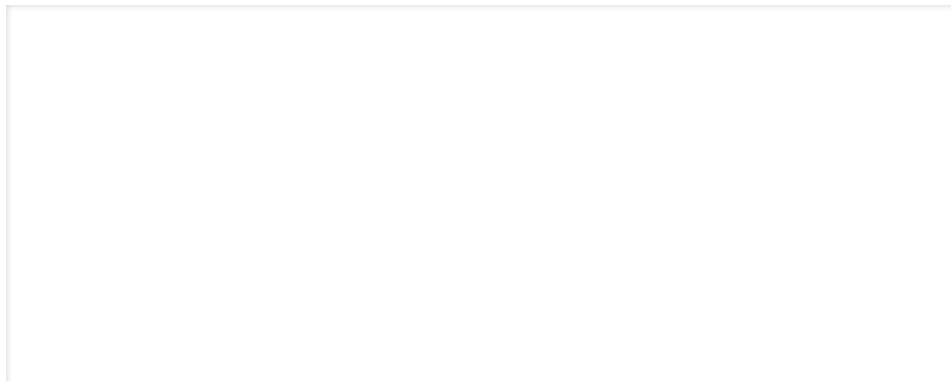


Media analysis

Web INTERactive management tool for coal Regions in transition



WINTER



This project has received funding from the Research Fund for Coal and Steel (RFCS) under GRANT AGREEMENT No.101057228

Media analysis

Media coverage plays an important part in energy transitions as it creates awareness for the change. It is a powerful actor in shaping public perceptions, influencing political decisions and

disseminating information. Understanding how the media portrays and influences discussions on energy transformation is crucial for gaining insights into the dynamics of this evolving landscape. The lack of scientific studies regarding the analysis of media in relation to the transition topic, reveals the need for research. The media landscape has never been as diverse as it is now. A wide range of local offers in the form of newspapers, radio, television and, finally yet importantly, online media is available in manifold formats.

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Media landscape

The WINTER project takes on the challenge of examining the media landscape of the three coal regions, all of which are in different phases of transition: Germany, Greece and Poland.

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Greece

At a national level, Greece has a broad and competitive media landscape, with television, radio, newspapers, and online news providers. There are numerous prominent national newspapers with a large circulation. These publications cover a wide range of topics, including national and international news, politics, economics, and culture.

At a local and regional level, many media sources in Western Macedonia play an important role in covering local news and events. Local newspapers, radio stations, and regional television network share common examples of these venues. These media frequently cover a wide range of issues, such as local politics, economic developments, cultural events, and community news. Regional television channels in Western Macedonia offer news coverage, talk shows, and programs that reflect the interests and concerns of the local population.

Germany

Freedom of the press and freedom of opinion are among the most important foundations of the state in Germany. Around 63 million people in Germany are online, and the daily newspapers are constantly increasing their digital reach. When it comes to media use, however, television and radio still play the largest role (Fazit Communication GmbH 2022). Germans are avid newspaper readers and the non-tabloid press is a trusted news source. There are several national newspapers, but the press is strongest at the regional and local level.

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The media landscape has never been as diverse as it is now. In North Rhine-Westphalia alone, there are 44 private local radio stations on over 100 frequencies. There are also numerous

regional television stations, media platforms and the Internet. The media landscape in North Rhine-Westphalia offers a wide range of local offers in the form of newspapers, radio, television and, last but not least, online media.

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In the contemporary regional literature of the Ruhr area, the memory of past mining history is held in high esteem and the present is increasingly pushed into the background. Caspers et al. (2019:213ff.) describe this as literary remembrance in times of ongoing structural change. The identity-forming montane era is often used to ward off a negative image - inwards and outwards (cf. Korte& Dinter 2019: 5). Yet there are many positive developments, such as the establishment of the largest university landscape in Europe, or the expansion as a central logistics location between Milan and Manchester.

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Poland

The discussion surrounding energy transformation in Poland has gained momentum relatively recently, with talks on this topic and the number of articles related to it increasing since 2018. This surge in interest appears to be driven primarily by external factors, including European Union regulations such as the Green Deal and the Just Transition Fund, as well as global crises like the COVID-19 pandemic and the conflict in Ukraine. Energy transformation discussions in Poland mainly occur at the national level, where most crucial decisions are made. National media outlets in Poland exhibit a diverse range of perspectives on energy transformation, with the tone of their articles often reflecting their political affiliations.

While local and regional media outlets do cover the topic of energy transformation, their focus tends to be on region-specific developments. These reports often provide information on newly established energy projects, such as photovoltaic farms on former coal mining sites. This suggests that local and regional media outlets are more concerned with practical aspects of the transformation within their specific areas rather than engaging in broader policy discussions.

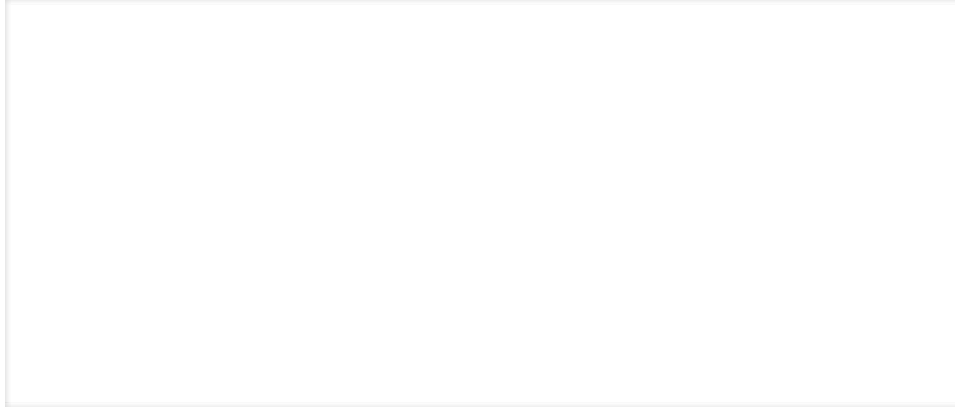
The region most frequently associated with energy transformation discussions in Poland is the ***Silesian Voivodeship***. This area is historically intertwined with coal mining, boasting the highest number of active coal mines and significant employment in the sector. Consequently, much of the regional discourse centers on the transition of coal-dependent industries and the challenges faced by mining companies in adapting to changing energy dynamics.

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Just Transition

The highest frequency in Poland is accompanied with a high

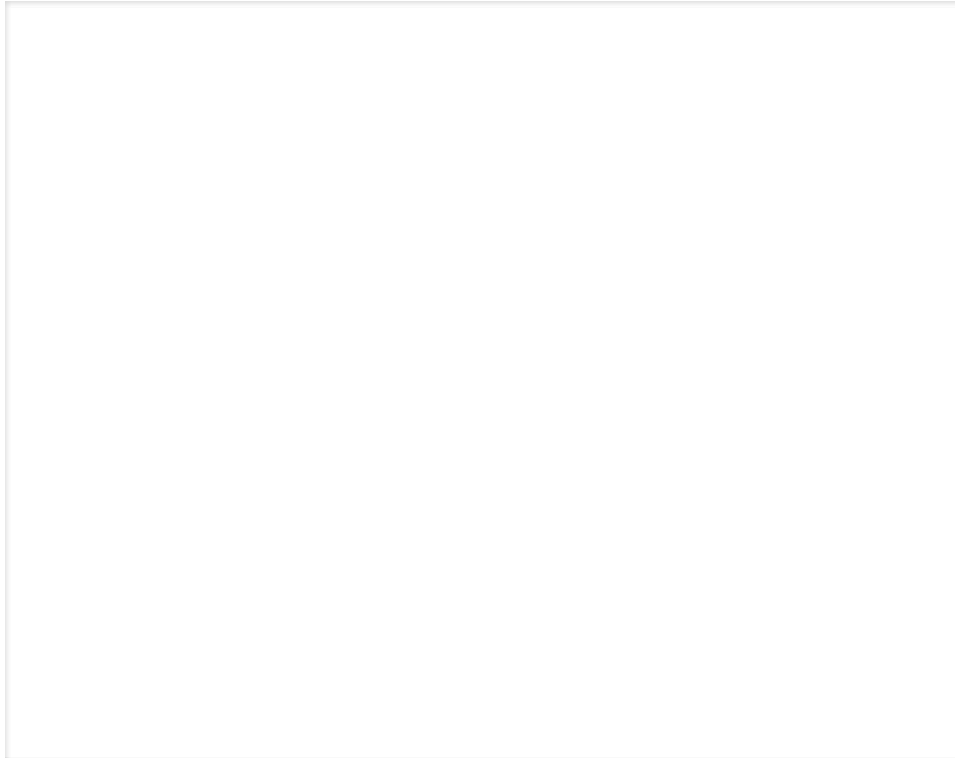
number of negative entries, indicating a lack of trust. The more neutral reporting in Germany is indicative for the uncertainty, whereas the Greek media support the concept with primarily positive, appealing or factual statements.



Poland

Relevant results for “Just Transition” appear firstly in 2018.

The relative frequency shows the highest number of entries in Poland in general. In relation to the media entries in the other case study regions, it seems to have a much higher medial resonance here. The entries have a notable negative connotation. The prevailing opinion sees a Just transition only as something that exists on paper, with little evidence of corresponding government actions.



Negative voices are for example:

“It can be assumed that for the government, the term 'just transition' does not refer to focusing on renewable sources, but to the fact that Poland will continue developing coal energy, which other countries should accept.”

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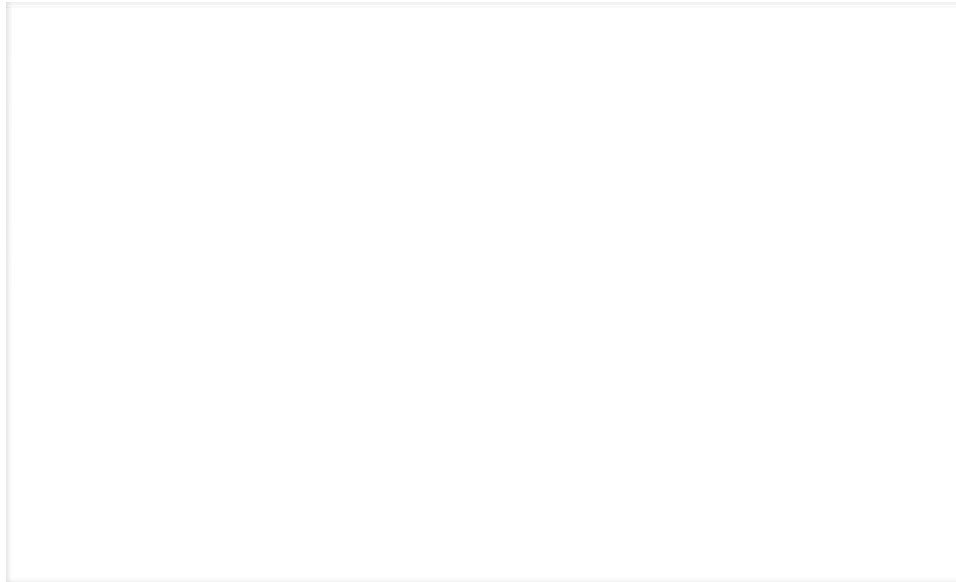
However, there are also many neutral statements such as:

“At the beginning of November, Deputy Minister of Labor, Development, and Technology Iwona Michałek informed that territorial plans for a just transition (TPST) and the national plan should be completed and submitted to the European Commission by mid-2021”.

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Greece

In the Greek media, Just Transition and similar words are firstly mentioned in 2018 with a neutral to positive sense, which further increases towards 2022. In the regional data of the Greek media, terms associated with just transition have their maximum occurrences in 2020, 2021 and 2022.



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The high medial discussion relates to the timing of the development of the National Energy & Climate Plan for the transition regions. They appeal to the public's sense of community and emphasize the need for change:

“Even smaller countries, such as Greece, can have a significant

impact on the green transition at international level”.



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Germany

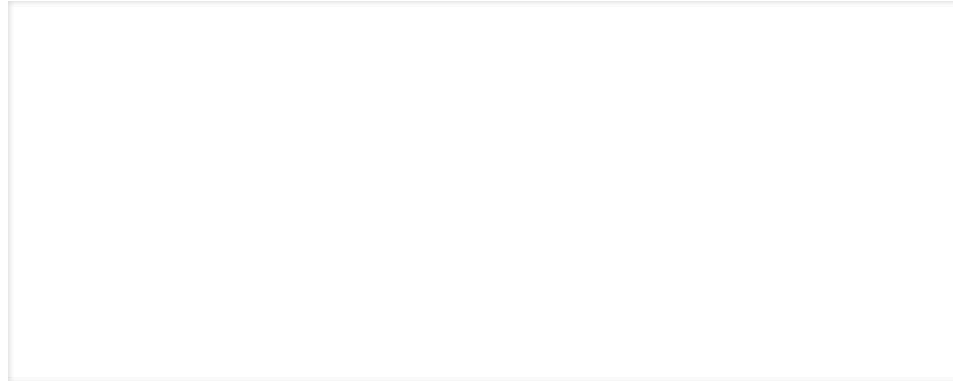
The number of entries is lowest in the German media in relation to the distinct corpus sizes. Here, the uncertainty about the topic leads to a more neutral tonality of reporting.

“Certainly, the current pace of coal phase-out, especially in Central and Eastern Europe, is mainly influenced by the European Green Deal, including the creation of the Just Transition Mechanism and the corresponding fund”.

Frequency of media entries across the regions

Comparison of the different frequencies of words and terms defined in the categories (A to F) was carried out using the

provided statistical number of the frequency class. The information on the frequency class of each term and corpus within the different languages was summed up and averaged for every category.



Summed mean frequency classes for the defined categories in each case study region. The lower the frequency class the higher the significance of the associated words in the database.

Comparing the frequency of all categories:

- in the **German** database, topics surrounding the category **F) Perception EU** show the highest significance in the German case.
- Category **A) Solidarity/Identity**, **B) Site Development** and **C) Regional Development** are most frequently represented in the **Greek** database.
- The most significant terms stem from category **D) technical tasks** for the **Polish** case study.
- **D) Technical tasks** of the transition phase, especially those connected to post-mining issues and attributes connected to category **E) Landscape Zone** show the lowest medial resonance in the **German** database.
- Looking into the results of the other two case study regions, those topics seem to have more significance. In the **Greek** database terms describing the landscape area have less frequent hits. For the **Polish** case, relevant terms are less frequently represented within the categories of **B) Site**

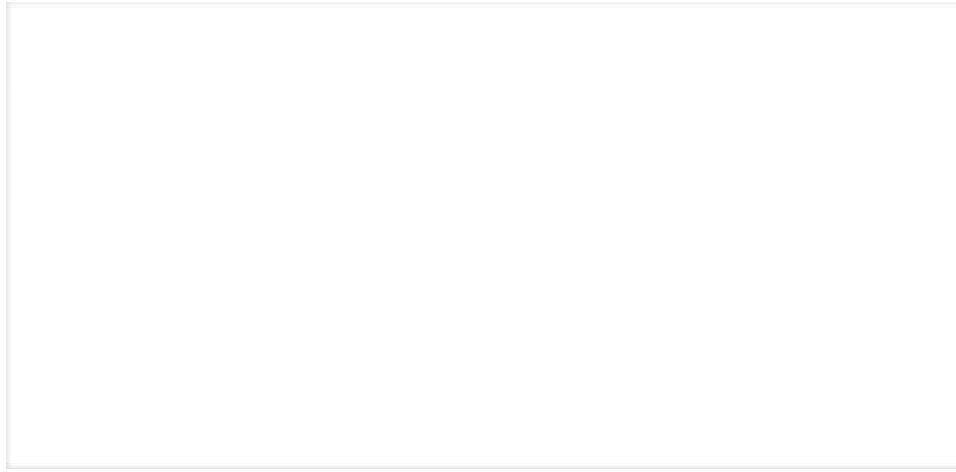
Development and A) Solidarity/Identity.

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A) Solidarity / Identity

The resulting relevant search attributes differ a lot among the three case study regions.

The mean tonality of the summed sentiment analysis results shows an interesting pattern. The feelings become more positive the more mature the transition phase is: Poland (very early stage), Greece (early stage) and Germany (mature stage).



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In Germany, the word “industrialculture” has the highest relative frequency (i.e. numbers of entries relative to the corpus size)among all defined terms, followed by “Glückauf! (the typical miners greeting) and “socially ac-ceptable”, the way in which jobs were to be cut before and during closure of the coal mines.

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In the Greek case, most relevant words of this category are site or region names, just those places where the coal transition occurs (“Ptolemaida”, “Megalopoli” and “Western Macedonia”), as well as “S.P.P – Steam Power Plant”, “plant” and “St. Barbara”. Among all terms, “Western Macedonia” and “plant” have the highest relative frequencies across the analyzed corpora.

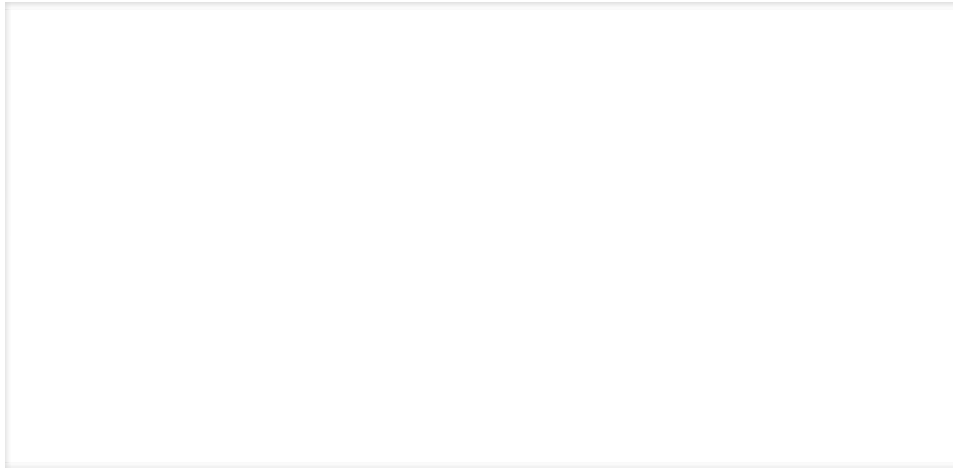
In the Polish case, the identity-forming term with the highest number of occurrences in relation to the corpus size is “social contract”, followed by “mining industry”.

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B) Site Development

The defined words do not differ much among the case study regions Poland and Germany. For both, the Greek and Polish case, category B) Site Development shows the relatively

highest number of positive media entries, although there are also negative voices indicating the contro- versies about the discourse on the related topics.



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In the German case, relevant results were found for the terms“Recultivation” (with the highest mean relative frequency), “Post-Mining” and “Colliery wasteland”

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The Greek database yields relevant results for “waste”, “re-use” and “de-lignification”, with the latter showing the highest number of occurrences.

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The Polish most frequent and relevant terms connected to this category are “Recultivation”, followed by “Post-Mining”.

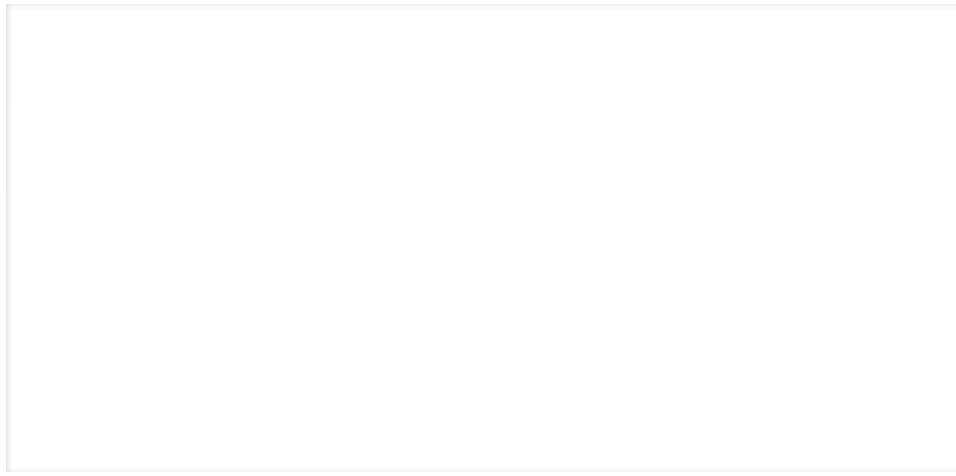


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C) Regional Development

Concerning the topics discussed around category C) feelings are mixed in all regions. In Greece, there is a larger amount of positive entries whereas the majority of sentences analyzed in the Polish and German case have a neutral character.

However it must be noted that the defined terms of this category differ a lot among the languages.



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The German database yields relevant results for the terms “structural change”, “coal regions” “coal-phase out law”, “coal fired power generation” and “structural strengthening act”.

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Relevant search attributes in the Greek database with their frequency class in descending order are “Transition”, “Mine”, “coal”, “lignite” and “carbon”.

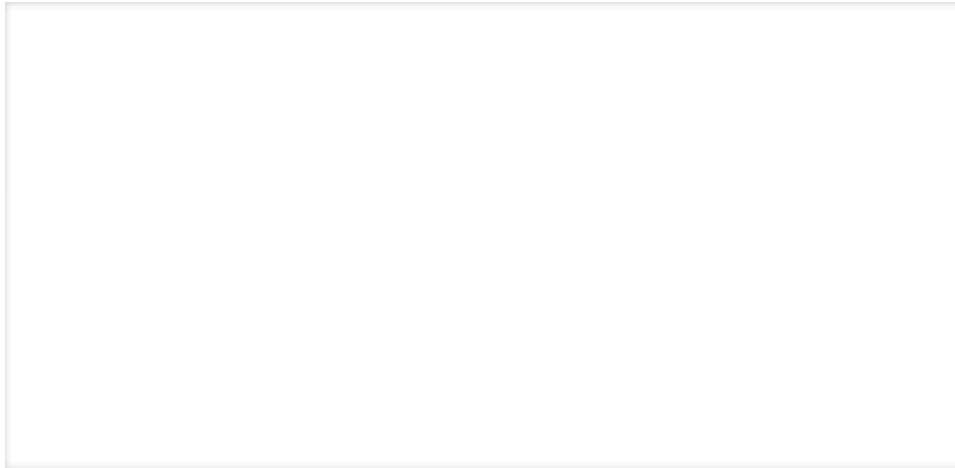
This category contains the highest number of relevant words in the Polish database compared to the other categories: “Energy transition”, “Open pit mine”, “coal”, “brown coal”, “hard coal”, “KWB”, “KWK”, ZE PAK”, “Polska Grupa Górnicza”, “PGG”, “Coal basin”.

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D) Technical Tasks

A comparison is difficult due to the high differences of the defined words. The Greek database does not yield any relevant results in this category. However, it can and must be noted that the technical tasks surrounding the coal phase-out differ greatly in the case regions. In Germany and the Ruhr region, for example, issues related to post-mining, such as dealing with the rising mine water in the abandoned coal

deposits, are of particular importance at present and in the context of this analysis, while in Poland the technical development of renewable energies is in the foreground.



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German relevant terms are “Perpetual obligations”, “mine water” and “drainage”.

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The Greek database does not yield any relevant results in this category.

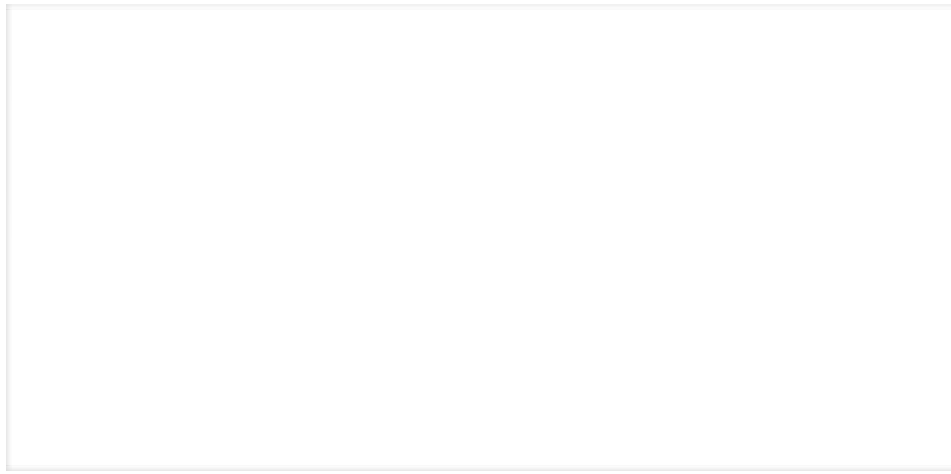


Polish relevant terms are “Photovoltaic”, “Nuclear power plant”, “Wind farm”, “photovoltaic farms” and “renewable energy sources”.

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E) Landscape Zone

The tonality of relevant results in category E) is predominantly positive in the Greek and German database. However, it must be noted that in each of these cases only one term yields relevant results. In the Polish case, more terms display relevant results and those also contain entries supporting a negative sentiment (ca. 45%).



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The only relevant term in the German database is “post-mining landscape”

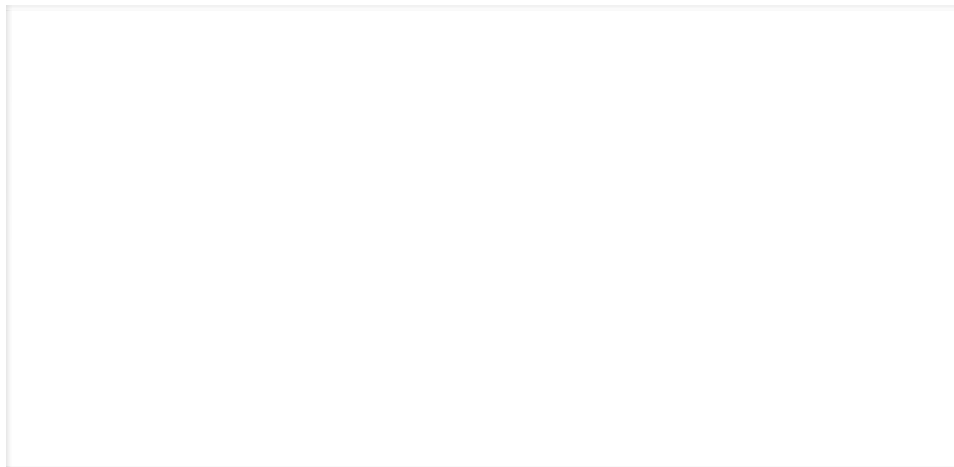
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In the Greek it is just “Solar park” and in the polish corpora the words “dump”, “mining excavation” and “spoil tip” yield relevant results.

F) Perception EU

Most relevant results are found in the last category , which summarizes all terms and words that classify the perception of the coal phase-out at the European level.

The tonality of this group of words is displaying similar results for the Polish and German case, with just a few positive, more negative and the majority being neutral statements. In the Greek case, the number of neutral entries is much smaller and more positive as well as negative entries can be found. The figures suggest that issues are controversial at this level in Greece. Although there are very many positive attitudes, negative voices are also raised. In the other case regions, according to this analysis, it looks as if a neutral attitude is maintained, which leaves little room for controversy.



The German database displays relevant results for “Just Transition”, “decarbonisation”, “Green Deal”, “SDG´s”, “coal phase-out” and “transition”.

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In the Greek corpora “decarbonisation”, “Green Deal”, “European Green deal”, “climate change”, “climate crisis”, “Just Transition”, “Green Transition”, “Energy Transition”, “Just Development Transition” and “European directive” are relevant search attributes.

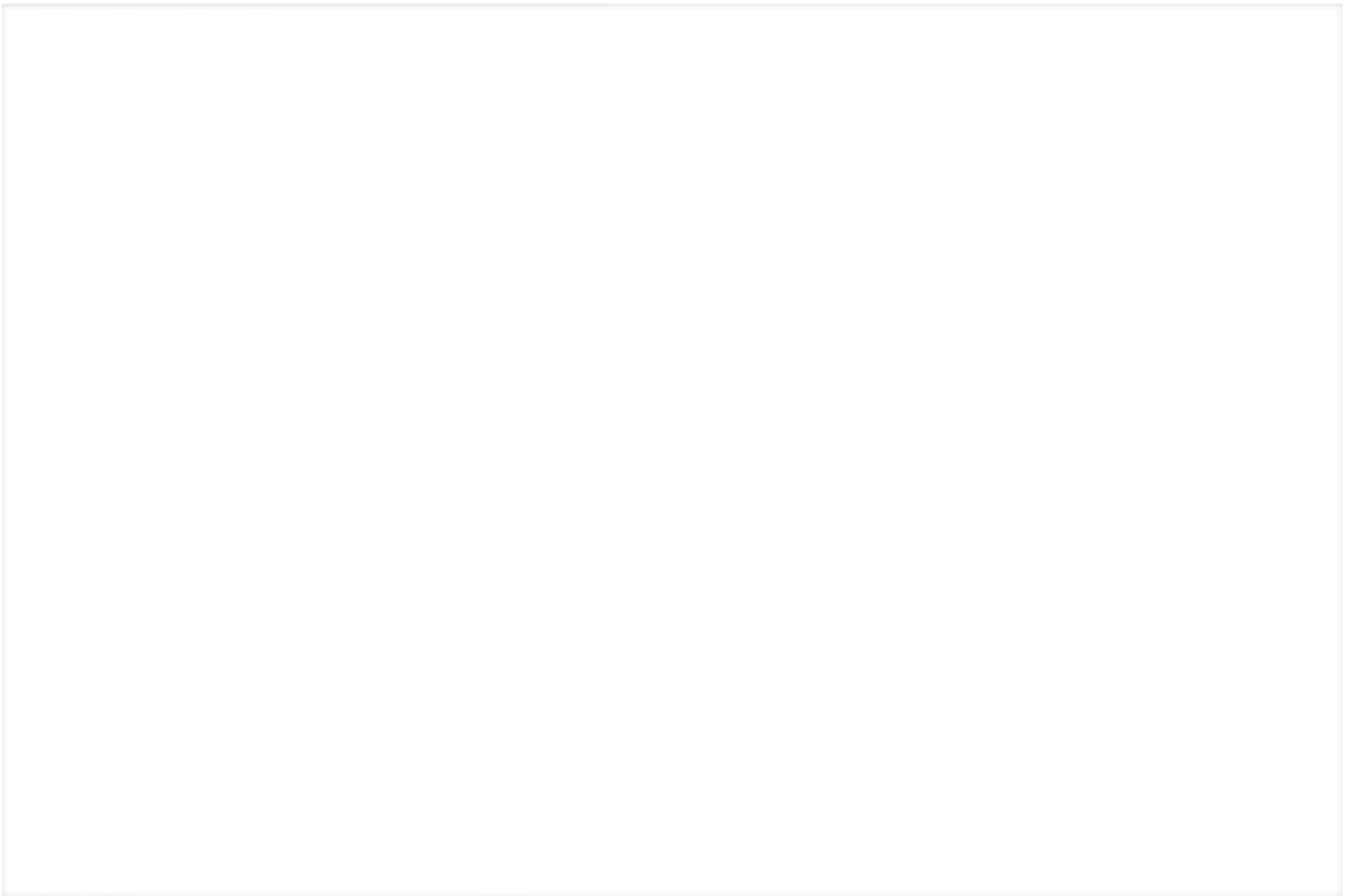
The Polish database yields relevant results for “Just Transition Fund”, “Green Deal”, “Climate Change”, “Just Transition”, “Decarbonization”, “Energy crisis”, “Global warming”, “greenhouse gases” and “moving away from coal”.

Media Dashboard

Across all defined relevant search attributes, which were defined by the members of the consortium, only three are consistent literally and content. It is not surprising that they are all from category F) Perception EU. Relevant search attributes are those words which have a significant amount of hits in the database and which display content related results between 2016 and 2022. Learn more about the comparison of search attributes by clicking [*here*](#).

Media analysis Interactive dashboard

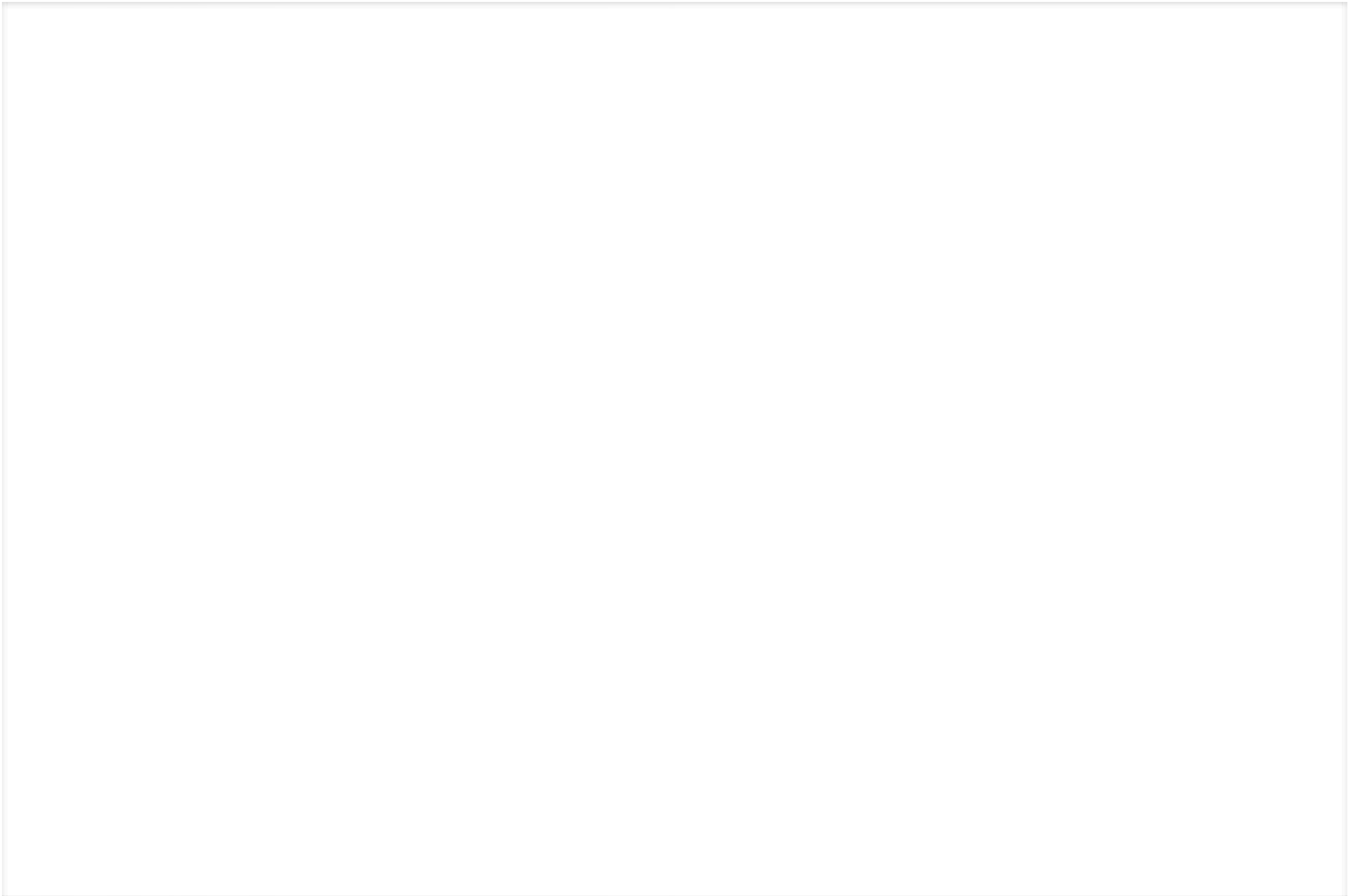
Main search attributes



Solidarity/ Identity

The words “**plant**” and “**Western Macedonia**” share the first positions in content related words amongst the words of this category.

It is worth noting that more occurrences of word “plant” were in 2019. Similar to "plant," the term "Western Macedonia" had more occurrences in 2021, implying that it was frequently mentioned in that year within the context of the category.



Plant

“***Plant***” (Εργοστάσιο) is a term that is used for any kind of production process, like nuclear, chemical or steam. The most frequent co-occurring word in 2013 was “nuclear” linked with the tsunami of Fukushima. In 2019, the word production appears as the most frequent co-occurrence. Fire is the second word in co-occurrences. It is used within the context of

accidents that may happen in plants. In 2019 there were news related to the topic of transition giving a positive tonality of reporting such as *“PPC's large steam power plant in Ptolemaida starts operating.”*





Western Macedonia

“**Western Macedonia**” (Δυτική Μακεδονία) is a word strongly related with the content of coal transition since is the region where transition occurs. In 2021, most frequent co-occurring words related with the administrative regions of Greece and the words lignite and delignification within the content of transition.

Results that are content related appeared positive such as “*At the recent meeting of the Council of Ministers we discussed the Just Transition Plan in Western Macedonia*” (2020).

In 2021, there are sentences that question the delignification in Western Macedonia affecting the common feeling. “De-lignification is a critical issue that concerns thousands residents in two large regions, Western Macedonia and Megalopolis, and is linked to their economic and social stability”. Feeling changes in 2022 where there are sentences

with optimist sentiment.





Site Development

The words “waste” and “De-lignification” share the first positions in content related words amongst the words of Category B site development with more occurrences in 2020 and 2021 respectively.



Waste

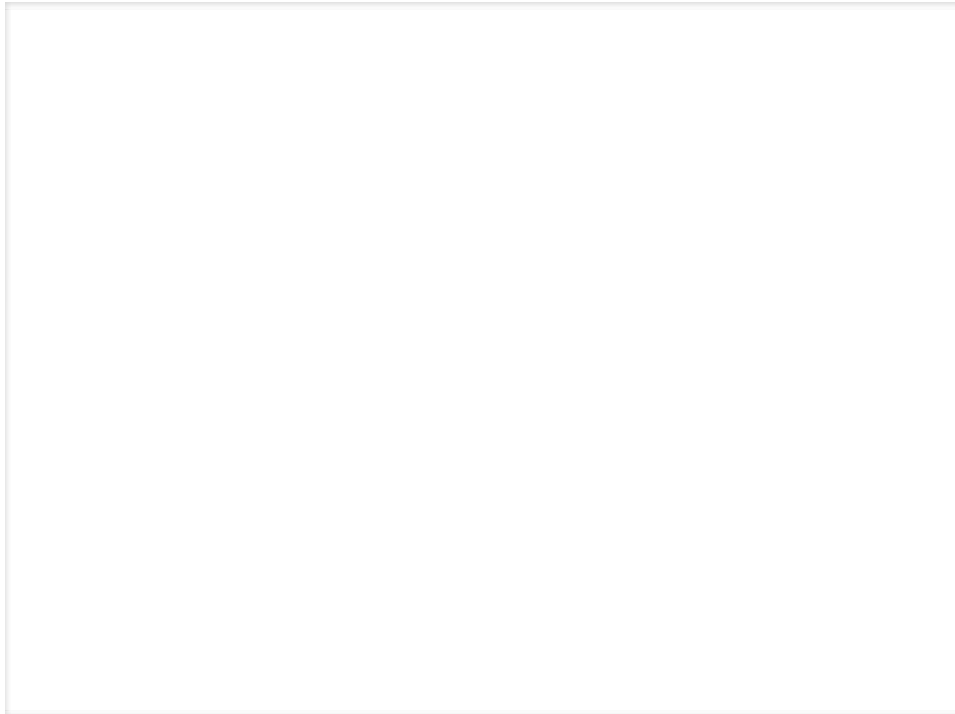
Waste (Απόβλητα) as a term may refer to a variety of industries and activities, such as nuclear waste, urban waste, electronic waste, and mining waste, the most relevant to coal mining industry. The present analysis did not yield results on coal mining waste or coal transition in particular, however there are a few references to industrial/mineral waste in 2018 and 2020 , with a neutral to positive tonality.



De-lignification

De-lignification (Απολιγνιτοποίηση) is a term specifically referring to the phasing-out of lignite mining and power production in Greece. The term first appears in 2018, when the Greek Government officially announced the transition from lignite and the gradual closing of the mines and the power stations in Greece. The highest number of entries appears around 2021, after the Government issued the Master Plan for the transition process, the Just Transition Development Plan, at the end of 2020. Tonality is largely positive: “The organizations support the decisions on de-lignification through the expansion of renewable energy sources.” “Greece now takes a leading role in both the de-lignification and the green economy.” The leading role of Greece in the De-lignification process and consequently, coal transition, is widely mentioned, as well as the necessary

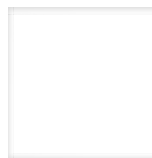
changes for its successful implementation. De-lignification co-occurs with terms such as “energy”, “Renewable Energy Sources” and “environment”.



Web GIS Platform

You can access the Web GIS Platform through the following [link!](#)

or scan the QR code in the image below!



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