



CINTRAN

This document is part of a series presenting examples of individual projects of relevance to the just transition to a climate-neutral economy, including regional or local projects across the EU's public and private sectors. The Just Transition Platform (JTP) assists EU Member States and regions to unlock the support in this transition. Visit the JTP website:

https://ec.europa.eu/regional_policy/funding/just-transition-fund/just-transition-platform_en

Member State:

Greece, Poland, Estonia, Germany

Region:

N/A

Sector:

Coal/Oil/Gas/Fossil-Fuel Industry

Total project budget (€):

€3,072,190

Financing conditions (co-financing rate):

N/A

Sources of funding:

EU funding: Horizon 2020: €2,999,405

National funding:

N/A

Regional funding:

N/A

Duration:

05/2020 - 04/2024

Responsible Managing Authority/Agency:

Project led by Wuppertal Institute

Summary

The 'Carbon Intensive Regions in Transition – Unravelling the Challenges of Structural Change' (CINTRAN) project is a four-year programme of research and stakeholder engagement, funded by Horizon 2020. Led by the Wuppertal Institute, the CINTRAN consortium involves 13 partners and around 40 researchers from 8 countries across Europe. CINTRAN aims to enable these activities through highly integrated, inter- and transdisciplinary research working in close collaboration with regional stakeholders. The researchers combine quantitative model-based research with qualitative in-depth analysis. Their qualitative research

focus on four highly fossil-fuel dependent regions: Western Macedonia (Greece); Silesia (Poland); Ida-Virumaa (Estonia); and the Rhenish mining area (Germany). The regions were selected to cover a diverse set of different fuels, state of economic development, diversification of the regional economy, political economy and spatial composition.

Type of activities:

Building on theoretical insights, CINTRAN will combine qualitative and quantitative methods to empirically study both structural factors as well as agency, i.e. the ways and means in which regional stakeholders and policy makers can manage the structural adjustments. The project aims to close this research gap by systematically studying the patterns and dynamics of decarbonisation at the regional level, as well as the conditions of a region's capacity to adapt to the related structural changes. At the theoretical level, they will seek answers to three major research questions:

- What are enablers, drivers and barriers for transforming carbonintensive industries?
- What are the system overlaps between the carbon-intensive industry under transformation and the regional economic and social systems?
- What makes a transition and subsequent structural adjustments 'successful' from a normative perspective?

Goals and approach:

The goal is to minimise the impact of climate change mitigation objectives of the European Union. Decarbonisation will lead to deep structural changes with implications for regional economies, labour markets, as well as for the regions' social, political, cultural and demographic composition. If not managed well, these structural changes may cause serious economic impacts, societal upheaval, aggravated social inequalities and hardship.

To minimise such consequences it is necessary to better understand the patterns and dynamics of structural change in response to decarbonisation at the regional level. It is also necessary to understand which parameters determine the pace of transformation, as well as the capacity of regional actors to adapt and pro-actively create alternative structures. This project aims to enable these activities through highly integrated, inter- and transdisciplinary research working in close collaboration with regional stakeholders. It combines quantitative model-based research with qualitative indepth analysis to derive generalisable insights about the patterns and dynamics of decarbonisation and the corresponding structural adjustments that hold relevance for all carbon-intensive regions in the EU and its neighbouring countries.

Important outputs, results or achievements:

An online platform has been launched that includes a global inventory of climate change coping strategies. Coping strategies are strategies that people, organisations and institutions such as coal mining workers, businesses and local governments use to respond to pressures created by global climate change efforts. In its final version, the inventory will describe each strategy in detail and include examples of where and how each strategy has been applied in practice. On this basis, suggestions can be developed on how to help people, communities and institutions experiencing change in ways that both contribute to climate action and ensure their well-being.

One expected long-term outcome is that the project will contribute to the understanding of the underlying processes of structural change and help to systematise the impacts. In the end, it is expected to create a matrix map on the differences of regions.

Scalability¹ and transferability²:

The project aims to study different regions and find similar patterns. Therefore, a larger focus, at member state level for example, is not foreseen due to the nature of CINTRAN. The results of the project are planned to be transferable to other regions affected by structural change. The main difficulty concerning the transfer of results is to clearly define 'regions'. A central dimension for comparison could be the administrative structure. Here, the level of autonomy of the region

plays a crucial role since this is decisive for the ability of a region to implement climate mitigation policies. Also, the industrial structure is a factor that allows comparability. The decisive aspect is how central the carbon intensive industry is in the region.

¹ Scalability entails that a policy approach can be adapted to a bigger scale than just the local context.

² Transferability entails that a policy approach can be applicable to a similar setting and replicated.

Key success factors and lessons learnt:

One central success factor is to find a right balance between the general framing of the project and allowing the partners involved in the project to work on their research aspects of interest. It is more expedient to let the researchers work on the research questions originating from themselves. Already existing research might be connected by doing so.

Key challenges:

The main challenges of the project were the staffing situation as well as the limitations due to the COVID-19 outbreak and the corresponding safety measures. For some staff members, it was difficult to find the right replacements. The entry restrictions due to the pandemic in some countries further complicated the staffing situation. In general, the pandemic restrictions made the project work more difficult. For example, some outreach activities were planned in which stakeholders should directly be contacted at certain events. Due to the digital nature of the events, this approach was hampered.

Tools for supporting economic diversification and reskilling/upskilling via projects:

 providing scientific insight into underlying processes of structural change and by doing so, helping regions to learn from each other

Central framework conditions³:

CINTRAN is a research project funded by Horizon 2020. Therefore, the basic nature of tendering processes applies to the project. The tender referred to exploring the socio-scientific implications of the structural change. The consortia for the tender have already existed and were looking for further partners in order to apply with a concrete proposal.

The selected regions are all fossil-fuel dependent regions but with different circumstances, e.g. concerning socio-economic development. Western Macedonia in Greece is a low populated area and due to its natural resources, e.g. lignite, one of the main energy supplier regions in Greece. Silesia in Poland is also a major energy supplier in the country due to natural resources, e.g. hard coal. Hard coal mining, steel and iron industry are undergoing a large structural change. In Ida-Virumaa in Estonia, the oil shale sector was dominating and the transitions have already cost jobs. The Rhenish mining area in Germany is a strong industrial region in which lignite led to the development of a large energy intensive sector.

³ Framework conditions encompass the institutional, informational and socio-economic factors that determine a given environment (contextual information), e.g. market conditions, access to finance, tax regulation, infrastructure and support.

Outlook:

Since CINTRAN is a research project funded by Horizon 2020 it will end after four years in 2024. However, there are already some plans on how the results of CINTRAN will be continued after the end of the funding period. The web presence of the project is officially located on the 'Coal regions in transition' website where the project results will be further presented.

However, several results of the project are yet to be created. Amongst others, interactive maps will be deployed based on quantitative analysis. This might be of interest for regional actors and could be an aspect of the project which might be continued after the official end of the project.

Partners & contacts:

Wuppertal Institut für Klima, Umwelt, Energie GGMBH

Website:

https://coaltransitions.org/projects/cintran/

https://wupperinst.org/p/wi/p/s/pd/882

https://www.uni-flensburg.de/en/department-of-energy-andenvironmental-management-eum-industrial/research/currentprojects/cintran?sword_list%5B0%5D=regioner&no_cache=1



Sources:

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- Interview with representative from Wuppertal Institute 8 February 2022.
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 https://coaltransitions.org/news/how-to-unravel-the-challenges-of-structural-change
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