depends on the source of the investment and the overall ownership of the process. Private investors are not normally obliged to consult on their business plans. It is sufficient for them to obtain the legal and administrative permits required for a project. However, it may be in the interest of private investors to undertake stakeholder engagement and consultation to secure public and political support for their project and secure public finding, if required,

By contrast, local and other government actors, are usually required to organise public consultations as part of the policy cycle, especially when adopting spatial development plans. Local government has regulatory provisions for consultations that set out who can initiate the process and when, the methods, and duration. These provisions can provide helpful, practical guidance.

Benefits of engaging stakeholders:

- builds trust and legitimacy
- increases the impact and pace of progress, i.e. saves resources in the longterm
- enhances understanding of resistance and opposition, and can help overcome these
- decreases uncertainty and strengthens risk management
- informs, and raises awareness and acceptance among stakeholders
- can spur needed innovations
- broadens the knowledge base of decision makers and participants.

Risks of not engaging stakeholders:

- increases uncertainty or non-acceptance of outcome
- can lead to lack of trust and inefficient use of resources
- can lead to establishment of factions and divisions
- sustains siloed thinking
- can have ethics and compliance implications.

Source: Governance of Transitions Toolkit

An effective and enriching stakeholder engagement will benefit from a strategy or a plan.

An engagement plan can take the form of a brief document, identifying key local and/or regional stakeholders and groups that have an interest in the site transformation with the general intention of consulting them. A more elaborate plan can offer an initial analysis of their potential roles in the process (Are they just being informed? Are they being consulted? Can they collaborate in the decision-making process? What information and knowledge can they provide?). A more advanced plan will build on the above and specifically outline stakeholder roles at different stages of the process, and the most appropriate forms of consultation. The stakeholder engagement plan can be updated as transformation options and related details emerge (possible uses of the site, impact on different groups, need for further stakeholder inputs and knowledge etc.). Regularly reviewing and updating the plan to ensure all relevant stakeholders are adequately consulted can be among the most effective ways to ensure that Just Transition principles are followed in an ongoing manner.

In the context of brownfield site development, stakeholder consultation can be aligned to Just Transition principles and help to ensure that investments are truly responsive to the local and regional needs and priorities; for example, helping to understand:

- **What are the needs, fears and hopes of various categories of the local community?** Knowing this helps to design transformation projects with significant public acceptance and avoid opposition from affected residents.
- **What are the transformation aspirations and ideas of current workers, and what are their reskilling requirements?** If the site is still operating, employee consultation may help to identify how transformation plans and investments can support a Just Transition to the benefit of workers.
- **What is needed to activate women on the labour market?** This can help identify and shape gender-sensitive and gender-responsive transformation options.
- **What are the vulnerable groups in the community and how can they benefit?** This information can help shape transformation plans and investments that are more inclusive.
- **What jobs are desired locally and regionally, especially by young people?** This information can help to develop transformation plans and investments that create jobs matching labour market supply, and avoid the trap of creating jobs that are not wanted or for which local and regional workers are not qualified.

Seven principles of good public consultations:

1. Good faith
2. Inclusiveness
3. Transparency
4. Responsiveness
5. Coordination
6. Predictability
7. Respect for a common interest.

Source: https://www.gov.pl/web/cyfryzacja/jak-prowadzimy-konsultacje

Resources: stakeholder engagement guidance materials

A wide range of stakeholder engagement guidance materials are available. Some useful examples are noted below (more are included in Part 3).

Governance of transitions: Design of governance structures and stakeholder engagement processes for coal regions in transition

This toolkit provides insights on building effective governance models, designing and implementing stakeholder engagement and social dialogue processes, and enhancing the role of civil society in transition. This toolkit is intended for regional and local authorities, as well as governmental agencies responsible for regional development. The toolkit is also helpful for civil society organisations (CSOs) engaged in transition processes.

European Commission, Coal Regions in Transition Initiative

READ MORE

Participatory Methods Toolkit. A practitioner's manual

This is a hands-on toolkit for starting up and managing participatory projects. It includes a description of 13 participatory methods. For each method, there is a description of when to use it, its different steps, best practices, and budget implications. All this information is accompanied by different tips and tricks. A chapter with general guidelines for using participatory methods includes a comparative chart of all outlined methods, and a brief overview of additional methods and techniques.

King Baudouin Foundation and Flemish Institute for Science and Technology Assessment

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The MSP Guide, How to design and facilitate multi-stakeholder partnerships

This guide links the underlying rationale for multi-stakeholder partnerships with a clear four-phase process model, a set of seven core principles, key ideas for facilitation, and 60 participatory tools for analysis, planning and decision-making. It was written to assist those directly involved in multi-stakeholder partnerships, as a stakeholder, leader, facilitator, or funder. It provides both the conceptual foundations and practical tools.

Brouwer and Woodhill

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Youth for a Just Transition: A toolkit for Youth Participation in the Just Transition Fund

This toolkit is addressed at regional and local policy-makers responsible for implementation of the Just Transition Fund, as well as other stakeholders involved in the process. Its goal is to support and guide organising of meaningful participation of young people. It provides a set of principles, methods, and concrete tips of how to maximise the meaningful participation of youth in the programming, implementation, monitoring and evaluation of the Just Transition Fund. Moreover, it offers examples of how particular techniques were successfully used in the past.

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Towards integrated and partnership-based planning of brownfield areas

This guide aims to support urban planners and other experts working in local administrations to facilitate and coordinate brownfield redevelopment processes in a structured manner, and support cooperation between the different parties that should be involved in the process. This guide focuses especially on early-stage planning activities.

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3 Description of components

INITIAL PARTNERSHIP BUILDING

Rationale for component

Initial partnership building aims to bring together a core group of key transformation actors to jointly pursue the identification and assessment of potential viable options for site transformation. The primary activities of the initial partnership is to launch the transformation process, create early momentum, and develop a work programme. The partnership should also address initial stakeholder communication and engagement.

In the longer term, forming a partnership to lead the transformation process is motivated by the assumption that the probability of achieving outcomes that reflect economic, environmental and social needs and policy priorities, such as achieving a Just Transition, will be increased if key actors work together. In turn, aligning transformation to local needs and aspirations usually makes it easier for projects to gain local administrative support, such as planning permission, and necessary public investment, while also promoting social acceptance of the transformation project.

Implementation process

The impetus for forming an initial partnership can come from the local level. Local administrations (*gminy* or *powiats*) within whose territory the brownfield site is situated are particularly well placed to initiate this process. However, other local stakeholders who recognise opportunities for improving economic, social, or environmental conditions, and who have knowledge of the site and the locality, may provide the impetus.

Alternatively, the impetus for the partnership may come from the site owner or site developer, especially if they recognise a need for local-level support to promote a transformation project and/or where such local support may help to secure public investments to finance the project.

Key actors working in partnership can bring about outcomes that better reflect economic, environmental and social needs, and policy priorities, such as achieving a Just Transition.

Finally, there may be a top-down impetus, if a partnership approach is promoted by regional or central government, particularly if it is incentivised through their administrative, financial and political resources.

Irrespective of who initiates efforts to build a partnership, there are some key issues that will need to be addressed:

- Who are the actors that should be included within the partnership?
- Is there consensus on a shared purpose and areas of cooperation?
- Is there a formal commitment to the partnership, which encapsulates its scope and aims and the respective roles, responsibilities, and decision-making powers of the partners?

These issues are addressed in the following three sub-sections.

Composition of the initial partnership

Although there is no predetermined composition of the initial partnership, the realities of who can enable and govern a site transformation process need to be acknowledged. In this regard, local administrations - *gminy* and *powiats* - have an evident interest and role in the successful transformation of post-industrial sites located in their territories. Moreover, they possess a mandate to represent their residents' interests, coupled with planning policy powers and instruments to facilitate change. Their inclusion in the initial partnership promotes representation of local communities and ensures political commitment for the transformation. Similarly, the initial partnership can be expected to include the site owner, or an appointed closure company (e.g., SRK for coal mines), with decision-making authority over the closure of operations and rehabilitation of the site.

Importantly, even though its members may not have all the capacities and capabilities to bring a transformation project to fruition, the initial partnership should provide the necessary leadership and legitimacy to progress the identification and assessment of transformation options. Not only will the inclusion of local government promote such legitimacy, it will also facilitate local stakeholder involvement in the creation of a vision for the site (Component 3) and the selection of transformation option preferences (Component 5)

The resources dedicated to transformation should remain proportionate to the size of the site and the scale of potential challenges and opportunities. Nonetheless, during the formation of the initial partnership, the capacities of the partners to implement subsequent components should be considered, particularly for those components that are likely to be conducted at an early stage, such as collection and analysis of data and information for the baseline assessment (Component 2). Where capacities are insufficient, it will be prudent to consider bringing a 'technical' partner into the partnership.

Common purpose and commitment to transformation

Although, at the outset, there may not be a clear development narrative for the site, the partners need to develop common purpose and a willingness to work together to find solutions for the site's transformation. It is important, therefore, that the respective interests of the partners are understood and that a common basis for cooperation between them is identified and agreed. In this regard, consideration should be given to whether any of the partners are subject to legal, administrative, or other constraints that may limit or prevent them from engaging in certain aspects of the transformation process or pursuing certain transformation options. For example, the site owner, or an appointed closure company, may be mandated to pursue rehabilitation and reuse options that offer the highest commercial market return on their investments. Such a situation may introduce tension between a narrow 'commercial' view on the identification and assessment of transformation options and a wider view encompassing broader socio-economic and Just Transition perspectives.

Key questions

Who are the actors that should be included within the partnership?

Is there consensus on a shared purpose and areas of cooperation?

Is there a formal commitment to the partnership, which encapsulates its scope and aims and the respective roles, responsibilities, and decision-making powers of the partners?

Potential tensions neither need to invalidate the partnership building process nor preclude potential partners from working together. It is, however, preferable that potential tensions are recognised during the formation of the initial partnership rather than discovered at a later stage when they may be more difficult to manage. In turn, the partners should recognise that compromise may be required to reconcile different perspectives and to achieve a balance between narrow financial considerations, such as return on site-specific investments, and wider economic, social, environmental, and sustainability goals.

Formalisation of the initial partnership

The initial partnership may choose to work together in a loose informal coalition of willing actors. It is, however, likely that some form of formal acknowledgement of the partnership, such as a memorandum of understanding or partnership agreement, will provide required clarity among the partners on their respective roles and responsibilities, and related decision-making and communication arrangements, including interaction with other stakeholders. The agreement could also layout the allocation of specific tasks among the partners, at least for early-stage activities such as the baseline assessment and stakeholder mapping. Such formal clarity will facilitate the effective, efficient and cohesive functioning of the partnership.

Work programme development

Following on from its establishment, the partnership will need to develop a work programme that sets out activities and measures that will be undertaken. In a first instance, this work programme should identify short-term priorities; for example, developing a vision for the site if this does not already exist, or initiating a baseline assessment if not already undertaken. It should then set-out an implementation plan and allocation of responsibilities for all other required actions for the identification and assessment of transformation options. Actions relating to stakeholder engagement and consultation should be included in this plan or a separate stakeholder engagement plan.

Outcomes

The outcome of the initial partnership building should be the creation and formalisation of a partnership that can provide leadership and legitimacy to the transformation process, and specifically to the identification and assessment of transformation options. This initial partnership should create early consensus and momentum, develop a programme to identify and assess site transformation options, and address initial stakeholder communication and engagement.

Stakeholder engagement

Stakeholder engagement and consultation is an important aspect of a Just Transition and the initial partnership building phase is the right moment to think about this topic. This first step may consist of several activities:

- Informing the wider public about the planned transformation process and the intention to conduct future public consultations (thereby, sending a clear early signal regarding the transparency of the process)
- Conducting initial stakeholder mapping, creating a database of initial contacts, identifying relevant social categories and their institutional representation (e.g., civil society organisations)
- Brainstorming to identify why particular stakeholders are important to the process, what they can contribute and what is required of them
- Establishing an early communication and consultation platform for gathering opinions and feedback (this can be as simple as creating and promoting an email address, a profile on social media, or circulating contact details of a person responsible for stakeholder engagement)

Who are the possible stakeholders, and how to choose them?

Given the various questions stakeholder consultations can help answer, choosing what stakeholder categories and groups to engage with is an open question. On the one hand, the more distinct points of view and interests you consider, the better. On the other hand, it is important to avoid consultation fatigue and to manage the process in an efficient way (leading to concrete results and enhancing the planning process). Processes for stakeholder engagement should reflect the scale, complexity, and anticipated challenges to the transformation process. As a starting point, consider the social categories represented in the Figure 2 and reflect on their potential interest in the revitalisation process.

Once the core social categories are identified, it is useful to think of their relevant forms of representation through which to engage (see Figure 3). These can include civil society organisations (NGOs, trade unions, citizens, and faith-based groups), local businesses and business associations, public institutions (including labour market and educational organisations, social welfare and cultural centres), and local and regional government (including specific departments responsible for different elements of

Figure 2: Different social categories

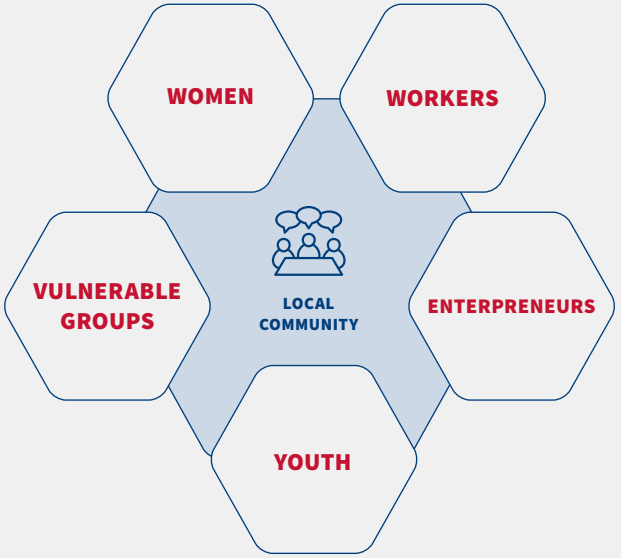
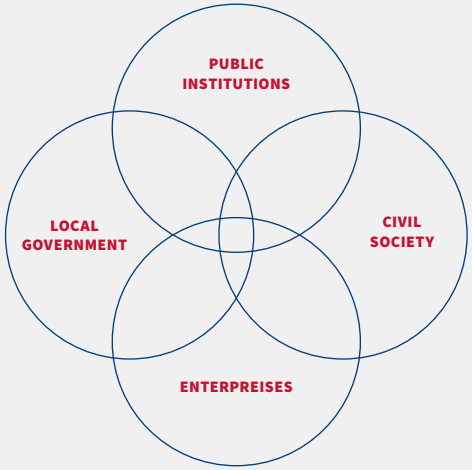


Figure 3 Forms of representation



governance). There is a good chance that once you combine the social categories with different forms of their representation locally, you will end up with a comprehensive map of stakeholders that could be involved in consultations. This mapping is in no way exhaustive and depends on the local community's characteristics and the possible development path. Other institutions, and groups can be invited. They can represent particular local interests (for instance, associations dedicated to preservation of local heritage and environment), or on the contrary, contribute with broader, regional, or national perspectives (or expert knowledge on topics such as site revitalisation, challenges, and opportunities of specific transformation options).

While there are several standardised approaches and methodologies for mapping and managing stakeholder involvement[1], it is vital to design an engagement and consultation process and actions that are based on a clear understanding and expectations of their purpose in the context of the particular site. For example:

- Is the focus on gaining legitimacy and mitigating conflict (in case of controversial plans and anticipated strong local opposition)?
- Or should the consultations play an essential role in generating innovative project ideas?
- Perhaps, there is a limited understanding of how the revitalisation could benefit vulnerable groups or youth?

While consultations can play many different roles simultaneously, having an idea of what is needed helps avoid investing resources just for the sake of demonstrating stakeholder engagement and reduces the risk of creating ambiguity of roles or unrealistic expectations.

If the transformation assumes strong participation of the local government, it will benefit from the municipal protocol for public consultations (adopted formally by the *gmina* or through practice). However, there are many different approaches, methodologies and tools for designing effective stakeholder consultations and it is beneficial to consult them, either following a given approach, or combining different techniques presented in several documents. The table below presents several useful sources on how to design and implement stakeholder consultations, in addition to the support materials provided in Part 2 of the TOF.

1 Some of the most popular are the quintuple helix (useful in innovation ecosystems, includes stakeholders from industry, government, civil society, academia and environment) and the RACI framework, which classifies stakeholders based on their presumed interest and role in the process (especially relevant for internal management of projects).

If the complexity and scale of the anticipated brownfield transformation requires extensive, in-depth consultations and stakeholder management, it may be appropriate to appoint a person within the project team to be specifically responsible for the process or even identify an external expert to manage stakeholder engagement. The more time and resource that is invested in preparing and facilitating consultations, the greater the chance that stakeholders will feel encouraged to actively participate, seeing genuine interest in their inputs. Assigning a budget for stakeholder consultations allows for efficient and effective management of the process. Critically, a well-crafted and resourced stakeholder engagement plan is the first step towards conflict mitigation.

Stakeholder engagement can provide a very good return on investment!

Practical tip: Advisory board

If the size of the planned investment does not call for large-scale public consultations, an alternative may be to establish a working or advisory group to provide necessary inputs. Such a body can include representatives of the key social groups, mobilised from the leading organisations (CSOs, institutions, trade unions). The group can meet on regular or ad hoc basis to consult elements of the planned transformation. If such an approach is chosen, it is useful to clearly define the advisory group's mandate, expectation towards the results of its work, communication form. Having a small, stable advisory group brings the benefit of ongoing discussion, continuous collaboration, and efficient communication.

Resources: how to design and implement stakeholder consultations

Title (Source)	Key elements
Kanon lokalnych konsultacji społecznych (FISE) READ MORE	Outline key elements and stages of public consultations for public authorities/municipalities
Konsultacje okiełznane. Narzedziownik (FISE) READ MORE	Comprehensive and detailed checkbox list that allows to monitor progress of implemented consultations from their initial stages to completion.
Siedem zasad konsultacji spolecznych (Ministerstwo Cyfryzacji) READ MORE	A short brochure outlining key principles of good public consultations Useful as a core guiding document
Maintaining Involvement of Local Stakeholders and Organising Decision-Making for Implementation (Urbact) READ MORE	Describes three different instruments accompanied by checklists Demonstrates effective steps for engagement of stakeholders in decision making
Miejski Niezbednik Konsultacyjny (Urzad Miejski w Dabrowie Gorniczej) READ MORE	Good overview of all the stages of public consultations when managed by public authorities Divided into 9 steps, including planning of necessary resources
Visual toolbox for system innovation (Climate Kic) READ MORE	Ideas on how to map stakeholder for better generation of innovative ideas; Especially useful for projects exploring innovative edge
Techniki (Fundacja Stocznia) READ MORE	Database of various consultation techniques, with their detailed descriptions and examples of how they were used; Useful for enriching traditional consultation processes with innovative, interactive techniques.

INITIAL PARTNERSHIP BUILDING

Checklist for initial partnership building

- Have you created a partnership that represents key development actors and other heavily interested parties, thereby creating leadership and legitimacy for the process of site transformation?
- Are you confident that there is a clarity and consensus amongst partners on the aims, purpose and governance of the partnership and respective roles and responsibilities?
- Do you understand where likely tensions and conflicts of interest exist in the partnership, and have you considered how these can be managed?
- Do you know who are the local and regional stakeholders and do you have a clear plan and methodology for engagement and consultation?
- Have you created an agreed workplan for the partnership?
- Does the partnership have the skills and capacity to deliver the workplan? If not, how will you address this deficiency?

Notes

BASELINE ASSESSMENT

Rationale for component

This component aims to build an informed picture of the characteristics of the site, and to understand the position and role of the site in the economy, and in relation to social and environmental conditions. It also aims to identify and understand aspects of the policy, legislative, and institutional environment that may influence decisions around potential transformation options.

Typically, a baselines assessment should be undertaken as a precursor to the identification of potential site transformation options, since findings from the assessment will contribute to a better understanding of what kinds of transformation options may be feasible, viable, and desirable for the site. For example, it should help establish whether the site is amenable to repurposing and reuse (or to a certain type of repurposing and reuse), whether there are constraints on parts of the site that might restrict repurposing and reuse possibilities, and whether there are legal/administrative or policy priorities that might favour or disfavour certain types of repurposing and reuse of the site.

Information collected as part of the baseline assessment can also be used to establish if there is a justification for public intervention to support transformation of the site. For example, public support for site transformation may be justified if private investors are dissuaded by high costs of redevelopment. Alternatively, transformation of the site may deliver benefits beyond those going to the private investor, such as creating employment opportunities in a location where jobs are scarce, or by delivering environmental improvements that enhance the quality of life of local citizens.

Implementation process

Data collection and analysis

The scope and depth of data collection and information gathering should be aligned to the size and complexity of the site; developing transformation options for larger sites will typically require better understanding and thus greater data collection efforts. In all cases, the more relevant data and information that can be collected and analysed then the better will be the understanding of the challenges and potential opportunities for redevelopment of the site which, in turn, will guide the choice of appropriate potential transformation options.

An indicative list of the types of information to be collected within the baseline assessment is provided below. Some data may be easily available while others may require significant effort. As resources and time available for the baseline assessment is limited, pragmatic choices may need to be made about prioritising which data are to be collected. Accordingly, one of the first steps of the baseline assessment should be to identify providers and sources from where required data and information can be obtained and to develop a plan for collection and analysis. The plan may include performing the baseline analysis in cooperation with stakeholders outside the initial partnership (Component 1) with existing knowledge of the site. Such cooperation can also increase common understanding of transformation challenges, potential and risks.

Figure 4 provides a schematic overview of a baseline analysis. The following provides an indicative list of some of the types of information that may be collected as part of the baseline assessment and summarise why the information may be useful.

- **Site ownership and occupation status**. Legal conditions can accelerate or slow down the launch and implementation of transformation activities. Uncertainty over the legal ownership of the site (e.g., abandoned sites) or multiple owners within a site can be an impediment to formulation and implementation of site rehabilitation and repurposing. Where legal ownership has been transferred to a restructuring company, the approach and obligations of the restructuring company may impact on timeline and range of options for site repurposing. Therefore, analysis of ownership and occupation status (including leasing conditions and timeframes) of the site should be carried out at the early stage of baselining exercise.
- **Site activity and closure status.** The closure status (closing, liquidated, uncertain) of the site should be identified, together with the related timeline for closure. In the specific context of mining sites, consideration should be given to the requirements for a mine closure plan and related environmental sustainability assessment for the closure of mining operations.
- **Site identification and characterisation.** This concerns the identification, delineation/scoping, and description of the site (or its sub-components if the site is large), including existing infrastructure and installations, together with functionally connected adjacent areas and site surroundings.[1] Items relevant to identify the site and its characteristics may include, for example
  - Land available, including already reclaimed/rehabilitated areas.
  - Land unavailable, including 'sacrifice zones' that are not suitable for (re)use.
  - Status of landscape rehabilitation.
  - Status of decommissioning and infrastructure removal.
  - Buildings available for potential repurposing/reuse and their condition/ maintenance requirements.
  - Installations and their condition/maintenance requirements (including utilities: power, water storage/supply etc.)
  - Existing site permits (water, air quality, waste treatment/disposal, etc.)

1 For example, the site (or its sub-components) may be presented on a map, showing the size of the site concerned, topographical lot numbers, location of the site in relation to the neighbouring areas, city and region, and existing (and eventual missing) transport and communication links to the area. ReTINA (2012)

Resources: baseline assessment guidance materials

Several guide documents provide indications of the types of information that should be collected and assessed as part of a baseline assessment.

Towards integrated and partnership-based planning of brownfield areas

This guide aims to support urban planners and other experts working in local administrations to facilitate and coordinate brownfield redevelopment processes in a structured manner, and support cooperation between the different parties that should be involved in the process. This guide focuses especially on early-stage planning activities, including baseline analysis and risk analysis.

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Integrated Mine Closure: Good practice guide (2nd edition)

This document sets out a disciplined approach to integrated closure planning for mining companies and aiming to and increases the uniformity of good practice across the sector. Although targeted to mining companies, it outlines steps for screening alternatives for repurposing mining sites (Tool 4) that are of general relevance.

International Council on Mining & Metals (ICMM)

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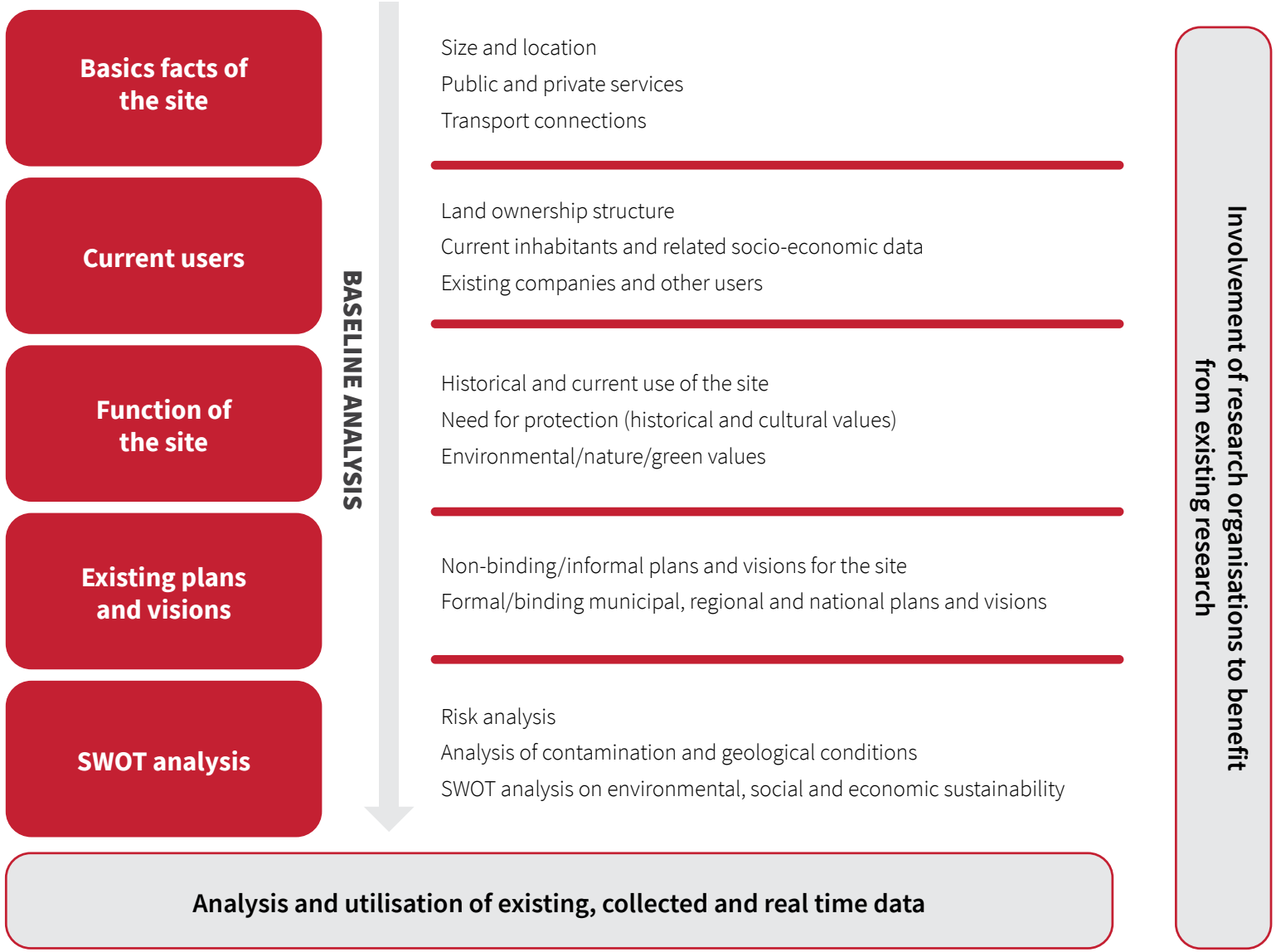
Figure 4: Illustration of Baseline Analysis for brownfield sites



Source: Baltic Urban Lab (2018)

- **Site conditions and environmental status.** The existing physical and environmental conditions of the site, together with related liabilities and obligations, will determine the scale of remediation and reclamation requirements, and eventual repurposing options. In turn, feasible rehabilitation options will impact on potential future land use possibilities. Items relevant to understanding site conditions and environmental status may include, for example:
  - Site contamination (soil, surface and ground water, infrastructure) and geological conditions.
  - Site remediation requirements/processes and corresponding timescales and cost.
  - Feasible remediation levels (e.g., industrial, commercial, agricultural, residential, recreational).
  - Ecological conditions.
- **Location characteristics.** In addition to characteristics and conditions of the site per se, information on the local context and characteristics should be collected to inform the identification and design of potential site repurposing and reuse options. Such information can assist in assessing if potential repurposing and reuse options are compatible with the location's characteristics and the attractiveness of the site/location for different reuse options. Items relevant to understanding the location characteristics may include, for example:
  - Location spatial context (e.g., proximity to urban areas and communities).
  - Location economic context (e.g., proximity to neighbouring sites, and economic activities).
  - Availability of utilities (e.g., electricity, gas, renewable energy, water, sewage, public transport).
  - Transport (e.g., road, rail, air, water/maritime access).
- **Socio-economic context.** Site repurposing should not be designed and implemented in isolation, but it should be placed in the wider socio-economic context of the concerned area, including market supply and demand conditions at the local, sub-regional, and when relevant regional level. Items relevant to understanding the socio-economic context of the site may include, for example:
  - Economic structure and development (past and future potential).
  - Market demand and supply conditions for (greenfield/brownfield) site development.
  - Socio-economic characteristics and trends (e.g., demographic, workforce/employment)
  - Cultural context (including historical/cultural values and attachment to the site / former industrial activities).
  - Environmental context (including environment/green/nature values).

Management system of post-mining areas in the Silesian Voivodeship (OPI-TPP 2.0)

For sites in Silesia, information to assess site characteristics and conditions might be obtained from the OPI-TPP tool. In principle, the OPI-TPP database covers elements such as the presence of residential buildings, agricultural activity, and environmental conditions, including if the area is contaminated, if water sources are available, or if the site is a landfill for waste. The OPI-TPP 2.0 will replace OPI-TPP in 2022, offering an expanded and even more comprehensive set of products and tools. The database of sites remains the backbone of the e-service, containing various details regarding individual locations, helping potential investors judge value, strengths and re-development opportunities but also possible challenges to the process. The database will contain 3D models, maps, and photographs. At the same time, the new products include digital repository of documents, with various, often previously unpublished historical information from the closed mines will be available, supporting better planning for future investments. Further, the tool will be useful for assessing initial revitalisation costs, providing information about the scale and type of necessary works, and making calculations based on an algorithm. Lastly, potential investors interested in post-mining sites catalogued through OPI-TPP 2.0 will be able to use a benchmarking tool, facilitating quick selection of sites based on desired characteristics, their comparison and assessment of what sites require more revitalisation investment. Equally important is the function OPI-TPP 2.0 will offer to local governments, analysing sites' ecosystem potential, based on broad environmental analysis.

Source: https://rpo.slaskie.pl/czytaj/slaska_baza_informacji_na_temat_terenow_pogorniczych

- **Legal / regulatory and administrative requirements.** It is important to understanding legal, regulatory, and administrative constraints governing land use (e.g., existing zoning plans, spatial plan, environmental permits, or protected areas and other land use restrictions), as they will have an impact on the variety and scope of permissible site transformation options that can be envisaged.
- **Institutional and policy context.** Existing economic local/regional development plans and local spatial development plans will provide guidance on policy priorities and indications of local/regional authorities' preferred direction for development of the area and, possibly, preferred options for repurposing and reuse of brownfield sites. In addition, analysis of the institutional and policy context can identify potential support mechanisms for site redevelopment, or on the contrary institutional inhibitors that can undermine brownfield sites redevelopment. Support mechanisms may include, for example, grants, subsidies, tax exemptions, reduction of local business charges etc. that may be available for (re)development projects.
- **Existing site development intentions and plans.** It is important to understand the site owner's intentions and motivation vis-à-vis the site; for example, whether the owner intends to retain possession or transfer ownership to a developer, what redevelopment options are being considered, and the owner's willingness to engage with other actors to formulate redevelopment plans for the site. Similarly, to understand if current occupiers of the site are interested in retaining activities on the site or in the vicinity, do they have proposals or recommendations for redevelopment, are they interested to collaborate in the formulation of repurposing plans. The baseline assessment can also identify any alternative proposals – even if informal - for repurposing and future reuse of the site.

Preparation of the SWOT analysis for the site

Based on the collected information described above, a SWOT (or similar) assessment can be made, with the aim to identify key attributes and shortcomings of the site (environmental, economic, and social factors) likely to influence the redevelopment attractiveness of the site, and potential opportunities and challenges for redevelopment of the site. A SWOT assessment should *inter alia* be informed through a preliminary analysis of prevailing (commercial) demand and supply conditions and expected prospects for (greenfield and brownfield) development sites at local/regional/national level (as appropriate for the site).

Additional baseline assessment elements

Scoping of potential land use possibilities

Before formulating possible options for site rehabilitation and repurposing (see Component 4), the suitability of the site for different end uses should be established[2]. This will depend on the land's physical and environmental qualities and feasible remediation levels (e.g., industrial, commercial, agricultural, residential, recreational). Beyond the sites' land capabilities (taking account of land restoration possibilities), the economic, social, and technical characteristic of the site and its location will also affect its suitability for different reuse options. In general, a scoping of potential land use possibilities should consider the suitability of the site for a broad range of alternative end uses, such as:

- **Primary production and other 'soft' reuse** (i.e., not based on built constructions or infrastructure)[3]: e.g., agriculture, forestry, aquaculture, water supply, habitat/conservation, green spaces, recreation/leisure/sport, etc.
- **'Hard' reuse** (i.e., based on built constructions or infrastructure): e.g., residential, commercial, or industrial development, and public buildings.
- **Utilities:** such as energy production and waste management. As a 'last resort' this may also include reuse as landfill.

The purpose of the land-use analysis is, in the first instance, to establish which land use types are feasible and compatible with the geo-physical and locational characteristics of the site. Methods for land-use analysis may be extended, so that they can be used to assess among the possible feasible land reuse types, those that are most suitable (optimal) in terms of expected added value contribution (i.e., contribution to economic, social, and/or environmental development). As an example, the World Banks's LURA tool (see box) illustrates a method to assess potential land-uses of post-industrial/post-mining sites.

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2 Environmental Rehabilitation Toolkit developed especially for post-mining areas is a useful source of information and advice on how to approach this process. Available at https://energy.ec.europa.eu/topics/oil-gas-and-coal/eu-coal-regions/resources/environmental-rehabilitation-and-repurposing-toolkit_en

3 Soft land-use is where the land remains unsealed and the soil remains in biologically productive use.; primary production (agriculture, forestry, etc.) can be considered 'soft' reuse.

Land Use and Repurposing Application (LURA)

The World Bank's Land Use and Repurposing Application (LURA) is an evidence-based decision-making support tool for identifying optimal land use scenarios for mining sites. The output produced by LURA is a land utilisation zoning map with a high spatial resolution, which delineates areas within a site classified according to their range and / or optimized type of utilisation. LURA utilises an algorithm that characterises land properties from five categories/criteria and compares them with the optimum value combinations for potential post mining land use scenarios. The five categories of land properties are:

- **Location** (e.g., proximity to infrastructure, utilities, and human settlements).
- **Geotechnical stability** (e.g., expected residual settlements of fill, the slope stability of cut or backfilled slopes and sloping areas, and impact of ground water rise due to mine closure).
- **Topography and hydrography** (e.g., surface gradient and relief, surface drainage, hydrological risks (extreme precipitation events and flooding)).
- **Environmental risks and liabilities** (e.g., contamination in dumped materials, environmental burden of ongoing production activities (and related dust, emissions, noise and vibration), and proximity to other operations (e.g., TPPs, including possible repurposing and proximity to fly ash stockpiles and storage bunkers).
- **Development opportunities/cost sensitivity** based on the general assessment of all other categories/criteria. A moderate to high rating for the other criteria being dicative of greater potential for high added value / expected return of future development. Conversely, a low ranking in other criteria is indicative of lower added value potential of development opportunities.

The potential post mining land use scenarios considered by LURA are:

- Forest and natural habitats.
- Agriculture.
- Industry and energy production.
- Business, recreation, and tourism.

The methodology informs on which types of post-mining use make sense to plan for on a given parcel of land but does not prescribe a specific investment scenario. As such it is not a standalone tool.

Sources:

- World Bank Group (2020), A Road Map for a Managed Transition of Coal-Dependent Regions in Western Macedonia. Available at here.
- World Bank Group (2020), presentation available here.

Establishing grounds for public intervention

As part of the baseline exercise, consideration should be given to whether there are grounds for public intervention to support transformation of the site. The basic question to address is whether leaving the transformation of the site entirely in the hands of private actors will result in a satisfactory outcome. The most obvious case of a non-satisfactory outcome is when no redevelopment is expected to take place without some level of public support, meaning that the site would remain abandoned to the detriment of the local community and environment. Alternatively, when private-led redevelopment is expected to result in a sub-optimal outcome, public intervention to support transformation of the site may be justified if it can result in improved collective economic, social, or environmental outcomes.

For the baseline assessment, it may be sufficient to establish *a priori* the presence of grounds for public intervention, leaving a more complete analysis of the need for, and scale of, public intervention until transformation options are more clearly defined (e.g., as part of the options assessment under Component 5).

If adequate information is available, then an initial economic status assessment can be made as part of the baseline assessment. An economic status assessment looks at the need for, and scale of, public intervention necessary for site rehabilitation and repurposing. In general, the economic viability of rehabilitation and repurposing of post-mining and industrial sites is affected by a multitude of factors, such as[4]:

- The direct and indirect cost of site rehabilitation (including environmental remediation of contaminated land, water systems and infrastructure) and repurposing/regeneration.
- The expected revenues (or return on investment) from rehabilitation of the site, that will be affected by post-remediation land values and the envisaged or potential end-use(s) of the site.
- Fiscal environment, especially regarding national and local taxes and perceived risk of fluctuations.
- Type of financing model for site development and associated financial risk.
- Agreements and potential cooperation between development partners (e.g., site owner, site developer, public administration).

4 Adapted from CABERNET (2006)

Evaluating the trade-off between costs, revenues and risks provides a basis for assessing the baseline economic viability of the site and the potential need for and scale of public interventions. Conceptually, this trade-off can be illustrated by the CABERNET A-B-C Model (see box). Such an approach allows for categorisation of sites – and of different redevelopment options for the site – based on their economic/financial viability and the corresponding likely requirements for public support (e.g., scale and intensity of public funding), for example:

- **Level 1:** Private sector investment is viable or likely to be in near term. Public intervention should be limited to information provision, advice, and marketing. Although joint ventures with the private sector to share commercial returns or grant provision to enhance/ facilitate policy outcomes or create public goods (e.g., shared infrastructure) can be relevant.
- **Level 2:** Returns on investment may allow marginal private sector activity (for example, for certain sub-components of the site and/or in combination with supporting public investments for rehabilitation activities and infrastructure provision). Equally, there may be potential for stimulating private investment in short/medium term through financial support and other instruments (e.g., grants, concessions, soft loans/guarantees).
- **Level 3:** Private sector-led investment is unlikely, therefore public investment is the principal funding modality.

If the assessment of the baseline economic viability of the site indicates that public support will be required, it is sensible to also identify if appropriate support (including funding) mechanisms are available that could be used to support implementation of transformations options. If so, it is appropriate to consider if available support mechanisms may favour or impede certain potential transformation options.

CABERNET A-B-C Model of economic potential

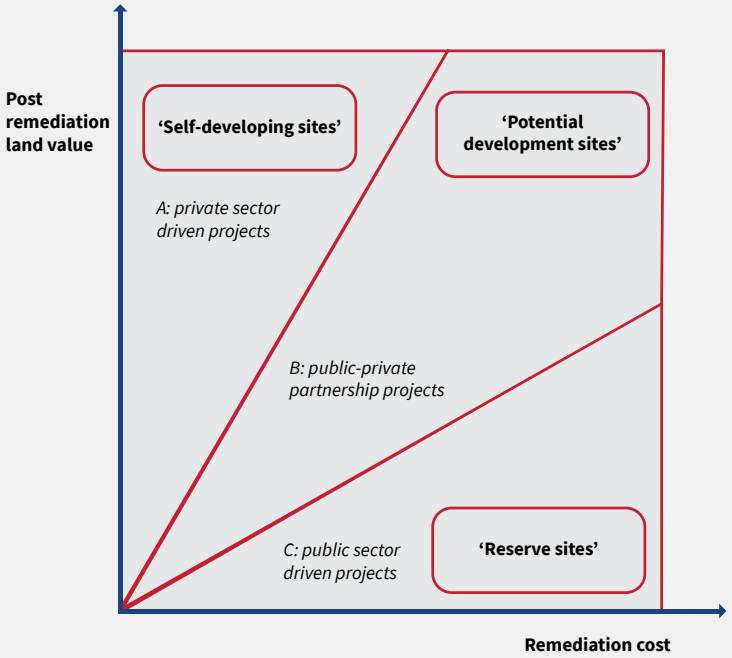
The A-B-C Model, developed by the CABERNET network, categorises brownfield development projects according to their economic potential based on a trade-off between the cost of regeneration and the value of the site (land) after remediation. Essentially projects where post-remediation value largely exceeds the costs of remediation are considered projects that a priori more amenable to private sector development, where those where costs of remediation largely exceed the post-remediation land value will require public sector intervention. Projects where the is a marginal trade-off between costs and value are considered a priori amenable to public-private cooperative solutions. Thus, the model offers a threefold classification of brownfield sites based on the probable funding model of development projects as follows:

- **A Sites:** projects that are driven by private funding (and do not need public support to be redeveloped).
- **B Sites:** projects characterised as being on the borderline of profitability, which tend to be funded through public-private co-operation or partnerships.
- **C Sites:** mainly public sector or municipality projects driven by public funding or specific legislative instruments (e.g., tax incentives)

Sources:

- CABERNET (2006), Sustainable Brownfield Regeneration: CABERNET Network Report. Available here.
- European Commission (2010), Report of the workshop 'Re-Using Brownfield Sites and Buildings'. Available here.

Figure: The A-B-C Model



Source: CABERNET (2006)

Outcomes

The Baseline assessment should provide a good understanding of the situation of the site, which can inform the identification of potential transformation options by identifying the types of land use options/scenarios are feasible and/or preferable given the sites characteristics and location. It should also help to identify opportunities and challenges for transformation of the site (e.g., using SWOT or similar analysis) which, again, can support the consideration of what kinds of transformation options may be most relevant/appropriate for the site. Finally, the baseline assessment should establish whether there are potential grounds for public intervention to support transformation of the site. If potential grounds for public intervention are not identified, then it would be appropriate to reconsider the basis for continued involvement of the public administration (e.g., *gmina).*

Stakeholder engagement

Involvement of stakeholders can be an important aspect of conducting a baseline assessment. Through their knowledge and expertise, stakeholders – such as (former) managers and employees of the site, or those living in proximity – can provide important information on the characteristics and conditions of the site. While representatives of local communities and civil society may be able to provide valuable inputs concerning socio-economic and environmental context.

Stakeholders can be involved in the baseline assessment in four main ways:

- At the stage of developing a baseline assessment plan and approach, to help to shape the scope of the baseline data collection, including formulation of key research questions.
- At the stage of data collection:
  - Providing already collected secondary data and information that they possess, which may either be at a general level or relate, for example, to a specific social category they represent (workers, women, youth).
  - Supporting collection of new primary data (e.g., through interviews, workshops, focus group discussions) that may be needed to fill gaps in the available secondary data.
- At the analysis and finalisation stages, to validate and reflect on findings and conclusions of the baseline assessment.

Consulting stakeholders can be especially important to obtain information on recent trends and developments in the local community, as well as gathering information on ongoing or forthcoming initiatives and planned investments that may influence the redevelopment attractiveness and potential of the site. From the perspective of gathering data and information, a targeted direct approach to stakeholder engagement may be adequate for the purposes of the baseline assessment. As an early-stage activity, in addition to benefitting from the knowledge and expertise of stakeholders, involvement of stakeholders can also help to increase transparency early on in the TOF implementation process

BASELINE ASSESSMENT

Checklist for Baseline Assessment

- Have you identified required data and information and their sources and is there a plan/approach for involving stakeholders in the baseline assessment?
- Do you have adequate resources and expertise to implement the baseline assessment? If not, how will this deficiency be addressed (are there research organisations or experts that are willing to support the baseline assessment)?
- Subsequently, are you confident that the baseline analysis and outputs are sufficiently reliable and comprehensive to provide an adequate and clear picture of the site's transformation potential (challenges and opportunities)?
- Have you identified the broad types of land-use that would be appropriate for the site?
- Have you identified a credible case for public intervention to support transformation of the site, if such intervention is required?
- Have key findings from the baseline analysis been validated by relevant stakeholders? Have you achieved a consensus on the site's general transformation potential?

Notes

VISION SETTING

Rationale for component

This component is concerned with defining an aspirational vision for the site that clearly articulates objectives and desired outcomes for the transformation in the long term, allowing key stakeholders to coalesce around a widely shared view of “where we are now” and “what do we want to become”. The vision can be a core element for expressing the desired direction of a project for (re)development of the site, thereby supporting the identification of criteria for project assessment and prioritisation, while also being an important step towards eventual project realisation. Moreover, the vision can and should provide a benchmark against which to measure progress.

Implementation process

Placing the vision in the wider context

When setting a vision for a site’s transformation, consideration should be given to the broader strategic and policy context for local and regional development, such as the Local Spatial Development Plan and the associated Local Spatial Study, and the Voivodeship’s Development Strategy - Silesia 2030. If there is a Municipal Revitalisation Programme for the location, it can be another useful source. These will also help to inform a time frame for the vision. The vision’s time frame will also be largely informed by the size and complexity of the site. A ten year or even a twenty year vision can be a credible time horizon for large sites with multiple challenges.

The transformation for a specific site should also be considered in the context of broader ambitions for the area (e.g., the locality and sub-region). Where there are several brownfield sites within an area, and where multiple local authorities are confronted by the threat of vacancy and decay, a coordinated inter-municipality approach to site transformation can avoid unproductive competition and duplication of effort among local authorities, while promoting synergies across transformation projects.

Approach to determining a vision for the site - The HOMBRE Project

The HOMBRE Project (2012) proposes an approach to determining a vision and ambitions, from which the following steps can be elucidated:

- **Identifying societal challenges:** taking account of the site/location characteristics and local/regional context identify key challenges (economic, social, environmental) that it is necessary or desirable for the site transformation to address.
- **Setting transformation ambitions:** define realistic and supported ambitions for the potential contribution of the site transformation to meeting the identified challenges. This step should also assess the extent of control or influence that can be exercised over the process(es) for realising the defined site transformation ambitions.
- **Prioritisation of ambitions:** recognising the ambitions may be complementary or contradictory, this step should address whether there are identified ambitions that have a higher (or lower) priority as desired outcomes for the transformation.

Combining the outcomes from these steps underpins the formulation of a transformation vision and ambitions. The baseline definition and analysis should provide information on the site/location characteristics and local/regional context, while the stakeholder mapping should identify who can influence the path from ambition to realisation. As stated by the HOMBRE Project (2012), *“the vision and ambitions should be realistic, and the stakeholders should be able to steer towards the right direction. An unrealistic ambition or an ambition that cannot be steered upon is useless and will cause disappointment.”*

Source: Holistic Management of Brownfield Regeneration (HOMBRE) Project

As mentioned earlier, where there are multiple brownfield sites in an area, developing co-ordinated and integrated visions for the respective sites is a positive alternative to competition. This can be done by agreeing distinct but complementary development themes for the different brownfield sites. Such an approach has been adopted in other EU regions undergoing coal transition.

Identification of tensions and conflicting interests

Many stakeholders will have an interest in the process of transformation of former mining and industrial sites, resulting in multiple and potentially conflicting perspectives on transformation needs and desired outcomes. Accordingly, compromise may be required to reconcile different perspectives and to achieve a balance between narrow financial considerations, such as return on site-specific investments, and wider economic, social, environmental, and sustainability goals.

Within the context of vision setting, consideration may be required to identifying and addressing tensions resulting from competing and conflicting interests over the reuse of former industrial and mining sites. Tensions resulting from differences in ambitions/objectives and priorities for reuse of a site(s) may arise in multiple dimensions:

- **Stakeholder:** e.g., resulting from difference in objectives/ambitions and priorities of different stakeholder groups directly involved in site redevelopment processes (e.g., owners, developers, future occupiers), with influence over transformation processes (e.g., public administrations, planning authorities, environmental agencies), or affected by reuse outcomes (e.g., local communities, workers, civil society representatives).
- **Strategic:** e.g., resulting from non-alignment of ambitions, priorities, and measures in different strategic policy areas (e.g., economic, energy, environment, employment and social).
- **Spatial:** e.g., resulting from differences in local, regional, and national ambitions and priorities and corresponding inconsistencies in development strategies and planning frameworks at different spatial levels.
- **Temporal:** e.g., reflecting the status and timelines for cessation of ongoing activities (if applicable) and site closure/remediation plans, and consequential time pressures to implement rehabilitation/repurposing activities. Specifically, this may relate to short-term decision that do not adequately take account of the longer-term future potential of the site and existing infrastructures.
- **Fiscal:** e.g., arising from financial pressures on (local) public administration resulting from loss/reduction of fiscal revenues due to site closures.

Co-ordinating development visions across different brownfield sites: The case of Limburg, Belgium

In Limburg seven former mining sites across several local authority areas have now been successfully repurposed to accommodate new economic functions. Each of the seven mining sites has identified a unique development theme to drive the repurposing of the site and contribute to local and regional development, diversification, and profile. These themes were mutually agreed by the local authorities. This focused and co-ordinated approach has promoted a targeted use of public and private funding, whilst minimising duplication, mutual conflict and rivalry e.g., in terms of attracting investment. Furthermore, this inter-municipality approach was welcomed by higher levels of government (regional, national and EU) and led to more effective lobbying for national and EU funds. The unique themes of the seven sites are:

- Beringen: history and heritage (museum) and leisure (tourism & retail)
- Eisden: nature development (national park with climate research centre), leisure & retail
- Houthalen: “cleantech” linked to a business incubator
- Waterschei: energy (with research and training centres)
- Winterslag; culture (arts, theatre halls, cinema, higher art education)
- Zolder: “sustainable construction” education, training and research
- Zwartberg: art and biodiversity

Further information:

https://ec.europa.eu/energy/sites/default/files/documents/genks_ongoing_transition_-_platform_for_coal_regions_in_transition_.pdf

https://ec.europa.eu/energy/sites/default/files/documents/koordynacja_i_wspolpraca_w_celu_promocji_rewitalizacji_terenow_pokopalnianych_0.pdf

Managing and resolving tensions and conflicting interests

This activity revolves around the identification and implementation of approaches and solutions to manage and resolve tensions and conflicts due to differences in the interests, visions, and priorities of actors concerned by the transformation of the site. Processes to manage tensions and conflicts suppose proportionate engagement with stakeholders – e.g., from site owner to public authorities, from potential developer/investors to affected communities etc. – to identify desired transformation goals and potential trade-offs and areas of compromise that may enable stakeholders to coalesce around a widely shared common vision for transformation. In turn, consultation of stakeholders and integration of their viewpoints in vision setting should support the building of consensus, legitimacy and trust and minimise tensions in transformation processes and outcomes.

Outcomes

The consultation process should lead to the production of a short vision document, ideally, agreed by all or a significant number of the key stakeholders. The vision should ideally be a short, concise and compelling statement of the preferred transformation endpoint in the long term. A record of opposing views and contradictory visions could also be made to show respect and appreciation of different views.

How to deal with different types of negative dynamics?

Conflicting interests between stakeholders can have different sources, which will require slightly different approaches to solving them. Generally, however, the involvement of an unbiased facilitator can help with solving the tensions. Experts and facilitators can motivate conflicted participants to share their views, synthesize and negotiate their point of view, and valorise competencies and skills.

The list below presents some of the sources of negative dynamics that can arise during site redevelopment process:

- **Distrust:** In situations where distrust or bias is apparent or suspected, the engaging parties should make use of an unbiased individual to facilitate (and perhaps convene) the engagement.
- **Intimidation:** The presence of an outside facilitator can encourage the articulation of opinions which might otherwise not be expressed, due to some parties feeling intimidated.
- **Rivalries** between individuals and organizations can be mitigated by the presence of a facilitating individual or organization.
- **Lacking definition of the problem:** If the problem is poorly defined, or defined differently by multiple parties, an unbiased listener/analyst can help to construct an integrated, shared problem understanding.
- **Possibly emotionally upsetting situation:** Bringing in a facilitator to lead the process lets the engaging parties focus on the problem at hand, which can lead to better results.
- **Complexity or novelty:** In a complex or novel situation, a process expert can help the group do a better job of working together intellectually to solve the problem.
- **Timeliness:** If a timely decision is required, as in a crisis situation, the use of a facilitator can help the parties to reach necessary agreements faster.

Source: Frassoldati Francesca and Teston Saveria (2012) TOOL for STAKEHOLDER ENGAGEMENT: a two-level handbook for urban regeneration movers

Where conflict between parties is stopping the development of a vision, mediation can assist progress. This can involve the appointment of a neutral third party to act as a mediator. This individual can deploy facilitative techniques to promote agreement or mitigate conflicting interests and views. Further information on mediation can be found here.

Stakeholder engagement

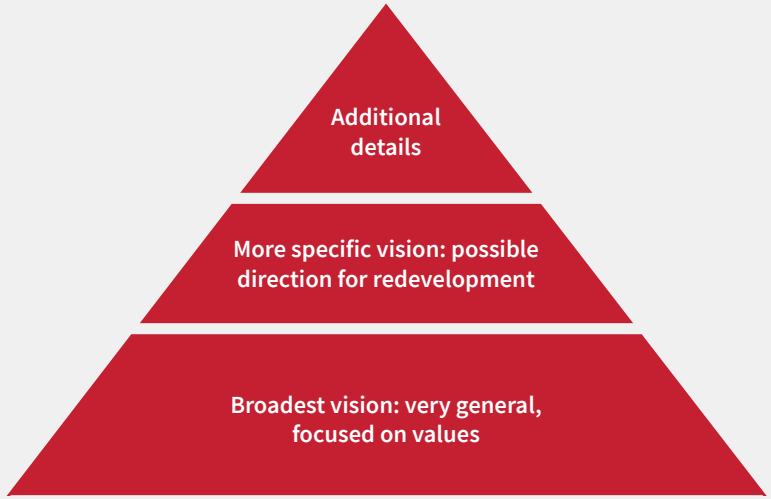
Jointly identifying societal challenges and strategic objectives that site transformation can address contributes to setting commonly agreed boundary conditions for the scope of site transformation and related project options. Moreover, the process can also help manage stakeholders' expectations, ensuring a shared understanding of both opportunities and challenges, related trade-offs and compromises, and the long-term nature of site transformation.

Skilful management of stakeholder engagement during the vision setting stage is essential for the processes' legitimacy and acceptance. This phase benefits from collaborative, engaging and interactive work by representatives of different stakeholder groups, with invitations extended to a wide audience. In fact, the more different groups and categories are involved in developing a shared vision, the higher the chance of reducing possible tensions and conflict in the later stages of the transformation.
This is also the moment when principles of Just Transition can be clearly articulated. Stakeholder vision setting can take multiple forms, following one or several techniques and approaches, adapted always to the scale and the needs of a given transformation (examples are provided earlier in this document). Regardless of the technique or approach selected, it is also important to make clear what is the potential impact of the shared vision on the redevelopment process. How will the lack of a shared vision impact on the site's development and potential investment?

An equally important element of is a good grasp of power relations, dependencies and possible factors hindering full, unrestricted participation of all the invited stakeholders. For this reason, careful development and facilitation of the process is essential, involving an experienced facilitator. While some stakeholders may feel comfortable presenting strong opinions (based on their position and experience), others may be more timid and as a result have less impact on the vision's creation.

Practical tip: Simple strategy for consensus building and vision setting

To ensure that the vision setting consultations will lead to an actual result built on consensus, it is useful to begin with the broadest and less controversial vision and work towards a more specific scenario, checking at each stage the degree of agreement and consensus. There is little risk that disagreement will occur at the meta-level vision stage, starting with general commitments to Just Transition, a clean environment, innovation and local development. Once agreement is reached about this broad vision, further work can be done to detail what these general but shared ambitions could mean. If strong opposition to a specific, detailed vision occurs, it is always possible to move up one level and end with a vision shared by all.



VISION SETTING

Checklist for vision setting

- Can you clearly describe a short, compelling, and coherent vision for the site?
- Have you been realistic in the time frame for the vision? Is it commensurate with the scale of the site and challenges?
- Did you consider existing strategies and plans when developing the vision e.g., the Local Spatial Development Plan and the associated Local Spatial Study, and the Voivodeship's Development Strategy - Silesia 2030?
- Do you understand how the vision supports a Just Transition for the locality?
- Are you confident that the vision's development engaged a sufficiently wide group of key local and regional stakeholders? Did you manage and mediate tensions?
- Did you consider alignment of the vision with the development ambitions for other sites in the locality or sub-region?

Notes

OPTIONS SCANNING

Rationale for Component

Options scanning is undertaken to identify potential site end-uses that will contribute to delivery of the Vision and correspond with defined opportunities and needs in a locality and region. These options should be informed by the scale, characteristics and location of the site. Where end-use proposals exist, there can be consideration of how these can be enhanced to better contribute to the Vision and a Just Transition. The component also provides an opportunity to develop ideas generated through the Vision setting. If no end-use proposals exist, a more open, inclusive and innovative approach to the identification of options can be adopted. This component creates a portfolio of potential end-use options, which will form the basis for options assessment and prioritisation (Component 5).

Implementation process

Options scanning can be a time and resource intensive process in terms of research, analysis and consultation. As with the other TOF components, realism needs to guide implementation and it should be proportionate to site specific opportunities and challenges, and public sector capacity, especially at the local level.

General approach

This component concerns the identification and gathering of project ideas for site transformation. For larger brownfield areas, the site can be zoned and different end-use options identified for each zone. Ideally, the differing end-uses for a large site should be complementary (e.g., a large manufacturing facility may not easily co-exist with a residential development).

Further examples of diverse and innovative end-uses

The link below provides access to a database of sixty examples of brownfield site regeneration projects from Europe, North America and Asia relating to a wide range of end uses. This database demonstrates the diversity of productive and innovative new uses that are possible for former brownfield sites. It is hoped that these examples can inspire the options scanning process. The uses can be broken into ten broad categories:

1. business and industry
2. culture and heritage
3. digital innovation
4. education and research
5. energy and decarbonisation
6. environmental restoration
7. residential
8. retail
9. tourism and recreation
10. transport and logistics

Database of brownfield site regeneration projects (here)

The resulting portfolio of end-use options can be derived through the following methods:

- **Method 1: Using the existing proposals** of the site owner/developer or other interested parties e.g., current site occupants, potential investors, as identified under Component 2 (Baseline Assessment).
- **Method 2: Modifying and augmenting the existing proposals** of the site owner/developer or other interested parties.
- **Method 3: Utilising and developing the ideas and proposals identified under Component 3** (Vision Setting).
- **Method 4: Creating entirely new end-use options** where no proposals exist.

The end-use options generated through one or more of these methods should be initially checked against the following factors to establish their suitability (although more detailed assessment is undertaken in Component 5):

- Fit with the ambitions, plans and disposition of the owner / developer.
- Fit with site-specific conditions and circumstances.
- Fit with defined opportunities, needs and aspirations (linked to approved policy and planning documents e.g., the local spatial development plan, Voivodeship Development Strategy - Silesia 2030).
- Fit with other site developments and proposed developments in the locality / region to assess levels of complementarity, and duplication and over-supply.

Generating new or alternative end-use options

The identification of new or alternative end-use options can be aided by consideration of successful national and international examples of brownfield site rehabilitation and repurposing.

By way of example, Annex 2 identifies eight illustrative European cases of brownfield site regeneration. These cases are varied in nature but offer practical and relevant insights and lessons for options scanning and development.

In particular, the examples demonstrate how changing economic and social trends, technology transfer and new business models can be harnessed to reinvent brownfield sites.

The summary for each of the eight illustrative cases provides the following::

- Title and location
- A brief description of the revitalisation case and why it was selected
- A short overview of notable outcomes
- Key process lessons / features

The eight cases are:

- Alexandra Dock, Humberside (UK)
- Dolní Vítkovice industrial complex (Czechia)
- František Industrial Zone, Horní Suchá (Czechia)
- Gliwice Coal Mine (Poland)
- Limburg's coal mining sites (Belgium)
- Ludgate Hub, Skibbereen (Ireland)
- Mūkusala district, Riga (Latvia)
- Ravenscraig steel mill, Lanarkshire (UK)

The opportunity of energy transition to revitalise brownfield sites

As previously noted, the assets of brownfield sites can be retained and repurposed for other productive uses; this is especially true in the context of the transition to a climate-neutral economy. For example, former coal fired power plant sites and coal mining sites have the potential to attract large investments and new technologies, often due to their legacy assets (e.g., power generation and distribution infrastructure, reinforced surfaces, transport infrastructure). Thus repurposed coal-related brownfield sites can act as drivers of innovation and support the future well-being and economic sustainability of coal dependent communities. Examples of new energy transition technologies that could repurpose brownfield sites, include energy storage, hydrogen and combined renewable energy production. More information on such opportunities can be found here.

Outcomes

The outcome of this component should be a list of potential, credible end uses for the site or its respective zones which reflect site specificities and are informed by Just Transition and decarbonisation goals. This portfolio of options can represent: an endorsement of existing end-use proposals; an augmentation or refinement of existing proposals, where such proposals exist; or a wholly new set of end-use proposals.

Stakeholder engagement

The scanning for and generation of new site development options can involve targeted or broader engagement with private, public, research, civil society and community stakeholders.

Options scanning may only require limited stakeholder consultation if redevelopment proposals and ideas have been generated through Components 2 (Baseline Assessment) and 3 (Vision Setting). Moreover, given the often more technical and analytical nature of options scanning, consultation and engagement may be more focused and prescribed.

Broader engagement of stakeholders will be beneficial if there are no existing redevelopment options, or only some partial ideas. Stakeholder consultation may be an effective means for stimulating creative and novel ideas. Consultation can take the form of an inclusive ideas generating exercise (potentially using community engagement materials and social media and on-line tools to mobilise interest) or more focused idea generating activities, using innovative facilitation techniques and design thinking. However, it is important to clearly communicate to stakeholders that generation of ideas does not equal their implementation. Concepts will still need to undergo verification and assessment (see Component 5). Furthermore, site circumstances or the opposition of a site owner could rule out proposed end-uses.

Stakeholder engagement will also be beneficial when end-uses proposed by a site owner or developer are controversial and provoke opposition among local residents and stakeholders.

Resources: engaging stakeholders in identification of transformation options

Example of a community engagement document from Ireland

READ MORE

Technique for innovative facilitation and design thinking, Climate KIC Design Sprint

READ MORE

OPTIONS SCANNING

Checklist for options scanning

- Have you identified a set of options that reflect the Vision for the site and respond to defined local and regional opportunities and needs and reflect site circumstances?
- Can you clearly demonstrate and explain how these options can contribute to a Just Transition?
- Do you believe that these options are based on an open and broad understanding of decarbonisation and new economic and social trends, technologies and business models that can be harnessed to shape the site's future?
- Are you confident that there is consensus amongst the site transformation partners on these options? Is the site owner supportive?
- Have you involved stakeholders and/or informed stakeholders of these options and considered their responses?
- Do you believe that these options address an unmet demand in the local and regional economy or is there a risk of duplication and oversupply?

Notes

OPTIONS ASSESSMENT

Rationale for Component

The purpose of this component is to provide an objective comparison of different options for transforming a site (and/or sub-components therein). Findings from the options assessment should contribute to identifying the option or options with the best potential to contribute to achieving the goals of the long-term vision for the site (Component 3), while recognising possible capacity constraints and financial limitations. Findings from the assessment can be used to inform discussion among a wider stakeholder group, thereby promoting an inclusive dialogue on opportunities and options for site transformation.

Implementation process

This component presupposes that the options scanning (Component 4) has identified more than one viable option consistent with broader policy objectives (e.g., Just Transition) and sustainability requirements. Thus, a comparative assessment can contribute to identifying and eventual selecting a preferred option or options for transformation of the site.

Formulation of assessment criteria

The first step in the options assessment is to formulate a set of objective criteria that can be used to provide a comparative assessment of different transformation options (and sub-components therein). The choice of criterion should reflect attributes that can be used to judging how 'successful' the option will be (or is likely to be) in contributing to the transition goals of the Vision, and other wider policy priorities, while also reflecting the practicality of its implementation.

By way of illustration, criteria for assessing options may include:

- **Policy alignment:** the extent to which option outcomes are coherent with and contribute to achievement of local/regional, nationals and European strategic policy goals and commitments. Specifically, in the context of EU Green Deal policies, the project's compatibility with, and optimisation of just and inclusive transition principles, and transition to a climate neutral economy.
- **Economic outcomes:** e.g., contribution of the project to revenues and value added, employment creation, economic diversification, etc.
- **Environmental/ecological outcomes:** e.g., contribution of the project to land rehabilitation, pollution abatement, reduction of greenhouse gas emissions, biodiversity, etc.
- **Social outcomes:** e.g., contribution of the project to social wellbeing and cohesion, etc.
- **Other outcomes:** e.g., contribution of the project to other ambitions/objectives for transformation of the site determined as part of the 'Vision setting'.
- **Spatial coherence:** the extent to which the project promotes region-wide optimisation and complementarity of (brownfield) site rehabilitation and repurposing (i.e., minimisation of displacement of economic activities and avoidance of duplication of project types/end-uses).
- **Innovativeness:** the extent to which the project promotes innovation and experimentation (within the constraints of proportionate cost, affordability, and deliverability).
- **Funding alignment and affordability:** the extent to which the project is aligned with potential private and public financing sources, including matching of the project to available (current or planned) public funding mechanisms and has the capacity to generate required future revenues.
- **Deliverability:** e.g., availability of requisite managerial and technical capacities/capabilities for project implementation.
- **Risk:** e.g., the level of technical, economic (including financial), etc. risks of the project, and provisions for risk management.

Objective assessment of transformation options

Criteria indicator measurement

Having determined a set of criteria for the assessment of transformation options, measurable indicators for each criterion will need to be identified and corresponding data collected and processed. Indicators may be defined in terms quantifiable units; for example, number of jobs created, or investment costs. Other indicators may need to be developed in a more qualitative manner, for example by using scoring metrics such as 'high', 'medium' or 'low'. Where this is the case, the approach and justification for assigning values should be transparent.

Data and information to develop quantitative or qualitative indicators for some chosen criteria may be difficult to obtain and subject to significant uncertainty, especially where they concern long-term activities and outcomes. As is the case with other elements of the TOF, the effort dedicated to data collection should be proportionate to the scale of the site and the proposed transformation projects.

It also needs to be remembered that the objective assessment of transformation options should provide evidence that is not limited to the expected relative economic/ financial outcomes of different transformation options and associated risks etc., but, also, provides evidence - calibrated to the size of the site and the potential level of public support - on other outcomes, including social and environmental outcomes, together with their alignment to the Vision and other Just Transition goals and decarbonisation targets. Accordingly, measurable indicators that reflect such aspects of different options will need to be developed, also.

As far as possible, objective indicators should be used to compare different options. It should, however, be recognised that data provided by stakeholders with a vested interest in particular options may not be entirely objective; for example, they may tend to overstate positive aspects while understating negative aspects of the options that accord with their interests. In these circumstances, it may be appropriate to consider the sensitivity of indicators used for the option assessment under different future scenarios.

Indicator weighting mechanism

Having constructed the set of indicators for each option, some form of mechanism is necessary to attribute a relative weight to individual indicators (or sub-groups of indicators) to arrive at an overall assessment of each option against the established assessment criteria. Essentially, this weighting mechanism reflects how much importance is attached to a particular criterion in the overall assessment of the option. the relative importance (weight) to attach to different indicators to arrive at an overall evaluation of options is likely to be a subjective decision.

Different stakeholders can be expected to attribute more (or less) importance to certain indicators; for example, some stakeholders may attribute relatively more importance to indicators of positive economic outcomes, whereas others may attribute more importance to social or environmental outcomes. Thus, if higher expected economic outcomes of one option is accompanied by lower environmental or social outcomes compared to an alternative option, the relative importance (weight) attached to each type of indicator can be crucial in determining how one option is ranked relative to another and, eventually, which one is assessed as the 'preferred option'.

A purely mechanical approach to the options assessment process carries a risk of highlighting conflicts arising from the potential of competing transformation options to deliver on different transformation goals. Transparency of the options assessment process, including the weighting of different indicators and the role and influence of different stakeholders in setting the applied weights is important, therefore.

Multicriteria Analysis: a manual

There are various techniques that can be used to assess and prioritise projects / options when the assessment criteria indicators use different metrics (e.g., indicators are not all in monetary values). This manual describes various multi-criteria analysis (MCA) techniques and provides guidance for public officials and practitioners on how to undertake and make the best use of multi-criteriaanalysis (MCA) for the appraisal of options for policy and other decisions.

Department for Communities and Local Government, UK

Formulation of process for prioritisation/ selection of transformation options

This activity involves setting-up a process for identifying 'preferred' transformation options. The process should determine which stakeholders need or should be involved in the prioritisation/selection process. Here it may be necessary to strike a balance between the influence of different stakeholders expected to have a role in the eventual implementation of the project (including financial commitments) and the influence conferred on stakeholders that will be impacted/affected by the transformation.

Prioritisation/selection of preferred options

The process for prioritisation and/or selection of one or more preferred transformation options should be informed by objective assessment of transformation options outlined above. However, once informed by the assessment, the prioritisation/selection offers an opportunity to engage stakeholders, including affected communities and other groups, in an informed and inclusive dialogue that provides an opportunity for them to express their views and indicate their preferences among the list of potential, credible end uses (as identified under Component 4).

In keeping with the underlying guiding principles of the TOF, the prioritisation process should result in the identification and/or selection of transformation options that have the potential to:

- Optimise a just and inclusive transition and other key strategic priorities consistent with European, national, and regional/local policy goals and commitments.
- Promote sub-regional and regional complementarity of brownfield site rehabilitation & repurposing (i.e., minimisation of displacement and duplication, and optimisation of benefits)
- Promote innovation and experimentation (within the constraints of proportionate cost, affordability, and deliverability).
- Support alignment with potential private and public financing sources, including potential matching of projects with available or planned public funding mechanisms

Outcomes

The outcome of the options assessment should be to identify and prioritise credible and optimal end-use options for the site that reflect the Vision, together with an objectively based justification and explanation of the choice of preferred option(s).

Stakeholder engagement

The extent of stakeholder engagement in the options assessment will be determined by a range of circumstances, not least on the flexibility, openness and genuine commitment of decision makers – whether private investors or public administrations – to a participatory and inclusive redevelopment process. Where the eventual financing of transformation activities will rely on public funding support, or where implementation will depend on approval be public administrations, there may be greater leverage to include stakeholders in options assessment process. Different scenarios for stakeholder engagement can be envisaged:

- Stakeholders previously engaged in the consultations are simply informed about the assessment procedures and the outcomes (prioritisation/selection of preferred options) without having influence over the process and outcomes.
- Specific stakeholders are requested for technical consultation, for example in formulating certain assessment criteria; for instance local women groups can be requested to verify criteria related to gender-sensitive aspects, environmental groups can validate criteria regarding environmental impact.
- Stakeholder representatives (e.g., representing local communities or different social categories) are invited to participate in the assessment process, with their voice counted in the final prioritisation/selection of options.
- An open and inclusive approach is used to include a broader group of stakeholders in the assessment process, both at the stage of determining what are appropriate assessment criteria, their relative importance in the overall assessment of options, and in the prioritisation/selection decision.

An appropriate stakeholder engagement and consultation processes should reflect the scale and importance of the planned redevelopment as well as the dynamic of the public consultations thus far. If they were characterised by strong conflict and lack of consensus between different groups, it may be advisable to avoid broad involvement in this component, leaving room for more expert and technical work. Conversely, if opposition among residents to certain options is anticipated, involving stakeholders in the assessment may be desirable, as it will mean that they are better informed and have a greater understanding of the factors leading to the prioritisation/selection of preferred options.

As stakeholders are likely to view the options assessment process as the most impactful component of TOF, with greatest implications for transformation of the site, the scope and approach to stakeholder consultations within the options assessment component requires careful consideration.

OPTIONS ASSESSMENT

Checklist for options assessment

- Has a set of assessment criteria been identified that adequately reflects the main goals for transformation set out in the Vision for the site?
- Have you included criteria (and corresponding indicators) that capture wider aspects of transformation options, such as alignment to wider policy goals, including Just Transition, or the practicality of implementation?
- Have you ensured that the measurement/scoring of indicators for all criteria can be implemented using objective information?
- Are you confident that the process and approach used to arrive at an overall assessment and ranking of options is transparent and justifiable?
- Have you involved stakeholders in the options assessment process and/or informed stakeholders of the outcomes? Have stakeholders had the opportunity to react to the outcomes of the assessment and adequate efforts made to address any reasonable concerns?
- Do you believe that the preferred option(s) are those that – within constraints of cost and practicality – will best contribute to achieving the Vision for the site and promote Just Transition principles and the move to a climate-neutral economy?

Notes

PROJECT PREPARATION

Rationale for Component

This component leads to the identification of a proportionate and site-specific plan for delivery of the preferred end-use(s), prior to the commencement of the project on site. The component clarifies project scope and impact, timescales, deliverability, affordability, and risks, leading to greater certainty about the project and, in turn, funder and investor confidence. Critically, the component also addresses the development of a financing plan for the project. Delivery of this component ensures that delivery partners' skills, knowledge and resources are co-ordinated to deliver a fully scoped and appraised project that is ready for execution.

Implementation process

Project preparation relates to the preliminary stages of the project life cycle, namely project initiation and project planning i.e., the stages before project execution. As ever, this component should be proportionate to the scale of the project and its respective components. For civil engineering projects, initiation and planning stages can represent 10% of the overall capital cost of the project, although this figure can be lower for simpler or replicable projects. A key message for project planners is that this component can be resource intensive and needs properly managed and governed.

The design of the management and governance system should be informed by the scale and complexity of the project and the inclusion of appropriate stakeholders (e.g., site owner, developer, funders, elected representatives). This assessment can be informed by Component 1. The management and governance system should be implemented at an early juncture of project preparation.

The related elements of the initiation and planning stages which are noted below are illustrative.

Project Initiation

The project initiation stage relates to the development of:

- A project proposal (i.e., rationale for the project, respective components, overall goals, duration etc.)
- The scope of work needed to finish the project and a hierarchy of activities and deliverables (for larger sites with multiple zones this may require multiple, inter-related scopes and the creation of a Master Plan) linked to a responsibility assignment matrix.
- A draft project schedule with key milestones and deadlines.
- Initial financial analysis and identification of estimated budget.
- Stakeholder support (e.g., political, business, civic, investor / funder support) through structured planned communications and engagement.
- An assessment of benefits, including benefits relating to a Just Transition, at the local level and, for larger projects, at the regional level.

Project Planning Stage

The Project Planning Stage relates to the development of:

- A planning and design team with relevant skills, expertise and resources.
- An appropriate project delivery methodology I.e., the mode for the site's development e.g., holistic and integrated; diversified and co-ordinated; atomised and reactive.
- A finalised scope of works linked to requisite appraisals e.g., economic, environmental, financial.
- Detailed costings, in terms of capital and revenue expenditure, based on rigorous appraisal.
- A plan for project funding (see below).

- A work programme and schedule linked to milestones (approvals, procurement etc.) and regulatory and planning permissions.
- A risk register, analysing key risks in terms of impact and probability and means of mitigation.
- A benefits realisation plan - demonstrating the contribution to a Just Transition and decarbonisation.
- A communications and engagement plan for developing and maintaining stakeholder support.
- A monitoring and evaluation plan.
- An overarching business case for the project for formal approval.

Outcomes

A credible business case for the project linked to a fit for purpose management and governance system, and with requisite levels of stakeholder support and a detailed, credible funding plan.

Stakeholder engagement

Stakeholder engagement and communications should be maintained during project preparation and there may be need for consultation with community groups as specific plans and designs are developed. A website or webpages that provides a central point of information on the development of the project is beneficial for transparency. Using conventional local media and social media, especially to report on notable preparatory milestones is another means of keeping local stakeholders informed.

Financing the project

Identifying and securing funds to facilitate the implementation of transformation projects and to cover both their capital and revenue costs, can be a major challenge, particularly for organisations working at the local level. Comprehensive planning and coordination of funding efforts at the regional and local levels will accelerate the pace of transformation. While funding for transformation projects will depend greatly on theirsize and nature and the policy and regulatory framework, the link below provides access to resources that will assist in the design of an effective funding plan and approach.

Transition Financing Toolkit – how to finance projects in coal regions:

https://ec.europa.eu/energy/sites/default/files/documents/transition_financing_toolkit_-_initiative_for_coal_regions_in_transition.pdf

Project management guidance

There are a range of project management methodologies and terminologies, link to a summary and glossary can be found below:

https://en.wikipedia.org/wiki/Project_management

https://en.wikipedia.org/wiki/Glossary_of_project_management

PROJECT PREPARATION

Checklist for project preparation

- Have you documented the transformation project's scope, timescales and phasing, means of delivery, costs, and risks? Are these based on rigorous professional appraisals and analysis. For larger sites, do you have a Master Plan?
- Can you clearly define the benefits and impacts of the transformation, including its contribution to a Just Transition? Have you an understanding of benefits to costs?
- Have you a credible funding strategy, addressing capital and revenue costs? Where public funds are required, does the project meet the funds' objectives?
- Are you confident that all regulatory and planning aspects have been or are in the process of being addressed?
- Have you assembled or can you access the skills and expertise required for delivery of the project?
- Do you have appropriate management and governance systems in place? Are the right people and organisations in the delivery partnership?

Notes

3 Annexes

Annex 1: Alignment of TOF with other tools

Table 1: Summary comparison of TOF and other notable tools

Aspect	ToF	LURA	OPI-TPP	Environmental rehabilitation and repurposing toolkit
Author	**START (2021)**	**World Bank (2020)**	**Central Mining Institute (2013)**	**START (2020)**
Aim & scope	Tool to guide the systematic assessment of alternative options for the transformation of brownfield sites, with an emphasis on their economic and social dimensions.	Evidence-based decision-making support tool for identifying optimal land use scenarios for mining sites. It characterizes mine lands, based on the i) location and redevelopment potential; (ii) environmental risks / liabilities; (iii) geotechnical stability; (iv) topography and hydrography and (v) development potential and financial risks, and proposes optimum post mine land utilization.	IT tool to support decision-making processes on the future use of post-industrial areas. It provides information about degraded post-industrial areas, such as the presence of residential buildings, agricultural activity, and environmental conditions. Based on identified external factors, the platform provides preferred directions of reuse of degraded areas in the form of reconversion scenarios.	The toolkit (entry point) gives guidance on: • securing finance; • knowledge and tools; • governance and institutions to support mine closure, environmental rehabilitation of mines and repurposing of coal related infrastructure.
Focus	Socio-economic considerations (Just Transition) & resolving stakeholders' tensions	Integration of physical, environmental, socio-geographic, and economic factors	Geotechnical	Governance processes
When to use?	For assessment of transformation options of specific brownfield sites	For formulation of a repurposing development strategy and as basis for a master plan	For multi-criteria analyses, environmental risk analysis or when choosing preferred direction of land/site reclamation/repurposing	For good practice examples and tools related to governance process of mine closure and land rehabilitation
Target user	Regional authorities, and local governments (e.g., municipalities), local development agencies, private investors	Regional authorities and local governments (e.g., municipalities), local development agencies, private investors; regional spatial planners; special purpose entities (SPE)	Regional spatial planners and investors preparing investment decisions	National and regional authorities, and local governments. Other stakeholders (such as civil society organisations)
Output	Identification of preferred transformation option(s)for post-industrial/post-mining site	Land utilization zoning map which delineates areas with a site classified according to their range and / or optimized type of utilization	Thematic maps, reports and recommendations regarding the preferred directions of reuse of post-industrial areas in the form of reconversion scenarios	N/A

Annex 2: Illustrative Cases of European Brownfield Site Regeneration Projects

Redevelopment of Alexandra Dock, Humberside (UK)

Alexandra Dock was a 56-hectare brownfield site in the Humberside region of England, an economically challenged area with a history of industries associated with carbon-based energy production. In 2014, Siemens, along with Associated British Ports, announced a €350 million investment to develop the site. The investment was focused on the transplantation of new technologies relating to the manufacture of offshore wind turbine blades.

The case is relevant given the area's transition from a dependence on carbon-based energy to renewables; and the role of the private and public sectors working in partnership to enable brownfield site redevelopment, economic diversification and job creation based on importing new technologies to the area.

Since 2014, the investment has directly created over 1,000 jobs, assisted the development of the renewable energy supply chain in the region, reduced the area's economic dependence on carbon-related industries, and given the region a new national and international profile conducive to attracting new investments related to energy transition.

The Siemens investment was dependent on the local authority and a large local landowner and employer (Associated British Ports) seeking new technologies that could assist the area's economic development. In partnership, they identified offshore wind energy as a small market but one with significant growth potential given changes to national regulatory and subsidy regimes. In turn, they targeted a potential investor, Siemens. Associated British Ports (ABP) agreed that it would invest over EUR 150 million in site repurposing works at Alexandra Dock if Siemens would locate there, recognising that this initial (ABP) investment would be recovered in future rental charges.

However, a critical reason for Siemens choosing the Alexandra Dock site as compared with other brownfield and greenfield sites on the east coast of England, which also had Enterprise Zone incentives, was the use of local planning powers to simplify and expedite the construction of Siemens' manufacturing facility. Associated British Ports, the site owner, had previously sought and been granted planning permission for reconfiguration of the site. This speculative, forward-looking act ensured that the site was well placed for rapid redevelopment compared with other English sites. In addition, the local authority, after the signing of a Memorandum of Understanding with Siemens and ABP, put in place a streamlined planning process which ensured outline planning consent for the Siemens facility was given within months of the investment announcement being made, without the detailed plans of the factory being finalised.

Sources:

https://greenporthull.co.uk/

Revitalisation of Dolní Vítkovice industrial complex (Czechia)

Dolní Vítkovice is a national site of industrial heritage located in the Vítkovice district of Ostrava in the Czech Republic where coal was mined, and pig iron produced between 1828 and 1998. The site includes an extensive industrial area, Vítkovice ironworks, and a unique collection of industrial architecture. Over the past decade, an investment of EUR 80 million, financed via a mix of EU structural funds, state subsidies and private capital, revitalised Dolní Vítkovice area. The site is currently the second most visited cultural site in Czech Republic after Prague (in 2017 it attracted over 1.5 million visitors).

This case is an example of successful transformation of a former mining and industrial complex into an educational, cultural, and social centre with an international reach. It demonstrates that building a strong stakeholder engagement strategy around prominent initiators and developing a shared vision are key elements in the process of successful conversion of industrial heritage.

In terms of impacts, the repurposing of Dolní Vítkovice led to creation of new businesses around the services linked to the revitalisation of the industrial complex and generated new jobs within individual projects in the areas of creative industry, digital agenda, tourism and science. Tailored programmes for schools and other educational and interest groups were also created which attract a wide range of visitors to the site. Currently Dolní Vítkovice complex consists of:

- Science and Technology Centre located in the former energy station and in a new purpose-built building (the only one in Dolni Vítkovice). The centre has more than 100 interactive exhibits which explain science and technology in an entertaining way.
- Congress Centre for 1,500 people constructed in a 100-year-old disused gas tank.

- Bolt Tower where a former blast furnace, which represents the historic continuum of pig iron production, provides a viewpoint over Ostrava town and the nearby area.
- Creative Centre Hlubina hosted in the former operational and administration buildings. The Centre is a multi-genre cultural centre with cinemas, music rehearsal rooms and recording studio, presentation rooms, dance rooms and a climbing wall.
- Triple Hall Karolin, which originally served as a power plant supplying electricity to neighbouring ironworks, mines and industrial facilities, is now a sports and leisure centre.
- Landek Park which contains a mining museum, a sports and recreation area, including a camp and catering facilities.

The revitalisation of Dolní Vítkovice illustrates how adaptive re-use of industrial heritage requires leadership, cooperation of various stakeholders (e.g., politicians, private sector, universities, and local communities), as well as creation of a common vision. The revitalisation process of Dolní Vítkovice, was originally initiated and driven by the private site owner, a local entrepreneur, who signed a memorandum with the National Heritage Institute and engaged renowned architects to broaden the vision for the site, which led to increased stakeholder engagement. An adequately skilled and resourced implementation team - that was put in place with the capacity to conceptualise, plan, design and manage large projects and find synergies - has also been a crucial element of the success of revitalisation of Dolní Vítkovice. Over the years, the revitalisation has involved carrying out dozens of projects in various fields, which have been guided by the common vision for the site and have progressively assigned new functions to the original structures.

Sources:

https://nws.eurocities.eu/MediaShell/media/MORAVIAN_SILESIAN_REGION_Doln__V_tkovice.pdf

https://ec.europa.eu/energy/sites/ener/files/documents/5_lessons_from_czech_republic_regeneration_of_the_lower_area_of_vitkovice_moravskosleszky_region_daniel_konczyna_beepartner_co.pdf

František Industrial Zone, Horní Suchá (Czechia)

The František Industrial Zone is located in Horní Suchá on the site of the former František coal mine. After closure of the coal mine in 1999, and after metal thieves had stripped much of the buildings and engineering plant, the municipal authorities set about developing a modern industrial zone on the site. The site was transferred to municipal ownership in 2005, and with support from national and European funds, the František Industrial Zone was officially opened in 2010 with further development activities on the mine site continuing up to the present day.

The case is relevant, as it demonstrates how the determined efforts of a local administration can drive successful redevelopment of a former mining site to meet local needs. There are several relevant learning points:

- The development of František Industrial Zone is an example of a successful municipality-led brownfield redevelopment of a former mining site. It illustrates the difficult position of the municipality, especially in the initial stages, to secure cooperation of the original site owner to develop a regeneration project aligned to local needs. Mainly, the need for municipal action came from necessity, given the absence of other stakeholders able or willing to lead the process. In turn, the persistence from the local administration in pursuing its ambitions for the site, also in dealing with funding applications given their limited capacity, was essential.
- The alignment of development objectives of the municipality and the mine closure and rehabilitation company (DIAMO), together with regulatory change allowing the free of cost transfer of the site to the municipal administration, were important for ensuring the conditions in which a municipality-led redevelopment project was feasible.
- The project would not have been possible without the substantial funding available from the public sector, both for initial remediation of the site and subsequent investments to develop the industrial zone. The municipality was among the first regional governments in the Czech Republic to utilize the subsidy program for regeneration of land, which was subsequently supported also through the Operational Programme and Structural Funds.
- The project has successfully attracted businesses and created local employment opportunities, including during the construction phase which helped to take persons out of (long-term) unemployment. The fact that the project won a prize for “Brownfield of the Year” also helped with the promotion of the site and the attraction of businesses.
- Development of the site has been an ongoing process, with the initial 14 ha industrial site being expanded over the years. It has also become, in recent years, an illustration of a shift from traditional industry (coal) towards new energy technologies (Li-ion batteries).

Due to Czech government regulations, operations at the František Hard Coal Mine terminated in 1999. In common with the wider Ostravian coalfield region that was afflicted by mine closures and declining iron production, the town of Horni Sucha was facing industrial decline and high unemployment. To counter this adverse situation, the municipal authorities formed the intention to build an industrial zone on the site of the closed František mine. Initially, these efforts were frustrated as the municipality was unable to reach an agreement with the private owner of the site. However, this situation improved in 2002 when the site was acquired by the state-owned enterprise DIAMO, which had a responsibility for liquidation and remediation works of former mining sites and that undertook costly demolition work on the František site. Following negotiations between the municipality and DIAMO, and a change in the law that allowed for transfer of the site for free (a symbolic payment was made), the site was transferred to municipal ownership in 2005. In this regard, it helped that both DIAMO – as a state enterprise – and the local administration shared the same goals of reducing unemployment and revitalising of the former mining area. Meanwhile, essential reclamation works around the site covering an area of over 120 hectares was completed at the end of 2010, which was followed by further maintenance work and environmental reclamation.

The development of the František Industrial Zone was assisted when it was selected by the Czechinvest agency as one of 5 brownfield pilot sites for a study on potential future uses. Based on this study, the Horni Sucha municipal administration employed a private design company to elaborate pre-project documentation for submission of a grant project proposal for funding from EU Structural Funds. Meanwhile, finance for construction of infrastructure came from the Ministry of Finance from funds set aside to revitalize the Moravian Silesian region after mining and metallurgic activities finished in 2009.

Due to the presence of remnants of mining activities (e.g., mine shaft and protected security zones) requiring continuous access for monitoring and maintenance, the site was not suitable for utilisation for a single large investment project. Accordingly, the project development plan envisaged that the mine area would be divided into different areas (units), an approach which also allowed for existing infrastructure to be used to link together smaller units. This was also in line with the original intention to create an industrial zone primarily for micro, small, and medium enterprises. The project involved inter alia:

- reconstruction of administrative buildings with funding support from the Operational Programme 'Industry and Business' (circa. CZK 20 million / EUR 0.71 million)
- construction of a new production hall (circa 2,000 m2) with a combination of funding from EU structural funds (circa CZK 20.6 million / EUR 0.74 million), the Operational Programme 'Industry and Business' (circa CZK 6.8 million / EUR 0.24 million), and from the municipal budget (circa CZK 12.6 million / EUR 0.45 million).

The František Industrial Zone (circa 14 ha) was officially opened in 2010, creating employment for about 300 persons in the approximately 25 businesses on the site. In the same year, the František Industrial Zone won the prize for "Brownfield of the Year", in a competition run by the Ministry of Industry and Trade and CzechInvest. Further investment in construction on the site continued thereafter, with an expansion of the initial area and the creation of a František II development zone (circa 30 ha) and a further 30 ha with development potential. The ongoing development of the site is being undertaken by a private real estate company (the Asental Group) in cooperation with the Horní Suchá municipality.

In the short term, the industrial park did not generate revenues, requiring the local municipality to subsidise operations. However, the site has continued to attract a range of small and medium sized manufacturing businesses, for which there was some preference to attract domestic companies. More recently, at the end of 2019, the first Li-ion battery came off the newly constructed production line of the Magna Energy Storage factory in the František Industrial Zone. The production line, representing a total investment of circa CZK 1 billion (EUR 35 million) by the Battery Unite Fund, will have an initial annual production capacity of 1.2 gigawatt-hours of batteries after being put into full operation. Eventually, production could be expanded to an annual production of 15 gigawatt-hours, which would make it one of the largest battery factories in the world with the potential to employ over a thousand workers within the next five years. In 2021, in another interesting development, and a reversal from its former use, Magna Energy Storage has treated the mining elevator tower – which could not be demolished because of its proximity to other buildings – with a photocatalytic coating developed by Czech scientists that should turn it into the largest air purifier in Europe.

Sources:

https://www.hornisucha.cz/industrial-zone-frantisek

http://fast10.vsb.cz/bribast/document/handbook_EN_final.pdf

https://www.okd.cz/en/media/press-releases/attitude-to-land-reclamation-has-been-changing-golf-courses-an?FfArticleItem_page=14

https://oze.tzb-info.cz/akumulace-elektriny/20083-he3da-priprava-vyroby-v-horni-suche

https://fn-nano.com/2021/01/29/largest-air-purification-tower-in-europe/?lang=en

Transformation of the Gliwice Coal Mine (Poland)

The “New Gliwice” Business and Education Centre GAPR Ltd. is located a short distance from the city centre of Gliwice on the site of the former Gliwice Coal Mine and is an example of the repurposing of a complex of mining buildings. One of the negative consequences of the restructuring processes of traditional industrial sectors, especially the coal mining industry in Silesia during the 1990s, was the appearance of strongly degraded post-industrial areas and facilities. Inhabitants located in the vicinity of these sites were also threatened with social exclusion due to imminent structural unemployment. Reclamation and development of post-mining and sites through the introduction of new economic and social functio uding €9.5 million of support from European Structural Funds. The revitalised area and facilities are divided into two zones: education and business. The project provided:

- Office spaces with an area from 30 to 100 m2
- Investment areas
- 10 training rooms that can accommodate from 16 to 70 people
- 5 auditoriums that can accommodate from 78 to 301 people
  Exhibition area of 235 m2, which can be arranged according to the exhibitor’s needs

Currently, “New Gliwice” hosts 45 companies from sectors such as electronics, energy, telecommunications, IT, and aviation.

The success of “New Gliwice” is due to several factors. The “New Gliwice” site is conveniently located a short distance from the city centre, and close to important motorways. Companies investing in this area have access to the local labour market and qualified personnel educated at the Gliwice University of Technology. They can also benefit from the proximity of potential business partners located in the Silesian agglomeration. The “New Gliwice” site itself, in addition to office space and investment areas, also offers business an attractive place for the organization of large conferences, training sessions, workshops, trade fairs and exhibition initiatives as well as small business meetings and presentations. Finally, the “New Gliwice” site and facilities are all managed by a single entity, the Upper Silesian Agency for Entrepreneurship and Development Ltd.

Sources:

https://tracer-h2020.eu/wp-content/uploads/2020/07/D2.4_Factsheet_Nowe-Gliwice.pdf

Gumienny, Józef, and Tomasz Szulc. „Nowe Gliwice–studium przypadku rewitalizacji terenów pokopalnianych.” Problemy Rozwoju Miast 3 (2013): 57-67.

Redevelopment of coal mining sites, Limburg (Belgium)

In Limburg seven large coal mines had a profound impact on the development and character of the local economy and communities. The discovery of coal in 1902 led to very rapid socio-economic and industrial development in what was primarily a rural region. The coal mines were in effect the socio-economic raison d’être of central Limburg in the twentieth century. Therefore, the reconversion and repurposing of the mining sites following their rapid closure, between 1985-1989, was of critical importance.

This case demonstrates the need for policy makers to adopt a long-term, integrated regional perspective to site repurposing and the need for a combination of bottom-up and top-down approaches and the active involvement of communities. Moreover, it emphasises the need for co-ordination, specialisation and complementarity across municipalities when developing several regional brownfield sites.

The seven mining sites have now been successfully repurposed to accommodate new economic functions, although much still needs to be done. Each site has a specialised economic purpose, thus minimising duplication and displacement of investment and economic activities across the seven sites. Hundreds of new jobs have been created through development of diverse economic activities, for example, in relation to energy and clean technologies, tourism, art and culture, business start-ups, research and education.

During 1993 and 1994, Limburg municipalities organised and co-ordinated a programme of study days to engage and mobilise local communities. This programme of engagement facilitated bottom-up vision building. Conferences and seminars at which experts could explain new concepts and opportunities were coupled with working group meetings through which creative ideas could be developed and tested by and with residents. This transparent and collective process had strong political input from the mayors of Limburg who adopted a consultative and collaborative approach to joint working. In turn, a Regional Platform (1994 to 2000) was established through which the mayors and the municipal authorities could discuss development problems and share solutions both formally and informally. This collective dialogue and consultation were particularly important for assessing the re-use of mining assets and understanding the opportunities offered by these assets at the regional level. The Regional Platform enabled the municipal authorities and potential project promoters to adopt a pragmatic and informal and yet successful approach to “multi-site master” planning: one central theme per mining site.

The redevelopment of former mining sites was subsidised, inter alia, by a €217 million grant pledged by the Flemish government, which made it possible to develop an extensive investment plan. The government also provided tax incentives and subsidies for companies and academic institutions to work in the area. To finance these subsidies, an Integrated Territorial Instrument (ITI), which made it possible to also use multiple EU Funds (ESF, ERDF and the Cohesion Fund), was developed.

Each of the seven mining sites identified a unique theme that would drive the development of the site and contribute to both local and regional place development, diversification, inclusion and profile. This focused approach promoted a targeted use of resources, whilst minimising duplication, mutual conflict and rivalry (e.g., in terms of attracting investment). Furthermore, this new regional development approach and narrative could be communicated to higher authorities and could assist co-ordinated, effective lobbying for national and EU funds. The unique themes of the seven sites are:

- Beringen: history and heritage (museum) and leisure (Tourism & Retail)
- Eisden: nature development (national park with climate research centre), leisure & retail
- Houthalen: “cleantech” linked to a business incubator
- Waterschei: energy (with research and training centres)
- Winterslag; culture (arts, theatre halls, cinema, higher art education)
- Zolder: “sustainable construction” education, training and research
- Zwartberg: art and biodiversity

In addition, three region-wide themes were identified and progressed: 1) the redevelopment of a disused railway line connecting the seven coal mines; 2) the natural development of regional slag heaps; and 3) the region becoming a national tourist destination based on industrial heritage.

Sources:

https://dtek.com/content/files/kris-baeckers.pdf

https://ec.europa.eu/energy/sites/default/files/documents/genks_ongoing_transition_-_platform_for_coal_regions_in_transition_.pdf

Redevelopment of derelict commercial property, Ludgate Hub, Skibbereen (Ireland)

The Ludgate Hub is a digital co-working space for young professionals and SMEs. It is in a repurposed former bakery and cinema in the town of Skibbereen, a relatively rural community of 3,000 in the south of Ireland. Skibbereen was selected as a pilot town by a joint venture company between ESB (a state-owned electricity company) and Vodafone to deliver a 100% fibre-to-the-building broadband network and to install for the first time in an Irish rural town 1GB of internet connectivity. Since its establishment in 2014, the Ludgate Hub has created many quality jobs in a small community and created a national profile for the town.

The case demonstrates that the innovative adoption of new technologies, in this case ICT, linked to the repurposing of old commercial buildings, in relatively small, peripheral economies, can facilitate entrepreneurship, diversification and place development and competitiveness.

The Ludgate Hub offers hot desk space for 75 workers, private offices and meeting rooms for mobile workers. Together with the office space, and the opportunities for networking, mentoring and events, the Hub has attracted 55 full-time members (entrepreneurs and young professionals) and created 146 jobs. 15 of the members moved to the area with their families. The Hub has also stimulated over 3,000 bed nights for local tourist businesses through its activities. The initiative’s success has led to the development of Ludgate 2.0, an expanded version of the original Hub.

Before the project, Skibbereen had poor broadband provision and some areas had no fibre connection. Skibbereen was the only town in the region without an e-centre or an enterprise park and had limited opportunities to encourage or accommodate incoming mobile workers. In 2014, a steering group was established - comprising local entrepreneurs and business owners (representing professional services, retail, tourism, agriculture etc.) and digital ambassadors (all volunteers) - to transform the derelict commercial premises into a state-of-the-art digital co-working space. The steering group worked for 18 months to develop the concept and used local expertise (much of it pro bono) for financial and legal advice, and the networks and contacts of steering group members for mentoring, marketing and technical support. In addition, the local chamber of commerce promoted the town and the initiative through a dedicated website. By developing this local vision, capacity and momentum, the town was selected as a pilot by a joint venture company between ESB and Vodafone to upgrade the local broadband network and to install 1GB of internet connectivity.

Sources:

https://www.ludgate.ie/

Revitalisation process of Mūkusala area, Riga (Latvia)

Mūkusala area is a former industrial territory included in the protection zone of the UNESCO World Heritage Site "Historic Centre of Riga". The area is characterized by a strong commercial, industrial and corporate identity that throughout history has been displayed through value creation in various forms: from woodworking and agrarian industrialization of the 19th century to industrial manufacture and workshops during the years of the planned economy. Since the 1990s, while retaining its industrial image, the area has searched for a new identity. Over the past few years, a steady transformation of brownfield areas into office and business spaces has led to significant employment growth in the area. However, the potential of the area has not been used to its full capacity and, to overcome this situation, the city of Riga organized a student competition to find new ideas for the development of Mūkusala site.

This case is relevant as it demonstrates how innovative methods can be used to actively engage local stakeholders in the revitalisation process to overcome the lack of a coherent development vision. It also shows how urban planning can be improved by developing and testing new integrated planning approaches and Public-Private-People partnership models.

Various approaches have been used to consult and involve stakeholders in the revitalisation process, such as surveys of local inhabitants and entrepreneurs, events to raise awareness, and co-design workshops with landowners, entrepreneurs, and inhabitants. A novel approach was to organise a student competition to find new and fresh ideas for the development of the area. The student teams were tasked with coming up with a development proposal for a pilot site, taking into consideration the results of baseline analysis and the feedback and ideas collected from different stakeholder groups. All student proposals emphasized the development potential of the Mūkusala territory by visioning it as a multifunctional urban environment that would be liveable for residents, prosperous for developers, and exciting for visitors.

Drawing on all three student group competition proposals, the Development Department of Riga City Council City prepared an Action Plan that serves as a key driver for development and the basis for a cooperation platform to encourage stakeholders to implement activities. The Action Plan sets out both public and private stakeholder responsibilities for redevelopment of the Mūkusala area and defines a timescale of short-term (until 2022), medium term (until 2027), and long term (until 2050) activities. The activities are categorised into seven thematic areas: a new recreational space in Riga; mobility; infrastructure; common placemaking; strengthening communities; free time and leisure activities; and contemporary planning and management. In addition to the Action Plan, the main outcome of the revitalisation process has been to activate stakeholder groups, which are now more interested to promote Mūkusala district development and cooperate with each other to implement activities included in the Action Plan.

Sources:

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http://www.balticurbanlab.eu/goodpractices/student-competition-planning-method-brownfields-riga

https://www.balticurbanlab.eu/sites/www.balticurbanlab.eu/files/mukusala_area_development_concept._business_knowledge_and_community_summary.pdf

Redevelopment of Ravenscraig Site, Lanarkshire (UK)

Ravenscraig is a 485-hectare brownfield site in Lanarkshire, Scotland, an economically challenged area with a history of heavy industry. The site contained the largest steel mill in Western Europe, which closed in 1992 with the loss of thousands of local jobs. The industrial buildings and infrastructure on the site have been removed, and significant land rehabilitation works undertaken. Redevelopment of the site is being advanced in stages and is progressing gradually. The aim is to create a new town with a mix of residential, educational, commercial, and sporting/leisure facilities.

This case is relevant as it demonstrates the utilisation of local and regional demand to stimulate development involving a mixture of site uses. It also illustrates the potential need for long-term planning and the requirement for the public sector to act as a partner to the private sector and as an anchor investor in a weak local economy / property market.

Over the past decade, investment of EUR 250 million has led to the establishment of a further education college, a world-class indoor sports centre, and a community centre on the site. In addition, 1,000 homes have either been developed or are consented and significant green space is being developed. Another EUR 370 million has recently been announced for creation of a major private sector logistics hub and an upgrading in road access and linkages to the motorway network.

Working in close partnership with the local authority, Ravenscraig Ltd published a mixed-use masterplan for the site in 2006. This provided a vision and planning framework for the creation of a new town. In turn, the plan facilitated national, regional and local government investment in the site, delivering enabling road and transport

infrastructure and two key public anchor investments, a new college for the area and a sports centre of excellence. The master plan also generated wider community buy-in and transparency. The master plan is now being revised to accommodate changing economic circumstances and regional and national demand and ensure complementarity with the region's wider spatial development and competitiveness.

Although it is three decades since the steel works closed, redevelopment is partial and far from complete. It is an outcome that emphasises the need for patient, long-term partnership working between the public and private sectors when redeveloping a large brownfield site. Finally, it should be noted that much of the related socio-economic activities and benefits may well have occurred at other locations in the wider region. However, by focusing key investments at Ravenscraig, one of the largest brownfield sites in the UK is being transformed by a critical mass of diverse developments.

Sources:

http://ravenscraig.co.uk/

Annex 3: Transformation of the ‘Krupiński’ Mine and tube rolling mill ‘Jedność’

“Krupiński” Coal Mine

“Krupiński” Coal Mine was a large mine that had one of the largest coal reserves in Poland. Production stopped in March 2017, when the plant was transferred to the Spółka Restrukturyzacji Kopalń (SRK), a state-owned company tasked with liquidating and managing the assets of liquidated mines. According to the latest schedule, the entire site should be fully liquidated by the end of 2022. The mine closure left behind an area of approximately 230.4 ha, located in a traditional mining community of Suszec. The end of the exploitation has significantly impacted the local economy, cohesion and, especially labour market. In 2019, the SRK (Krupinski’s current owner), Katowice Special Economic Zone, Suszec Municipality and Jastrzębska Spółka Węglowa (the coal mining company that was the previous site owner) signed a memorandum, establishing a steering committee to design and coordinate the transformation of the site. The main idea and direction for transformation was elaborated in the form of a comprehensive document, ‘New Energy. Suszec’, emphasizing the potential the former coal mine site has for renewable energy generation. The concept has been well aligned with the key EU, national and regional strategies and policies, emphasizing the creation of new jobs, circular economy, and energy sustainability and recognizing that the Suszec community needs a new local identify to replace its long mining tradition. The former mine site was divided into five thematic/functional areas, with new ideas for how these could be repurposed, including economic activity zones, residential facilities, and leisure and recreation.

Tube rolling mill “Jednosc”

Tube rolling mill “Jednosc” was intended as one of the most modern tube rolling mills in Europe. Located in Siemianowice Slaskie, occupying over 66 000 square meters of production halls and some 22 acres of land, the investment was planned as a new place for metallurgists from the closed steelworks. Yet, despite large-scale investment and installation of state-of-the-art equipment, production was never initiated. After many years of general inaction, Towarzystwo Finansowe Silesia (TFS) expressed interest in repurposing and renovating the large site into Silesia Business and Technology Centre. TFS, a company dedicated to participation in the restructuring of state-owned companies of significant importance to the economy and local community (e.g., power and coking coal mining, infrastructure construction), analysed all the technology parks in the region. It concluded that the site’s clear advantage comes from its infrastructure ready to accommodate steel production, e-commerce, and business. Emphasis was equally placed on technology transfer and supporting innovation. In 2020, TFS signed a letter of intent with Katowice Special Economic Zone (KSSE), and with the participation of the mayor of Siemianowice Śląskie for the repurposing the Tube Rolling Mill “Jednosc”. The repurposing plan assumes the creation of up to 300 new jobs, through a favorable environment (economic activation center) for Mid-Cap production/service investments, in accordance with the concept of Just Transition and the “Green Silesia” strategy. The project includes revitalisation of real estate and the complex of the unused factory halls (reclamation, regeneration, restoration of post-industrial areas), including their modernisation, followed by an adaptation of industrial halls for diverse use (e.g., production, e-commerce services, distribution, etc.) and also applying a SBU (Small Business Unit) formula with an area adapted to the needs of tenants. It is also planned to create a center of creativity, innovation, and entrepreneurship for small and medium-sized enterprises. (source: Property (Business Unit) in Siemianowice Śląskie, February 2021, TFS)