



JUSTEM

Discussion Paper

Funding just transitions in coal regions

Stavros Spyridakos, Marco Peretto, Julia Luca Szabo, Marta Maia, Mary
Connors and Diana Süßer

Institute for European Energy and Climate Policy (IEECP)



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EXECUTIVE SUMMARY

The LIFE project **JUSTEM** aimed to co-develop project ideas within the framework of a just transition in six coal-dependent regions and identifying the costs and financing options necessary to implement them. This discussion paper examines the strategic alignment between each region's project pipeline and the funding opportunities provided under the Territorial Just Transition Plans (TJTPs).

The paper presents a comprehensive analysis of relevant EU funding mechanisms and assesses their suitability to support sustainable development in regions undergoing economic, social, and environmental transformation. The European Union offers a range of funding instruments—including the Just Transition Fund, Cohesion Fund, Modernisation Fund and the European Agricultural Fund for Rural Development — contributing to ensure fair, inclusive, and efficient transitions.

The report maps project ideas from six European coal regions— **Asturias, Istria, Jiu Valley, Silesia, Stara Zagora, and Western Macedonia** —to appropriate financial instruments. By doing so, it enables regional stakeholders to access tailored funding opportunities and draw lessons from cross-regional examples.

Key Insights:

1. Diverse Funding Mechanisms

Projects addressing energy efficient renovations, renewable energy integration, and workforce reskilling can access financing, including grants, concessional loans, and technical assistance.

2. Cross-Regional Learning on Investment Projects

Initiatives—such as renewable heat supply in Stara Zagora, energy poverty advisory services in Silesia, and railway reactivation in Western Macedonia— offer replicable examples that can inspire and inform other regions.

3. Strategic Funding Alignment

Effective matching of funding sources with project needs requires a detailed understanding of eligibility criteria, co-financing requirements, and funding timelines.

The discussion paper is intended to serve as a roadmap for regional actors navigating the complexity of EU funding systems. Funding scopes should be revisited to make funding accessible to smaller projects led by citizens and entrepreneurs, as well as small and medium size enterprises, to foster social innovation. Capacity building at the regional level is essential to equip stakeholders with the skills and knowledge needed to access funding opportunities and to ensure that supported projects contribute to long-term sustainability, economic diversification, the development of new cultural identities, and strengthened social cohesion. Funding that is sensitive to the needs of transition regions remains critical, supporting long-term just transition efforts.

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INTRODUCTION

The JUSTEM project (*JUSTince in transition and EMpowerment against energy poverty*) was established to give a voice to the ideas and needs of citizens and communities mostly affected by the economic, social, and environmental transformation away from coal. To do so, regional partners conducted a series of participatory workshops across six coal regions: Asturias, Istria, Jiu Valley, Silesia, Stara Zagora, and Western Macedonia. In addition, replication activities took place in Megalopolis, Greece. These workshops generated a wide array of project ideas that local citizens would like to see implemented within the context of a just transition.

To turn these community-driven ideas into reality, it is essential to secure appropriate and accessible funding. Public funds, in particular, play a pivotal role, as they are often the most feasible and impactful option for local and regional authorities.

This document offers a **comprehensive review of potential funding mechanisms**, drawing from lessons learned in previous initiatives and insights from the Territorial Just Transition Plans (TJTJs). Our aim is not only to map funding options, but also to identify good practices and address common challenges faced in similar just transition efforts.

Funding mechanisms vary significantly in terms of structure, accessibility, and suitability for different types of projects. The following categories represent key options available to regional and local stakeholders:

- **Grants:** Non-repayable funds provided by public or private entities to support projects aligned with specific policy goals.
- **Loans:** Favourable financing options from public or private financial institutions for large-scale infrastructure or development projects.
- **Crowdfunding / Crowdlending:** Digital platforms that mobilize contributions from individuals and communities for grassroots initiatives.
- **Peer-to-Peer lending:** Direct financing between lenders and borrowers, bypassing traditional financial intermediaries.
- **Angel investors:** Individuals or groups offering early-stage capital for promising, high-impact projects, often in exchange for equity.
- **Donations:** Voluntary contributions from individuals or organizations, especially for projects with strong social or environmental benefits.
- **Venture capital:** Investment in innovative or scalable projects, typically involving equity exchange.
- **Sponsorships / partnerships:** Funding and resource-sharing arrangements with private sector actors committed to sustainable development goals.

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This analysis focuses primarily on **public funding streams and instruments most relevant to regional and local authorities**, while also considering innovative financing models that can complement more traditional approaches.

The structure of this report is as follows: First, we review different funding sources, drawing on existing projects and TJTP documentation to map out viable financing pathways (step 1). As step 2, we perform a practical matching exercise that aligns citizen-generated project ideas with the most suitable funding instruments, based on eligibility, thematic relevance, and financial scale. As a third step, we propose key questions regional authorities should ask themselves when selecting funding sources and concrete projects for just transition projects. This will help tailor support mechanisms and enhance the capacity to implement fair transition measures effectively. Last, we are discussing the findings and provide some perspective for the future funding of just transition.

Step 1: Overview of different funding sources

A clear understanding of the diverse funding mechanisms available is essential for effectively accessing financial resources. This section offers a structured overview of various funding types, outlining their key characteristics and the entities eligible to apply. **Table 1** provides a practical overview of the funding sources according to their core features. It can serve as a practical guide to help stakeholders navigate the complex landscape of financing opportunities with greater clarity, strategic focus, and confidence.

Table 1: Funding Sources Overview

| Funding source | Link to further info | Funding level | Type of project that can receive funding | Who is applicable | Funding volumes | Application deadlines/periods | Inspiring examples |
|--|--|----------------|---|---|------------------------------------|-------------------------------|--|
| Cohesion Fund | Cohesion Fund | EU level | Sustainable infrastructure, environmental protection, energy efficiency | Regional/local governments, public authorities | Varies by region | Calls open 2021-2027 | Successful urban transport development (e.g., metro systems in Budapest and Warsaw), wastewater treatment systems in Malta |
| Digital Europe Programme (DIGITAL) | DIGITAL | EU level | Artificial intelligence, high-performance computing, cybersecurity, advanced digital skills development | Companies, public administrations, and society at large | Total budget of €7.5 billion | 2021-2027 | |
| Education and employment programme | Education and employment | National level | Professional training programs, job facilitation and labour market integration | Regions | €200,000 to €1,000,000 per project | 2021-2027 | Vocational training programmes |
| Modernisation Fund | Modernisation Fund | EU level | Renewable energy, energy efficiency, modernisation of power grids | Public/private sector, energy companies | €1M to €50M | Ongoing calls, until 2030 | Photovoltaics for water utilities in Croatia, renewable hydrogen production in Slovakia |
| European Agricultural Fund for Rural Development (EAFRD) | EAFRD | EU level | Rural development, agricultural innovation, sustainable farming practices | Farmers, rural SMEs, local authorities | Varies by region | Periodic calls (2021-2027) | LEADER initiative, sustainable farming in Finland |
| European Funds for Silesia 2021–2027 | (FE SL 2021–2027) | Regional level | Early- and late-stage projects, emphasising research and development, entrepreneurship, | local governments, SMEs, and regional development organisations | Total funding of €4.86 billion | 2021-2027 | |

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|---|---------------------------------|----------------|--|--|---|--|---|
| European Maritime, Fisheries and Aquaculture Fund (EMFAF) | EMFAF | EU level | Sustainable fisheries, coastal community support, blue economy | Coastal communities, local authorities, SMEs | Total budget of €6.108 billion | 2021-2027 | |
| European Regional Development Fund (ERDF) | ERDF | EU level | Infrastructure projects, green energy, economic development | Regional/local governments, SMEs, public bodies | Varies by region | Ongoing calls 2021-2027, by region | Urban regeneration in Barcelona, heating system upgrades in Silesia |
| European Social Fund Plus (ESF+) | ESF+ | EU level | Social inclusion, workforce development, skills, education | Individuals, SMEs, local governments | Varies by country | Calls open in each member state (2021-2027) | Vocational training in Portugal, integration projects in Italy |
| Financial Support for Transformation (FST funds) | FST funds | National level | Economic transformation, energy transition, green and blue investments, transport infrastructure, and social inclusion | Regional and local authorities | Varies by call | Call open from 2021-2027 | |
| The Green Fund (GRFU) | GRFU | National level | Environmental protection | SMEs, local/regional governments, private sector | Varies by call | Annual calls published on the website | I2UCO project in the Region of Western Macedonia, which focused on the cooking oil collection in order to convert it to biofuel |
| Industrial Area Development Fund | IADF | National level | New industrial park/area development | Individuals, Industrial owners | Varies per project | Call open till December 2025 | |
| Horizon Europe | Horizon Europe | EU level | Research & Innovation, digital transformation, green economy, health | Public/private sector (academia, industry, SMEs) | Varies by call (min. €1M) | Annual calls published on the Horizon Europe portal | European Health Data Space, clean hydrogen partnerships |
| Inclusion and Social Dignity Program (POIDS) | POIDS | Regional level | Projects supporting social inclusion of vulnerable groups, reducing rural-urban gap | Businesses, NGOs, associations, regional authorities | Total budget € 4.15 billion, covers up to 95% of projects | Calls are published on national and EU platforms; runs 2021-2027 | |
| Innovation Fund | Innovation Fund | EU level | Innovative low-carbon technologies, industrial decarbonisation | Industry, SMEs, public-private consortia | Varies by project | Regular calls between 2020 and 2030 | ELYAS hydrogen technology, PRIMUS sustainable glass production |

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|--|---|----------------|---|---|---|--|--|
| InvestEU | InvestEU | EU level | Green economy, renewable energy, clean transport, innovation | SMEs, local/regional governments, private sector | Varies by call | Ongoing calls, managed by financial intermediaries | Green tech innovations, smart city infrastructure |
| Just Transition Fund (JTF) | Just Transition Fund | EU level | Green energy, reskilling, economic diversification | Regional/local authorities, SMEs, research bodies | €10M to €500M | Calls open 2021-2027 | Renewable energy projects in Silesia, green tech in Asturias |
| Just Transition Operational Program (POTJ) | POTJ | National level | Small-scale renewable energy production and storage capacities, developing related transport networks | National governments, regional authorities | Total budget of €2.13 billion | 2021-2027 | |
| LIFE Programme | LIFE Programme | EU level | Environmental sustainability, biodiversity, climate change mitigation | NGOs, public authorities, research bodies, SMEs | €200K - €10M | Annual calls, typically April | Carbon farming, nature conservation projects |
| National Fund for Decarbonisation | National Fund for Decarbonisation | National level | Energy efficiency and renewable energy projects | Governmental authorities | | | |
| National Recovery and Resilience Plan (NRRP) | NRRP | National level | Infrastructure, clean energy, social services, education | National governments, regional authorities | Varies by country | Ongoing calls, based on national recovery plans | Energy efficiency in Romania, digitalisation in Italy |
| Partnership Agreement for the Development Framework (NSRF) | NSRF | National level | Infrastructure development, environmental protection, human resources | National governments, regional authorities | Varies by country | 2021-2027 | |
| Public Investment Program (PIP) | PIP | National level | Circular economy, renewable energy, energy efficiency | National governments, regional authorities | Varies depending on the nature and scope of project | | |
| Public Sector Loan Facility | Public Sector Loan Facility | EU level | Circular economy, renewable energy, energy efficiency | National governments, regional authorities | Total budget of €13.3-15.3 billion | Call open until September 2025 | |

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|--|-------------------------|----------------|--|---|--|---|---|
| Recovery and Resilience Facility (RRF) | RRE | EU level | Implementing the REPowerEU plan | Member States | Varies by call | Call open till December 2026 | |
| Research Innovation and Digitisation for Smart Transformation Programme (PRIDST) | PRIDST | National level | Projects related to digital transformation, research, innovation, and environmental sustainability | SMEs, public institutions, academia, and innovation hubs | Varies by project type | Ongoing calls | |
| Research Fund for Coal and Steel (RFCS) | RFCS | EU level | Research and innovation in coal and steel sectors | Universities, research centres, and private companies | Up to €2.5 million per project | 2021-2027 | "Green Steel for Europe" and "Recovery" projects |
| Smart Growth, Digitisation and Financial Instruments Program (POCIDIF) | POCIDIF | Regional level | Digital transformation projects, R&D capacity building | SMEs, large enterprises, research institutions, public administration, cultural organizations | Varies by sector | Periodically announced calls until 2027 | Development of centralized IT systems for public services |
| Structural Reforms Support Programme (SRSP) | SRSP | EU | Green and digital transitions, social inclusion, resilience in public administration | Regional authorities | It does not allocate funding but instead provides tailored expertise | Annual cycles | |

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In the following section, we provide further information on major funding mechanisms.

The **Cohesion Fund** operates at the European level, providing grant-based funding to support large-scale infrastructure projects in the fields of environment and trans-European transport networks. Administered by the EU, the fund prioritises initiatives that contribute to clean transport, climate action, and circular economy goals. It covers up to 85% of project costs, with a total allocation of €48.03 billion for the 2021–2027 funding period. Applications and implementation timelines are coordinated through national authorities and vary depending on the country and specific project. The fund has supported notable successes, such as urban transport development projects, including metro systems in Budapest and Warsaw, and the implementation of wastewater treatment systems in Malta. These examples demonstrate the fund's critical role in advancing environmental and transport infrastructure across Europe.

The **Digital Europe Programme (DIGITAL)** is an EU initiative that provides grants and financial instruments to accelerate the digital transition across companies, public administrations, and society at large. The programme focuses on fostering digital transformation through projects involving artificial intelligence, high-performance computing, cybersecurity, advanced digital skills development, and the establishment of digital innovation hubs. With a total budget of €7.5 billion allocated for the 2021–2027 period, funding for individual projects varies depending on the specific calls issued under the programme, which are typically announced annually. By enabling advancements in critical areas of digital infrastructure and capacity, the programme supports Europe's overarching goals for technological innovation and competitiveness. Application deadlines are tied to the timelines of specific calls, with opportunities regularly announced within the programme's current funding phase.

The **Education and Employment Programme** operates at the regional level in Romania and is co-funded by the European Social Fund Plus (ESF+) under the 2021–2027 EU Cohesion Policy. The programme focuses on modernising labour market institutions, supporting young people in entering the workforce, increasing access to employment opportunities, promoting entrepreneurship and the social economy, and improving the quality and accessibility of education. Eligible initiatives include professional training programs, job facilitation and labour market integration, competence evaluation for informally acquired skills, and social and professional support services for vulnerable groups. Grants under the programme typically range from €201,000 to €1,000,000 for individual projects, with an 85% co-financing rate for less developed regions. Applications are processed through Romania's MySMIS2021 platform, with regular calls announced throughout the funding period. Examples of successful initiatives funded under similar frameworks include vocational training programs in Portugal and Italy, as well as projects focused on skills anticipation and green job training. However, challenges persist, including ensuring that funds reach the most marginalised populations and addressing administrative delays or local mismanagement during implementation.

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The **European Agricultural Fund for Rural Development (EAFRD)** provides grants and financial instruments to support sustainable rural development across the European Union. Administered at the EU level, the fund focuses on enhancing market-oriented food production, promoting sustainable agriculture, improving resource efficiency, and boosting rural competitiveness. It also prioritises fostering innovation, enhancing farm viability, adopting eco-friendly practices, and supporting diversification of rural economies. Funding volumes vary depending on the country and the type of project, reflecting the flexibility of the fund to address region-specific needs. Deadlines for applications are set by individual countries and programmes under the EAFRD framework, ensuring alignment with local priorities and timelines. A notable example of the fund's impact is the LEADER initiative, which promotes local rural development through community-driven strategies. This approach has been instrumental in fostering innovation and collaboration within rural areas, leading to successful projects across numerous EU regions.

The **European Funds for Silesia 2021–2027 (FE SL 2021–2027)**, co-financed by the European Regional Development Fund (ERDF) and the European Social Fund Plus (ESF+), provide grants to support regional development in Silesia, Poland. Administered under the Silesian Regional Operational Programme, this funding initiative supports both early- and late-stage projects, emphasising research and development, entrepreneurship, revitalisation activities, and green transition initiatives. Other priorities include economic modernisation, improving mobility, and fostering social inclusion. Eligible applicants for funding include local governments, small and medium enterprises (SMEs), and regional development organisations. With a total funding allocation of approximately €4.86 billion for the 2021–2027 period, this initiative underscores a significant commitment to driving sustainable growth and innovation in Silesia. Deadlines for applications are announced during each funding cycle, with specific calls varying based on programme objectives.

The **European Maritime, Fisheries and Aquaculture Fund (EMFAF)** is a grant-based initiative at the European level designed to foster the sustainable growth of the blue economy. Managed by the European Union, the fund supports a wide array of projects, including those focused on sustainable fisheries, the development of aquaculture, the protection and restoration of marine biodiversity, maritime security, and driving innovation in the blue economy. For the 2021–2027 period, the EMFF has allocated a total budget of €6.108 billion. Of this, €5.311 billion is channelled through national co-financed programmes, allowing member states to tailor funding to local needs. An additional €797 million is managed directly by the European Commission to support cross-border and pan-European initiatives. Deadlines for applications are set at the national level and vary depending on each country's implementation plan.

The **European Regional Development Fund (ERDF)** provides grant-based funding at the European level to support projects that foster economic transformation, green transitions, and regional development. Administered by the EU, the fund focuses on key areas such as innovation and smart growth, low-carbon transitions, infrastructure

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improvements in transport, energy, and ICT, social inclusion, urban development, and sustainable environmental practices. It also supports local development initiatives tailored to the specific needs of communities. Funding volumes vary by region and the operational programme, with co-financing rates ranging from 40% to 85%, depending on the region's level of development. Application deadlines are region-specific, with calls for proposals managed by national or regional authorities. Successful examples of ERDF-funded initiatives include a project in the Silesian Voivodeship, Poland, which reduced CO₂ emissions by upgrading heating systems in public buildings, and Barcelona's Smart City Initiative, which has advanced urban mobility and sustainability. However, challenges have been noted in several Eastern European projects, where insufficient coordination between local, regional, and national authorities, combined with poorly defined objectives and ineffective monitoring, led to delays and unfulfilled goals, particularly in large-scale infrastructure efforts.

The **European Social Fund Plus (ESF+)** is a grant-based initiative at the European level aimed at fostering social and economic cohesion across the EU. The fund focuses on improving the quality and relevance of both formal and informal learning opportunities while expanding access to employment, particularly for young people. Key areas of support include vocational training, social innovation initiatives, and integration programs that empower individuals and enhance workforce readiness. Funding volumes are determined at the national level, with amounts varying by country and project specificities. Deadlines for applications are also set by member states, with individual calls for proposals announced periodically. The ESF+ has supported successful initiatives, such as vocational training programs in Portugal and Italy, which have effectively enhanced employability and skills development. However, challenges remain in ensuring funds reach the most marginalised populations. Some projects have also faced administrative delays or issues with local mismanagement, highlighting the need for stronger oversight and coordination.

The **Financial Support for Transformation (FST funds)** is a grant-based funding programme at the national level in Greece, co-financed by the European Union and the Greek government. Managed by the Greek Ministry of Development and Investment, the programme targets projects that drive economic transformation, energy transition, green and blue investments, transport infrastructure, and social inclusion. The programme has a total funding allocation of €26.2 billion, of which €20.9 billion is contributed by EU funds, and €5.3 billion comes from national contributions. Deadlines for applications vary depending on the specific programs and calls issued under the initiative. A significant portion of the funds is dedicated to advancing energy efficiency and fostering a green economy. Key areas of investment include renewable energy projects and broader energy transition initiatives, with regional and local authorities playing a pivotal role in implementing green projects across Greece. These investments reflect the programme's commitment to supporting sustainable development and inclusive economic growth.

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The “**Green Fund**” (GRFU) is a national funding programme in Greece, managed by the Greek Ministry of Environment and Energy. It provides grants and financial support for projects that promote energy efficiency, circular economy practices such as recycling and biogas production, and renewable energy development. The fund supports initiatives across both public and private sectors, driving the country’s transition towards sustainable practices and green growth. Funding volumes vary depending on the scope and scale of each project, with regular calls for applications. Deadlines are programme-specific and announced periodically, allowing flexibility for applicants. A key challenge for the Green Fund is ensuring an equitable distribution of resources across sectors while maintaining transparency in the allocation and management of funds. Despite these challenges, the fund continues to play a pivotal role in advancing Greece’s environmental and energy transition goals.

Horizon Europe is the EU's primary funding programme for research and innovation, designed to address societal challenges and promote cross-disciplinary collaboration. Operating at the EU level, the programme supports projects that advance the green economy, digital transition, and solutions to pressing global challenges. It fosters partnerships among diverse stakeholders, including academia, small and medium enterprises (SMEs), large enterprises, public authorities, and civil society, encouraging collaborative and cross-border approaches. Funding volumes under Horizon Europe vary depending on the specific calls, which are outlined in annual work programmes. These calls are published in advance, enabling applicants to plan and align their proposals with the programme’s objectives. A notable example of a successful project funded under Horizon Europe is the European Health Data Space, which aims to promote secure access to and sharing of health data across member states. This initiative demonstrates the programme’s ability to support impactful projects with far-reaching societal benefits.

The **Inclusion and Social Dignity Programme (POIDS)** is a regional funding initiative in Romania, co-financed by the European Union and coordinated by the Ministry of European Investments and Projects. The programme aims to promote social inclusion for vulnerable groups, particularly those at high risk, by addressing poverty and social exclusion while reducing disparities between rural and urban areas. Key priorities include improving access to quality services for vulnerable populations and fostering social equity. The programme has a total budget of €4.15 billion, with €2.39 billion provided by the European Social Fund Plus (ESF+), €574 million from the European Regional Development Fund (ERDF), and €519 million in national contributions. Specific allocations target priority areas, such as €815 million for rural communities, €534 million for disability support, and €986 million for material aid. The programme covers up to 95% of eligible costs for approved projects. Application calls are programme-specific and published on national and EU platforms, including the MIPE website, with the initiative running through the 2021–2027 funding cycle.

The **Industrial Area Development Fee** initiative in Greece provides direct support for investment, including grants and tax incentives, aimed at fostering infrastructure

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development within industrial parks and advancing technology-driven industries. This programme also promotes renewable energy projects and broader green development initiatives, aligning with national sustainability and economic growth priorities. The financial benefits offered through the initiative vary depending on the scope of individual projects and often include significant tax reliefs or exemptions from development fees. While specific deadlines for applications have not been clearly outlined, the initiative operates under the guidance of Greek government bodies, ensuring alignment with broader industrial and environmental policies.

The **Innovation Fund**, a flagship EU initiative, provides grants and competitive bidding opportunities to support the development of innovative low-carbon technologies and processes in energy-intensive industries. Administered at the EU level, the fund aims to accelerate the green transition by fostering groundbreaking solutions across sectors such as renewable energy, industrial decarbonisation, and sustainable production practices. Funding support under the Innovation Fund is substantial, covering up to 60% of eligible costs for regular grants and up to 100% through competitive bidding mechanisms. The initiative operates with regular calls between 2020 and 2030, with the next round of applications expected to launch on 3 December 2024. Applicants can also combine Innovation Fund grants with other public subsidies, providing additional flexibility for financing large-scale transformative projects. Examples of successful projects include ELYAS, which advances hydrogen technology to decarbonise industrial processes, and PRIMUS, focused on sustainable glass production. These projects illustrate the fund's capacity to drive innovation while addressing critical environmental challenges.

InvestEU is a key funding programme of the EU designed to support projects that advance Europe's sustainable and digital transformation objectives. It focuses on sectors such as renewable energy, clean transport, infrastructure, healthcare, and digital transition, providing grants, loans, and investments to drive innovation and economic development. Funding levels vary based on the project and sector, and applications are managed through financial intermediaries, which issue periodic calls for expressions of interest. This structure allows flexibility and ensures that resources are directed toward impactful and viable initiatives. Projects with demonstrable outcomes, such as job creation or breakthroughs in green innovation, are more likely to secure support.

The **Just Transition Fund (JTF)** is a specialised funding programme of the European Union aimed at supporting regions undergoing significant economic and environmental transitions. Its primary focus is on areas heavily reliant on fossil fuels or carbon-intensive industries, with the goal of fostering economic diversification, green energy development, digital transformation, and social inclusion. With an overall budget of €17.5 billion for the 2021–2027 period, the fund allocates resources based on criteria such as carbon emissions, industry dependence on coal, and the level of regional economic development. Applications and deadlines for funding vary by region, with calls for proposals tailored to address the unique challenges of each area.

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The **Just Transition Operational Programme (POTJ)** in Romania provides grant and investment funding to support regions impacted by the country's transition to a low-carbon economy. Overseen by the EU, the programme focuses on fostering small-scale renewable energy production and storage capacities, developing related transport networks, supporting economic activities tied to energy transition projects, and retraining the workforce in affected areas. With a total budget of €2.13 billion for the 2021–2027 period, the POTJ programme is a critical resource for addressing the socio-economic challenges of transitioning to sustainable energy practices. Applications are invited through continuous calls and periodic deadlines, ensuring flexibility for regions and stakeholders to align their projects with the programme's goals.

The **LIFE Programme** is an EU funding initiative dedicated to supporting projects that promote sustainability and innovation across various sectors. Its focus includes sustainable energy, technological advancements, digitalisation, the development of new services and business models, professional skills enhancement, and local and regional investment projects. This broad scope ensures the programme's alignment with the EU's overarching goals for green and digital transitions. Funding volumes under the LIFE Programme vary depending on the specific calls, which are announced regularly on the programme's official portal. This structured approach provides consistent opportunities for organisations to apply for support tailored to their project objectives.

The **Modernisation Fund, established under the EU Emissions Trading System (ETS)**, provides grants and supports co-financing by both private and public entities. Managed by the EU and the European Investment Bank (EIB), the fund targets investments across the EU and ten beneficiary member states. These are Bulgaria, Croatia, Czechia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia. Priority areas include renewable energy, energy efficiency, energy storage, modernisation of energy networks, and supporting just transition initiatives in carbon-dependent regions. Additionally, the fund supports non-priority projects that align with its broader objectives but fall outside these core areas. Since 2021, the fund has allocated €12.65 billion to drive the modernisation of energy systems and support the green transition. While specific deadlines for applications are not clearly defined, the fund operates on a rolling basis with allocations tied to revenue from the EU ETS. Notable projects funded through the Modernisation Fund include the modernisation of district heating systems in Hungary, the deployment of photovoltaic systems for water utilities in Croatia, and renewable hydrogen production initiatives in Slovakia. These examples underscore the fund's critical role in advancing sustainable energy solutions and fostering resilience in regions heavily reliant on carbon-intensive industries.

The **National Fund for Decarbonisation** in Bulgaria provides grants, loans, and financial instruments to support energy efficiency and renewable energy projects. Overseen by the Ministry of Energy, the fund targets initiatives across residential, public, and industrial sectors, aligning with Bulgaria's commitment to achieving its decarbonisation and sustainability goals. The fund's financial support is project-specific, with funding volumes varying based on the scope and scale of the proposed initiatives. While detailed

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deadlines for applications have not yet been finalised, further updates are expected as the programme progresses.

The **National Reconstruction Plan**, also referred to as the **National Recovery & Resilience Plan (NRRP)**, is a funding initiative at the national level supported by the European Union. It provides financial support through project investments, grants, and loans, focusing on complementary activities that drive economic recovery and resilience. A significant emphasis is placed on investments by enterprises aimed at adopting "green" solutions, fostering sustainable economic transformation and alignment with EU climate goals. Funding volumes vary depending on the country and the scope of specific projects. The implementation period for the Recovery and Resilience Facility (RRF), which finances the NRRP, runs continuously until 2026, allowing applicants ample time to align their projects with the programme's objectives.

The **Partnership Agreement for the Development Framework (NSRF)** is a national-level funding initiative supported by the European Union and national governments. It provides grants for projects across a broad spectrum of priorities, including infrastructure development, environmental protection, human resources, innovation, digital transformation, and public administration reform. The programme is implemented through sectoral and regional initiatives, aligning with the EU's strategic objectives for sustainable and inclusive growth. Funding volumes vary depending on the country and the specific programmes under the framework, ensuring flexibility to address diverse regional and national needs. Application deadlines are determined by individual calls for proposals, allowing for tailored approaches to programme implementation.

The **Public Investment Programme** in Greece provides investment funding to support a broad range of national projects aimed at fostering economic growth and addressing critical development needs. While specific oversight details are not defined, the programme typically aligns with national priorities, supporting infrastructure improvements, regional development initiatives, and other strategic investments. Funding volumes depend on the nature and scope of individual projects, with allocations tailored to meet the objectives of each initiative. Application deadlines are not clearly defined, and further information is typically provided through project-specific announcements.

The **Public Sector Loan Facility**, part of the Just Transition Mechanism (JTM) and managed by the European Investment Bank (EIB), provides loans and grants to support projects critical for sustainable development in regions undergoing economic and environmental transitions. This facility is designed to fund a wide array of initiatives, including those within the circular economy, renewable energy, energy efficiency, and other sectors essential to ensuring a just and inclusive transition. The facility offers significant funding, with loans ranging from €6–8 billion and grants up to €1.3 billion, aiming to leverage total investments of approximately €13.3–15.3 billion. Applications are accepted multiple times each year, with cut-off dates on January 16, April 15, and September 11. Deadlines will continue until at least September 2025.

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The **Recovery & Resilience Facility (RRF)** is a cornerstone of the European Union's strategy to rebuild economies and societies following the COVID-19 pandemic. It is a temporary instrument that is the centrepiece of NextGenerationEU - the EU's plan to emerge stronger and more resilient from the current crisis. It provides grants and loans to support member states in addressing critical challenges, focusing on three main pillars:

1. **Green Transition:** Funding is directed toward projects such as renewable energy, energy efficiency, sustainable agriculture, and the decarbonisation of economies.
2. **Digitalisation:** Investments aim to enhance digital infrastructure, e-governance capabilities, and digital skills, fostering innovation and technological advancement.
3. **Economic Resilience:** Resources are allocated to strengthen public health systems, education, and employment sectors, ensuring sustainable and inclusive growth.

The RRF has a total allocation of €672.5 billion, comprising €312.5 billion in grants and €360 billion in loans. Member states were required to submit national recovery and resilience plans, detailing the projects and reforms for which they sought funding. These plans form the basis for the disbursement of resources, tailored to the specific needs and priorities of each country.

The **Research, Innovation and Digitisation for Smart Transformation Programme (PRIDST)**, funded by the European Regional Development Fund (ERDF), supports transformative projects at the national level in Bulgaria. Managed by the Ministry of Innovation and Growth in collaboration with the European Partnership "Clean Hydrogen" and private investments, the programme targets initiatives that advance digital transformation, foster research and innovation, and promote environmental sustainability. Key focus areas include the green and circular economies as well as innovations in public service delivery. Funding volumes vary based on the type and scope of individual projects, ensuring tailored support for initiatives aligned with the programme's objectives. Applications are accepted on an ongoing basis, with specific calls issued periodically to address evolving priorities and project needs.

The **Research Fund for Coal and Steel (RFCS)** operates at the European level, offering grant-based funding to support research and innovation in coal and steel sectors. Managed by the EU, the RFCS focuses on fostering advancements in these industries, particularly those that address emissions reductions and resource recovery. Funding is substantial, with research projects eligible for up to €2.5 million per project, and pilot and demonstration projects receiving up to €4 million per initiative, covering up to 100% of eligible costs. The programme has an annual budget of approximately €111 million for the 2021–2027 period. Calls for applications are issued regularly, though no open call is currently available. Successful projects such as "Green Steel for Europe" and "RECOVERY" highlight the RFCS's role in driving innovative solutions and supporting technological breakthroughs. However, challenges persist, particularly for projects that

lack sufficient technological maturity or encounter delays during implementation, reflecting the complexities of transitioning these industries towards sustainability.

The **Smart Growth, Digitisation and Financial Instruments Programme (POCIDIF)** supports regional development in Romania by providing grants and loans for innovative and transformative projects. Overseen by the European Union and the Romanian Ministry of Investments and European Projects, the programme focuses on building R&D capacity in research institutes and enterprises, advancing digital transformation for SMEs, public administration, education, and culture, and offering financial support for startups and scale-ups. Funding allocations vary by sector, allowing the programme to address diverse priorities effectively. Specific calls for proposals under each priority are announced periodically, with the programme running until 2027. Notable examples of funded initiatives include E-Heritage digitisation projects for cultural preservation and the development of centralised IT systems to enhance public service efficiency.

The **Structural Reforms Support Programme (SRSP)** is an EU-level initiative that provides technical assistance and capacity-building support to member states. Administered by the European Union, the programme focuses on offering tailored expertise in areas such as policy advice, reform strategies, administrative and institutional capacity building, and structural adjustments. It also supports actions promoting the green and digital transitions, social inclusion, and resilience in public administration. Unlike traditional funding programmes, the SRSP does not allocate direct financial resources to member states. Instead, it provides customised technical support, enabling member states to design and implement reforms effectively. Additionally, member states can allocate up to 4% of their Recovery and Resilience Plan budgets to enhance SRSP-supported initiatives.

List of financing/funding mentioned in the TJTP

The TJTPs identify a range of funding sources aimed at supporting regions and communities impacted by the transition away from coal. **Table 2** presents an overview of the funding mechanisms referenced across the seven TJTPs analysed: the six JUSTEM pilot regions and the replication city of Megalopolis. It is important to note that some plans, specifically in the Jiu Valley, mentioned other funding sources using only abbreviations; hence, could not be identified. These funding mechanisms play a vital role in promoting economic diversification, social inclusion, and environmental sustainability, while addressing the unique challenges faced by regions historically dependent on coal mining and related industries.

Table 2: Funding Sources mentioned in Territorial Just Transition Plans

| Funding source | Asturias | Istria | Jiu Valley | Mega- lopolis | Silesia | Stara Zagora | Western Macedonia |
|------------------------------|----------|--------|------------|------------------|---------|-----------------|----------------------|
| Borrowed Funds | | | | | | | |
| Cohesion Fund | | | | | | | |
| Coal and Steel Research Fund | | | | | | | |

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| Public Sector Loan Facility (EIB) | | | | | | | |
| Recovery & Resilience Facility (RRF) | | | | | | | |
| Research, Innovation and Digitisation for Smart Transformation Programme | | | | | | | |
| Smart Growth, Digitisation and Financial Instruments Programme (POCIDIF) | | | | | | | |
| Social Inclusion and Dignity Programme (POIDS) | | | | | | | |
| Structural Reforms Support Programme (SRSP) | | | | | | | |
| Sustainable Tourism Fund | | | | | | | |
| Territorial Development Mechanism (TDM) | | | | | | | |

Most prominent across the different regions are the Just Transition Fund, the European Social Fund Plus (ESF+), the European Regional Development Fund (ERDF), the Cohesion Fund and Recovery & Resilience Facility (RRF). In the following section, we provide some further information on some major funds and programmes.

Borrowed Funds offer financial resources for infrastructure investments, enabling economic diversification and supporting the development of social and environmental initiatives in transition regions.

- Megalopolis (Greece): Supports decarbonisation projects and efforts to diversify the local economy.
- Western Macedonia (Greece): Facilitates financing for projects that mitigate the socio-economic impacts of the energy transition while creating opportunities for sustainable regional development.

The **Cohesion Fund** plays a pivotal role in addressing economic and social disparities across the EU by financing large-scale infrastructure projects aimed at sustainability and resource management. It facilitates environmentally responsible regional development and the integration of sustainability into urban planning.

- Asturias (Spain): Supports regional infrastructure upgrades to enhance sustainable development.
- Jiu Valley (Romania): Focuses on infrastructure development that aligns with the region’s just transition to a low-carbon economy.
- Megalopolis (Greece): Provides funding for wastewater management, circular economy projects, and the sustainable management of water resources.

- # JUSTICE
- **Western Macedonia (Greece):** Primarily directed towards improving integrated solid waste management systems and encouraging sustainable resource practices.

The **Coal and Steel Research Fund** promotes innovation and technological advancements in industries heavily reliant on coal and steel, with a focus on their transition towards greener and more sustainable practices.

- **Asturias (Spain):** Directly supports research and development projects designed to modernise and transition traditional coal and steel sectors into sustainable industries.

Coal Mine Reclamation Funding is crucial for the environmental restoration of former mining sites and contributes to the broader goal of sustainable development in regions impacted by the coal industry.

- **Stara Zagora (Bulgaria):** Funds projects focused on integrated waste management, the transition to a circular economy, and sustainable water resource management.

The **Digital Europe Programme** drives digital transformation by funding initiatives aimed at enhancing digital infrastructure, improving digital skills, and fostering innovation in the digital sector.

- **Asturias (Spain):** Aims to modernise the regional economy through digitalisation, enabling the development of smart technologies and digital services.

The **Education and Employment Programme (POEO)** is designed to enhance workforce development, facilitate social inclusion, and provide equal opportunities through educational and employment initiatives.

- **Jiu Valley (Romania):** Focuses on workforce reskilling and upskilling to address the changing needs of the economy and help local communities adapt to the green transition.

EU Competitive Programmes stimulate innovation, entrepreneurship, and competitiveness across European regions by supporting projects that align with the EU's sustainability and economic goals.

- **Western Macedonia (Greece):** Supports innovation-driven projects that align with EU strategic priorities for economic and technological development, particularly in the green sector

The **European Agricultural Fund for Rural Development (EAFRD)** supports sustainable agricultural practices and the resilience of rural areas, fostering rural economic growth and environmental sustainability.

- **Istria (Croatia):** Promotes sustainable agricultural practices and strengthens rural resilience.

- # JUSTICE
- **Megalopolis (Greece):** Supports the agricultural sector through investments aimed at increasing sustainability and promoting agri-food sector growth.
 - **Western Macedonia (Greece):** Encourages rural development by fostering economic diversification and sustainability within farming communities.

The **European Funds for Silesia 2021–2027 (FE SL 2021–2027)** is a dedicated fund aimed at supporting the transition of the Silesia region to a low-carbon and competitive economy through investments in renewable energy, energy efficiency, and infrastructure modernisation.

- **Silesia (Poland):** Focused on driving green transformation, the fund supports renewable energy projects, energy efficiency upgrades, and infrastructure developments.

The **European Maritime and Fisheries Fund (EMFAF)** provides financial support for the sustainable development of coastal communities, enhancing economic diversification and promoting sustainable fisheries and aquaculture practices.

- **Asturias (Spain):** Helps coastal communities transition to diversified economies by funding sustainable maritime practices.
- **Istria (Croatia) and Jiu Valley (Romania):** Supports the sustainable development of the maritime sector and fisheries.

The **European Social Fund Plus (ESF+)** provides financial resources to improve employment opportunities, social inclusion, and workforce development, supporting the EU's social cohesion objectives.

- **Asturias (Spain), Istria (Croatia), Jiu Valley (Romania), Megalopolis (Greece), Silesia (Poland), Stara Zagora (Bulgaria), and Western Macedonia (Greece):** Supports workforce retraining, social services, and inclusion for vulnerable groups in these regions.

The **European Structural and Investment Funds (ESIF)** are designed to support regional economic transformation, infrastructure development, and social resilience, promoting cohesion and growth across European regions.

- **Megalopolis (Greece), Silesia (Poland), and Western Macedonia (Greece):** Key regions receiving support to address challenges and foster long-term sustainable growth through infrastructure development and job creation.

The **FST Funds** focus on energy efficiency projects and industrial transformation, driving the shift towards greener practices in energy-intensive industries.

- **Silesia (Poland):** Facilitates energy transition projects that support industrial and economic transformation.

The **Green Fund** supports projects aimed at enhancing energy efficiency, deploying renewable energy, and promoting sustainable resource management.

- # JUSTICE
- **Megalopolis (Greece) and Western Macedonia (Greece)**: Primarily funds projects that promote energy transition, efficiency, and circular economy principles in these regions.

Horizon Europe is the EU's key funding programme for research and innovation, addressing challenges such as climate change, green economy, and technological advancements.

- **Stara Zagora (Bulgaria)**: Promotes innovative research and the deployment of clean technologies, such as clean hydrogen.

The **Industrial Area Development Fee** finances infrastructure development in industrial zones and promotes renewable energy adoption.

- **Megalopolis (Greece) and Western Macedonia (Greece)**: This fund encourages private sector involvement in the energy transition and the transformation of industrial zones to support sustainable practices.

The **Innovation Fund** supports the commercial deployment of innovative low-carbon technologies in various industries, helping accelerate Europe's green transition.

- **Asturias (Spain)**: Fosters green innovation and the implementation of sustainable technologies.
- **Jiu Valley (Romania)**: Planned projects include green hydrogen development.
- **Stara Zagora (Bulgaria)**: Supports innovative technologies to decarbonise industries and accelerate the transition to climate neutrality.

The **Just Transition Fund (JTF)** addresses the socio-economic impacts of the transition by focusing on economic diversification, social inclusion, and workforce retraining.

- **Asturias (Spain)**: The fund reserves 4% of its allocation for centralised management to address immediate needs.
- **Istria (Croatia), Jiu Valley (Romania), Megalopolis (Greece), Silesia (Poland), and Stara Zagora (Bulgaria)**: Promotes regional economic diversification and the reskilling of workers.

The **LIFE Programme** supports projects addressing environmental and climate change challenges, promoting biodiversity, sustainability, and environmental protection.

- **Asturias (Spain) and Stara Zagora (Bulgaria)**: Funds biodiversity conservation, climate adaptation, and environmental projects.

Lignite and Mining Fees are used to support the transition of coal regions by providing financial resources for regional development.

- **Silesia (Poland)**: Provides funding during the transition phase, with mining fees set to decrease in the future.

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The **Modernisation Fund** promotes the transition to a low-carbon economy through investments in renewable energy, energy efficiency, and industrial modernisation.

- **Istria (Croatia) and Stara Zagora (Bulgaria):** Supports projects that enable the regions to shift to sustainable energy systems.

The **National Modernisation Fund** supports energy sector modernisation, focusing on enhancing energy systems and facilitating the decarbonisation of the economy.

- **Silesia (Poland):** Dedicated to modernising the energy sector and supporting the transition to cleaner energy sources.

The **Territorial Development Mechanism (TDM)** facilitates sustainable regional development through waste management, circular economy practices, and resource efficiency.

- **Megalopolis (Greece) and Western Macedonia (Greece):** Fund projects to transition to a circular economy, focusing on waste management and resource sustainability.

The **Recovery & Resilience Facility (RRF)** is a key EU programme designed to support member states in implementing reforms and investments that contribute to green and digital transitions, economic resilience, and climate neutrality. It focuses on funding major infrastructure projects, sustainable energy initiatives, and investments aimed at increasing the long-term resilience of European economies.

- **Megalopolis (Greece):** The RRF supports projects focused on energy efficiency and climate neutrality, including land rehabilitation and the restoration of areas released from public-private partnerships.
- **Western Macedonia (Greece):** Projects funded under the RRF focus on enhancing energy efficiency and fostering the transition to a low-carbon economy.
- **Stara Zagora (Bulgaria):** Investments in infrastructure projects are supported under the RRF, including energy efficiency initiatives and the expansion of renewable energy sources.

The **Research, Innovation and Digitisation for Smart Transformation Programme** is aimed at supporting technological and digital innovations that facilitate sustainable growth and industrial transformation. This programme focuses on advancing research and innovation to address the region's challenges in decarbonisation and energy efficiency.

- **Stara Zagora (Bulgaria):** The programme is particularly important for supporting joint European partnerships, such as the "Clean Hydrogen" initiative, and promoting innovative technologies to achieve sustainable industrial transformation and decarbonisation.

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The **Smart Growth, Digitization and Financial Instruments Programme (POCIDIF)** fosters digitalisation, financial inclusion, and the promotion of innovation in SMEs. It supports the development of new technologies, the creation of digital infrastructures, and the financial backing of growth-oriented businesses.

- **Jiu Valley (Romania):** This programme supports the digital transformation of SMEs, public administration, education, and culture, as well as providing financial support to startups and scale-ups focused on green technologies and services.

The **Social Inclusion and Dignity Programme (POIDS)** is dedicated to addressing social disparities and enhancing access to services for vulnerable groups. The programme focuses on projects that foster social inclusion, reduce inequalities, and ensure equal opportunities for all citizens, especially those in rural and disadvantaged areas.

- **Jiu Valley (Romania):** The programme aims to bridge the rural-urban gap by supporting access to quality services for vulnerable populations and addressing issues such as unemployment and lack of education.

The **Structural Reforms Support Programme (SRSP)** provides technical assistance and expert guidance to EU member states to support institutional, administrative, and structural reforms. The programme is crucial for building the necessary capacity to implement green and digital transitions and to enhance governance and resilience in public administrations.

- **Jiu Valley (Romania):** The SRSP supports local and regional governments in implementing structural reforms that improve public sector efficiency, governance, and capacity to manage the transition to a sustainable economy.

The **Public Sector Loan Facility (European Investment Bank)** supports large-scale infrastructure and development projects, especially in sectors critical to green and digital transitions.

- **Megalopolis (Greece) and Western Macedonia (Greece):** Financing sustainable infrastructure projects.

The **Sustainable Tourism Fund** supports eco-tourism and tourism development that aligns with environmental conservation and sustainability goals.

- **Asturias (Spain):** Promotes eco-tourism and the sustainable development of the tourism sector.

The **National Operational Programmes 2021–2027**, financed by the ERDF and CF, support energy efficiency and infrastructure development.

- **Silesia (Poland):** Funds large-scale energy and infrastructure projects that facilitate the region's green

Step 2: “Matchmaking” between funding/financing sources and project ideas

The JUSTEM project developed 35 project fiches, organised into six project pipelines (see [Deliverable 4.2](#)). For each region, we analysed selected project ideas, identifying the funding sources applicable to each. This analysis demonstrates that a variety of funding options are available to support the implementation of diverse project types across coal regions in the EU.

Region of Asturias

Project 1: Understanding the Asturian Coal Transition Narrative

Objective:

This project seeks to mitigate the socio-economic impacts of the coal transition in Asturias by addressing the historical and cultural narratives of the transition. Through workshops and analytical frameworks, it aims to rebuild trust among affected communities.

Suitable Funding Sources:

- **Just Transition Fund (JTF):** Supports regional socio-economic adaptation efforts in coal regions.
- **Cohesion Fund:** Funds regional development initiatives, including social infrastructure improvements.
- **Structural Reforms Support Programme (SRSP):** Offers capacity-building support for managing socio-economic transitions.

Estimated Budget: €219,000

Project 2: Making Visible and Accompanying the Blinded Energy Poverty by local communities

Objective:

The project identifies and addresses hidden energy poverty in Asturias, focusing on mapping energy needs, creating intervention policies, and providing energy efficiency solutions to vulnerable households.

Suitable Funding Sources:

- **European Social Fund Plus (ESF+):** Provides funding for workforce support and social inclusion initiatives.
- **Just Transition Fund (JTF):** Resources for addressing socio-economic challenges in energy-transition regions.
- **Cohesion Fund:** Funds sustainable infrastructure and energy efficiency projects.

Estimated Budget: €326,400

Project 3: Just Transition Observatory

Objective:

This project establishes a monitoring system to track the progress and impacts of the just transition in Asturias. It includes data collection, indicator development, and stakeholder engagement to ensure evidence-based policymaking.

Suitable Funding Sources:

- **Horizon Europe:** Supports innovation and advanced digital solutions for regional monitoring.
- **Digital Europe Programme:** Provides resources for IT and analytics-based initiatives.
- **Structural Reforms Support Programme (SRSP):** Enhances governance and administrative capacities for monitoring.

Estimated Budget: €326,400

Project 4: Network of Local Desks Acting as OSSs Supporting Local Authorities, SMEs, and Local Entities

Objective:

This project aims to create or reinforce a network of local desks operating as One-Stop Shops (OSSs) to support local authorities, SMEs, and entities. The desks will assist in ideation, project preparation, execution, and justification, addressing gaps in administrative capacity and technical expertise. The focus is on enabling access to funding opportunities, fostering better project management, and bridging the divide between funding mechanisms and community needs.

Suitable Funding Sources:

- **Just Transition Fund (JTF):** Supports capacity-building and socio-economic diversification efforts in regions undergoing the energy transition. Ideal for funding OSS initiatives targeting local project development.
- **Cohesion Fund:** Can finance sustainable infrastructure development and institutional capacity-building projects in Asturias.
- **Structural Reforms Support Programme (SRSP):** Offers assistance for improving administrative and technical capacities, particularly for supporting SMEs and municipalities.
- **European Social Fund Plus (ESF+):** Provides resources for workforce training, social inclusion initiatives, and capacity-building programs for local stakeholders.
- **Digital Europe Programme:** Suitable for developing the digital infrastructure needed to operationalize OSSs, including digital platforms for project management.

Estimated Budget: €282,000

Project 5: From Youth 2 Youth – The Word-of-Mouth 2.0

Objective:

The project aims to understand and address the existing narratives around the “green” and “just” transition in Asturias, focusing on the perspectives and impacts on youth and vulnerable groups in the region’s coal basins. The initiative will analyse and mitigate the socio-economic effects of these narratives while fostering opportunities and empowering young individuals to actively engage in the transition.

Suitable Funding Sources:

- **Just Transition Fund (JTF):** Ideal for socio-economic adaptation projects and youth engagement in coal regions.
- **European Social Fund Plus (ESF+):** Supports workforce development and initiatives addressing social inclusion for youth.
- **Cohesion Fund:** Suitable for sustainable development and social infrastructure projects.
- **Structural Reforms Support Programme (SRSP):** Provides technical assistance for initiatives targeting social and regional inequalities.
- **Digital Europe Programme:** For utilizing IT and communication technologies in dissemination efforts.

Estimated Budget: €326,400

Project 6: Green Transition Boosting Opportunities Affecting the Daily Life for Citizens

Objective:

This project focuses on enabling a green transition in Asturias through localized initiatives such as energy self-consumption, e-mobility infrastructure, and renovation programs. It targets vulnerable groups, particularly youth, to foster opportunities and alleviate the socio-economic impacts of the transition.

Suitable Funding Sources:

- **Just Transition Fund (JTF):** Supports socio-economic adaptation and energy transition projects in coal-dependent regions like Asturias.
- **European Social Fund Plus (ESF+):** Provides resources for workforce development and inclusion projects, particularly for youth and vulnerable groups.
- **Cohesion Fund:** Funds infrastructure and energy transition initiatives to drive regional sustainability.
- **Modernisation Fund:** Suitable for renewable energy, e-mobility, and energy efficiency projects.
- **Horizon Europe:** Provides funding for innovative, research-based solutions in renewable energy and green mobility.

Estimated Budget: €326,400

Stara Zagora

Project 1: Battery Recycling Facility

Objective:

Establish a facility to recycle batteries from electric vehicles, appliances, and photovoltaic systems, promoting environmental sustainability and providing input materials for new battery production.

Suitable Funding Sources:

- **Just Transition Fund (JTF):** Supports green industrial projects in coal-dependent regions.
- **Innovation Fund:** Provides resources for large-scale innovative industrial projects, particularly for decarbonization.
- **Cohesion Fund:** Supports sustainable waste management and recycling infrastructure.
- **National Recovery and Resilience Plan (NRRP):** Offers grants for energy storage and battery recycling initiatives
- **LIFE Programme:** Funds environmental and circular economy projects.

Estimated Budget: €1,180,000

Project 2: Energy Renovation of Multi-family Residential Buildings

Objective:

Energy renovation of 5,192 apartments in Stara Zagora, Galabovo, and Radnevo to alleviate energy poverty, improve living conditions, and reduce greenhouse gas emissions.

Suitable Funding Sources:

- **Regional Development Programme 2021–2027 (JTF Priority 4):** Provides grants for housing renovation and energy efficiency improvements.
- **Cohesion Fund:** Supports energy efficiency initiatives in residential housing.
- **National Recovery and Resilience Plan (NRRP):** Offers grants for energy storage and battery recycling initiatives
- **European Social Fund Plus (ESF+):** Funds social cohesion and inclusion projects addressing energy poverty.

Estimated Budget: BGN 129,186,003 (approximately € 66,050,361)

Project 3: Renewable Heat Supply in Multi-family Buildings

Objective:

Install renewable heat and hot water systems in multi-family residential buildings, including high-temperature heat pumps, PV systems, and boilers, to reduce energy costs and emissions.

Suitable Funding Sources:

- **Just Transition Fund (JTF):** Resources for RES infrastructure in transitioning coal regions.
- **Modernisation Fund:** Funds renewable energy and heating systems.
- **National Recovery and Resilience Plan (NRRP):** Offers grants for energy storage and battery recycling initiatives
- **Horizon Europe:** Supports R&D for energy-efficient technologies.

Estimated Budget: €608,000 per building; total €299.14 million for 123 buildings.

Project 4: Just Transition One Stop Shops

Objective:

Establish OSSs in Stara Zagora, Galabovo, and Radnevo to provide information on funding, reskilling, and employment opportunities, bridging the gap between stakeholders and the just transition process.

Suitable Funding Sources:

- **Just Transition Fund (JTF):** Supports socio-economic diversification projects.
- **Structural Reforms Support Programme (SRSP):** Provides technical assistance for administrative reforms.
- **European Social Fund Plus (ESF+):** Supports re-skilling and capacity-building initiatives.
- **Digital Europe Programme:** Develops digital tools to enhance OSS functionality.

Estimated Budget: €140,000 for two-year operation.

Project 5: Establishment of Household-Based Energy Communities

Objective:

Support the creation of energy communities in multi-family residential buildings, integrating photovoltaics and renewable energy solutions to achieve energy efficiency and reduce GHG emissions.

Suitable Funding Sources:

- **Regional Development Programme 2021–2027 (JTF Priority 4):** Grants for housing energy efficiency and RES installations.

- # JUST ITEM
- **Cohesion Fund:** Supports integrated renewable energy initiatives in housing.
 - **LIFE Programme:** Funds innovative energy projects targeting energy poverty.

Estimated Budget: €180,000 per building; total €129,186,003 for the program.

Project 6: Deployment of Smart Metering Devices

Objective:

Install smart metering systems in multi-family buildings to improve energy management, reduce consumption, and alleviate energy poverty through better energy efficiency monitoring.

Suitable Funding Sources:

- **Regional Development Programme 2021–2027 (JTF Priority 4):** Grants for digital and energy efficiency upgrades in housing.
- **Digital Europe Programme:** Supports digital solutions in energy management.
- **Horizon Europe:** Funds R&D for smart technologies in energy systems.
- **Cohesion Fund:** Provides support for infrastructure and technology improvements.

Estimated Budget: €68,000 per building for installation and 10-year maintenance.

Silesian Voivodeship

Project1 : Advising the Energy Poor in the Process of thermo-modernisation of Buildings

Objective:

This project supports energy-poor households in reducing fuel and energy consumption through professional guidance during building thermo-modernisation, eliminating fossil fuel sources, and introducing renewable energy installations.

Suitable Funding Sources:

- **Just Transition Fund (JTF):** Focuses on improving energy efficiency and addressing energy poverty in coal-dependent regions.
- **European Social Fund Plus (ESF+):** Supports social inclusion and workforce training initiatives for vulnerable populations.
- **Modernisation Fund:** Provides support for energy efficiency and renewable energy projects.
- **Polish Clean Air Programme:** Assists households in energy efficiency and clean heating system upgrades.

- # JUSTICE
- **Silesian Voivodeship Regional Fund for Environmental Protection and Water Management (WFOŚiGW):** Supports regional energy efficiency and renewable energy projects.
 - **Horizon Europe:** Provides R&D resources for energy-efficient solutions.

Estimated Budget: PLN 1.7 million (approximately € 398,939)

Project 2: Re-skilling of Employees Working in the Mining Sector

Objective:

Support 100 mining sector employees in transitioning to other professions through training in renewable energy, construction, and entrepreneurship, mitigating the socio-economic impacts of the coal phase-out.

Suitable Funding Sources:

- **European Funds for Silesia 2021–2027:** Provides resources for re-skilling programs tailored to transitioning regions.
- **Just Transition Fund (JTF):** Supports workforce retraining in coal-dependent areas.
- **European Social Fund Plus (ESF+):** Offers funding for vocational training and employment transitions.
- **Structural Reforms Support Programme (SRSP):** Provides technical assistance for workforce development.
- **Silesian Development Fund (SDF):** Focuses on regional economic diversification and job creation in transitioning areas.

Estimated Budget: PLN 800,000 (approximately € 187,736)

Project 3: Thermo-modernisation of Multi-family Buildings

Objective:

Comprehensive thermo-modernisation of 400 multi-family buildings to improve energy efficiency, replace inefficient heating systems, and integrate renewable energy solutions.

Suitable Funding Sources:

- **Modernisation Fund:** Supports large-scale energy efficiency projects in residential buildings.
- **Cohesion Fund:** Provides funding for infrastructure and energy efficiency improvements.
- **European Regional Development Fund (ERDF):** Supports renewable energy installations.

- **Polish Clean Air Programme:** Offers support for reducing residential emissions and improving heating systems.
- **Silesian Voivodeship Regional Fund for Environmental Protection and Water Management (WFOŚiGW):** Regional fund dedicated to energy and environmental improvements.

Estimated Budget: PLN 150 million (approximately € 35,200,500)

Project 4: Thermo-modernisation of Single-family Buildings

Objective:

Comprehensive renovation of 150,000 single-family buildings, including 30% with deep thermo-modernisation and 20% incorporating photovoltaics, to improve energy efficiency and reduce emissions.

Suitable Funding Sources:

- **Polish Clean Air Programme:** Focused on energy efficiency in residential housing.
- **LIFE Programme:** Funds innovative environmental and energy transition projects.
- **Just Transition Fund (JTF):** Supports energy efficiency improvements for vulnerable populations.
- **Thermo-modernisation Allowance:** Provides direct subsidies for residential upgrades.
- **Silesian Voivodeship Regional Fund for Environmental Protection and Water Management (WFOŚiGW):** Offers specific support for housing energy efficiency in the region.

Estimated Budget: PLN 12 billion (approximately € 2,816,040,000)

Project 5: Training for Employees of Social Care Centres

Objective:

Train 100 social workers to support energy-poor households in reducing energy costs, managing thermo-modernisation processes, and preparing grant applications.

Suitable Funding Sources:

- **LIFE Programme:** Funds innovative environmental and energy transition projects.
- **Just Transition Fund (JTF):** Supports social programs addressing energy poverty.
- **European Social Fund Plus (ESF+):** Provides funding for capacity-building programs targeting social inclusion.

- **Just Transition Fund (JTF):** Supports social programs addressing energy poverty.

Estimated Budget: PLN 350,000 (approximately € 82,134)

Project 6: Increasing Women's Labour Activity

Objective:

Encourage the professional activation of unemployed women in Silesia through information campaigns, training, and career advisory services, addressing economic disparities exacerbated by the coal phase-out.

Suitable Funding Sources:

- **European Funds for Silesia 2021–2027:** Focused on workforce inclusion and gender equality initiatives.
- **Just Transition Fund (JTF):** Promotes workforce diversification in transitioning regions.
- **European Social Fund Plus (ESF+):** Supports gender equality and employment programs.
- **Cohesion Fund:** Provides funding for workforce development initiatives.
- **Silesian Development Fund (SDF):** Supports initiatives aimed at improving women's participation in the workforce.

Estimated Budget: PLN 150,000 (approximately € 35,200)

Jiu Valley

Project 1: Thermal Insulation of a Residential Building

Objective:

Improve energy efficiency by thermally insulating a residential building, reducing energy consumption, and enhancing living conditions.

Suitable Funding Sources:

- **Just Transition Fund (JTF):** Supports energy efficiency in transitioning regions.
- **Cohesion Fund:** Provides resources for sustainable infrastructure projects.
- **National Energy Efficiency Programs:** Covers retrofitting and thermal insulation.
- **EU Cohesion Policy Funds:** Focuses on energy-saving measures.
- **Programul Operațional Incluziune și Demnitate Socială (POIDS):** Aims to reduce energy poverty and improve living conditions for vulnerable groups.
- **Programul Operațional Creșterea Inteligență, Digitalizare și Instrumente Financiare (POCIDIC):** Provides funding for innovative energy efficiency solutions.

Estimated Budget: €120,000

Project 2: Roof Solar PV Installation for Residential Buildings

Objective:

Reduce energy poverty and promote renewable energy by installing solar PV systems on residential buildings in vulnerable communities.

Suitable Funding Sources:

- **Just Transition Fund (JTF):** Resources for RES installations in coal regions.
- **Climate Fund:** Supports green energy transitions.
- **EU Cohesion Policy Funds:** Renewable energy initiatives.
- **Horizon Europe:** For innovative renewable energy projects.
- **Programul Operațional Incluziune și Demnitate Socială (POIDS):** Aims to reduce energy poverty and improve living conditions for vulnerable groups.
- **Programul Operațional Creșterea Inteligență, Digitalizare și Instrumente Financiare (POCIDIC):** Provides funding for innovative energy efficiency solutions.

Estimated Budget: €500,000

Project 3: Energy Efficiency Upgrades for Public Schools

Objective:

Enhance energy efficiency in public schools by upgrading insulation, heating systems, and lighting to create a better learning environment.

Suitable Funding Sources:

- **Education and Employment Programme (POEO):** Targets social and educational improvements.
- **Programul Operațional Incluziune și Demnitate Socială (POIDS):** Aims to reduce energy poverty and improve living conditions for vulnerable groups.
- **Programul Operațional Creșterea Inteligență, Digitalizare și Instrumente Financiare (POCIDIC):** Provides funding for innovative energy efficiency solutions.
- **Just Transition Fund (JTF):** Supports energy-efficient public buildings.
- **Cohesion Fund:** Large-scale energy projects in public institutions.

Estimated Budget: €400,000

Project 4: Training Programs for Green Jobs in the Energy Sector

Objective:

Reskill workers from coal-dependent industries for employment in renewable energy, focusing on solar panel installation, wind turbine maintenance, and energy audits.

Suitable Funding Sources:

- **Just Transition Fund (JTF):** Workforce retraining in coal regions.
- **European Social Fund Plus (ESF+):** Skills development and vocational training.
- **Programul Operațional Incluziune și Demnitate Socială (POIDS):** Aims to reduce energy poverty and improve living conditions for vulnerable groups.
- **Horizon Europe:** Support for green energy initiatives.

Estimated Budget: €350,000

Project 5: Heat Pump Systems for an Energy Community

Objective:

Create an energy-efficient heating system for residential communities using heat pumps, supported by renewable energy sources like solar PVs.

Suitable Funding Sources:

- **Just Transition Fund (JTF):** Supports energy community initiatives.
- **EU Cohesion Policy Funds:** Funds energy-efficient heating systems.
- **Programul Operațional Creșterea Inteligență, Digitalizare și Instrumente Financiare (POCIDIC):** Provides funding for innovative energy efficiency solutions.
- **Climate Fund:** Financing for clean energy systems.

Estimated Budget: €800,000

Project 6: Circular Economy in Tailings Valorisation

Objective:

Transform mining waste into biomass crops for energy and food production, supporting sustainable agriculture and renewable energy.

Suitable Funding Sources:

- **Horizon Europe:** Research and innovation in circular economy.
- **Just Transition Fund (JTF):** Supports economic diversification.
- **InvestEU Programme:** Facilitates investments in green technologies.

- # JUST ITEM
- **Programul Operațional Creșterea Inteligentă, Digitalizare și Instrumente Financiare (POCIDIC):** Provides funding for innovative energy efficiency solutions.

Estimated Budget: €2.5 million

Region of Western Macedonia

Project 1: Re-opening the Railway Connection from Thessaloniki to Prominent Cities in W. Macedonia

Objective:

Re-establish railway links between Thessaloniki and major cities in Western Macedonia (Amyntaio, Florina, Ptolemaida, and Kozani) to boost economic activity, enhance connectivity, and promote energy-efficient transportation.

Suitable Funding Sources:

- **Just Transition Fund (JTF):** Supports infrastructure projects in transitioning regions.
- **Cohesion Fund:** Provides funding for transportation infrastructure.
- **European Regional Development Fund (ERDF):** Focuses on regional connectivity and sustainable infrastructure.
- **Horizon Europe:** Supports research and innovation in sustainable transport.
- **Greek Public Investment Programme (PIP):** Funds critical national infrastructure projects, including transport systems.
- **Green Fund:** Supports sustainable transport initiatives that align with environmental and energy goals.

Budget: €190,000,000

Project 2: Installing Heat Pumps in Energy Poor Households

Objective:

Replace district heating systems with heat pumps for 6,000 energy-poor households, reducing energy costs and enhancing thermal comfort.

Suitable Funding Sources:

- **Just Transition Fund (JTF):** Provides resources for addressing energy poverty.
- **Cohesion Fund:** Supports energy efficiency projects.
- **Green Fund:** Promotes renewable energy solutions in residential buildings.
- **Greek Public Investment Programme (PIP):** Funds critical national infrastructure projects, including transport systems.

- # JUST ITEM
- **Green Fund:** Supports sustainable transport initiatives that align with environmental and energy goals.

Budget: €27,000,000

Project 3: Supporting Clean Electricity Generation Through Energy Communities

Objective:

Establish 300 energy communities to install PV power plants with a total capacity of 30 MW, generating clean energy and reducing electricity costs.

Suitable Funding Sources:

- **Just Transition Fund (JTF):** Supports energy communities in coal-dependent regions.
- **European Regional Development Fund (ERDF):** Funds renewable energy projects.
- **Horizon Europe:** Supports community-driven energy solutions.
- **Cohesion Fund:** Provides support for RES infrastructure.
- **Greek Public Investment Programme (PIP):** Funds critical national infrastructure projects, including transport systems.
- **Green Fund:** Supports sustainable transport initiatives that align with environmental and energy goals.

Budget: €20,000,000

Project 4: Establishing a Regional Energy Poverty Observatory and Advisory Office

Objective:

Create a regional office to monitor energy poverty and provide personalized advice on energy-saving measures, grants, and subsidies.

Suitable Funding Sources:

- **Just Transition Fund (JTF):** Supports initiatives addressing energy poverty.
- **European Social Fund Plus (ESF+):** Funds advisory and social inclusion services.
- **Greek Public Investment Programme (PIP):** Funds critical national infrastructure projects, including transport systems.
- **Green Fund:** Supports sustainable transport initiatives that align with environmental and energy goals.
- **Horizon Europe:** Provides support for innovative approaches to energy poverty.

Budget: Minimal operational costs; hosted in existing regional authority premises.

Step 3: Questions fund managing authorities should ask

Just transitions are not something merely delivered to people—they are shaped by people and communities themselves. Therefore, it is essential that funding mechanisms empower citizens to actively drive transition processes in their local contexts.

To support this objective, we offer a set of key questions that regional authorities—particularly those managing funds—should ask themselves when selecting projects. These questions are designed to help ensure that funded projects contribute meaningfully to fair and inclusive energy transitions in EU coal regions:

- What criteria do you apply when selecting projects for funding?
- Do these criteria also consider the project’s potential to enhance long-term sustainability, economic diversification, and social cohesion within communities?
- Which transition dimensions—social, cultural, economic, environmental, or technical—does the proposed project address?
- What quantitative analyses can you perform to identify the multiple benefits the project may generate?
- Are appropriate funding options available for all types of proposed projects? If not, where do you see funding gaps?
- Do you primarily rely on European, national, or regional funds?
- Are funds accessible to a diverse range of stakeholders, including companies, municipalities, and citizens?

Please be aware that this is not an exhaustive list, and we welcome feedback to update the questions.

DISCUSSION AND CONCLUSION

The findings of this report underscore the importance of aligning project pipelines with appropriate funding mechanisms to ensure the successful implementation of Territorial Just Transition Plans (TJTPs). A diverse mix of funding sources—including the Just Transition Fund, Cohesion Fund, and Modernisation Fund—can help regions address the complex socio-economic and environmental challenges of the transition.

However, a key consideration is that **funding programmes should be reviewed to broaden their eligibility criteria to better support the needs of transition regions.** Currently, existing funding streams tend to favour large-scale projects, offering limited access and support for local citizens, entrepreneurs, and small and medium-sized enterprises (SMEs). This imbalance risks excluding crucial actors from the transition process and missing valuable opportunities for community-led innovation.

Capacity building is vital for the effective implementation of just transition initiatives. Many regions continue to face administrative and technical barriers that limit their ability to engage with and manage complex funding instruments. To address this, mechanisms such as One-Stop Shops (OSSs) and regional observatories have demonstrated their value. These initiatives facilitate collaboration among stakeholders, streamline project development and management, and play a critical role in ensuring that vulnerable groups are not left behind.

In conclusion, funding remains a critical enabler of a successful and just transition. To ensure long-term sustainability, funding must be sensitive to the specific needs of transitioning regions, promote regional cooperation, and support the scaling of successful models. This will help build resilient and inclusive regional economies, advancing efforts in economic diversification, the development of new cultural identities, and social inclusion.

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ABOUT JUSTEM

Energy transition plans may challenge the social ecosystem of the regions where coal is still king: if energy transition plans don't consider local factors, they may cause higher unemployment rates, aggravated energy poverty, and economic migration. Energy poverty is already a big challenge today in the EU, with coal-dependent regions generally being more affected by the issue.

In the spirit of the EU principle to “leave no one behind” in the transition, JUSTEM addressed the energy transition planning through a double-sided approach: (1) it helped regional authorities to develop ‘just’ energy transition plans that are sensitive to regional impacts such as job losses and energy poverty; and (2) it helped citizens build their capacity and find their place in a greener economy.

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