



Higher Education Institutions,
Community Engagement and

Just Transition

A Literature Review

EUROPEAN COMMISSION

Directorate-General for Energy

Directorate B – Just Transition, Consumers, Energy Security, Efficiency and Innovation

Unit B.1 - Consumers, Local Initiatives, Just Transition

EC-ENER-JUST-TRANSITION@ec.europa.eu

European Commission

B-1049 Brussels

ISBN: 978-92-68-18253-6

doi: 10.2833/456642

MJ-09-24-526-EN-N

Manuscript completed in August 2023

1st edition

This document should not be considered as representative of the European Commission's official position.

Luxembourg: Publications Office of the European Union, 2024

© European Union, 2024



The reuse policy of European Commission documents is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39). Unless otherwise noted, the reuse of this document is authorised under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated. The European Commission shall not be liable for any consequence stemming from the reuse.

For any use or reproduction of elements that are not owned by the European Union, permission may need to be sought directly from the respective rightholders. The European Union does not own the copyright in relation to the following elements:

Page 1: bialasiewicz (Envato)

Table of contents

1. Introduction	4
1.1. County Offaly and the Irish peat industry	4
1.2. The concept of a Just Transition	5
2. The roles of HEIs in regional and sustainable transitions	7
2.1. Universities as Knowledge Creators	7
2.2. Universities as Training Centres	13
2.3. Universities as Entrepreneurial and Economic Boosters	15
2.4. Universities as Technical and Financial Supporters	15
2.5. Universities as Network Enablers	17
2.6. Universities as Cultural and Social Enrichers	19
Bibliography	20

1. Introduction

The European Union's (EU) START initiative (Secretariat Technical Assistance to Regions in Transition) assists EU regions in taking measures to move away from coal, peat and oil shale energy dependence in a manner that promotes a just transition. This report aims to underpin the assistance that START is providing to County Offaly as it moves towards economic diversification and socio-economic sustainability, and away from peat harvesting as an energy source. Through an exploration of previous academic and policy papers, this document presents potential options that partners in County Offaly might consider when exploring the future role and contribution of locally focused higher education in actions to promote a just transition. By discussing the potential roles of higher education institutions (HEIs) in local and regional development, the paper aims to not only assist the community in County Offaly consider this opportunity, but equally other regions and communities that wish to involve HEIs in economic diversification and socio-economic development relating to decarbonisation. The desired outcome of this report is to stimulate thinking among local partners (particularly Offaly County Council, the Technological University of the Shannon (TUS), Laois Offaly Education and Training Board, and Offaly Local Development Ltd) on how they can collaborate and build higher education into their collective programme of activities to promote a just transition in a manner that builds on respective strengths, functions and experiences.

This report contains a literature review of findings on the relationship between regional actors and higher education institutions in the context of regional development. This involves the examination of a variety of literatures, notably:

- The literature on HEIs in regional development.
- The literature on HEIs as actors of sustainable and ecological development.
- In addition, the literature review is supported by cases of good practices of education and research bodies in the context of local and regional development and transition.

This paper therefore offers County Offaly, TUS, Laois Offaly Education and Training Board, and Offaly Local Development Ltd a reference to help guide their deliberations and actions as they explore the transformative potential of partnership working to create a more comprehensive and integrated programme of support for a just transition for local communities and people.

The structure of the report is as follows. An introductory chapter will explore the context of County Offaly's call for technical assistance from the START programme, including County Offaly's history of peat harvesting, as

well as the general concepts of a Just Transition. The main body of this report explores the various roles that HEIs may play within the context of broader regional development plans and ambitions. These include HEIs as: knowledge creators; training providers; economic boosters; technical assistance providers; network enablers; and cultural enrichers. The description of each role will be accompanied throughout by examples of HEIs in Europe and elsewhere that have taken active measures to promote sustainable transitions in their own regions.

1.1. County Offaly and the Irish peat industry

Situated in the Irish Midlands, County Offaly is a rural county which has long relied on the peat industry as one of its main industrial activities. County Offaly's population is 83,150, with a population density of 42/km², roughly half the national average (70/km²). While the unemployment level is 4.5%, on par with the national average (4.5% in February 2023, according to the Central Statistics Office), GDP per capita for the region is €23,000, significantly below national GDP per capita of €61,000 (Midlands Regional Transition Team, 2020).

County Offaly is a region which is historically and culturally linked to the peat industry. A major player in this industry is Bord na Mona (BnM) (the Peat Board), a semi-state-owned company, established in 1946 and charged with the commercial harvest and distribution of peat in Ireland. BnM owns approximately 77,000 hectares of land in the Eastern and Midland regions and manages over 130 peat bogs (Midlands Regional Transition Team, 2020). Once extracted, peat was sent to the local power plants of Edenderry, Lough Ree and West Offaly to be burned to generate electricity (both Lough Ree and West Offaly are now closed, and Edenderry is converted to the use of biomass). BnM's near monopoly on peat harvesting and distribution, as well as its peatland ownership, makes it a powerful actor in the context of current and future transitions away from peat harvesting, but also in terms of plans to restore and repurpose peatlands.

While peat accounted for 3.9% of the electricity generated in Ireland in 2018 (Midlands Regional Transition Team, 2020), the Irish Government has taken action to phase out the peat industry over the past 30 years. Although this will halt depletion of the local biodiversity and the degradation of the peatlands, the closure of the peat industry will inevitably have negative effects on certain areas of the region's population. Specifically, the communities of the Irish Midlands that have relied on the peat industry for many generations will lose not only a large source of their income, but equally an activity and industry which is at the heart of their identity as a region, and a large part of their social fabric.

BnM is still active today, although it is changing from its previous primary role as a peat extractor and is focusing its current activities on green energy production and peatland restoration. To help the workforce find alternative employment, BnM has offered tailored skills development and professional reconversion courses aimed at peatland workers, who now lack the skills needed to work in a post-extraction labour market. Despite such training, a recent study noted the significant challenge for workers finding alternative work, including in relation to BnM's move towards green energy production (Banerjee & Schuitema, 2022).

County Offaly's population is on average not as highly educated as the national average, with only 36% having tertiary education, compared with the national average of 46%. The County has a high prevalence of agricultural employment, with 8% of its population working in the agriculture industry, compared to 4% of the national population. BnM's employees are mostly above the age of 30: in 2019, only 13% of BnM's staff were under 30, while 39% were between the ages of 30 and 54, and 48% were over the age of 54 (Platform for Coal regions in Transition, 2020). This data, taken together, demonstrates that with the closure of the peat industry many in County Offaly's workforce have specific skills that are closely attuned to their role in peat extraction, but which are not specifically transferable to other areas of the employment market. Relatively low levels of education, specialisation in the agricultural sector, and the region's relatively older workforce means that to enable the County's workforce to adapt to the closure of the peat industry, specific attention needs to be paid to re-skilling adults and creating incentives to participate in new sectors such as tourism, ecological restoration, or digital industries. Moreover, the specific needs and potential of young people need to be addressed in order that their aspirations are addressed and sustainable communities created.

The closure of power plants and peatlands in County Offaly raise two major concerns:

- The closure of the peatlands and BnM's move towards green energy raises concerns that those who were involved in peat extraction are now not adapted to the new and emergent labour market and have lost the economic stability that their career in the peat industry afforded them. Effectively, these workers are at risk of being left behind by the move to a greener Ireland.
- The closure of the peat industry equally raises concerns that the population is losing an industry which is at the heart of the region's identity and culture. The peat industry is an important part of the everyday lives of the local community, as many generations of Midlanders have worked on the peatlands or have heated their houses with peat (Midlands Regional Transition Team, 2020).

To offset the negative effects of the closure of the peat industry and the shift towards a green economy and economic diversification, the community's concerns and requirements in relation to achieving a just transition need considered and promoted.

1.2. The concept of a Just Transition

In recent years, the concept of "Just Transition" has been adopted by academics, international institutions, and policy makers to describe an energy transition which keeps values of social justice at its core. Responding to criticisms of transition policies which did not adequately consider the unequal spread of positive and negative consequences, Just Transition as a theory is committed to the values of equality, human development, social justice, and quality of life. Although relatively recent in the history of ecological transitions (Spours, 2021), the term has now been adopted into the mainstream thinking on green measures and sustainability, notably used by actors such as the International Labour Organisation (ILO), the United Nations, and the EU. This is evidenced, for example, in the EU's Just Transition Fund, which supports Member States which have regions which are disproportionately negatively affected by the transition towards climate neutrality.

In practice, creating a Just Transition involves keeping the needs of all actors as the guiding principle of policy instruments and plans. Action plans should, as much as possible, be based on open communication, so that all actors affected by regional green transitions may have a say in the implementation of green changes (Spours, 2021).

The concept of Just Transition has a great potential for the communities of County Offaly. Applying the values of Just Transition will enable all actors and institutions to consider how their powers and resources can benefit the area's communities. Just Transition is committed to allowing previously marginalised, local voices to express their needs and desires for the future.

In making a Just Transition work for County Offaly, several contextual and ethical factors need to be considered. Banerjee and Schuitema (2022) point to the idea that a Just Transition needs to enact procedural, distributive, and restorative justice principles to be truly just. Focusing on the dissatisfaction of inhabitants of the Irish Midlands at the developments of recent years, such as the closure of peat-fuelled power stations, the authors explain that future programmes promoting Just Transition need to clearly explain what justice means in their particular context, as well as promoting:

1. Restorative justice, diminishing the negative effects of peatland closures;
2. Distributive justice, spreading the benefits and the sacrifices of green transitions more evenly amongst the population; and
3. Procedural justice, involving local actors and open collaboration and

communication at every stage of Just Transition projects. Promoting equality, communication and justice enables scepticism regarding green transition initiatives to be minimised.

Enacting a Just Transition would require the following issues to be considered and progressed (see also the START document, Midlands Pathway to Transition, and the Irish Territorial Just Transition Plan):

- Ensuring that those most directly affected by the closure of the peat industry, i.e., peatland workers, their families and communities are integrated into the new economy;
- Ensuring that peatland workers, and other local community actors, have an active say in projects to enact green transitions in the region;
- Ensuring that the quality of life of those working in the peat industry is maintained, and that the negative effects of the peat closure are minimised;
- Ensuring that the core needs of partners in the region are met;
- Restoration of the peatlands and the wellness of the local ecosystem and promotion of community land ownership schemes;
- Ensuring the economic wellness of the region post peat industry closure; and
- Paying particular attention to the role of the peat industry in the individual and collective identity of those working in the region.

Partners in County Offaly recognise TUS as a key actor in the path to transition and transformation. Formed in 2021 through an amalgamation of the Athlone Institute of Technology and the Limerick Institute of Technology, TUS offers courses in a variety of subjects, such as business, hospitality, life sciences, engineering, healthcare, and social sciences. It has several research centres, such as the Midlands Innovation and Research Centre, and the Polymer, Recycling, Industrial, Sustainability and Manufacturing Research Institute (PRISM). Forming a partnership with TUS and the other key actors would allow the County to benefit from TUS's resources and enable TUS to become embedded in the local community as a civic institution. As well as its two parent campuses in Limerick and Athlone, TUS has a significant presence in Thurles approximately 30 km from Birr. The Thurles campus has adopted the UN SDGs as its guiding directional framework and has significant academic, research and enterprise expertise in the sustainability/ ecological domain as well strong interpersonal relationships with the key actors in Offaly.

As an institutional actor with research, education, training and network resources, TUS, especially in association with the local partners noted previously, can help County Offaly in its path towards a Just Transition in several

ways. For example, TUS could promote investments and new activities in the area via the utilisation of external funding; it could ensure that the local population is skilled to fit the needs of the changing local job market; it could ensure that the local population is equipped with the knowledge and capacities to recover from the loss of a main source of economic activity and identity; and it could play an active role in building community networks. In each of these options, however, the main concern should be the specific and local needs of the Offaly population. These options will be explored as the partners consider the potential roles and contributions the university can bring to collaborative working for a local Just Transition.

2. The roles of HEIs in regional and sustainable transitions

As institutions with connections to business and governments, universities have the potential to be greatly influential actors in regional sustainable development plans. This follows from the trend of universities branching out from their habitual role of education, research and training providers and moving into greater roles in the world of business, entrepreneurship, activism, and governance. Universities are now increasingly active as socially engaged regional actors (Breznitz & Feldmann, 2010), interacting and engaging with the place in which they are located.

When exploring the potential role of universities in regional development and sustainability plans, we may find it useful to borrow from the concept of “Communiversities”. Although it has yet to be concretely defined in the literature, the concept of a communiversities refers to any organisation that links universities with a community. Due to its loose nature as a concept, communiversities can take many forms, but all support the values of: local and/or indigenous knowledge creation; accessibility to academia and knowledge for all; and supporting those within a community that need the most support.

As an example of alternative modes of knowledge creation, Scott Cato and Myers (2010) describe the 2008 Stroud Communiversities, which took the form of a local event: sustainability actors from across the UK attended workshops in Stroud which focused on land-based and experiential knowledge creation. Throughout the event, those who attended were encouraged to share their experiences, perspectives and emotions regarding local green initiatives and to share these lessons with their respective communities. Further, the University of Cumbria developed a communiversities plan in which it engaged with its local community, based on Christian and humanist values (Elton-Chalcraft et. al., 2022). Finally, at Maynooth University, a number of researchers and professors developed a CoMUniversity project, which offered the opportunity for members of their local community to experience university-level education before they committed to joining an HEI (Barter & Hyland, 2020). By offering part-time attendance of university courses through public libraries, Maynooth University enabled individuals who did not feel any affinity with tertiary education to access the world of academia in an environment which felt familiar to them. These examples show that the plasticity of the concept of communiversities offers a great variety of possibilities for universities to engage with and benefit their local communities.

When considering the role that a university may play in its host region, there are a variety of contextual factors

that will shape the relationship the university has with the communities in the region (Kempton et. al., 2022), such as: the age and size of the university; its main funding source; the balance between its teaching and research activities; the historical and cultural role of the university in the region; the strength of its research department; the demands of the local labour force; and the current relationship with regional and local governments. Overall, the specificity of the region in which a university is located needs to be considered, so that the relationship is based on the specific needs of the region.

TUS is a young, publicly funded, technological university, established in October 2021, after the merging of the Athlone Institute of Technology and the Limerick Institute of Technology, as noted above. Both located on the River Shannon, the two institutions merged in the hope of becoming a centre of research and education excellence for the Irish Midlands. Situated across six campuses throughout the Midlands (Limerick, Athlone, Thurles, Clonmel and Ennis), the University has been involved in many research initiatives and has a history of research excellence, funded by the national government. It works with nine funding agencies to support research, and the Athlone Institute of Technology was awarded the HR Excellence in Research award in 2015. Along with PRISM, TUS hosts the Materials Research Institute, the Software Research Institute, and the Bioscience Research Institute. Currently, it also leads the European RUN network – an international consortium of regional universities distributed over nine European countries.

Overall, the literature concurs that universities’ activities are beneficial for the community in which they are embedded when they use mutually reinforcing teaching, research, and engagement activities for a transformative, responsive, and demand-led goal (Kempton et. al., 2022). As “civic institutions of engagement”, Spours (2021) agrees that universities have a true power for transformative change.

TUS, then, can become a ‘Just Transition University’ by ensuring that its actions are informed primarily by the needs of its local community. It can equally promote the beneficial development of County Offaly, as it adapts to economic diversification following the closure of the peat industry, by adopting measures and actions that correspond to one or more of the following role types.

2.1. Universities as Knowledge Creators

In this first, most traditional role, universities may exert their most distinctive feature as organisations which generate novel and influential knowledge. Universities can harness their power to educate and use it to spread awareness of a variety of topics important to local or national development causes. Not only can universities

spread awareness of issues related to economic regeneration and ecological sustainability, but they may equally create knowledge of social or developmental concerns touching the specific region in which they are located. Education and knowledge creation includes those in academia, but equally individuals in the community who can benefit from life-long learning.

Universities engaged in research or knowledge creation may:

- Create research groups focused on regional concerns, green transitions, sustainability and/or development.
- Organise and hold events aimed at educating the local, regional, and national community on selected topics, which will help the region's development.
- Change the curriculum so that it aligns with economic, ecological, and regional needs.
- Encourage professors, academics and students engaged in pursuing research in the fields of green energy, sustainability, policy, and regional development.

Closely linked to the concept of research or innovation hubs, a potential type of research institution that universities could consider developing are sustainability observatories. Observatories create data and studies on issues of importance for the region in which they are situated, just as research centres do. However, several distinctive features differentiate observatories from research centres, such as their nature as facilitators of business development. Overall, observatories tend to monitor the development of a specific trend or phenomenon, the results of which are shared with policy developers, business actors, or regional and national government bodies. Observatories are therefore well suited to supporting regional and economic development as they link the main actors involved with the academic, research, business and governance sectors.

Examples of such observatories in the EU and United Kingdom include: Barcelona School of Management's Sustainability Observatory, dedicated to the transfer of knowledge in the field of sustainability to the business sector; Bocconi University's Observatory on

Public Procurement and Sustainability, which organises seminars, publishes policy recommendations and lobbies in the field of sustainability policy; Maastricht University's Observatory on Resilient, Responsible & Sustainable Enterprise and Economy; Exeter University's Marchmont Employment and Skills Observatory, which provides policy advice in the field of employment to clients such as the British Council or the Organisation for Economic Cooperation and Development; and the French National Observatory for Jobs and Occupations of the Green Economy, which analyses and predicts changes in employment related to green transition (Business Europe, 2021).

Promoting research and knowledge about the green transition enables the local population to be more informed about the issues affecting their community. This in turn gives community members the tools to participate actively in creating plans and initiatives for the region. Investment into research centres and hubs is also a desirable initiative, as it helps increase the attractiveness of the region to businesses and students in the longer term.

TUS has already acted as a sustainability knowledge creator. The University participated in the Irish government's "Create Our Future" initiative, Ireland's "Biggest Brainstorm" on the theme of sustainability. The event involved public participation in the development of research initiatives, notably through an online portal where participants were encouraged to propose ideas for research topics. The event aimed to increase communication between the public and researchers, asking the public to express what they believe should be the focus for current and future research, to ensure that the research is informed by the people it serves. Participants' ideas were compiled and analysed, then turned into a report to be given to the government to inform their research. TUS also hosted the "Future Jobs and Skills for a Circular Economy" event, where stakeholders discussed the priorities for the Midlands in relation to economic diversification and sustainability.

The boxes below highlight some further examples of universities playing a sustainability knowledge role successfully.

Box 1: Interdisciplinary Centre for Transformative Urban Regeneration (IZS), Görlitz, Germany – Community Members as Participants

The IZS produces research on topics related to sustainability at the local and regional level, focusing on issues which directly impact the Görlitz community. These include topics such as: community development, sustainable transitions, climate neutral urban development and urban regeneration.

Recently, the Centre produced a piece of research entitled “Testing the City - Living and Working in Görlitz”, with the involvement of a variety of local and regional actors, exploring how the city of Görlitz can increase its attractiveness for new residents and professional talents. The project was funded by the German Federal Ministry of the Interior, Building and Community and the Federal Institute for Research on Building, Urban Affairs and Spatial Development.

By creating such place-centred research, the Centre actively participates in generating sustainable solutions to the region's problems, in accordance with its local priorities and needs.

WEBSITE: <https://izs-goerlitz.ioer.de/>

Box 2: University of Western Macedonia, Greece – Sustainability Observatory:

In the wake of the gradual phase-out of the lignite industry in Greece, the University of Western Macedonia has adapted to the needs of its local community. Below are a range of ways in which the University has invested in the development of its host-region:

- **Creation of a skills and sustainability observatory:** The University of Western Macedonia is currently in the process of developing a Competence Centre for a Resilient and Sustainable Built Environment using Smart Technologies. Focused on developing sustainability in the region in conjunction with the construction and IT sectors, this semi-public Centre aims to bridge the gap between the demand and supply of skills in the local technology sector. The Centre will do this mostly by analysing the multi-dimensional nature of transitions in the region, conducting studies on environmental, economic and social changes affecting the region. This holistic understanding of the challenges that the region faces is continued in the University's promotion of courses which use a multi-disciplinary teaching method.
- **Bridging the local and national:** Through its involvement in local regional development, the University has acted as a bridge between local businesses and national government initiatives. The University claims that this has helped to promote strategic dialogue in Just Transition plans in the Western Macedonian region. The University also promotes and partners with various regional transition projects across the country, such as the Ptolemaida's Hydrogen Innovation Hub. The University's connections include the European Commission (especially the Department for Regional and Urban Policy, DG REGIO), the Greek national managing authority and several partner regions (Silesia, Poland; Stara Zagora, Bulgaria; Sardinia, Italy).
- **Policy and research help:** The University and its professors are cited as key regional authors in the development of the WWF's 2016 Transition Roadmap for Western Macedonia. Alongside the provision of data through studies on the region's current economic and employment conditions, the University facilitated the writing of the Roadmap by increasing communication between regional and international actors. Further, the University is committed to creating research on sustainability, having recently participated in the "Regional Excellence" Action through the research paper "Development of New Innovative Low Carbon Energy Technologies to Enhance Excellence in Western Macedonia".

The University's status as an independent actor, along with its connections to important actors in the world of sustainability research and its continuous promotion of interdisciplinary studies mean that it is well-placed to distribute governance assistance to other institutions that aim to engage in regional Just Transition plans.

SOURCES: WWF. (2016). Roadmap for the Transition of the Western Macedonia Region to a Post-Lignite Era. https://regionsbeyondcoal.eu/wp-content/uploads/2019/02/Roadmap_PostLignite_EN_FINAL-1.pdf

WEBSITE: <https://www.uowm.gr/en/news/two-competence-centres-at-the-university-of-western-macedonia/>

Box 3: Just Transition Projects, Scotland – Government-Funded Research for a Just Transition

The Just Transition Fund, deployed by the Scottish government in 2022, is a 10-year project aimed at implementing a Just Transition in the Northeast of the country, involving a wide variety of institutions. Included in this Just Transition project are several research centres and universities, helped by the government's fund, which are carrying out research related to Just Transitions:

- **James Hutton Institute:** The James Hutton Institute, an interdisciplinary research centre, has pledged to create research on nature-based solutions for a net zero transition in Scotland. It is also carrying out the HydroGlen project, aimed at researching green hydrogen in farming to switch to net-zero carbon energy production in rural communities.
- **Robert Gordon University (Aberdeen)** has created a Digital Innovation lab, supporting the construction sector through research in the decarbonisation of the industry.
- **North East Scotland College (Aberdeen):** This college collaborated with Energy Transition Zone Ltd. (ETZ) to create the Advanced Manufacturing Skills Hub, which will support the upskilling local communities. Located on College Aberdeen's Skills Campus of the Energy Transition Zone, the Skills Hub plans to include new teaching spaces, a welding academy, and learning spaces for the local community. The Skills Hub will also use disused industrial spaces as much as possible, to develop in line with net zero transmission goals.
- **University of Highlands and Islands – Moray College:** UHI Moray has been awarded funds to identify the skill gaps in Moray, and the obstacles slowing Moray's transition to net zero emissions, in a study entitled "Net Zero Bottlenecks in Moray".

WEBSITE: <https://www.gov.scot/publications/just-transition-fund/>Box 3: Just Transition Projects, Scotland – Government-Funded Research for a Just Transition

The Just Transition Fund, deployed by the Scottish government in 2022, is a 10-year project aimed at implementing a Just Transition in the Northeast of the country, involving a wide variety of institutions. Included in this Just Transition project are several research centres and universities, helped by the government's fund, which are carrying out research related to Just Transitions:

- **James Hutton Institute:** The James Hutton Institute, an interdisciplinary research centre, has pledged to create research on nature-based solutions for a net zero transition in Scotland. It is also carrying out the HydroGlen project, aimed at researching green hydrogen in farming to switch to net-zero carbon energy production in rural communities.
- **Robert Gordon University (Aberdeen)** has created a Digital Innovation lab, supporting the construction sector through research in the decarbonisation of the industry.
- **North East Scotland College (Aberdeen):** This college collaborated with Energy Transition Zone Ltd. (ETZ) to create the Advanced Manufacturing Skills Hub, which will support the upskilling local communities. Located on College Aberdeen's Skills Campus of the Energy Transition Zone, the Skills Hub plans to include new teaching spaces, a welding academy, and learning spaces for the local community. The Skills Hub will also use disused industrial spaces as much as possible, to develop in line with net zero transmission goals.
- **University of Highlands and Islands – Moray College:** UHI Moray has been awarded funds to identify the skill gaps in Moray, and the obstacles slowing Moray's transition to net zero emissions, in a study entitled "Net Zero Bottlenecks in Moray".

WEBSITE: <https://www.gov.scot/publications/just-transition-fund/>

Box 4: University of Applied Sciences Zittau/Görlitz, Görlitz, Germany – Interdisciplinary Research

The Zittau/Görlitz University of Applied Sciences is host to the Institute for Transformation, Housing, and Socio-Spatial Development (TRAWOS). The Institute focuses on urban transformation, living and socio-spatial development and promotes interdisciplinary research on such topics as social innovation, socio-ecological changes, regional development, and integration. The Institute, alongside researching issues affecting rural communities as they adapt to changes in population and migration, also offers consultancy services to civil society organisations or charities enacting local-level development projects.

SOURCE: <https://trawos.hszg.de/en/>

Box 5: Universidad de Ibagué (UI), Tolima, Bolivia – Capabilities-Based Development

UI has taken several actions to prove its commitment to regional ecological and peace-based development, including:

- Providing academic courses on sustainability, with an emphasis on interdisciplinary study.
- Creating participatory forums deployed to the region, asking for research topic suggestions.
- Researching sustainability in the region.
- Using regional actors as participants in studies.
- Proposing professional programmes for students who are economically vulnerable.
- Creating a “capabilities list” informed by regional participation: the list, created by regional participants, details the values to which participants would like to see the university commit. Regional actors were asked to participate in a focus group, where the list was initially created, before it was amended after a second stage of regional participation. During the second stage, the university used sensory and visual props to ask for suggestions to the values list from the initial participants. The list reflected the importance of values such as care and cooperation to the region.
- The Peace and Region programme: headed by a separate administrative body and enforced for all students as a prerequisite for graduation, the Peace and Region programme links UI students with regional projects. During interviews (Velasco et. Al., 2021), UI students declared that through the programme, they had gained a high level of education on the region’s post-conflict concerns, that they had greatly expanded their own knowledge and capabilities, that their values had changed to reflect the needs of the region, and that they had a better awareness of their own spatial identity.

Source: Velasco, D., Boni, A., Delgado, C. and Rojas-Fogiorero, G. (2021). “Exploring the Role of a Colombian University to Promote Just Transitions: An Analysis from the Human Development and the Regional Transition Pathways to Sustainability”. *Sustainability*. 13, pp.1-24. DOI

2.2. Universities as Training Centres

In this role, universities engage in regional plans for economic and regional development by providing the local community with the skills necessary to adapt to a greener, more digitalised world. This process can be supported by first understanding the skills that the region needs to evolve and adapt to the closure of its main industry.

Actions in this role include:

- Creating courses to build skills, including a range of vocational skills, which train students for careers that can benefit the region;
- Talks and events about skills in the region and beyond;
- Career guidance;
- IT literacy skill groups;
- Training opportunities for all members of the community;
- Joining EU initiatives and groups focused on skills and apprenticeships;
- Creating research or communicating with local employers to assess the current need for skills in the region; and
- Promoting values such as care or ecological awareness.

Upskilling and re-skilling the local population has several benefits in the context of County Offaly. It directly helps those who are affected by the closure of the peatlands, as it allows them to learn new skills that can help them to adapt to new industries. Additionally, promoting the acquisition of skills to the wider community allows the region to be better adapted to industries which could take the place of peat harvesting as main sources of income. Further, creating knowledge of the skills needed in the local market enables local companies to employ from a trained pool of community individuals, rather than outsourcing their work to those from other regions. This, in turn, may generate economic development in the region. Specifically in the context of County Offaly, there have been indications that the region should refocus on the digital industry, the tourist industry, and the peatland restoration industry, all of which require specific skills that can be learnt through targeted courses. The boxes below show details of university-led training projects that have supported regional economic diversification.

Box 6: Petrosani University (UPET), Romania – Place-Informed Re-Skilling

Located in the Jiu Valley, home to Romania's largest coal mine, UPET operates as a regional actor, as it is a small university, focusing on local skills needs that can contribute to regional development. UPET answers to local needs by providing local companies with workers skilled in timber processing, electronics, and robotics. It has a pilot site to train workers for jobs in battery factories.

UPET is part of EurekaPro, a consortium of various HEIs involved in Responsible Consumption and Production. They have launched the Heritage and Innovation project. Jointly with the University of Crete, UPET will be carrying out activities focused on the industrial and mining heritage of the region.

EURECAPRO WEBSITE: <https://www.eurecapro.eu/>

Box 7: Czech Technical University (CTU), Prague, Czech Republic – Engineering for Children

Over the course of a week, the CTU held the “Children’s University”, a summer daytime camp introducing children to university education. The content of the event focused on engineering, architecture, and biomedicine, with workshops and activities introducing children to robotics, architectural design, flight simulators, medical implants, and the use of 3D printers.

WEBSITE: <https://www.cvut.cz/en/ctu-childrens-university>

2.3. Universities as Entrepreneurial and Economic Boosters

As institutions attracting outside investment, as well as greatly impacting wealth generation, universities have immense power to boost and grow regional economic wellness. Community-inclined universities can help their host region by generating activities which render themselves and their region more attractive to outside investors, students, and workers.

Universities that wish to increase a region's economic prosperity could consider the following actions:

- Employ locally;
- Ensure that local companies and contractors are used for university projects and development;
- Take steps to attract outside funding and students to the region.
- Share business advice with the local community through the form of workshops or courses (as advised by the ILO in its Guidelines for a Just Transition, 2015); and
- Create business clinics, which help local businesses with issues that arise during ecological or economic crises.

Promoting entrepreneurial values and economic growth corresponds to the values of a Just Transition in several ways. Firstly, it directly offsets the individual effects of peatland closures, by granting individuals the skills required to adapt to an ever-changing and unstable economy and regular ecological, social, or financial crises. Further, a university which becomes more entrepreneurial may be able to generate wealth which will be redistributed into the wider region in which it is located. The entrepreneurial nature of a university also makes it competitive and known on a national or international scale, attracting foreign investment into the region, and increasing the level of talent and number of students coming to the area. An increase in student population may have the positive effect of generating more commerce for the benefit of the community. Finally, promoting and supporting local business is a key way to financially support a region.

TUS has previously been involved in programmes that support entrepreneurial development. It is a member of the Technology Transfer consortium. It has developed "New Frontiers", the national programme for developing entrepreneurs and hosts the ESA Space Solutions for Centre Ireland, which offers business development and funding for those working in the space industry.

2.4. Universities as Technical and Financial Supporters

As technical and economic supporters, universities serve as support systems for communities that do not possess the tools or knowledge to enact their Just Transition plans by themselves. Universities, as regional, national, and international institutions, specifically able to generate high-level knowledge and access sources of funding, can help their local community by using their monetary or research resources for the creation of plans to create sustainability in the region.

Universities can offer support in the following ways:

- Discussions with community leaders to assess and set priorities for the region;
- Taking leadership and/or project management of sustainability projects;
- Proposal writing and evaluation;
- Directly funding or co-funding projects (as recommended by the ILO Guidelines, 2015)
- Discussing and meeting with potential funding sources;
- Developing policy for the region.
- Assessing existing policies, as well as their impacts (as recommended by Fonseca and Neith, 2021).

Funding Just Transition projects is a straightforward way in which to support communities that have pre-conceived notions of how their transition can positively affect their own community. Effectively, universities who fund Just Transition projects demonstrate in a clear manner their acceptance and support for communities and their plans. Additionally, providing technical assistance in the form of policy writing and evaluation exemplifies universities complementing communities by offering their services for the region's benefit. The consequence of acting as a technical assistant is not only immediate, in the sense that communities write better proposals or projects, but is lasting, as the ability to manage projects and conceptualise them will come more naturally once aided by the university. Offering technical assistance to communities in need therefore helps them in the longer term to understand the policy writing process and the project management process. This in turn means that they will have the tools in the future to carry out their projects independently. The boxes below showcase examples of technical support from universities.

Box 8: University of Melbourne, Gippsland, Australia – Cooperation with Local Government to Examine Skill Gaps

Adopting the EU's "Smart Specialisation Strategy", the Latrobe Valley Authority (LVA) approached the University of Melbourne and the Royal Melbourne Institute of Technology to assist them with the development and the execution of a strategy which would establish the skills gap in the Gippsland region, following the closure of one of Victoria's largest coal power plants. Both universities are quoted as assisting the LVA with strategy development, which included research design development, community engagement activities, or sectoral analysis.

WEBSITE: <https://sustainable.unimelb.edu.au/research/research-projects/gippsland-smart-specialisation-strategy>

SOURCE: START. (2021). Good Practice Examples of Regional and Sub-Regional Strategies in Coal Regions in Transition. https://energy.ec.europa.eu/system/files/2021-05/good_practice_examples_of_regional_and_sub-regional_strategies_in_coal_regions_in_transition_0.pdf

Box 9: University of Peloponnese (UoP), Arcadia, Greece – Multi-University Cooperation:

Along with developing the Bioeconomy Hub 360, hoping to become a research reference and develop an open collaboration network for companies working in the bio-economy sector, UoP has helped develop Western Macedonia's Just Development Transition Plan (SDAM). In cooperation with the University of Athens and the University of Western Macedonia, the UoP held meetings between the SDAM committee and university rectors, where conversations focused on spatial planning and re-skilling agendas.

SOURCES:

START. (2022). Building on Local Assets to Create a New Economy: A Report on the Municipality of Megalopolis and Eligible Area. https://energy.ec.europa.eu/system/files/2022-04/START%20Megalopolis_Final_v2.pdf

Just Transition Development Plan. (2020). Just Transition Development Plan of Lignite Areas. https://www.sdham.gr/sites/default/files/consultation/Master_Plan_Public_Consultation_ENG.pdf

Box 10: Technical University of Bratislava, Slovakia – Technical Engagement Meetings:

To assist with the Upper Nitra Transformation Action Plan of 2018, the Technical University of Bratislava provided technical assistance to the Mayor of Prievidza in their initiative to transition away from coal-reliant industries. The University assisted with the development of 15 engagement meetings between local stakeholders, where discussions were held regarding the priorities for the transformation of the region.

SOURCE: (2021). Good Practice Examples of Regional and Sub-Regional Strategies in Coal Regions in Transition. https://energy.ec.europa.eu/system/files/2021-05/good_practice_examples_of_regional_and_sub-regional_strategies_in_coal_regions_in_transition_0.pdf.

2.5. Universities as Network Enablers

Another resource available to communities, if they engage with HEIs, is the wealth of their local, regional, national, and international networks. Not only can universities put community actors in contact with a wide array of institutions and other community, but universities can become grounded locations of socialisation and network development.

Universities who wish to create long-lasting partnerships and networks to support economic and regional development can help at a variety of levels:

- Local network creation: hosting and moderating round tables, question panels, forums, conferences, and groups to discuss and plan what the just transition means for the region. This will allow local actors to meet and create stronger relationships which will help priority-setting and creating a stronger relationship necessary to advance the cause and create a sense of community.
- National network creation: universities can support communication between regional actors and national government or businesses. This includes advocating for regional plans at the national level or mobilising national stakeholders.

- International level: universities have a higher potential to discern and connect with other regions experiencing similar issues to their host region. Putting the community into contact with or raising awareness of similar coal-dependent regions across Europe or further will allow community members to be inspired by other solutions to their regional concerns. Promoting international partnerships may equally benefit communities by raising awareness of similar lived experiences worldwide.

By enriching the partnerships between community actors and regional, national, or international actors, universities participate in economic and regional development by giving their region the tools necessary for their local concerns to be heard at every level. Further, this enables a group consciousness to be created amongst actors who have similar concerns and problems. Encouraging key actors to work together stimulates the creation of innovative and creative solutions to regional, national, and international problems.

Box 11: University of Oviedo (UNIOVI), Asturias, Spain – Multiple-Pronged Development Strategy

The University is in close collaboration with the Principality of Asturias Government (ASGOV). Along with ASGOV, UNIOVI has participated in the EU's Smart Specialization Platform for the Mining Industry, actively promoting the role of the Asturias region in the field of mining and metallurgy. Based on this collaboration between the Asturias government and the University, the Strategy for the Sustainable Gestion of Raw Materials was developed. The university was involved at the writing and development stage of this policy, with its input essential at the conception, drafting and refining stage of the process. To develop this regional policy, the university was involved in an open and collaborative process with a variety of regional stakeholders, including private regional companies and national institutions and associations.

UNIOVI has equally been committed to regional development through its relationship creation with a variety of regional companies. Through the creation of University Chairs, the University has created strategic partnerships with companies in industries important to the just transition. These include: the Chair for the Circular Economy; the Chair for Renewable Energy; the Chair for Pasek Minerals; and the Chair for Geomatics.

UNIOVI is equally involved in fostering dialogue between itself, private actors, and regional stakeholders in the community. The most prominent form of this dynamic is its support for the creation of a range of policy documents and sustainability recommendations. It has created three working groups which have worked to create strategies about sustainability issues currently affecting the region. These include: the Committee to assess the impact of Just Transitions in the region; the Strategy for the renovation of buildings; and the Strategy for just energy transitions. In this role, the university played an active part in providing policy recommendations, but also in joining private and public actors in discussion settings.

The University of Oveido is also a member of the EU's Observatory for Just Transition.

2.6. Universities as Cultural and Social Enrichers

Sans-Hernandez (2020) explains that identities based on resistance to transition can be turned, in coal-reliant communities, into identities based on project creation, if projects are introduced which are based in social justice and place-based territory. Forsyth et. al. (2015) also found that in communities where local water sources are endangered, individuals whose identity is based on the place where they reside are more likely to engage in behaviour geared towards protecting and preserving the environment. This demonstrates the need to invest in creating a sense of identity around place for the benefit of green transitions.

The final role a university can play in plans for regional and economic development is one which enables communities to adapt to the social impact that the closure of carbon-based industry can have on their everyday lives. It is important to highlight that the social consequences of the transition to green energy are as important as the economic and ecological consequences in the theory of Just Transition.

A university committed to promoting social and cultural richness could take the following actions:

- Create discussion places, arts centres, or history exhibitions focusing on the region's history, specifically linked to the industry in question.
- Take an active role in promoting local art and artists.
- Organise events in which members of the community may gather to discuss or share their personal histories and experiences surrounding their community's past.
- Organise social events so that those of all ages can meet and socialise.
- Promote the creation of place identity by holding open discussions on future options for place marketing.

Taking an active role in the remembrance of the community's past enables it to offset the negative social effects of closing carbon-reliant industry. This is directly applicable to County Offaly, in that remembering the region's distinctiveness may enable individuals to embrace more warmly the initiatives that are designed to move the region's focus away from peat extraction. Further, encouraging social initiatives will enable individuals who formerly worked in the same location to meet again, around topics and concerns which unite them.

Box 12: Cultural and Business Hub: New Gliwice Business and Education Centre, Silesia, Poland

The government of Lower Silesia, with remaining EU accession funds, invested in the reconstruction and repurposing of a former coal mining site, transforming it into a complex centre for industry and education.

The government reused the old site buildings as much as it could, investing in their reconstruction and renovation. The New Gliwice business and education centre now boasts several buildings fit for enterprises, entrepreneurs, and educators in the region. In line with its history of the coal energy industry, the site now hosts a variety of tech and energy companies, working in electrical engineering, power engineering, telecommunications, and aviation.

The buildings can also host educational and community activities, with the former mine directorate offering teaching rooms, and the former waiting room of the mines offering a large, modern conference centre with auditorium halls. The former engine room also hosts conference and training facilities. It also operates as a functional urban space that attracts residents with cultural and sports events.

The main objectives of the project were to reclaim the sites, preserve the cultural heritage and the historical significance of the region, establish favourable conditions for the development of small businesses, and develop institutions of higher education. These objectives have been accomplished, and the project is widely seen as an example of successful revitalisation in Silesia.

Bibliography

- Banerjee, A. and Schuitema, G. (2022). "How Just Are Just Transition Plans? Perceptions of Decarbonisation and Low-Carbon Energy Transitions among Peat Workers in Ireland". *Energy Research and Social Science*, 88, pp.1-10. DOI: <https://doi.org/10.1016/j.erss.2022.102616>.
- Barter, D. and Hyland, S. (2020). *The ComUniversity - A Review of the CommUniversity: The University for All*. Maynooth University. <https://mural.maynoothuniversity.ie/13561/1/Final%20CommUniversity%202020%2006.11.20.pdf>
- Breznitz, S. and Feldmann, M. (2010). "The Engaged University". *Journal of Technology Transfer*, 37(2), pp.139-157. DOI: <https://doi.org/10.1007/s10961-010-9183-6>.
- Business Europe (2021). *Greening the Economy: Employment and Skills Aspects*. https://www.buinessurope.eu/sites/buseur/files/media/reports_and_studies/2021-10-15_employment_and_skills_aspects_of_greening_-_final.pdf.
- Elton-Chalcraft, S., Jogie, M., O'Connell, C., Bradley, T., Conlon, R. and Shore, R. (2022). *CommUniversity: Values in Action Project 2020-2022*. University of Cumbria. <https://cathedralsgroup.ac.uk/media/Linked%20documents/2022%20Final%20Full%20Report%2011-05-2215.pdf>.
- European Commission, Platform for Coal Regions in Transition (2020). *Midlands, Ireland Regional Profile*. https://energy.ec.europa.eu/system/files/2020-06/midlands_regional_profile_-_start_0.pdf.
- Fonseca, L. and Neith, L. (2021). "The Role of Universities in Regional Development Strategies: A Comparison across Actors and Policy Stages". *European Urban and Regional Studies*, 28(3). DOI: <https://doi.org/10.1177/0969776421999743>.
- Forsyth, D., Vugt, M., Schlein, G., and Story, P. (2015). "Identity and Sustainability: Localized Sense of Community Increases Environmental Engagement". *Analyses of Social Issues and Public Policy*, 15(1), pp.233-252. DOI: <https://doi.org/10.1111/asap.12076>.
- Government of Ireland. (2022) Territorial Just Transition Plan: EU Just Transition Fund. <https://www.gov.ie/en/publication/4d421-eu-just-transition-fund/#:~:text=Ireland's%20first%20Territorial%20Just%20Transition,order%20to%20address%20these%20impacts>.
- International Labour Organization. (2015). *Guidelines for a Just Transition Towards Environmentally Sustainable Economies and Societies for All*. https://www.ilo.org/wcmsp5/groups/public/@ed_emp/@emp_ent/documents/publication/wcms_432859.pdf.
- Just Transition Development Plan. (2020). *Just Transition Development Plan of Lignite Areas*. https://www.sdarn.gr/sites/default/files/consultation/Master_Plan_Public_Consultation_ENG.pdf
- Kempton, L., Conceição Rego, M., Reinaldo Alves, L., Vallance, P., Aguiar Serra, M. and Tewdwr-Jones, M. (2022). *Putting Universities in their Place: An Evidence-Based Approach to Understanding the Contribution of Higher Education to Local and Regional Development*. London: Routledge.
- Midlands Regional Transition Team. (2020). *Future Employment and Skills in the Irish Midlands*. https://energy.ec.europa.eu/system/files/2020-08/future_employment_and_skills_in_the_irish_midlands_0.pdf.
- Sanz-Hernandez, A. (2020). "How to Change the Sources of Meaning of Resistance Identities in Historically Coal-Reliant Mining Communities". *Energy Policy*, 139, pp.1-12. DOI: <https://doi.org/10.1016/j.enpol.2020.111353>.
- Scott Cato, M. and Myers, J. (2010). "Education as Re-Embedding: Stroud CommUniversity, Walk the Land and the Enduring Spell of the Sensuous". *Sustainability*, 3, pp.51-68. DOI: <https://doi.org/10.3390/su3010051>.
- Spours, K. (2021). *Accelerate the Just Transition: The Contribution of Further and Higher Education to Achieve Net Zero and Climate Justice*. UCL Institute of Education. <https://discovery.ucl.ac.uk/id/eprint/10137958/1/COP26%20-%20FHE%20and%20the%20Just%20Transition%20Final.pdf>.
- START. (2020). *Midlands Pathway to Transition*. https://energy.ec.europa.eu/system/files/2020-10/midlands_pathway_to_transition_0.pdf.
- START. (2021). *Good Practice Examples of Regional and Sub-Regional Strategies in Coal Regions in Transition*. https://energy.ec.europa.eu/system/files/2021-05/good_practice_examples_of_regional_and_sub-regional_strategies_in_coal_regions_in_transition_0.pdf.
- START. (2022). *Building on Local Assets to Create a New Economy: A Report on the Municipality of Megalopolis and Eligible Area*. https://energy.ec.europa.eu/system/files/2022-04/START%20Megalopolis_Final_v2.pdf.
- Velasco, D., Boni, A., Delgado, C. and Rojas-Forero, G. (2021). "Exploring the Role of a Colombian University to Promote Just Transitions: An Analysis from the Human Development and the Regional Transition Pathways to Sustainability". *Sustainability*, 13, pp.1-24. DOI: <https://doi.org/10.3390/su13116014>.
- WWF. (2016). *Roadmap for the Transition of the Western Macedonia Region to a Post-Lignite Era*. https://regionsbeyondcoal.eu/wp-content/uploads/2019/02/Roadmap_PostLignite_EN_FINAL-1.pdf

GETTING IN TOUCH WITH THE EU

In person

All over the European Union there are hundreds of Europe Direct centres. You can find the address of the centre nearest you online (european-union.europa.eu/contact-eu/meet-us_en).

On the phone or in writing

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696,
- via the following form: european-union.europa.eu/contact-eu/write-us_en.

FINDING INFORMATION ABOUT THE EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website (european-union.europa.eu).

EU publications

You can view or order EU publications at op.europa.eu/en/publications. Multiple copies of free publications can be obtained by contacting Europe Direct or your local documentation centre (european-union.europa.eu/contact-eu/meet-us_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1951 in all the official language versions, go to EUR-Lex (eur-lex.europa.eu).

EU open data

The portal data.europa.eu provides access to open datasets from the EU institutions, bodies and agencies. These can be downloaded and reused for free, for both commercial and non-commercial purposes. The portal also provides access to a wealth of datasets from European countries.

Initiative for coal regions in transition

The Initiative for coal regions in transition is led by the European Commission.

➔ ec.europa.eu/coal-regions-in-transition

✉ secretariat@coalregions.eu

🐦 [@Energy4Europe](https://twitter.com/Energy4Europe)



Publications Office
of the European Union