

JUST TRANSITION PLATFORM

Existing studies and databases in the context of the Just Transition Fund



Context

The **Just Transition Fund (JTF)** is one of the pillars of the <u>Just Transition Mechanism</u> implemented under cohesion policy. The aims of the JTF are to mitigate the adverse effects of the climate transition by **supporting the most affected territories** and workers concerned and to **promote a balanced socio-economic transition**. In line with the JTF's single specific objective, actions supported by the JTF should directly contribute to alleviating the impact of the transition by mitigating the negative repercussions on employment and by financing the diversification and modernisation of the local economy.

In the context of the JTF, the **Just Transition Platform (JTP)** was launched to assist EU Member States and regions to unlock the support available through the Just Transition Mechanism (JTM). The Platform serves as an important political interface for DG REGIO but also for various other European Commission services (including DG ENER, DG CLIMA, DG GROW).

About this document

Developed with analytical support from Prognos AG in the context of the Just Transition Platform, this document summarises relevant existing studies and databases, primarily at EU level, that provide both analytical insight and relevant statistics on effects of the transition on Member States and, where possible, regions. The sources are divided into two categories:

- 1. Sources assessing regional JTF scope
- 2. Sources on the **impact of the transition**

This list is not meant to be exhaustive, but rather a selection of key resources that may be of use to stakeholders across the EU.

Each entry provides a short summary of the identified source, including the author, year of publication and Member State or Region as well as a clickable link to instantly access it online. While you are welcome to download these sources where available, we advise that you bookmark them in your web browser to make sure you are viewing the most up-to-date version.

If you have any comments, edits or corrections, or if you have a source that may be relevant to add to this list, you are welcome to contact the Just Transition Platform Secretariat at <u>secretariat@justtransitionplatform.eu.</u>



Source type 1: Assessing JTF Regional Scope



EU coal regions: opportunities and challenges ahead

Author:	Year of publication:	Source type:	Member State:	Region:
Joint Research Centre	2018	Report	EU	Regional analysis
				provided (NUTS 2)

The report looks into several quantitative indicators relevant for coal mining regions at NUTS2-level (e.g. distribution of indirect jobs in intra-regional supply chains, distribution of indirect jobs in inter-regional supply chains). The European coal sector currently employs nearly half a million people in direct and indirect activities. By 2030, it is estimated that around 160 000 direct jobs may be lost. The report provides a regional analysis of jobs at risk due to the retirement of coal plants across the EU.

Link



Regions in Transition

Author:	Year of publication:	Source type:	Member State:	Region:
Organisation for Economic Co-operation and Development (OECD)	2019	Database	EU	410 regions globally

The industrial transition tool is an online tool designed for policy-makers in regions in transition and other interested parties who wish to explore how their region stands on core indicators related to transition* in comparison to other regions across the OECD.

*Definition of 'transition' in this context: transitions towards higher value added activities, which are critical for regions and countries to ensure future competitiveness.

Link



Towards a greener future: employment and social impacts of climate change policies

Author:	Year of publication:	Source type:	Member State:	Region:
European Commission	2019	Report	EU	Regional analysis provided (NUTS 2)

The report looks into analysing the regional impacts of the transition, e.g. fossil fuel extraction and mining industries will decline, which will mostly affect the few regions with a high proportion of employment in these sectors: North Eastern Scotland (11.3%), Silesia in Poland (5.3%) and Sud-Vest Oltenia in Romania (1.8%). The report demonstrates that most regions with a high proportion of employment in energy-intensive industries and automotive manufacturing have low participation rates in adult training (2016).





The socio-economic impacts of the closure of the Groningen gas field

Author:	Year of publication:	Source type:	Member State:	Region:

Joint Research Centre 2020 Impact assessment Netherlands Northern Netherlands

This study reports on the assessment of the regional socio-economic impacts deriving from the closure of the gas field planned by 2022. This analysis served as a framework for evaluating the impacts and as an information tool for the local authorities on how to plan the steps towards a successful transition and a new socio-economic development.

Link



Clean energy technologies in coal regions

Author:Year of publication:Source type:Member State:Region:Joint Research Centre2020ReportEU / NationalRegional analysis provided

This report analyses the opportunities in coal regions stemming from the deployment of power generation technologies from wind, solar photovoltaics, bioenergy and geothermal sources, as well as on coal-fired power plants with carbon capture. In this context, we also address energy demand technologies. It provides regional quantitative analysis about elements such as technical potential (GW) for bioenergy from municipal solid waste in coal regions, and carbon capture potential capacity (GW) for PC power plants in the coal regions. The report presents a matrix establishing current, mid- and long-term regional potential employment ratios (Regions with High Decarbonizing Employment Potential; Slow Decarbonizing Employment Potential regions and Regions with restricted decarbonizing employment potential).

Link



European Emissions Trading System (ETS) - Calculations on the regional employment impact of ETS installations

Author:	Year of publication:	Source type:	Member State:	Region:
European Commission	2021	Report	EU	EU NUTS 2 and NUTS 3
(DG REGIO)				

The study presents the regional employment impact of stationary ETS installations in NUTS 2 and NUTS 3 regions in the EU27, Iceland, Liechtenstein, Norway, and the UK. The employment analysis covers the spread of EU ETS installations across the regions, the estimated share of employees working in EU ETS installations in the total employment in the region, identifying NUTS 2 and NUTS 3 regions with the highest estimated employment impact of EU ETS installations.

Link



Recent trends in EU coal, peat and oil shale regions

Author:	Year of publication:	Source type:	Member State:	Region:
Joint Research Centre	2021	Foresight study	EU	Regional analysis
				provided (NUTS 2)

Additional to comprehensive analyses of the coal sector, this report includes the peat and oil shale sectors — which for energy are smaller than the coal sector in Europe. The report estimates that there are nearly 12 000 direct and indirect peat related jobs in the countries of focus, while oil shale-related jobs total nearly 7 000 in Estonia, the only Member State with such activities. It provides estimates for future jobs at risk at NUTS 2 level. The report analyses the coal consumption by carbon-intensive industries in current and former coal regions.



The future of jobs is green

Author:Year of publication:Source type:Member State:Region:Joint Research Centre2021ReportEU-wideSome regional analysis provided (NUTS 2)

This study sheds light on how jobs will change in the context of the green transition. This study goes beyond short term forecasts and covers all of the three time horizons: i) expected, ii) transition, and iii) futures. Expected developments were derived from a review of existing quantitative analyses. Drivers of change relevant to the green transition and more generally to the labour market were collected from literature. Based on expected developments and key drivers of change, 'snapshots of the future' were sketched. These snapshots highlight long-term futures by 2040 and beyond. Combining the insights gained from forecasting and foresight, implications were derived for the future of jobs & skills in the green transition.

Link



Building a smart and green Europe in the COVID-19 era: The impact of digitalisation and climate change policies on social cohesion

Author:	Year of publication:	Source type:	Member State:	Region:
European	2020	Report	EU, France, Germany,	NUTS 2
Investment Bank			Italy, Poland, Spain	

The report looks into regions with high twin transition risks, i.e. it estimates risks of job automation for European regions at NUTS 2 level. Regions with a regional automation risk above the EU median are considered high risk. In addition, the report identifies high and low-risk regions by country groups and for five larger countries (France, Germany, Italy, Poland and Spain) for country group and intra-country comparisons. Another classification of regions with higher vs. lower risks of job losses is linked to greening. The report uses a sectoral approach, considering employment in carbon-intensive industries.

Link



European Industrial Emissions Portal

Author:	Year of publication:	Source type:	Member State:	Region:
European Environment Agency	Regularly updated	Database	EU	Location of sites included, allowing for
				regional analysis

The Industrial Emissions Portal covers over 60 000 industrial sites from 65 economic activities across Europe. These activities are within the following sectors: Energy, Production and processing of metals, Mineral industry, Chemical industry, Waste and waste water management, Paper and wood production and processing, Intensive livestock production and aquaculture, Animal and vegetable products from the food and beverage sector, and other activities. The Portal shows the sites' location and administrative data as well as their releases and transfers of regulated substances to air, water, and land, and waste transfers. Thus, this site is a valuable resource to assess industrial emissions in a certain region.



Source type 2: Impact of the transition



The long and winding road from black to green. Decades of structural change in the Ruhr region

Author:Year of publication:Source type:Member State:Region:Béla Galgóczi2014Case studyGermanyRuhr

The article explores in depth the process of structural change in the Ruhr region in Germany, including the impacts on employment, policy measures taken, obstacles and successes.

Link



Just Transition of the Workforce, and the Creation of Decent Work and Quality Jobs

Author:	Year of publication:	Source type:	Member State:	Region:
United Nations	2016	Report	N/A	N/A
Convention on				
Climate Change				

The report analyses the effects of just transition as well as climate mitigation policies as such on the workforce.

Link



Investing in Climate, Investing in Growth

Author:	Year of publication:	Source type:	Member State:	Region:
Organisation for Economic Co-operation and Development	2017	Report	N/A	N/A

Of relevance is especially chapter 6 ('Towards an inclusive transition') in which potential implication of the transition are examined, amongst others by drawing from the experience of previous transitions.

Link



The Green Hydrogen Economy in the Northern Netherlands

Author:	Year of publication:	Source type:	Member State:	Region:
Northern Innovation	2017	Report	Netherlands	Northern Netherlands
Board				

The document outlines how the three Northern provinces of the Netherlands can make the switch from a fossil fuel, natural gasbased economy, to a sustainable green hydrogen-based economy. The report looks into the employment impact of the transition towards a green hydrogen economy on the economic growth.



Impacts of circular economy policies on the labour market

Author:	Year of publication:	Source type:	Member State:	Region:
European Commission	2018	Report	EU	N/A

This report provides detailed answers to the question on how a transition to a more circular economy will affect jobs and skills demand in Europe. The study looked at trends of circular economy activities across different sectors and quantified these activities as modelling inputs to provide employment changes for different sectors. Furthermore, the analysis provided estimates of the occupational shifts and skills requirements that a shift to a more circular economy could entail.

Link

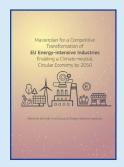


Climate Policies and Skill-Biased Employment Dynamics: evidence from EU countries

Author:	Year of publication:	Source type:	Member State:	Region:
Journal of	2018	Article	13 EU Member States	N/A
Environmental				
Economics and				
Management				
(Giovanni Marin and				
Francesco Vona)				

The political acceptability of climate policies is undermined by job-killing arguments, especially for the least-skilled workers. This article examines the association between climate policies, proxied by energy prices, and workforce skills for 14 European (13 EU) countries and 15 industrial sectors over the period 1995–2011. Using a shift-share instrumental variable estimator and controlling for the influence of automation and globalisation, the article finds that climate policies have been skill biased against manual workers and have favoured technicians. The long-term change in energy prices accounted for between 9.2 % and 17.5 % (resp. 4.2 % and 8.0 %) of the increase (resp. decrease) in the share of technicians (resp. manual workers).

Link



Masterplan for a competitive transformation of EU energy-intensive industries enabling a climate-neutral, circular economy by 2050

Author:	Year of publication:	Source type:	Member State:	Region:
European Commission (High-level Group on Energy-intensive Industries)	2019	Report	EU	N/A

The Masterplan is an outcome of work of the High Level Group on Energy-intensive Industries (HLG EIIs) organised in three thematic subgroups on (1) creation of markets for climate-neutral, circular economy products, (2) developing climate-neutral solutions and financing their uptake, (3) resources and deployment. The report looks into the social dimension of the transition, such as future skills and employment.





Transition towards a climate-neutral economy

Author:	Year of publication:	Source type:	Member State:	Region:
Organisation for	2019	Report	EU	OECD TL2
Economic Co-operation				
and Development				

The report looks into the proportion of electricity generated from renewable energy sources at TL2 level. It analyses ways of supporting labour transitions by linking policy issues, instruments and rationales. While the transition can generate jobs and is crucial to ensure well-being in the long term, it also comes with short-term concerns of job and income losses. The chapter outlines the specific barriers that regions in industrial transition face in such a shift and presents a range of policy measures to overcome these and presents regional examples of good practices.

Link

Towards a greener future. employment and social impacts of climate change policies

Towards a greener future: employment and social impacts of climate change policies

Author:	Year of publication:	Source type:	Member State:	Region:
European Commission	2019	Report	EU, Germany, Poland	NUTS 2

The report looks into regions with high twin transition risks, that is it estimates risks of job automation for European regions at NUTS 2 level. Regions with a regional automation risk above the EU median are considered high risk. In addition, the report identifies high and low-risk regions by country groups and for five larger countries (Spain, Italy, France, Germany and Poland) for country group and intra-country comparisons. Another classification of regions with higher vs. lower risks of job losses is linked to greening. The report uses a sectoral approach, considering employment in carbon-intensive industries.

Link



Commission "Growth, Structural Change and Employment"

Author:	Year of publication:	Source type:	Member State:	Region:
Federal Ministry for Economic Affairs and Energy (BMWi)	2019	Report	Germany	Lausitzer Reviers; Mitteldeutschen Reviers; Helmstedter Reviers; Rheinischen Reviers

The report looks into the perspectives for existing, new and future jobs in several regions in Germany affected by climate transition.

Link



Employment and Social Developments in Europe 2019 - Chapter 5: Towards a greener future: employment and social impacts of climate change policies

Author:	Year of publication:	Source type:	Member State:	Region:
European Commission	2019	Report	EU / National	Some regional
				analysis provided

This chapter of the report reviews the impact of climate action on the economy and on employment, income and skills. It also analyses aspects of energy poverty as a distinct type of poverty in the EU and discusses the effects of environment-linked health risks, such as air pollution, and the policies that would have a beneficial impact on both the environment and people.



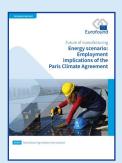
The future of manufacturing in Europe

Author:Year of publication:Source type:Member State:Region:Eurofound (European 2019ReportEUN/AFoundation for the

Foundation for the Improvement of Living and Working Conditions)

This is an explorative and future-oriented study, as reflected in the exploration of the future adoption of some key game-changing technologies and how this adoption can be promoted across the EU, even regionally. The implications for working life focus primarily on tasks and skills, including a focus on challenges facing national and company apprenticeship systems. The future orientation also includes quantitative estimates of the employment implications of the Paris Climate Agreement.

Link



Energy scenario: Employment implications of the Paris Climate Agreement

Author:Year of publication:Source type:Member State:Region:Eurofound2019ReportEUN/A

This analysis assesses the potential employment and economic impacts on the EU, and other parts of the world, of a transition towards a low-carbon economy by 2030. The transition envisaged is in line with the 'below 2-degree' temperature change target and the associated reduction in carbon emissions. It analyses the impacts across sectors and occupations, with particular focus on manufacturing. The analysis is carried out using the E3ME macro-econometric model, which provides information on sectoral impacts, together with the Warwick Labour Market Extension model for occupational analysis.

Link



Skills forecast country reports

Author:Year of publication:Source type:Member State:Region:Cedefop2020DatabaseEU / NationalN/A

The skill forecast country reports summarise key future trends in jobs and skills for individual EU Member States up to 2030. They offer a concise outlook on national employment trends by sector, occupational group and education level, as well as developments in the working age population by age and gender. Implications for future labour market imbalances can be identified when demand and supply are looked at together. A common methodology and harmonised data ensure comparability of results across Member States. The estimations are consistent with official EU economic forecasts and population projections.

Link



The joint effects of energy prices and carbon taxes on environmental and economic performance: Evidence from the French manufacturing sector

Author:	Year of publication:	Source type:	Member State:	Region:
Damien Dussaux	2020	Report	France	N/A

The report analyses which consequences energy prices and carbon taxes have on environmental and economic performance in the French manufacturing sector. The main findings are that no significant decrease in employment is observable but a reallocation of workers and that a carbon tax reduces emissions.

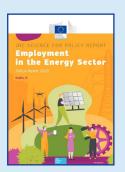


Four Case Studies on Just Transition: Lessons for Ireland

Author:	Year of publication:	Source type:	Member State:	Region:
Sinéad Mercier	2020	Report	Germany (& United	Ruhr Valley; Lausitz/
			Kinadom)	Lusatia: Scotland

This report provides political lessons for Ireland by analysing four different case studies of just transition: The Ruhr Valley and Lausitz in Germany, Australia's Latrobe Valley and the Scottish Just Transition Commission.

Link



Employment in the Energy Sector

Author:	Year of publication:	Source type:	Member State:	Region:
Czako, V. (Joint	2020	Report	EU / National	N/A
Posparch Control				

This report provides an overview of recent employment trends at the global and EU28 level related to the greening and decarbonisation of the economy, with a focus on the energy sector. It brings together and presents statistical data and the results of recent employment assessment reports. In addition, the report examines qualitative aspects, including education as well as skills requirements and changing talent profiles in the green transition. It addresses workforce characteristics, including gender and generational aspects.

Link



Towards a Greener Future: Leaving No One Behind in the Transition to Climate Neutrality

Author:	Year of publication:	Source type:	Member State:	Region:
Bundesministerium für	2020	Report	EU / National	NUTS 2
Arheit und Soziales				

The report looks into employment and social impacts of the green transition on national and regional level (e.g. EU welfare losses from climate inaction by main socio-economic impact, % of adults participating in training in regions with above 5 % of employment in energy intensive industries and automotive manufacturing).

Link



Building a smart and green Europe in the COVID-19 era: The impact of digitalisation and climate change policies on social cohesion

Author:	Year of publication:	Source type:	Member State:	Region:	
European	2020	Report	EU, France, Germany,	NUTS 2	
Investment Bank			Italy, Poland, Spain		

The report looks into regions with high twin transition risks, i.e. it estimates risks of job automation for European regions at NUTS 2 level. Regions with a regional automation risk above the EU median are considered high risk. In addition, the report identifies high and low-risk regions by country groups and for five larger countries (France, Germany, Italy, Poland and Spain) for country group and intra-country comparisons. Another classification of regions with higher vs. lower risks of job losses is linked to greening. The report uses a sectoral approach, considering employment in carbon-intensive industries.



European Emissions Trading System (ETS) - Calculations on the regional employment impact of ETS installations

Author:	Year of publication:	Source type:	Member State:	Region:
European Commission	2021	Report	EU	EU NUTS 2 and NUTS 3

(DG REGIO)

The study presents the regional employment impact of stationary ETS installations in NUTS 2 and NUTS 3 regions in the EU-27, Iceland, Liechtenstein, Norway, and the UK. The employment analysis covers the spread of EU ETS installations across the regions, the estimated share of employees working in EU ETS installations in the total employment in the region, identifying NUTS 2 and NUTS 3 regions with the highest estimated employment impact of EU ETS installations.



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The socioeconomic impacts of renewable energy in EU regions

uthor:	Year of publication:	Source type:	Member State:	Region:
sstitute for European nvironmental Policy	2021	Report	Spain, Germany, Czechia, Denmark, Italy	Castile and León (ES), Mecklenburg-Western Pomerania (DE), Northwest Czechia (CZ), Denmark's Capital

The study presents the socio-economic impacts of renewable energy source (RES) deployment in the selected five EU regions and analyses which factors affect the extent of these socio-economic impacts. Based on case studies, the study looks into indicators such as employment in RES, total installed RES capacity, share of renewable energy, people at risk of poverty or social exclusion, etc.

Link



Upskilling and Reskilling in the Post-Covid Era: Fostering New Services and Jobs Creation — Three scenarios for 2030

Author:	Year of publication:	Source type:	Member State:	Region:
European Commission	2021	Report	EU	N/A
(EISMEA)				

The report presents examples of national/regional strategies fostering the skills development for industry and fostering new services.

Link



3



European Network of Public Employment Services, Greening of the labour market — Impacts for the Public Employment Services: small scale study

Author:	Year of publication:	Source type:	Member State:	Region:
European Commission (DG EMPL)	2021	Report	EU, Austria, France, Germany, Portugal, Poland, Spain	N/A

The report looks into the role of Public Employment Services as key actors in mitigating the negative labour market effects and in smoothing the transition towards a greener economy. It includes the impact on skills needs for occupations in selected sectors (e.g. automotive, construction, energy) as well as the impact of green policies on labour market.





Anticipating and managing the impact of change: Distributional impacts of climate policies in Europe

Author:	Year of publication:	Source type:	Member State:	Region:
Eurofound	2021	Report	EU, Ireland,	N/A
			Netherlands,	
			Romania, Slovenia	

The report analyses some national climate energy plans that have identified (actual or potential) progressive and regressive effects (socioeconomic concerns) of several EU countries. Social acceptance is at stake: regressive effects of climate policies could substantially reduce acceptance, constraining implementation. National-level practices on mitigating negative distributional effects are emerging. For example, energy or fuel poverty is recognised as a severe problem in many Member States. In order to address it, measures have been put in place to support the most vulnerable population groups.

Link



Towards a Territorially Just Climate Transition—Assessing the Swedish EU Territorial Just Transition Plan Development Process

Author:	Year of publication:	Source type:	Member State:	Region:
John Moodie, Carlos Tapia, Linnea Löfving, Nora Sánchez Gassen and Elin Cedergren	2021	Research paper		Gotland, Norrbotten, Västra Götaland

The paper analyses the progress of the Swedish Territorial Just Transition Plans in three regions.

Link



Exploring the social challenges of low-carbon energy policies in Europe

Author:	Year of publication:	Source type:	Member State:	Region:
European Environment	2021	Report	EU / National	N/A
Agency & Furofound				

The report analyses the national approaches of some Member States towards climate change mitigation policies. It also looks into the negative impacts of such transition, e.g. how such policies may negatively affect low-income households disproportionately.



Social impacts of climate mitigation policies and outcomes in terms of inequality

Author:Year of publication:Source type:Member State:Region:Ramboll2021ReportN/AN/A

The report provides an overall framework for analysing impacts of climate mitigation policies (e.g. cumulative advantage and disadvantage resulting from climate mitigation policies). The framework looks into economic, social and health factors and expected winners and losers.

Link



The future of jobs is green

Author:Year of publication:Source type:Member State:Region:Joint Research Centre2021Foresight studyEU-wideRegional analysis provided

This study sheds light on how jobs will change in the context of the green transition. This study goes beyond short term forecasts and covers all of the three time horizons: i) expected, ii) transition, and iii) futures. Expected developments were derived from a review of existing quantitative analyses. Drivers of change relevant to the green transition and more generally to the labour market were collected from literature. Based on expected developments and key drivers of change, 'snapshots of the future' were sketched. These snapshots highlight long-term futures by 2040 and beyond. Combining the insights gained from forecasting and foresight, implications were derived for the future of jobs and skills in the green transition.

Link



The Future Skills Report Chemistry

 Author:
 Year of publication:
 Source type:
 Member State:
 Region:

 Industriegewerkschaft
 2021
 Report
 Germany
 N/A

 Bergbau, Chemie,
 Energie (IG BCE),

Bundesarbeitgeberverband Chemie (BAVC)

The report – based on big data analysis – provides key stakeholders in the chemical and pharmaceutical industry with a preview of potential changes in the skills landscape, looking into trend analysis and future job profiles needs.

Link



Climate policy accelerates structural changes in energy employment

 Author:
 Year of publication:
 Source type:
 Member State:
 Region:

 Aman Malik, Christoph
 2021
 Research paper
 EU
 N/A

 Bertram, Elmar Kriegler, Gunnar Luderer
 Seearch paper
 EU
 N/A

The paper analyses the impact of energy transition on employment in this sector. Although a concrete region is not mentioned, it might be interesting to learn which industry might experience a job increase and which a job loss.



Commission Proposal for a Council Recommendation on ensuring a fair transition towards climate neutrality (+ Accompanying Commission Staff Working Document)

Author:Year of publication:Source type:Member State:Region:European Commission2021Commission proposal for Council RecommendationEUIncludes regional analysis

The proposed Council Recommendation sets out specific guidance to help Member States devise and implement policy packages that ensure a fair transition towards climate neutrality, by addressing the relevant employment and social aspects linked to the transition in a comprehensive manner. The proposal pays particular attention to addressing the needs of the people and households that are highly dependent on fossil fuels and could be most affected by the green transition, and invites Member States to make optimal use of public and private funding and work in close cooperation with social partners.

Proposal for Council Recommendation

Staff Working Document



EEA greenhouse gases – data viewer; EEA greenhouse gas projections – data viewer

Author:	Year of publication:	Source type:	Member State:	Region:
European Environment	2021	Database	EU	N/A
Agency (EEA)				

Data viewer on greenhouse gas (GHG) emissions and removals, sent by countries to the United Nations Framework Convention on Climate Change and the EU Greenhouse Gas Monitoring Mechanism (EU Member States); Data viewer on projections of greenhouse gas emissions reported to the EU/EEA by European countries. The viewer integrates historical GHG emissions from GHG inventories.

Greenhouse gases

Greenhouse gas projections

