

SONNET – SOCIAL INNOVATION IN ENERGY TRANSITIONS

Co-creating a rich understanding of the diversity, processes, contributions, success and future potentials of social innovation in the energy sector

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Research report on ‘Framings against fossil fuel energy pathways’ in Poland



About SONNET: SONNET is a research project that aims to develop an understanding of diversity, processes, contributions and future potential of social innovation in the energy sector. It is co-funded by the European Commission and runs for three years, from 2019-2022. The SONNET consortium consists of 12 partners across Europe, including academics and city administrations. For more information, please visit our website: <https://sonnet-energy.eu>

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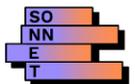
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1 FORWARD

SONNET (Social Innovation in Energy Transitions) brings diverse groups together to make sense of how social innovation can bring about a more sustainable energy sector in Europe. The project aims to co-create a rich understanding of the diversity, processes, contributions, successes and future potentials of social innovation in the energy sector (SIE). As part of this work, we make use of an embedded case study approach to build a better understanding of the development of diverse SIE-fields (e.g. participatory incubation and experimentation, framings against specific energy pathways, local electricity exchange) over time. Our research questions that frame the case study work are:

- How do SIEs and SIE-fields emerge, develop and institutionalise over time?
- How do SIE-field-actors and other field-actors interact with the 'outside' institutional environment and thereby co-shape the SIE-field over time?
- What are the enabling and impeding factors for SIE-field-actors and other field-actors to conduct institutional work and change the 'outside' institutional environment?

According to the SONNET's terminology (D3.1, 17), **social innovation in the energy sector (SIE)** is a combination of ideas, objects and/or actions that change social relations and involve new ways of doing, thinking and/or organising energy. A localised version/manifestation in time and space of a SIE is defined as a **SIE-initiative**. **SIE-actors** are individuals, organisations or other collectives who actively work on SIE and are part of a certain SIE-field. **Other field-actors** are individuals, organisations or other collectives who are part of a certain SIE-field - these can enable and/or impede SIE.

A **SIE-field** is an arena/space that includes a specific SIE as well as SIE-field-actors working on it and other field-actors enabling and/or impeding it. In this arena/ space these actors take one another

and their actions into account and have a shared (but not necessarily consensual) understanding of a SIE and of their relationship to other actors. They recognise (but not necessarily follow) shared norms, beliefs and rules. SIE-fields are often not homogenous but are composed of actors with diverse and contradictory aims and interests. An example: The UK cooperative energy field includes SIE-initiatives and SIE-field-actors (e.g. Brighton Energy Co-op, Cooperative UK, Community Energy England, UK Government, City of Brighton), who have a shared understanding of an SIE, which exists as 'organising under cooperative principles to generate renewable energy'.

The structure of this report is as follows. Section 2 provides a summary of the SIE-field relevant for this report and lists some key insights. Section 3 outlines the boundaries of the SIE-field and shows how it has been studied in the country context. Section 4 shows a visual development of the SIE-field. Section 5 tells the historical development of the SIE-field over time, including analytical/interpretive reflections from the SONNET researchers and quotes from the actors involved in the field developments. Section 6 outlines key research findings, providing answers to the three research questions. Section 7 outlines recommendations for policymakers based on the findings. Finally, Section 9 outlines the methodological approach and includes a more detailed timeline of the SIE-field and its actors.

2 The field 'Framings against fossil fuel energy pathways' in Poland

This report investigates the field of 'Framings against fossil fuel energy pathways' in Poland. In accordance with the SONNET case studies on this topic in the UK and the Netherlands, this refers to the process of creation and development of different framings against energy pathways centred on fossil fuels (in particular coal and natural gas). The definition of framings is kept relatively open (to be able to explore its meanings within the field), drawing on Bolsen and Shapiro's (2017) definition where 'as a communicative process, framing involves making certain considerations salient as a way to simplify or shape the way in which an audience understands a particular problem and its potential solutions' and Wittmayer et al.'s (2019) definition of narratives of change presented as 'sets of ideas, concepts, metaphors, discourses or story-lines about societal transformation' to guide our work on this field. The focus of this research lies on the content, construction and performativity of the

framings (as outlined by Wittmayer et al. 2019). The aim is not only to describe the problem but also investigate how and in how far various framings constitute context to envisioned futures. The constructivist perspective is used to explore how framings are negotiated and reproduced over time, with the special focus set on interactions and relations between various actors in the field. Investigating this topic is of particular importance as the previous research about the development of different framings against specific energy pathways is scarce, especially when considering various fossil fuels through the lens of a cross-country comparison. To my best knowledge, up to this date, no such research has been done in the Polish context. Moreover, this research is a valuable contribution to the neoinstitutional theory, as the examination of practices carried out by peripheral actors in order to influence the dominant institutions in the energy sector has been largely overlooked.

Key insights

For the SONNET project, the field ‘Framings against fossil fuel energy pathways’ in Poland is particularly interesting because it reveals a number of important issues for social innovation in energy transitions. In particular, it illustrates that:

- The development and effectiveness of initiatives opposing fossil fuel extraction in Poland rely on their ability to: a) engage local, directly affected communities in order to gain credibility, b) attract wide social support in order to assert a political impact, c) connect and learn from other initiatives in order to benefit from knowledge transfer, and d) perform legal, financial, or political work supported by expert knowledge in order to challenge the position of incumbents and influence policy-making processes.
- In case of an unsupportive national policy, such initiatives tend to develop their agendas in line with the EU regulatory frameworks and expertise. This provides legitimisation to their actions and empowers these initiatives in legal, political, financial, and symbolic ways.
- Framings of the local protests (their aims, theory of change, rationale, etc.) are constructed with the active role of more experienced national or international activists.
- Local communities in cooperation with larger NGOs and foreign allies form networks and coproduce counter-expertise against incumbents’ (i.e. powerful energy companies and national government) narratives.

3 Introduction to the field 'Framings against fossil fuel energy pathways' in Poland

The SIE-field 'Framings against fossil fuel energy pathways' encompasses multiple actors engaged in developing different framings against coal or natural gas extraction, such as NGOs, network organisations, protest groupings and various initiatives that work locally, regionally, nationally but also internationally. Their explicit or implicit aim is to change dominant discourses about existing energy pathways, influence policymaking or block local fossil fuel extraction. The means used by these actors vary and can be connected to peaceful opposition, protest, lobbying or conducting social campaigns, among others. In the Polish context, SIE-initiatives and other field actors interact with each other to work on, enable or impede the following SIE: pushing a framing of limited extraction of fossil fuels or coal phase-out (ideas) by opposing opening or expanding local fossil fuel extraction sites (objects) and campaigning against political or economic agendas supportive towards fossil fuel energy pathways, or lobbying for the RES development (action).

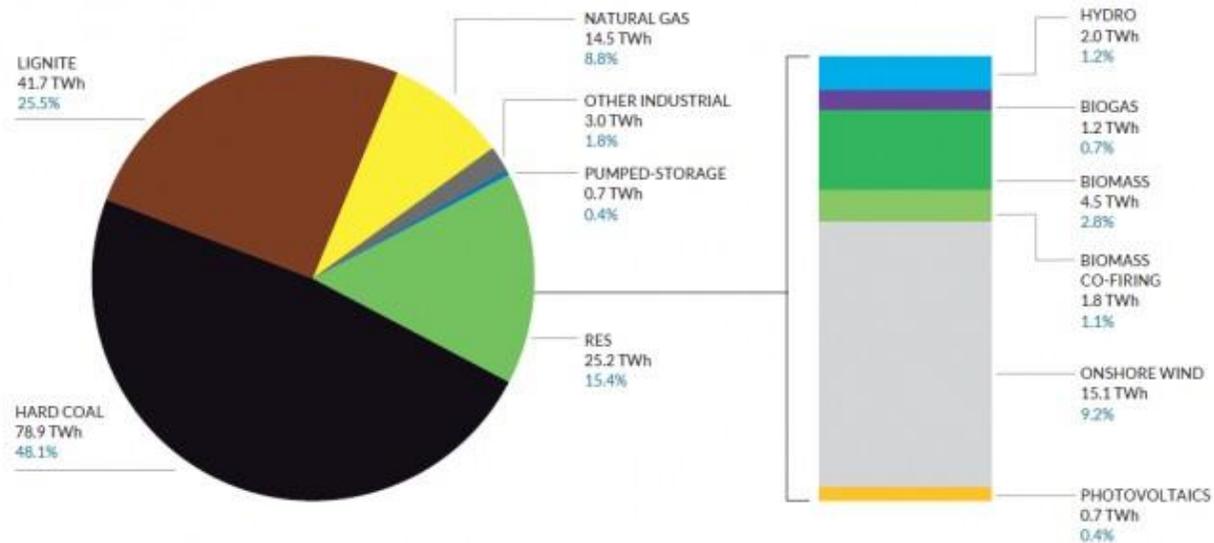
Most of the initiatives studied in this research act against lignite or hard coal extraction. This is because the Polish energy system is largely based on the combustion of fossil fuels with a clear dominance of coal.

The share of coal in electricity production in 2019 was 73.6% (4.8 percentage points less than in 2018). Polish mines extract yearly around 50 million tons of hard coal (as of 2019), and 61 million tons of lignite coal (as of 2017). Additionally, around 13 million tons of hard coal are imported, mainly from Russia¹. The importance of gas is marginal, yet steadily growing, with 8.8% share in the energy mix in 2019, as compared to 7.2% in 2018. In 2018, domestic extraction satisfied only about 20% of the gas demand in Poland². There is also marginal extraction of crude oil in Poland (about 4.5% of annual demand)³.

¹ <https://wysokienapiecie.pl/31452-gornicze-zwiazki-uslyszaly-ile-wegla-bedzie-potrzebne/>

² <https://www.polskieradio24.pl/5/1222/Artykul/2338631,Gdzie-w-Polsce-wydobywamy-gaz-Skad-go-importujemy>

³ https://pl.wikipedia.org/wiki/Wydobycie_ropy_naftowej_w_Polsce



Source: based on data of ARE.

Figure 1: The Polish energy mix as of 2019. Source: Forum Energii⁴.

When the communist regime in Poland fell in 1989, there were over 400 thousand people working in the Polish mining industry. However, the following years brought a shrinking demand for coal, as due to the economic transition much of the heavy industry shut down, and energy efficiency was steadily growing. Therefore, it was necessary to introduce some serious structural changes in the Polish mining sector. This process has progressed in stages, but the most significant changes took place in years 1998-2002 when around 100 thousand coal miners quit their jobs. This was a peaceful transition without strikes in which miners voluntarily resigned having received financial compensations or earlier retirement pensions. As a consequence, current employment in hard coal

⁴ <https://forum-energii.eu/en/polska-transformacja-energetyczna>

mining is 83.3 thousand (as of 2019), while Polish lignite mines employ almost 9 thousand people (as of 2017)⁵. In oil and gas extraction industry there work around 2.5 thousand employees (as of 2017)⁶.

Despite the significant reduction in employment, the Polish mining sector has been in a poor financial condition. According to Tomasz Rogala, CEO of PGG SA (a Polish joint-stock company, the largest mining company in Europe and the largest hard coal producer in the EU), the current bad situation of the industry is mainly due to rising prices of CO2 emission allowances⁷. Over the last few years, they have increased from EUR 5 per tonne in 2013 to almost EUR 30 at present⁸. Also, the COVID-19 pandemic and the relatively warm winter this year have contributed to a reduction in demand for electricity. As a result, there are currently around 20 million tonnes of coal stored on the heaps (as of December 2020), for which there is a shortage of buyers. Additionally, the RES market, which has been developing dynamically for several years in Poland, is gradually replacing fossil fuel-based power generation.

However, the industry also faces serious internal problems. First, the costs of extraction in Polish mines are rising. After a century of intensive hard coal mining, Polish miners are now going down to an average depth of 750 metres. As a result, it is becoming increasingly difficult to ventilate, dehydrate, de-methane and fireproof corridors, as well as to transport extracted coal, workers and equipment⁹. Second, very high labour costs are a significant financial burden for the industry. It is caused by over-employment, extensive social benefits, relatively high wages and the existence of numerous trade unions. In 2014, the over-employment in three state-owned mining companies

⁵https://www.cire.pl/pliki/2/2018/raport_o_stanie_branzy_wegla_brunatnego_w_polsce_i_w_niemczech.pdf

⁶ <https://nettg.pl/news/167418/gornictwo-w-kopalniach-wegla-kamiennego-zatrudnienie-stoi-w-miejscu>

⁷ <https://www.eecpoland.eu/2020/pl/panel/4050.html#retransmisja> European Economic Congress, Panel: "Górnictwo – transformacja pod presją", 4.09.2020. <https://www.eecpoland.eu/2020/pl/panel/4050.html#retransmisja>

⁸<https://handel-emisjami-co2.cire.pl/st,34,514,me,0,0,0,0,0,ceny-uprawnien-do-emisji-co2.html?startDay=29&startMonth=07&startYear=2010&koniecDay=8&koniecMonth=09&koniecYear=2020&button=poka%BF>

⁹ <https://wysokienapiecie.pl/1984-na-weglu-swiat-sie-nie-konczy-zwlaszcza-na-slasku/> Na węglu świat się nie kończy. Zwłaszcza na Śląsku 31.12.2016.

exceeded 20 000 jobs¹⁰. As a consequence, the cost of employees in the hard coal mining industry is even three times higher than in other branches of heavy industry in Poland¹¹.

As a result, already in the middle of 2020, PGG made a loss of approximately PLN 550 million, and its revenue fell by PLN 2.7 billion¹². The unprofitable mines cover their expenses with loans and subsidies from the state budget. Subsidies allocated to the conventional energy sector in the period 1990-2016 amounted to PLN 230 billion (€ 52 billion). It is estimated that external costs (e.g. health and environmental costs) reached even ten times the value of this amount¹³. Polish hard coal does not stand up to the competition with imported coal, which is not only cheaper but also has a higher energy density and less contamination. In addition, further decline in demand for coal in the Polish economy is expected. Supposedly, only 15 million tonnes of coal will be required in 2035¹⁴.



"Politicians have been ignorant and have not read expert reports but listened to the lobbyists from energy companies saying: 'we have a lot of coal, it guarantees our energy safety.' And they believed it." Interviewee 3

Despite the dynamic changes both in the national mining sector and on the international market, the Polish Government has been very reluctant to set a coal phase-out date and to present a clearly defined energy transition strategy for the coming decades. Instead, for a remarkably long time, politicians have tried to convince Poles that the Polish mining industry is safe and publicly declared that: "Coal is Poland's greatest treasure (...) as long as I hold the office, I will not allow anyone to kill the Polish mining industry" (President Andrzej Duda in 2018¹⁵), 'Miners! We need more coal!' (Deputy Minister of Energy Krzysztof Tchórzewski in 2018) or "Polish coal and mining industry has a future. We do not have to say today that it is an industry that is inevitably heading to the end" (Deputy Minister of State Assets Jacek Sasin in 2019¹⁶).

Such an attitude of Polish politicians results primarily from the historical setting in which the mining industry in Poland has developed. The mining lobby has traditionally had an immense influence on

¹⁰ <https://forsal.pl/artykuly/1007529,na-weglu-swiat-sie-nie-konczy-zwlaszcza-na-slasku.html>

¹¹ <https://businessinsider.com.pl/firmy/wynagrodzenia-to-polowa-kosztow-kopalni-oto-gdzie-jeszcze-podwyzki-decyduja-o/qvzey46>

¹² <https://wysokienapiecie.pl/31038-jest-wreszcie-plan-restrukturyzacji-polskiej-grupy-gorniczej/> Jest wreszcie plan restrukturyzacji Polskiej Grupy Górniczej, 28 lipca 2020.

¹³ Webinar with Dr Andrzej Kassenberg, Instytut na rzecz Ekorozwoju, organised by the Workshop for All Beings, 14.05.2020.

¹⁴ <https://wysokienapiecie.pl/31452-gornicze-zwiazki-uslyszaly-ile-wegla-będzie-potrzebne/> Górnicze związki usłyszały, ile węgla będzie potrzebne, 13 sierpnia 2020.

¹⁵ <https://www.rmfm24.pl/ekonomia/news-andrzej-duda-wegiel-to-najwiekszy-skarb-polski-nie-pozwole-z,nld,2714293>

¹⁶ <https://www.green-news.pl/618-jacek-sasin-czas-wegla-nie-minal>

political decisions, effectively persuading politicians and society of the need to maintain the mines' functioning for ensuring national energy security. Such a stance has its roots in the communist era when the vast expansion of the energy sector was rationalised as necessary to power the energy-intensive and inefficient heavy industry, a flagship of the soviet-style economy. As such, little regard was given to environmental issues and, in any case, there was virtually no space for social dissent. Even with the political and economic turn in 1989, the governmental agendas focused on economic growth, while marginalising environmental issues.

"All decent acts of protection of environment, health and water came not from Polish legislators, but from the implementation of EU directives."
Interviewee 2

A major change came with Poland's accession to the European Union in 2004. Since then, the country has had to follow the EU policies which put an increasing pressure to move away from fossil fuels in the national energy mixes. Today, most of the environmental legislation in force results from the fact that Poland is a member country of EU and, having obtained funds, must implement appropriate regulations. However, subsequent Polish governments have enacted these policies only reluctantly and have often stalled ambitious EU environmental strategies. The EU climate policy has been presented by the government as contrary to Poland's best economic and political interests.

In contrast, the climate and energy policy of the European Union has been an important point of reference for Polish environmental NGOs. Social activists, familiar with reports prepared by EU experts in the field of energy, set on that basis ambitious goals for their initiatives. This accelerated the professionalization of some Polish environmental organisations but did not directly affect the relatively low public awareness of environmental problems related to the fossil fuels industry. However, in time these organisations have gradually managed to involve growing numbers of people in protests against coal and gas extraction. The pressure exerted by the EU institutions, combined with their effort, led to the latest increase in the political will regarding phasing out coal in Poland. According to the latest update of the draft 'Energy Policy of Poland until 2040' from September 2020, by 2030 the share of coal in the Polish energy mix will reach between 37% and 56%, and in 2040 - between 11% and 28%¹⁷. Moreover, trade unions reached an agreement with the

It is presented further in this report how the visibility of various change agents, as well as environmental social awareness, have gradually increased in time

¹⁷<https://300gospodarka.pl/zagranica-o-polsce/financial-times-opinie-o-rzadowej-strategii-energetycznej-pep2040-wahaja-sie-miedzy-niebezpiecznymi-fantazjami-a-rozsadnym-kompromisem>

government, according to which the last coal mine owned by PGG SA will be closed in 2049¹⁸. However, the agreement has not been formally approved yet.

Although an opposition against fossil fuel extraction in Poland is currently directed almost solely at coal, it has not always been the case. When in 2011 the US Energy Information Administration published a report (EIA 2011) that estimated Poland's shale gas reserves at 5.3 trillion cubic meters – which placed Poland as Europe's largest-endowed country in this resource – anti-fracking protests emerged in the country (Cantoni et al, 2018). The Polish government firmly advocated the geological exploration of shale gas, hoping for a national energy autonomy to be reached in a near future. However, after five years of test drilling, most of the gas and oil companies withdrew their operations by 2015. The most probable reasons were low prices of oil and natural gas on global markets, legislative uncertainty and unfavourable geological conditions for shale gas extraction in Poland.

However, as mentioned before, natural gas consumption Poland has been gradually increasing in recent years. The country is trying to become independent from gas supplies from Russia, and to this aim, the Swinoujscie gas port was built and a 24-year contract with the United States for LNG supply was signed. The works on Baltic Pipe, a system of gas pipelines connecting Norway, Denmark and Poland, are also quite advanced. Natural gas is broadly accepted as a transition fuel between coal and RES, however, there is a threat of the lock-in effect, i.e. investing in infrastructure that would impose the use of gas for a longer time. There is a risk, then, that the Polish energy sector will shift from the current dependency on coal to a dependency on gas, instead of developing RES on a large scale. Up to date, since gas has been little used in Poland, there were no protests against natural gas other than local communities' mobilisation opposing shale gas exploration. Nevertheless, the recent plans to transform some coal-fired power plants into gas-fired units, e.g. Kozienice or Ostroleka C, has already induced some resistance. For example, Greenpeace recently conducted its first major protest against natural gas. Activists climbed the tower on the construction site of the Ostroleka C power plant, demanding urgent action to move away from burning all fossil fuels in Poland - coal by 2030 and then natural gas by 2035. Therefore, it can be expected that soon

¹⁸ <https://www.slaskibiznes.pl/wiadomosci,sa-daty-zamknienia-kopalni-jest-porozumienie-rzadu-i-zwiazkowcow,wia5-1-3677.html>

new framings against gas-based energy pathways will emerge and develop, as natural gas becomes a growingly important fossil fuel in the Polish energy sector.

Overview and structure of the report

This research is aimed at tracing the emergence and development of SIE-initiatives aimed at opposing fossil fuel extraction – lignite and hard coal, as well as shale gas – in Poland, and investigates how the framings against specific energy pathways have been reconstructed in this process. The development of these initiatives and framings is presented and interpreted in the context of changing social, political, and economic institutions to better understand the investigated topic and the way it has changed in time. The story covers the years from 2009, when the first local referendum against expanding a lignite mine took place, until 2020 when growing numbers of people joined mass marches, demanding the coal phase-out date to be decided by the government in order to enable a socially just transition of the Polish energy system. For the ordering of information in the report and greater clarity of the argument, this time period has been divided into five main phases:

- **PHASE 0: ‘Emergence of non-profit ecological organisations’** covers the years 1990-2008 when initiatives active in the field could be divided into three categories:
 - earliest expert ecological organisations with hierarchical structures, e.g.: **Workshop for All Beings** (Pol. Pracownia na rzecz Wszystkich Istot – an association operating since 1990, engaged in protecting wild nature in Poland and recently got involved in anti-coal campaigns), and **EKO-Unia** (an association operating since 1994, supporting local communities threatened by new investments in e.g. opening a new open-pit mine, or shale gas exploration)
 - formal coalitions of non-profit organisations for sustainable development and environmental protection e.g.: **Climate Coalition** (Pol. Koalicja Klimatyczna – launched in 2002, connects actors on all levels – local, regional and national; currently consists of 24 organisations), and **Polish Green Network** (Pol. Polska Zielona Siec – operating since 2004, associates organisations engaged in building civic support for sustainable development)

- Polish offices of international environmental NGOs: **WWF** started its operations in Poland in 2000, and **Greenpeace** opened its Polish office in 2004. Both NGOs have been involved in lobbying against coal extraction in Poland and conducting social campaigns informing citizens about the harms of coal-burning. Greenpeace recently got involved in protests against building gas-fired power plants in Poland.
- **PHASE 1: ‘Mobilisation of local communities against opening new open-pit mines and shale gas extraction’** covers the years 2009-2014 when local communities mobilised in several locations across Poland, opposing either lignite mines’ expansion, or plans of fracking shale gas by multinational companies. In both cases, local communities were supported by EKO-Unia, which provided them with competent legal advice. Additionally, they reached out to some international allies, e.g. EU bodies or foreign NGOs and activists, receiving valuable support from abroad. In the case of protests against mining lignite, the national **Coalition ‘Development YES - Open-Pit Mines NO’** (Pol. Koalicja “Rozwój TAK - Odkrywki NIE” was created in 2011 to protect local communities more effectively against the coal industry). In the case of mobilisation against shale gas exploration, the most known anti-fracking protest was held by inhabitants of **Zurawłów**, starting in 2013.
- **PHASE 2: ‘Anti-smog campaigning and lobbying for RES’** covers the years 2012-2019 when **Smog Alarms** (Pol. Alarm Smogowy) developed in various Polish towns, creating a bottom-up social movement for improving air quality and moving away from burning solid fuels in households. RES was presented as a cleaner alternative to coal by some other organisations: EKO-Unia, Poland’s Green Party or the **Foundation ‘Development YES - Open-Pit Mines NO’** (Pol. Fundacja “Rozwój TAK - Odkrywki NIE” was established in 2015 and engaged in building opposition against the mining industry in Poland by supporting local communities, exerting pressure on financial and insurance institutions, and protecting threatened water resources).
- **PHASE 3: ‘Conducting campaigns against financing and underwriting of the Polish coal industry’** covers the years 2013-2020 when the CEE Bankwatch (a global network which operates in central and eastern Europe, and aims to influence decisions of international financial institutions to protect human rights and the environment), as a leader of a broad lobbying coalition, succeeded in enforcing modifications in energy policies of the European

Bank for Reconstruction and Development, as well as the European Investment Bank, ruling out new coal power plants financing. Afterwards, the Foundation 'Development YES - Open-Pit Mines NO' recognised that in order to become more effective in opposing fossil fuel extraction, more direct pressure must be exerted on banks providing finance for companies building new coal power plants, as well as insurance and reinsurance companies underwriting of new coal power plants. Recently, more initiatives joined these efforts, which led, among others, to the decision by the biggest Polish insurers to withdraw from underwriting and reinsuring the new Ostrołęka C power plant.

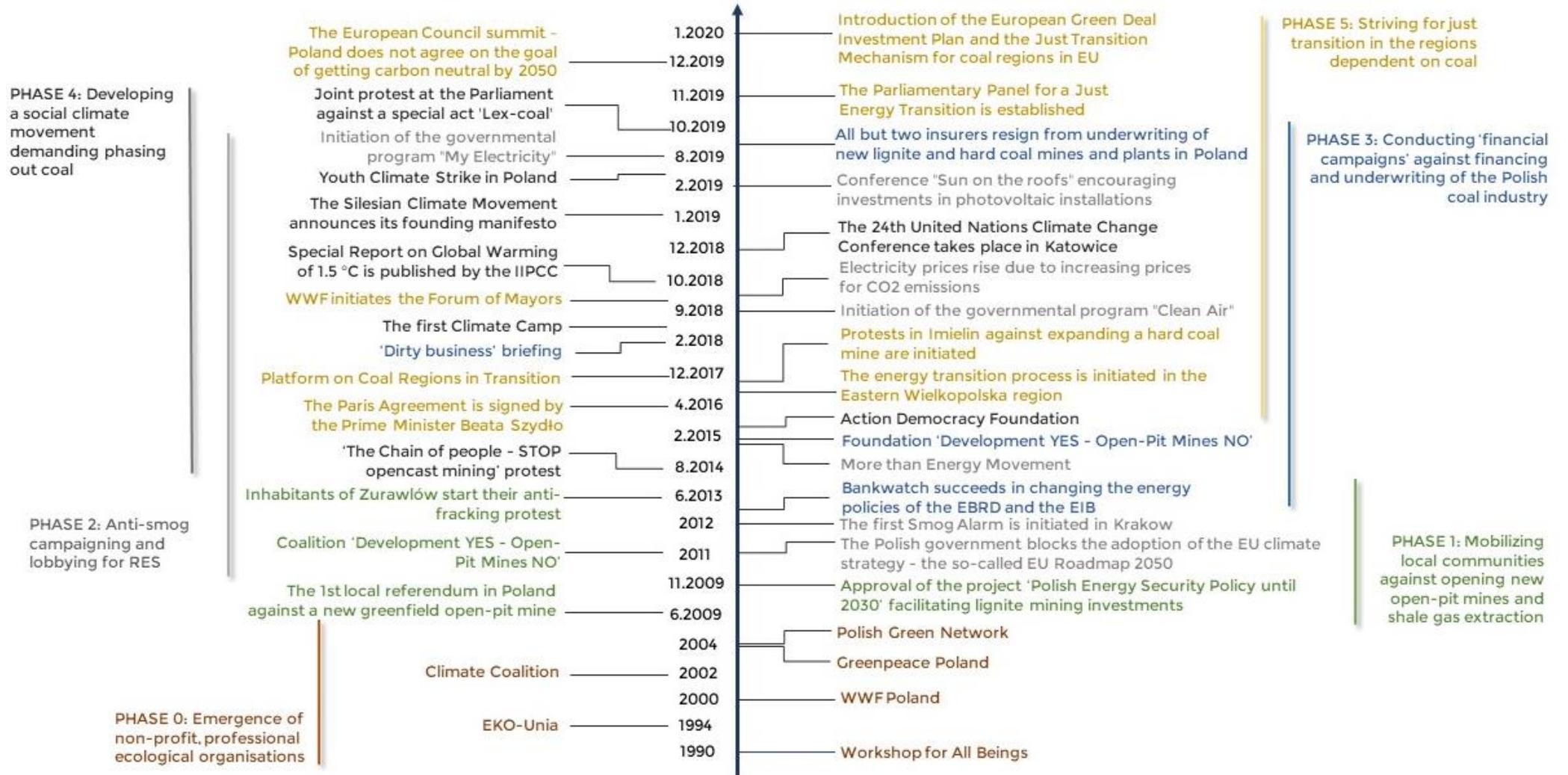
- **PHASE 4: 'Developing a social climate movement demanding to phase out coal'** covers the years 2015-2020 when social movements started to emerge, first online and later in various locations across the whole country organising strikes that mobilised Polish people against conventional energy pathways on an unprecedented scale. The first attempt to develop mass action to influence political or investment decisions related to fossil fuel industry was made by the **Action Democracy Foundation** (Pol. Fundacja Akcja Demokracja - operating since 2015, running social campaigns and mobilising people to act, mostly by collecting petition signatures online). It prepared the ground for other initiatives that in time engaged growing numbers of supporters: **Camp for Climate** (Pol. Obóz dla Klimatu - taking place annually since 2018, creating a space for all interested parties to engage in dialogue and get involved in protests against coal-mining), **Silesian Climate Movement** (Pol. Śląski Ruch Klimatyczny - officially launched in 2019, currently associates over 170 Silesian residents, demanding phasing out coal, zero carbon emissions and creating green jobs) or **Youth Climate Strike** (Pol. Młodzieżowy Strajk Klimatyczny - evolving in Poland since 2019, inspired by international school strikes Fridays for Future; it is the biggest and deemed as the most effective climate social movement in Poland).
- **PHASE 5: 'Striving for a just transition of the coal-dependent regions'** covers the years 2017-2020 when the Platform on Coal Regions in Transition and Just Transition Fund were established by the European Commission. These mechanisms have supported actions of various bottom-up initiatives from Polish regions with economies dependent on the coal industry. In order to reinforce this process, WWF initiated the **Forum of Mayors** (Pol. Forum Burmistrzów) aimed at empowering mayors from towns in coal regions and lobbying for

public consultation of Territorial Just Transition Plans. The two cases presented in this report – the process of **just transition of Eastern Wielkopolska** and the firsts protests against the mining industry in Silesia taking place in **Imielin** – were both initiated by local activists in 2017.

Among various actors and initiatives active in the field, two SIE-initiatives were chosen to be studied in more depth. The first initiative is the Foundation 'Development YES - Open-Pit Mines NO' established in 2015. It is aimed at supporting local communities in resisting opening of new mines, exerting pressure on financial and insurance institutions to withdraw financing and insuring coal projects and coal companies building or planning to build new coal mines and plants, as well as protecting water resources against the destructive activity of the mining industry. The second initiative is the just transition process of Eastern Wielkopolska initiated in 2017 by urban activists from Konin. The activists, supported by larger NGOs, managed to engage actors at the municipal, regional, national and European levels in the transdisciplinary process of developing a strategic plan of the region's just transformation and moving away from lignite mining as the basis of the local economy. As a result, a strategic document entitled "The Concept of Fair Transformation for Eastern Wielkopolska" was recently created, according to which the region is to achieve climate neutrality by 2040. Eastern Wielkopolska is to become a national leader in green transformation: a leading producer of energy from renewable sources and an exporter of hydrogen. It is the first such example of an effective bottom-up, transdisciplinary and multi-level collaboration in the Polish energy sector. Both initiatives were deemed as particularly important by the interviewed field actors due to the novelty of their strategies in the Polish context, methods and narratives that other field actors could mimic, but also because of their tight connections to other actors in the field maintained by mutual learning and support. Additionally, both initiatives have been engaged in organising, conducting and participating in protests involving regular citizens against extending or opening new lignite mines.

4 Timeline of the field 'Framings against specific energy pathways (with a focus on fossil fuel) in Poland'

For a detailed SIE-field timeline and its actors, see Annex 2.



5 Emergence and development of the SIE-field 'Framings against specific energy pathways (with a focus on fossil fuel) in Poland' over time

PHASE 0: Emergence of non-profit ecological organisations

The Polish environmental movement emerged in the socialist 1980s, focusing on two main issues: the alarming state of the environment and social opposition against the Żarnowiec nuclear plant that followed the Chernobyl catastrophe. First independent environmental organisations in Poland were the Polish Ecological Club (Pol. Polski Klub Ekologiczny), and the Freedom and Peace movement (Pol. Ruch Wolność i Pokój). However, with the political transition in 1989, environmental and anti-nuclear protests largely ceased, giving way to a turbulent process of creating a new democratic and free-market structures (Szulecka and Szulecki, 2019). As a result, in the 1990s an environmental movement in Poland was rather weak, with just a few organisations active in the field. These initiatives could be divided into three main categories: 1) earliest expert ecological organisations with rather hierarchical structures, 2) formal coalitions of organisations for sustainable development and environmental protection; 3) Polish offices of international environmental NGOs. Overall, these initiatives had little to no success in engaging citizens in their activities.

Probably the first ecological organisation to emerge after the Polish transition to democracy in 1989 was the **Workshop for All Beings**. It is an association operating since 1990, engaged in conducting various actions towards protecting wild nature in Poland. Recently it got growingly involved in anti-coal activities, leading the coalition lobbying against the construction of the coal power plant Ostrołęka C, as well as the Północ Power Plant. It has also organised many civic educational trainings for activists on the topic of climate change. Similarly, another well-known Polish ecological association, **EKO-Unia**, has been operating since 1994 and conducted various activities related to nature and climate protection in Poland. It has been engaged in working for sustainable development of rural areas, providing access to information in local communities, and giving

competent legal advice concerning investments threatening the natural environment, like open-pit mining, coal-fired stations, or shale gas extraction.

In the following decade, more organisations started to emerge, which brought about the need to form some sort of intermediary organisations connecting various initiatives. The first such initiative was the **Climate Coalition** launched in 2002, that currently consists of 24 non-governmental organisations involved in activities for climate protection. The Coalition serves a critical function of networking various actors on all levels – local, regional and national. Importantly, in 2018 it officially supported moving away from coal to 2030, which was an important statement for much Polish public and governmental institutions. Another important initiative that associates various organisations in the field of environment protection is the **Polish Green Network** operating since 2004. It's aimed at building civic support for sustainable development, creating mechanisms of social control over the spending of public funds, and influencing RES regulations.

Additionally, around that time two main international environmental NGOs started their operations in Poland – **WWF** in 2000 and **Greenpeace** in 2004. WWF has been mainly involved in influencing policy-making processes regarding environmental protection by taking part in political negotiations and providing policymakers with thorough knowledge. However, in recent years the NGO has also been progressively developing more social activities on the topics of phasing out coal and just transition of coal regions. In 2017 WWF created the first feature film in Poland about climate change „The Tipping Point. Energy aNew”, which has gained considerable publicity. In 2019 it ran a broad multichannel social campaign Eco-Patriots based on the report ‘2050 Poland for the Generations’ (‘2050 Polska dla Pokoleń’). The campaign consisted of organising debates in various Polish towns and signing petitions that exerted pressure on politicians to implement needful changes limiting the CO2 emissions and protecting the environment. In 2018, during the COP24 (The 24th United Nations Climate Change Conference) in Katowice, they run a social campaign under the motto: "You are an endangered species". As one of the interviewees claimed, since then they have been putting more effort to learn how to run effective social campaigns, also by observing Greenpeace which has considerable experience in this regard. Greenpeace activists have organised various campaigns opposing both coal and gas investments. There is a somewhat limited base of volunteers participating in Greenpeace's actions because they are often based on radical tactics, e.g. occupying power plants' sites. However, thanks to such a controversial approach, these campaigns are arguably

the most visible in the mainstream media. Greenpeace has also been a strong advocate of declaring the coal phase-out date in Poland.



December 2019: Greenpeace's action in the Belchatow power plant. The projected image presents the Prime Minister Morawiecki with the caption: „shame”. It refers to the European Council summit when Poland, as the only country, didn't agree on the goal of getting carbon neutral by 2050¹⁹.

PHASE 1: Mobilisation of local communities against opening new open-pit mines and shale gas extraction

Context: In November 2009 the Polish government has accepted, without obligatory social consultations, the project of the "Polish Energy Policy until 2030" facilitating lignite mining in Poland.

Since all of the aforementioned initiatives had a very limited capacity of engaging 'regular citizens' in their activities, the first important shift in the field happened in June 2009 when the 1st local referendum in Poland against a new greenfield open-pit mine took place in the Brody commune. The referendum was successful in terms of the required voter turnout and expressed opposition to the plans of the mining industry. It soon inspired local communities in other locations, and three

¹⁹ Source: <http://odpowiedzialny-inwestor.pl/2020/06/22/nowe-wyzwania-dla-belchatowa-pge-czeka-transformacja/>

months later another referendum took place in the subregion of Legnica that addressed inhabitants from six municipalities. As one interviewee observed, it was a very challenging endeavour for both local communities and governments to conduct these referendums: an informational campaign had to be organised and many spontaneous protests took place against resettlements and probable damages to local infrastructure. These referendums were the first sparks of local civic engagement in the Polish energy sector history. However, despite their success, the energy company refused to treat the results as formally binding. Therefore, in September 2009 local government officials, residents and activists formed the social Committee 'Stop the Open-pit Mine' aimed at joining forces to make the referendums officially recognised by the national government and the main investor, PGE GiEK SA (Polish joint-stock company, a leader in the lignite mining industry in Poland and the largest national electricity producer – for a detailed description of key actors, their networks and relations, see Annex 2).

Therefore, in 2011 the Committee wrote a petition with the support of the Polish MEP Lidia Geringer de Oedenberg to the European Parliament's Petitions Committee, to make the results of the referendum on the planned coal investments binding. The fact-finding mission produced a report stating that the results of the referendum should be recognised, and incumbents must engage in a dialogue with the public. This conflict has brought much media attention to the problematic issues related to opening new open-pit mines and coal-fired power plants. When the Committee members noticed that more communities in Poland face similar problems, they decided to establish in 2011 the national **Coalition 'Development YES - Open-Pit Mines NO'** with the initial support of Greenpeace and EKO-Unia. Since then, the Coalition has brought together a variety of actors – affected local communities, representatives of local businesses, local governments, scientists, activists, and social organisations – and effectively defended the interests of local communities against the coal industry. Also, the Coalition is perceived as a unique initiative in Poland that can mobilise people across political divides. As one of the interviewees argued, representing authentic local communities gives legitimacy to the Coalition's members engaged in political lobbying or negotiations with financial institutions investing in the coal industry.

“Our perspective is always from the bottom up. These roots and involvement of local communities give us a fairly strong social mandate. It allows me to talk to a financial institution as a shareholder with great confidence. Because I represent specific communities, locations, people who are fighting

for their lives and their homes. So this is not a conversation from the perspective of a Warsaw-based organisation, drawing on some research, but it is a real background and the awareness that I speak on behalf of people. It is a kind of advocacy with a face.” Interviewee 2



An employee looks at the open-pit coal mine in Belchatow, Poland²⁰.

Simultaneously to the local communities building an anti-coal opposition, the first **anti-fracking protests** emerged in the country. Unlike the protests in Legnica subregion, in this case, it was a bottom-up initiative of the local communities to organise themselves against the plans of exploring shale gas in their villages. However, both in the opposition against expanding open-pit mines, and against shale gas exploration, the same arguments prevailed. The inhabitants were primarily concerned about the destruction of their houses and local infrastructure, as well as about the threats to the surrounding water resources. In addition, both groups of protesters received legal aid from EKO-Unia and sought support from European institutions against the Polish government’s plans

²⁰ Source: <https://energia.rp.pl/energetyka-zawodowa/transformacja-energetyczna/23049-list-otwarty-do-premiera-rp-w-sprawie-odejscia-od-wegla>

about further fossil fuel extraction. Just as in the case of planned coal investments, the national government and energy companies resigned from conducting consultations with residents exposed to the losses associated with shale gas extraction.



“The Russian authorities' final victory will come when we do not reach an agreement on shale gas in Poland”
„Rzeczpospolita”,
25.11.2012

The document review made it clear that plans for the extraction of shale gas in Poland have gained publicity in 2011 when the US Energy Information Administration published a report that estimated Poland's shale gas reserves at 5.3 trillion cubic meters. It placed Poland as Europe's largest-endowed country in this resource. The Polish government firmly advocated the geological exploration of shale gas, hoping that a national energy autonomy, as well as successful energy transition towards a low-carbon and energy-efficient economy, could be possible in a near future. Importantly, there was a pro-fracking front united across different political parties, as well as broad public support for shale gas developments, presenting it in opposition to the dependency on Russian gas. Shale gas extraction was framed as a cheaper and more technologically feasible strategy to achieve energy security and economic prosperity than nuclear power plants or RES development. The energy transition towards shale gas extraction was perceived in terms of keeping the *status quo* of the centralized, fossil-fuel-powered system, rather than democratizing the whole system of energy production and distribution. The state partnered with gas companies in shale gas exploration, excluding citizens and NGOs from the decision-making process.

Therefore, the inhabitants of villages exposed to test drilling had to organise by themselves the resistance movement against expected damages in their immediate environments, related to e.g. water safety, soil quality, or toxic waste disposal. Several social resistance committees were set up in the country to enforce the rights of the residents of concession areas. As the document review revealed, the most spectacular protest was carried out by the inhabitants of Zurawłów, the small village in south-eastern Poland. In June 2013 they started an occupation-style anti-fracking protest against a global oil and gas corporation Chevron. The protest lasted non-stop for 399 days. Residents quickly gained the needed knowledge about shale gas, drawing on the international experience of the anti-fracking movement. It allowed them to conduct an informed dialogue using formal and legal arguments at the level of decision-makers in Poland and the EU.

In August 2012 an agreement was reached by 11 organisations opposing the drillings. Many organisations did not want to reveal their support for the anti-fracking movement, because it was often associated with the activity of Gazprom, a Russian state-owned company and the world's largest gas producer. Since Gazprom was one of the most vocal critics of shale gas, many people believed that it finances European organisations fighting for a ban on shale gas exploration. However, several Polish organisations were openly involved in helping the inhabitants of Zurawłów: EKO-Unia provided legal assistance by entering into concession proceedings as a party; the association 'Centre for Sustainable Development' (Pol. Centrum Zrównowzonego Rozwoju; aimed at encouraging social and economic development in an environmentally sound manner) prepared a report entitled 'Analysis of economic, social and environmental costs and benefits of shale gas extraction in Poland', which served as a basis for a substantive discussion; the ClientEarth (an environmental law charity aimed at holding governments and corporations accountable for climate change, nature loss and pollution) Warsaw office prepared a report 'The Black Paper', presenting deficiencies in Poland's implementation of the EU climate and energy regulations.

Due to the lack of support among Polish politicians and the majority of the population, the Zurawłów community looked for allies abroad. They reached out to some representatives of EU institutions, e.g. pro-environmental lobbying organisation Food and Water Watch. Several foreign MEPs also tried to influence the Polish government by sending letters and petitions to the Prime Minister. Jose Bove, a French Member of the European Parliament for the Greens, visited Zurawlow and handed over a petition from the residents to the Minister for the Environment regarding the non-renewal of Chevron's gas exploration licence. However, the protesters wanted to spread the message about their case more broadly and connect to similar initiatives all over the world. Therefore, they set up a trilingual website and a Facebook profile that became an important platform for communication between all interested actors on a global scale. It was possible thanks to engagement in the protests of Lech Kowalski who directed the documentary film 'Drill, baby, drill' about anti-fracking local opposition in Pennsylvania US. Additionally, the protesters used the 'Occupy Chevron' slogan, following advice from foreign activists, with the reference to various global 'Occupy' movements. Taken together, these factors attracted considerable media attention and made Zurawłów an important part of the global anti-fracking movement.

In Poland, active drilling operations lasted for five years, starting in 2010. 72 exploratory drills were performed, however, none of them took place in the locations where local protests occurred. While the local opposition could have made shale gas exploration more costly and time-consuming, the most probable reasons for the operating companies' ultimate withdrawal were low prices of oil and oil-indexed natural gas on global markets in the mid-2014, legislative uncertainty in the Polish exploration sector and unfavourable geological conditions for shale gas extraction. Similarly, it is hard to assess the extent to which local protests have discouraged incumbents in expanding the open-pit mining infrastructure, and how much these were purely economic and geopolitical decisions.

'Outside' institutional environment shaping the development of the field

The SIE-field and its actors are nested within an outside institutional environment linked to an energy system that is constituted by formal and informal institutions. These institutions shape the activities of SIE-actors and other field-actors within the SIE-field. One of the SONNET's objectives is to investigate the 'outside' institutional environment that surrounds and penetrates the SIE-field (D3.1, 17-18).

Initiatives that aim to change the dominant discourse about the national energy system's dependency on fossil fuels extraction operate in the very system they wish to change. The institutionalised, formal and informal, rules and norms that are taken for granted in the dominant narratives in the energy sector can be viewed as a rationalized myth. This concept was first introduced by Meyer and Rowan in their seminal paper (1977), where they argued that any institutional order can be perceived as a myth that determines a dominant structure and way of operating of all organisations in a given field. Organisations adhere to such a myth and adopt institutional scripts in order to receive needed recognition, resources and support. Importantly, these scripts of behaviour are not necessarily the most effective ones; it is gaining legitimacy that is of primary concern for organisations in any field (DiMaggio & Powell, 1983). The scope of a myth is one of the basic determinants of an institutional field.

The empirical findings indicate that in the Polish energy sector, there has been a prevailing myth, according to which phasing out coal is impossible because of its strategic role in ensuring the country's energy security. Such a strong belief is a leftover from the times of the Polish People's Republic, when the mining industry was in its bloom, upholding the country's economy based on heavy industry. Moreover, it is believed that the mining sector is too extensive to be liquidated, as it provides jobs to thousands of miners

and employees of the related companies. After the political transformation, the miners united and fought for their rights, arguably most effectively among all professional groups in Poland. The strong mining lobby successfully convinced both politicians and the public that the state should continue to subsidize the sector in order to avoid a social and economic disaster. According to them, obtaining energy from other sources is not achievable in Poland due to inadequate geographical conditions for RES, overly expensive nuclear power plants development and political risks related to dependence on gas or coal imports from Russia. This myth has not been challenged for many years, while the mining lobby has been supported by the successive governments. Therefore, the SIE-field-actors faced a particularly difficult task of changing the dominant, institutionalized discourse about conventional energy pathways, aiming for the fossil fuels phase-out.

However, as Fligstein (2001) observed, institutional change may happen due to the occurrence of an institutional shock of a social, technological or normative character. This shock may cause destabilization in the social system, where existing rules of interaction and distribution of resources function as sources of power. In the conditions of growing uncertainty, weaker actors may try to use the crisis to change power relations in the field, gain dominance and increase access to important resources. Peripheral actors are then given an opportunity to create a completely new system of meanings in the field. Indeed, the SIE-actors, despite their peripheral positions in the energy sector, have managed to benefit from the changes taking place in the wider institutional environment: raising public awareness about the harms of burning fossil fuels with regard to climate change (social shock), dynamic development of RES (technological shock), and EU's climate and environmental policies exerting pressure to shift away from fossil fuels in the European countries (normative shock). Further parts of this report describe the dynamics of these changes in more detail.

PHASE 2: Anti-smog campaigning and lobbying for RES

Context: In 2011 the Polish government blocks the adoption of the EU climate strategy, the so-called EU Roadmap 2050 aiming to reduce emissions by 40% by 2030 and 80% by 2050.

As some of the interviewees observed, for a long time, environmental organisations had been afraid to openly criticise the powerful Polish coal industry as any negative comments had been met with strong social resistance. The situation has changed as a result of the actions started in Krakow,

addressing a huge problem with polluted air, caused mainly by using coal for heating in many Polish households. To a large extent, this problem is still unresolved: 87% of coal used in households across the European Union is burned in Poland (as of February 2020)²¹.

The document review revealed that in 2011, Krakow was the most polluted city in Poland. The average annual concentration of pollutants exceeded the standards set in Poland by about 30%. Moreover, it was allowed to exceed the norms for a maximum of 35 days a year, and in Krakow, they were exceeded for over 200 days a year. In winter, the concentration of harmful dusts exceeded the norms even by 800%.²² The first Smog Alarm, a bottom-up social movement for reducing emissions, was created in 2012 in Krakow, and later diffused to many other Polish towns. According to the several interviewees, it managed to raise social awareness about harms of coal-burning, and as a result, many people understood the necessity to develop alternative solutions for heating, that would be safer for human health and environment.



“Just like in the forest it is difficult for small plants to grow, because there is no light, in Poland it was not possible to develop RES due to a market monopoly and inadequate regulations.”
Interviewee 2

However, there was still a lack of appropriate regulations to enable the development of RES in Poland. Therefore, in February 2015 EKO-Unia, supported by Greenpeace activists, lobbied successfully at the parliament (by calling MPs individually and convincing them about the need to support RES) for passing the RES law that would introduce the feed-in tariffs for prosumers. The next year, after parliamentary elections won by anti-environmental populists, the ruling party intended to withdraw that law, but this time it was public opinion that wouldn't allow them to do that. Therefore, the government kept the law but replaced the feed-in tariff with a net-metering system.

Around that same time, the Smog Alarm activists' efforts led to President Duda signing amendments to the Environmental Protection Law. This allowed the Sejmik (regional parliament) of the Małopolska Region to accept in January 2016 an anti-smog resolution for Krakow, which introduced a ban on heating with coal and wood from 2019. This was an important step and soon other Polish towns introduced similar restrictions in their local policies, significantly reducing coal usage at the households' level in Poland. In order to enable that transition, in 2018 the government initiated the

²¹ <https://www.wprost.pl/ekologia/10298465/polskie-domy-sa-nieefektywne-energetycznie-spalamy-w-nich-86-proc-wegla-wykorzystywanego-w-domach-w-ue.html>

²² <https://www.rynekzdrowia.pl/Uslugi-medyczne/Krakow-szok-tlenowy-po-wyjezdzie-z-miasta,116484,8.html>

program "Clean Air" that has offered subsidies for replacing old, coal-fired furnaces in households. The program answered the bottom-up pressure of the Smog Alarms, but also the EU's expectations of improving air quality and reducing harmful emissions.

However, the document review indicates that passing these laws did not mean that the ruling party changed its negative stance regarding the further development of RES in Poland. In June 2016, the government introduced a law on investments in wind energy, the so-called "Anti-wind-turbines Act" that made getting permission for setting up a wind farm very difficult. The deputy Anna Zalewska, later Minister of National Education, justified this decision by saying: "*I don't want a bus-sized turbine's arm to fall on my head one day*"²³. That same deputy has been a loyal ally of the coal industry, who actively supported further expansion of the Turow lignite mining complex.



"We are rolling a snowball of these renewables. The more people and ideas you get, the faster it will turn into an avalanche."
Interviewee 3

The government hindered any further RES development until 2018 when electricity prices rose dramatically due to increasing prices for CO2 emissions. In that year, CO2 prices have increased from EUR 8 to EUR 25 per tonne. As a result, in 2018 Poland had the highest wholesale electricity prices among neighbouring countries. In 2018 alone, the prices rose by around 50%²⁴. As one of the interviewees explained, in response to the price crisis on the electricity market, in February 2019 EKO-Unia and Poland's Green Party organised a conference "Sun on the roofs" about investing in photovoltaic installations. The main slogan was 'Sun on the roofs - how to take a holiday from your electricity bill'. The conference was developed within the programme "Energy Transformation beyond Divisions", which envisaged the initiation of a broad, inclusive social debate on the benefits of investing in RES.

The document review revealed that in response to the growing need to create mechanisms of subsidies for photovoltaic installations in households, the government initiated a dedicated program "My Electricity" in August 2018. It turned out to be a great success: at the end of 2019 the installed PV capacity reached 1.5 GW²⁵ and there were over 3.5 times more photovoltaic installations than in

²³ <https://innpoland.pl/152577,anna-zalewska-zabila-energie-wiatrowa-w-polsce-to-samo-zrobi-w-brukseli>

²⁴ <https://www.rp.pl/Energetyka/304149927-Rosnacych-cen-pradu--nie-da-sie-zatrzymac.html>

²⁵ <https://forum-energii.eu/en/polska-transformacja-energetyczna>

the previous year. Since 2014, the capacity of photovoltaic installations in Poland has increased by as much as 9000%²⁶.

In 2019, the total share of renewable energy sources was 15.4%, the highest in history. Installed RES capacity increased from 2 GW in 2010 to 9.5 GW at the end of 2019.²⁷ Social support for renewable energy has also reached very high levels. In 2018, 95% of Poles supported the development of renewable energy, as compared to 35% of respondents being supportive for producing energy from coal.

PHASE 3: Conducting campaigns against financing and underwriting of the Polish coal industry

Context: In 2013 the CEE Bankwatch (a global network which operates in central and eastern Europe, and aims to influence decisions of international financial institutions to protect human rights and the environment), in cooperation with other entities within a broad lobbying coalition, succeeded in enforcing modifications in energy policies of the European Bank for Reconstruction and Development, as well as the European Investment Bank (EIB), ruling out new coal power plants financing. Adopting a strict Emissions Performance Standard made the EIB the first big international financial institution to effectively end financing of coal and lignite power generation²⁸. According to one of the interviewees, it was an important step in the process of moving away from coal in European countries, which has shown that the most important decisions concerning energy can be made in the financial markets, not at a political level.

Introduction to the selected SIE-initiative 1

The **Foundation 'Development YES - Open-Pit Mines NO'** was established in 2015. The founders were mainly local government officials involved in previous activities of the Coalition 'Development YES - Open-Pit Mines NO'. According to the interviewees, the Foundation was initiated to support the Coalition formally and legally. In order to maintain its independence, it was necessary to diversify the sources of funding,

²⁶ <https://www.teraz-srodowisko.pl/aktualnosci/mamy-jlimat-kampania-ministerstwo-klimatu-nfosigw-8774.html>

²⁷ <https://forum-energii.eu/en/polska-transformacja-energetyczna>

²⁸ <https://www.eib.org/en/press/all/2019-313-eu-bank-launches-ambitious-new-climate-strategy-and-energy-lending-policy>

especially when the parliamentary elections in 2015 were won by a party openly opposed to pro-climate and environmental activism. Access to funds from the National Fund for Environmental Protection or support from various institutions of the regional Marshal's offices has significantly decreased. There has also been a discourse developing that ecological organisations are financed and politically controlled by Western European countries against the best interest of Poland. In this context, the idea was to be able to act fully apolitically without any financial dependence. The Foundation could also act as a party in legal proceedings on behalf of the Coalition members. Importantly, it has aimed to maintain a balance between engaging in an anti-coal opposition and conducting pro-developmental activities. Therefore, as a member of the More than Energy movement (Pol. Ruch Wiecej niz Energia; a broad social coalition initiated in 2015, aimed at the development of civic energy, connecting local governments, public institutions, NGOs, firms and interested individuals), the Foundation has engaged in various activities related to the process of just energy transition in Poland, investing in renewable energy sources, and increasing energy efficiency. It has also organised several study visits for local governments' officials in energy self-sufficient municipalities or energy clusters. In developing their positive program, the activists rely on the knowledge of experts who are reliable and trustworthy for local communities.

The Foundation '**Development YES - Open-Pit Mines NO**' holds a primary goal to counteract plans of building new lignite mines, and to help communities affected by the functioning of opencast mines. Therefore, it has been engaged in supporting local communities in resisting the opening of new mines by organising protests and providing them with legal help. Also, it often tries to initiate and maintain the involvement of the EU institutions in local conflicts. Another important area of the Foundation's activities is protecting water resources against destructive activities of the mining industry. For example, in 2019, the Foundation submitted a complaint to the European Commission against the Polish government for insufficiently implementing the EU Water Framework Directive. It also belongs to the 'Let's Save the Rivers Coalition' (Pol. Koalicja Ratuujmy Rzeki) and participates in consultations organised by the Polish Waters, submitting comments on the nationwide water management plan.

Moreover, as some of the interviewees stressed, the Foundation has initiated and developed an exceptionally novel approach to building opposition against the Polish coal industry. After several years of working with local communities, activists engaged in setting up the Foundation began to realize that they may had been winning battles but were still losing the war. Gradually, the awareness was growing that new strategies and tactics needed to be developed in order to impose

pressure on the coal industry more effectively. As a result, the financial campaign was initiated by one of the Foundation's employees in relation to his experience of working in Bankwatch. The main idea has been to exert pressure on financial and insurance institutions to withdraw from financing and underwriting of coal projects by writing expert reports or organising protests against their energy policies. According to one interviewee, it is a more effective strategy than the traditional exertion of pressure on political decision-makers.

"There is a large disproportion in social-environmental movements in the allocation of power and resources to attempts to change voters' behaviour and to persuade politicians at national or EU level in comparison to the resources devoted to campaigning on financial institutions. And there is a deep faith, bordering on the conviction, that it is politics that determines the direction of development of countries or continents. In my opinion, the reality is much more complex. It is the interaction between market and financial forces, which sometimes can exceed the budgets of countries or their decision-making power, especially when we look at countries like Slovakia, the Czech Republic or Poland and the political decision-making." Interviewee 2



"There aren't many voluntary changes in the financial market. Insurers have been talking about climate change for years. They even had everything modelled. Suddenly someone said: check."
Interviewee 2

One of the main achievements in the financial campaign was a study on European insurers active in the Polish coal industry. The 'Dirty business' briefing was released in February 2018 and revealed companies engaged in the underwriting of both existing infrastructure and new projects aimed at expanding Polish coal mines or coal-fired power plants. The briefing revealed 21 underwriting contracts that proved a critical role played by the non-Polish European insurers in supporting the Polish coal industry. These insurers have operated in countries with high public awareness about the negative environmental impacts of the coal industry. It brought about much controversy and has ultimately led to some serious declarations from the disclosed companies. In 2019, the Uniq Insurance Group AG (one of the largest insurance groups in Central and Eastern Europe with the corporate headquarters located in Vienna) and BNP Paribas S.A. (a French international banking group and the world's 8th largest bank by total assets) introduced new restrictions on financing coal investments. In the same year, Generali Group (an Italian insurance company, the third-largest in Europe, with the headquarters located in Trieste) announced its resignation from insuring lignite and hard coal mines in Poland. Similar declarations were made by the Swiss Reinsurance Company (a reinsurance company based in Zurich, the world's second-largest reinsurer) and Allianz (a German multinational financial services company, the world's largest insurance company as of 2014, with the

headquarters located in Munich). Moreover, the 'Dirty business' report had much influence on several other European insurers' decisions regarding the underwriting of the Polish coal industry: Munich Re, Talanx, Hannover Re and Vienna Insurance Group.

"The topic of insurance is a great bridge between countries with a strong climate discussion and their impact on the global economy. When we now hear that there is no available insurance capacity to build new mines or power plants in South America or Vietnam, one can say that while working on problems in the Polish energy sector, we are simultaneously changing global parameters"
Interviewee 2

Until recently, the Foundation's Senior Finance Campaigner has been the only person in Poland attending meetings of financial institutions' shareholders, asking questions related to environmental protection and mitigating climate change. However, since the Foundation had started to organise trainings and lectures that enabled transferring the knowledge about financial campaigns to other organisations and initiatives in Poland, more activists have engaged in such initiatives. For example, there were several protests organised at the banks' headquarters carried out by Earth Strike and Extinction Rebellion (global grassroots environmental movements developing in Poland since 2019), as well as Climate Camp (see p. 38) or the Workshop for All Beings. Also, the Action Democracy Foundation (see p. 37) led its online campaigns against companies investing in the Polish coal industry.

However, so far, the largest campaign in Poland against financing the coal industry was carried out in relation to plans of launching a new power plant unit in Ostroleka. The campaign was initiated in 2018 and since then it has been led by the Workshop for All Beings. The coalition 'Stop Ostroleka C Power Plant' (Pol. Stop Elektrowni Ostroleka C) has been created, consisting of the Frank Bold Foundation's Polish office (a law firm aimed to solve social and environmental problems), EKO-Unia, Instrat Foundation (a progressive think-tank focused on public policy advisory), the Climate Coalition, and the 'Development Yes - Open-pit mining NO' Foundation, among others.

The document review indicates that the new power plant block Ostroleka C was supposed to be the last coal power plant construction in Europe. The plant would have run for 40 years emitting six million tonnes of CO₂ yearly until 2063. Apart from the environmental and health concerns it raised,



"The construction of a stable energy source is important for energy security and economic development, both for the region and for the whole country. In eastern Poland it is the first such a large undertaking in 30 years" Minister of Energy Krzysztof Tchórzewski, 2018

Ostroleka C has also been perceived as an uneconomic endeavour due to the rising prices of carbon allowances and uncertain future for capacity market payments. Therefore, 28 organisations signed the petition to the Prime Minister and the Ministry of Energy calling for a withdrawal from the investment and the development of ambitious plans regarding reducing carbon emissions, increasing energy efficiency, and investing in RES. Activists organised the 'mass extinction' happening, boycotting the bank mBank that was about to facilitate financing for the energy company Enea (the fourth largest energy group in Poland). Moreover, the ClientEarth Foundation, which is a shareholder of Enea, won two cases against the energy company, ordering Enea to disclose documents proving the profitability of the investment. Ultimately, the company has cancelled its participation in the project. Although the planned investment had received all necessary permits, public consent, and support from the power market, the two largest Polish banks - PKO BP S.A. and Pekao S.A. - have decided not to get engaged in the project financing of Ostrołęka C.

Meanwhile, the company PKN Orlen (a Polish oil refiner and petrol retailer, and the largest company in Central and Eastern Europe) announced its interest in building the power plant unit, but only if it is gas-fired. According to the investor, this decision is based on new policies related to the recently introduced European Green Deal, as well as updated energy policies of the European Investment Bank. Therefore, in 2020 the decision has been made that Ostroleka C will be a gas-fired power plant.

Greenpeace has recently conducted its first major protest against these plans. The activists climbed the tower on a construction site of the Ostroleka C power plant and placed on it a huge banner with a slogan "Coal, gas, climate crisis". Greenpeace demands urgent action to move away from burning all fossil fuels in Poland - coal by 2030 and then natural gas by 2035. According to the activists, this is the only way not to exceed the 1.5-degree Celsius warming barrier. Activists point to RES and increasing energy efficiency as the only viable alternatives to producing energy from fossil fuels.



June 2020: Greenpeace activists climbed the construction site at the Ostroleka C power plant with a banner: „Coal Gas Climate Crisis”²⁹.

Institutional work conducted by the field actors

One of the SONNET's aims is to gain a deeper understanding of sustainability transitions in which actors create, maintain or transform dominant institutional arrangements within the energy systems to prevent threats such as climate change and resource deprivation (D1.2, 20).

It has been long recognised by neoinstitutional scholars that individuals and organisations can contribute to shaping of an institutional arrangement. Change agents may portray the present order as dysfunctional and propose necessary reforms (Meyer and Rowan, 1977). Neoinstitutional theories highlight the important role played by institutional entrepreneurs in this process, i.e. actors that initiate divergent changes in the institutional context and participate in their implementation (Battilana et al., 2009). Drawing on symbolic

²⁹ Source: <https://www.greenpeace.org/poland/aktualnosci/28732/greenpeace-protestuje-w-ostrolece-przeciwko-elektrowni>

interactionism, Fligstein (2001) developed a concept of social skills, which emphasised to the key ability of an institutional entrepreneur to engage others in acting together in order to successfully implement change. According to Scott (2014), as a result of activities conducted by institutional entrepreneurs, new stable institutions may emerge. By defining new collective identities and interests, it is possible to mobilise appropriate groups and bring about restructuring of the social order (Fligstein, 2001).

Indeed, the occurrence of skilled actors initiating change in the highly institutionalised Polish energy sector is of paramount importance throughout the story of the SIE-field development. For example, in the case of the financial campaigns, it was the 'Development YES - Open-Pit Mines NO' Foundation's Senior Finance Campaigner that first became involved in exerting pressure on financial institutions providing finance for and underwriting of fossil fuels projects. Over time, his efforts have led other SIE-field-actors to follow in his footsteps.

However, as recent studies have stressed, when conducting an institutional analysis, the "paradox of embedded agency" should be emphasised (Battilana, 2006; Zietsma and Lawrence, 2010). Previously, scholars have either focused on the dominant impact of institutions or the overly powerful individuals (Lawrence et al. 2009), i.e. stressing either structure or agency in the process of institutional change. It is important to recognise that while individuals are capable of influencing institutions, change agents are not heroic individuals who are able to conduct an institutional change on their own. In fact, as the story clearly indicates, the major changes in the financial institutions' energy policies have been introduced as a consequence of both bottom-up pressure exerted by the SIE-actors, and top-down regulations introduced by the EU institutions. In line with this, actions conducted by institutionally embedded individuals or organisations in order to increase their power by „creating, supporting, or modifying institutions" (Lawrence & Suddaby, 2006: 215) are conceptualised as institutional work.

The empirical findings show that the SIE-field-actors have been engaged predominantly in creating and disrupting institutions. By definition, acting against the dominant energy pathways excludes the maintenance work meant as "reproducing existing norms and belief systems" (Lawrence and Suddaby, 2006:230). In disrupting dominant institutions in the Polish energy sector, the SIE-field-actors have been pushing a framing of phasing out or limiting extraction of fossil fuels, e.g. through highlighting negative environmental and economic impacts of the fossil fuels industry. In creating institutions, the SIE-field-actors have been developing alternative framings in the Polish energy sector, e.g. through lobbying for the RES development.

According to Fligstein (2001), there are several factors that can influence the process of institutional change: characteristics of actors forming the field, their place in the system of power and available resources. These factors can determine the possible ways of popularizing novel ideas, building coalitions and creating new identities by change agents. Similarly, Zietsma and Lawrence (2010) stress the importance of the position of actors within the field in the process of institutional change. The SIE-field-actors have occupied peripheral positions in the Polish energy sector, having access to very limited resources as compared to the most powerful actors in the field, i.e. state-owned energy companies. In order to succeed in their goals of changing the dominant discourse, they recognised the need to tightly cooperate with each other (i.e. through building formal and informal coalitions, and supporting each other in their initiatives, e.g. protests), to find allies for their cause (e.g. in European institutions), and to engage more people in their campaigns (i.e. through the development of a broad environmental movement). Therefore, the agency in this case can be viewed as dispersed, meaning that institutional work has been exercised by multiple actors simultaneously (Lawrence et al., 2002). This work might be coordinated through collaboration agreements, but not necessarily – actors might be initially unaware of it, especially at the beginning of their commitment to the cause (e.g. Imielin protesters who met activists from larger NGOs during a protest in Katowice). One of the interviewees even compared the Polish anti-coal movement to the immune system, in which cells, just like activists from various initiatives, don't know that they cooperate with each other, but nevertheless work towards a shared goal. This suggests that future research could try to further examine how interorganisational cooperation can contribute to institutional change.

Institutional scholars have identified various types of institutional work (e.g. Phillips and Lawrence, 2012). In this case, the SIE-field-actors have engaged predominantly in boundary work (arguing that it is not only energy professionals and politicians who can decide upon further development of the energy sector; rather, this process should entail collaboration between all affected parties: citizens, SMEs, local governments, NGOs, scientists, environmentalists, etc.), identity work (facilitating the shift from citizens as passive consumers of energy to conscious prosumers), strategy work (stressing the need to develop long-term just energy transition plans for the coal-dependent regions), emotion work (creating opportunities for people to express their anger and fear regarding the climate change and environmental threats caused by the fossil fuels industry), and practice work (day-to-day campaigning against political or economic agendas supportive towards fossil fuel energy pathways).

Moreover, one of the most important types of institutional work conducted in the field has been material work. It has been manifested through different means, e.g. boycotting banks by organising happenings at their headquarters, physically blocking excavators at lignite mines, or physically blocking access to the

planned fracking sites. According to Boxenbaum et al., institutionalist approach to materiality “conceptualizes materiality as a means for revealing, stabilizing and directing the social order of institutions” (2018: 602). However, to date, material aspects of institutional change have been largely neglected by institutional scholars (for an exception, see e.g. Czarniawska, 2008). Therefore, future research might attempt to systematically examine the ways in which the physical sphere dynamically intertwines with mechanisms of de-institutionalisation and reinstitutionalisation of certain practices and concepts in the field.

PHASE 4: Developing a social climate movement demanding to phase out coal

Context: Several organisations and social movements developed in the Western European countries started to emerge in Poland (in its original or amended form and name): 38 Degrees (a British not-for-profit political-activism organisation), climate camps in Germany, Czech Republic and the UK, or ecological, international, bottom-up movements like Earth Strike, Extinction Rebellion and Fridays for Future. According to the interviewees, they reached Poland on the osmotic principle and have adopted well due to the growing public awareness and low competition. Some Polish initiatives developed as formal branches of foreign organisations with all related benefits (like branding or available resources) and limitations (the need to follow specific agendas and methods). Others have been only loosely inspired, as Polish activists drew from their own experiences when engaging in activities led by these organisations or talking with their representatives.

Besides engaging local communities in protests, Polish anti-coal organisations did not manage to promote their activities more widely, nor to mobilise people who weren't directly affected by the fossil-fuel extraction investments. As a result, public awareness of their activities, as well as knowledge about environmental or climate-related threats regarding the national dependence on fossil fuels remained low.

As some interviewees observed, the first attempt to organise a bigger event where people could come to manifest their dissent towards the hegemony of the coal industry took place in August 2014. The ‘Human chain - STOP opencast mining’ was organised by the coalition ‘Development YES - Open-Pit Mines NO’ with support of Greenpeace and the association ‘No to Opencast Mining’ (Pol. ‘Stowarzyszenie NIE kopalni odkrywkowej’), founded in 2010 in Gubin, where local communities were

threatened by the opening of a new mine). It was a living, 8 kilometres long human chain created by seven thousand people at the German-Polish border. Representatives of nearly 30 countries expressed their opposition to the plans of building new opencast mines and called for the development of RES. The protest coincided with the announcement by the Polish government of consultation of the strategic document "Polish Energy Policy 2050". However, despite the large promotion carried out by the organisers, the protest was mainly attended by people from abroad. This showed that the level of ecological awareness among Poles was still very low and few people wanted to get involved in activities aimed at moving away from fossil fuels extraction.

"The Action Democracy was a moment of transition to more inclusive activities and to social change resulting from grassroots pressure."
Interviewee 7

In order to start building a broader environmental movement in Poland, the **Action Democracy Foundation** was launched in 2015. One of the interviewees explained that its founders acknowledged that while ecological organisations in Poland held proper arguments, they lacked political power. Since its beginnings, the Foundation has run many social campaigns that mobilised people to act – mainly in the form of signing online petitions or putting pressure on institutions in the coal industry by writing personalized emails. The Foundation has been created according to an international model of web initiatives featuring online petitions. More specifically, the founders were inspired by conversations with activists from the organisation 38 Degrees operating in the UK.

Although the Foundation calls itself a social movement, in reality it is a hybrid with a hierarchical structure. The decisions are made centrally, or according to the numbers of 'clicks'.

While the Foundation has created petitions on various subjects linked to human rights or rule of law, the main focus has always been put on environmental protection. According to the interviewee, the main assumption was that once people gain trust in the organisation through involvement in some unrelated topics, they would become encouraged to take action for the climate as well. This was meant as a way to raise social awareness and build stronger support for the efforts to move away from coal in the Polish energy sector. The Foundation could also build on the knowledge of other organisations and strengthen already functioning campaigns, setting up any petition within a couple of days. Additionally, some actions have been carried out offline, e.g. happenings, but these have taken place on a much smaller scale than the online activities.

Thence, at that point in time, for people who wanted to express their opposition against the coal industry, the only means available were signing petitions and supporting campaigns run by the Action Democracy Foundation or Greenpeace. Some of the interviewees stressed that there was a need to create a space where direct and active involvement of all interested actors would be

possible. It was this very need that prepared the ground for the bottom-up, broad climate movement to evolve in Poland. This movement has developed as a patchwork of several initiatives characterized by flat organisational structures, democratic decision-making mechanisms, and relatively low entry levels. Some of these initiatives have engaged in new means of protesting like civil disobedience, while others have aimed at mobilising growing numbers of supporters who would take part in strikes and marches organised in various Polish locations. Whatever the means, all of them hold the same ambition of asserting a real impact on national policy-making processes that will ultimately lead to systemic changes, i.e. developing a decentralised energy sector based on RES.



“Easy admission, a sense of influence on what the movement does and a lack of hierarchy - I think these will be the basic features of the Polish climate movement.”
Coordinator of the first Climate Camp

The first initiative to be organised along these lines was the Polish **Climate Camp**. It took place in July 2018 in Eastern Wielkopolska, the region endangered by the mining industry expansion. The guiding slogan of the Camp was: "Taking back the power - fighting for climate justice". It was the 'Development YES - Open-Pit Mines NO' Foundation that made one of its employees responsible for coordinating the first Camp. According to the interviewees, it was meant to be a welcoming space for all people interested in developing alternatives to coal in Poland. All interested individuals - from urban activists to local farmers - were invited to come, exchange ideas, and get to know each other's perspectives. The reason for initiating the Camp was the recognition that previous strategies of fighting against the climate crisis weren't effective. However, since nobody really had the know-how on how to run an ecological social movement in Poland, the idea was to let people decide democratically on the specific goals of the Camp, as well as the methods of expressing opposition that would be used. The first Camp was a great success, as 400 people with various backgrounds joined, both individuals and representatives of all major Polish ecological organisations.

However, in the next two years, the Camp's framing as a space for conducting a democratic dialogue above divisions has gradually shifted towards a focus on developing a method of civil disobedience. As stated on the Camp's official website, currently, its main goal is to act against "unjust social relations and all forms of exploitation³⁰" through reclaiming agency in the energy sector by means of proactive action. Based on the document review, it became apparent that the Camp supporters aim at changing the dominant discourse and asserting a real impact on Polish energy and climate

³⁰ <https://obozdlaklimatu.org>

policies. The Camp still declares the desire to build a broad coalition, but for many, the Camp's actions are too radical. Moreover, the Camp has an openly leftist orientation, declaring support for anti-fascist, anti-racist, anti-capitalistic, and pro-LGBTQ initiatives, which prevents the inclusion of people with different worldviews.



"Coal is our strategic asset. According to experts, we still have coal reserves for 200 years and it is difficult for us to give it up completely" President Andrzej Duda, COP24

In December 2018, several months after the first Climate Camp took place, the Silesian city of Katowice hosted the **24th United Nations Climate Change Conference (COP24)**. The interviewees argued that it turned out to be a critically important event for the development of the anti-coal movement in Poland. Due to the high media presence, public awareness among Poles about challenges related to the climate crisis has significantly risen. Also, the Conference coincided in time with the release of the Special Report on Global Warming of 1.5 °C that was published in October 2018 by the Intergovernmental Panel on Climate Change. The report gained considerable publicity in Poland, which prepared the ground for a wider social debate about the negative effects of burning fossil fuels on the climate. Information provided in the report, as well as declarations of representatives of more environmentally concerned countries clearly contrasted with the attitude of the most important Polish politicians, who disregarded the risks associated with further fossil fuels extraction. In order to manifest their concerns, several thousand protesters took part in a huge March for Climate, calling for climate justice and phasing out coal. According to one of the interviewees, it was a non-violent and peaceful march, but police intervened and arrested three ecologists which was perceived as a provocation and a sheer demonstration of power.

Key changes over time

As the empirical findings clearly indicate, the SIE-actors have gradually recognized that the SIE's development depends on their ability to address needs, values and interests of various social groups. This has allowed them to generate different framings against fossil fuels depending on their target audience. Hence, on the one hand, the Climate Camp and Smog Alarms are mostly urban initiatives that engage better-off people who have more resources to spend, e.g. on their health or quality of life. On the other hand, the topic of water protection, threats of resettlement or destruction of local infrastructure resonate more strongly in the countryside.

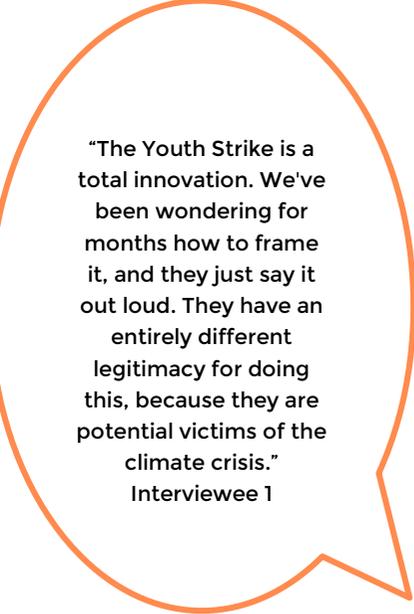
However, the available framings have also changed in time. Some of the interviewees observed that since 2018, issues related to climate change, environmental protection, and green energy have been much more present in mainstream media and, consequently, in public awareness. Even in the countryside, these arguments have been growingly considered relevant. Arguably, the most significant change in public discourse that has taken place in recent years concerns the coal phase-out date. For many years, environmental organisations had been involved in blocking particular investments in the energy sector, but they had resigned from pushing the framing of moving away from coal out of fear of fierce social opposition.

It was the COP24 and the associated international attention paid to the Polish climate policy that finally made it possible to speak out loud about the need to shift away from fossil fuels in Poland. The suggested phase-out date was first announced by Greenpeace just before the Conference. In February 2019, a political party Spring (Polish social liberal and pro-European political party led by Robert Biedroń) came out with a postulate to move away from coal by 2035. The environmental social movements, such as the Youth Climate Strike and the Silesian Climate Movement, quickly picked it up and put it on their banners. Since then, the topic has been most often raised in connection with the Just Transition Fund and the need to set the phase-out date in order to obtain the full amount of funding from the EU.

The COP24 was used as a convenient moment to publish a founding manifesto of the **Silesian Climate Movement**, which currently associates over 170 residents of Upper Silesia. The movement demands phasing out coal in Poland, zero carbon emissions and creating more green jobs. It is a democratically governed, bottom-up initiative with a flat organisational structure, and without any leader. It consists of several working groups dealing with the topics of water protection, food justice, mining industry, and political lobbying, among others.

The very first efforts to initiate the Movement started already in 2017 when a local activist publicly demanded a coal phase-out and more dynamic investments in RES in Silesia. It was a bold declaration because at that time few people spoke openly about the need to move away from coal. It was especially true in Silesia, where the coal lobby historically has been very strong. Nevertheless, during the COP24 demonstration, a few activists from Silesia decided to prepare a banner with a slogan 'Silesia without coal'. According to an interviewee who was initiating the Movement, it was very important for inhabitants of Silesia to start speaking out loud about the fact that energy transition in this region is necessary and possible. There has been a common belief in Poland that

carbon neutrality goals cannot be met, mainly because of the high social costs that Silesia would have to bear in the transition process. This way of thinking has remained from the communist era when the development of this region had indeed been almost fully dependent on the mining industry. However, now there are only around 80,000 people working in Silesian mines (as compared to almost 4,5 million as the total number of inhabitants), while many competitive industries, such as IT, develop dynamically.



“The Youth Strike is a total innovation. We’ve been wondering for months how to frame it, and they just say it out loud. They have an entirely different legitimacy for doing this, because they are potential victims of the climate crisis.”
Interviewee 1

The main problem that the Movement is currently facing is the lack of a coherent strategy. The main goal is to decarbonise the region, but it is unclear which way to follow in order to achieve this aim. The interviewee argued that it would be recommended to create one group being more radical than the others, that could directly engage in supporting some local anti-coal initiatives, e.g. in Imielin (see p. 54). So far, the Movement has organised several protests, for example, a political happening ‘Clean coal doesn’t exist’ during the Earth Strike in Katowice. Several activists taking part in this happening used brushes in an attempt to wash coal, in order to show that Polish authorities conduct ‘coal washing’ by publicly telling fairy tales about clean coal and coal-based energy security.

Just after the Silesian Climate Movement had announced its manifesto, the Youth Climate Strike emerged in Poland. It was inspired by Greta Thunberg and international school strikes Fridays for Future. As some of the interviewees observed, it has become the biggest and the most effective Polish environmental social movement. It is based on a network of smaller initiatives that in September 2019 organised simultaneous protests in around 60 Polish towns. The postulates of the Strike are to introduce the following: climate policies and a climate crisis alert on the state level, climate education in Polish schools, the National Council for Climate, just energy transformation mechanisms in coal-dependent regions, as well as carbon neutrality by 2040.

According to the initiative’s representative, the Polish Youth Strike is deemed as the most successful among all international Fridays For Future. The reason is that it has the strongest base of supporters who take part in numerous strikes across the whole country. While most of the young members have never had anything in common with activism, they managed to develop very efficient structures that hold this huge initiative together. They contact each other mainly on their Facebook group, where members are divided into several working groups responsible for different tasks. There are also regular meetings in Warsaw, during which they discuss their agenda and current issues. The

Strike's ambassadors visit schools and present the initiative to the pupils, encouraging them to join their next protests. Although there is a strong group of opponents among young Polish people, who claim that the climate crisis is a lie, the base of the Strike's supporters is dynamically growing, making this initiative the most powerful ecological social movement in Poland.

"We aim for real effects, a systemic change is our goal. In order to achieve it, we establish contacts with political parties and presidential candidates, communicate our postulates to them, organise meetings. We are most recognizable on climate issues - the presidential candidates talked about us, not about Extinction Rebellion. We're the loudest, we're the most popular, and politicians want to work with us." Interviewee 8

Power and power relations

In SONNET, power is understood as the relational and structural (in)capacity of actors to mobilise resources and institutions to achieve a goal. Power relations in SIE refer to (a) actors having different kinds/levels of power to mobilise SIE-related resources and/or to achieve SIE-related goals, (b) actors having power over others in SIE-related processes, and (c) actors having power with other actors to achieve collective goals (D1.2, 44).

'Power with'

The story of the field's development shows that for years, Polish ecological organisations used to operate in a very classical way. They focused primarily on issuing expert reports or monitoring administrative paths of legal acts and decisions facilitating environmentally harmful investments. However, for most people, this level of activity is not available. To fill this gap, broad ecological movements (e.g. Youth Climate Strike, Earth Strike, Silesian Climate Movement) have been developing in order to give people a sense of agency. As one of the interviewees observed, from a socio-psychological point of view, going out on the streets and observing that 'you know that I know' is often an empowering revelation that motivates to engage even more in the pro-ecological activism, especially for young people.

Moreover, the empirical findings indicate that while at the beginning most of the SIE-initiatives used to have hierarchical structures (e.g. Workshop for All Beings, WWF Poland, Action Democracy Foundation), over time more flat and decentralized organisations emerged, which developed effective collective decision-making mechanisms. For example, in the Silesian Climate Movement, initially, there were some elements of hierarchy introduced with a group of people leading the initiative. However, later the Movement has shifted to the bottom-up coordination based on the method of 'social organising'. The

"It is characteristic for social movements that they 'walk the talk', as opposed to NGOs which can talk about democracy but remain hierarchical organisations with undemocratic decision-making processes"
Interviewee 7

method supports the members in the process of self-organising, with one person functioning as a caretaker of the initiative who is responsible for contacting people and facilitating meetings or decision-making processes. The working groups don't have sharp boundaries, with some members fluctuating between them. It is also very easy to join the Movement. Similarly, the Youth Climate Strike's priority is inclusiveness and creating space for everyone to feel welcome. Therefore, although the organisation received some support from Greenpeace and Extinction Rebellion, it distances itself from these initiatives, not to be associated with their controversial image. The Strike has an almost perfectly flat organisational structure, and anyone willing can easily join the coordinating group. The Strike wants to keep its bottom-up, informal character, but at the same time needs to professionally manage its finances. Therefore, the association 'Friends of the Youth Strike' will soon be created to represent the initiative formally.

'Power over → Power to'

"It seems to me that Polish society is not at all taught to be proactive and to share power. I was only taught by the state education how to give power to somebody else. And if we don't sit at the table and decide on matters concerning our lives, we are most likely a dish on that table." The first Camp for Climate Coordinator³¹

The ultimate goal of the SIE-field-actors has been to decentralise the Polish energy system, that is, taking away the power to produce and distribute energy from a few large energy companies and transferring the agency to a network of RES prosumers. To meet this end, they had to confront the dominant discourse of the energy companies and the Polish government. For example, the energy transition towards shale gas extraction was perceived in terms of keeping the status quo of the centralized, fossil-fuel-powered system, rather than democratising the whole system of energy production and distribution. The state partnered with gas companies in shale gas exploration, excluding citizens and NGOs from the decision-making process. The same approach has been evident in plans to expand brown or hard coal mining sector. However, in the process of changes taking place in the field, it has been found that although the fossil fuels industry and supporting financial institutions might seem all-powerful, there are ways to exert pressure on them, e.g. by applying legal means, using direct pressure through organising marches, strikes, boycotts or methods of civil disobedience. Moreover, the underlying principle of the EU's mechanisms of just energy transition in coal-dependent regions is to include in the decision-making process all interested parties: citizens, local governments, NGOs, scientists, business representatives, etc. In accordance with this, the WWF's Forum of Mayors works towards empowering local officials in the process of developing Territorial Just Transition Plans in a collaborative way, needed for obtaining the EU funds.

³¹ <https://magazynkontakt.pl/sadkowska-odzyskujemy-energie/>

As a result of the growing social awareness, and an increasing number of initiatives conducting anti-coal campaigns in Poland, the year 2019 brought about some successful joint actions. For example, in October, a huge protest at the Parliament took place, where representatives of various initiatives opposed the developments on the special act 'Lex-coal'. The proposed act was to allow the national government to *de facto* decide upon opening a new mine, without consulting the decision with NGOs, local governments or communities, and ignoring local zoning plans as well as strategic environmental assessments. Among the participants of the protest were representatives of all major organisations: the Coalition 'Development Yes - Opencast mining NO', Greenpeace, Workshop for All Beings, Extinction Rebellion, Youth Climate Strike, Climate Camp, as well as local governments' officials, representatives of local communities, scientists and experts. Altogether there were around 400 protesters. The banners read: "Who rules over Poland - coal lobby or citizens?", "Leave coal underground", "Poland without coal". There was also a large model of a brown coal excavator prepared by the protesters. Additionally, eight organisations signed a letter addressed to the Prime Minister calling for a withdrawal of the controversial act, which has ultimately happened. Another example of a successful joint initiative was a campaign led by the coalition 'Stop Ostroleka C Power Plant' to oppose the plans of building a new power plant unit in Ostroleka.

SIE changing social relations

In the SONNET's terminology, social innovations in the energy sector (SIE) are combinations of ideas, objects and/or actions that change social relations and involve new ways of doing, thinking and/or organising energy (D1.2, 4). Since energy systems do not only consist of techno-economic features but also various socio-cultural processes, the SIE development contributes to shifting social interactions between actors who have to undergo changes concerning their roles, practices and beliefs (Schmid et al. 2016).

Since the SIE-field-actors have been working towards the same goal, i.e. the decarbonisation of the Polish energy sector and development of RES, their relations are predominantly based on cooperation. According to Wittmayer et al. (2020), cooperation is an interaction that occurs when people work together to achieve shared goals, often when faced with a common threat. Indeed, the SIE-field has emerged from the conflict between the SIE-field-actors and the all-powerful fossil fuels industry, which enhances solidarity in the field. As the field is relatively small, even when the SIE-actors operate in different contexts and use different

tools, they still work in close cooperation, supporting and learning from each other. This cooperation might engage actors on different levels of aggregation (e.g. representatives of local communities, ecological organisations, social movements or coalitions, as well as interested individuals taking part in the protest against the 'Lex coal' Act), but also from different societal spheres (e.g. the process of just transition in Eastern Wielkopolska that engages representatives of various sectors: market, state, community, third sector etc.) (Avelino and Wittmayer, 2016).



October 2019: Representatives of local communities from Belchatow and Upper Silesia protesting together at the Parliament against the special act 'Lex-coal'³².

³² Source: <https://www.rybnik.com.pl/index.php/wiadomosci,specustawa-skreslona-z-czytania-presja-ma-sens,wia5-3266-42361-2.html>

Regulative, normative and cultural-cognitive institutions

According to Scott, institutions are „multifaceted, durable social structures, made up of symbolic elements, social activities, and material resources” and they „comprise regulative, normative and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life.” (2014, 56-57). One of the SONNET’s objectives is to understand how regulative, normative and cultural-cognitive elements of the dominant outside institutions influence the emergence and development of SIE, i.e. their social relations and patterns of doing, organising and thinking. (D3.1, 18) The ‘doing’ aspect of a SIE is defined in SONNET as referring to practices related to the physical composition of the energy system. ‘Organising’ relates to governance and organisational structures within SIE-initiatives and the energy system. Finally, the ‘thinking’ aspect refers to all forms of knowledge and normative framings, including values and perceptions (D3.1, 15).

The **regulative pillar** of institutions relates to rules, laws, policies, standards, and sanctions that are the key elements and mechanisms of compliance in these institutions (D1.2, 21). It guides “action and perspectives by coercion or threat of legal sanction” (Hoffman 1999). The SIE-field-actors started to leverage the regulative institutions relatively recently. Initially, opposition to the fossil fuels extraction manifested itself in organising protests or writing expert reports proving the harmfulness of conventional energy pathways. Over time, environmental organisations began to see an opportunity to achieve their goals also by legal means. One example is the ClientEarth Foundation, which in 2019 filed an unprecedented lawsuit against the owner of Bełchatów Power Plant, PGE GiEK. The Foundation demanded that the court order PGE GiEK to abandon coal combustion in Bełchatów Power Plant by 2035 at the latest or to install devices eliminating CO2 emission by the same date. During the trial, the court stated that the climate crisis is a fact for which coal companies bear partial responsibility. The court obliged both sides of the process to hold conciliatory talks on limiting the impact of the Bełchatów Power Plant on the climate and environment. Moreover, the ClientEarth Foundation became a shareholder of Enea and won two cases against the energy company, ordering Enea to disclose documents proving the profitability of investing in the power plant Ostrołęka C construction. Ultimately, the company has suspended the project’s financing. Successful application of legal measures has primarily contributed to pushing more effectively the framing that Polish energy

companies, which have been long perceived as all-powerful, may be held responsible for actions that are harmful to the environment or economically unjustified (i.e. the 'thinking' aspect of SIE).

The **normative pillar** of institutions takes the „form of rules-of-thumb“ (Hoffman 1999) with regard to values, social norms, duties, and role expectations in a particular field (Scott 2001). Actors adhere to these guidelines, as their actions and beliefs are guided forms of social obligation and professionalization (D1.2, 21). This pillar clearly manifests itself in the case of actors impeding the development of the SIE-field, i.e. trade unions of miners. Local communities or environmental activists engaging in protests against the mining industry confront not only energy companies but also miners. As one of the interviewees explained, miners have a strong work ethic and tend to be very pragmatic. Financial considerations are more important to them than abstract problems related to the climate crisis. Some of them even claim that the climate crisis has been invented by the UE and RES producers to oppress the Polish coal industry. As a consequence, miners often consider environmentalists as villains who want to deprive them of their workplaces. In some cases, miners are threatened by trade unionists of losing their jobs if they decide to join the protests. Apparently, there exists a very strong pressure to protect their workplaces, especially from union leaders. Sometimes they even decide to take more drastic measures. For example, during the last protest in Imielin, union leaders became aggressive towards the local protesters, shouting: "Let's get the green weeds out", or "The hand raised to the mining industry will be cut off". It was only retired miners who took the side of protesters, as they are no longer under the pressure of the mine's management, trade unions and other miners. In the presence of such strong resistance, local communities protesting against fossil fuels extraction (e.g. from Imielin) have to seek allies outside their own towns or villages. This influences the way how protesters organise their activities: some of them take place on-site, but others require travelling (in order to exchange experiences and get support from more experienced actors). Excursions might be organised to support protests in neighbouring towns, but also to attend conferences held by larger NGOs or meetings with representatives of foreign institutions (i.e. the 'organising' aspect of SIE).

The **cultural-cognitive** pillar of institutions refers to the socially constructed, shared conceptions of reality, binding expectations and common beliefs with which the world is interpreted or meaning is given, such as symbols, discourses and cultural categories (D1.2, 22). One of the main goals of the SIE-field-actors has been to move away from the highly centralised Polish energy system, greatly dependent on fossil fuels, to decentralised energy production based on RES prosumerism. This shift would not be possible without changing the dominant social discourse determining who can demand to take part in the discussion about the direction of the energy sector development. In the conventional approach, only large energy

companies and the national government are seen as competent actors who should make all decisions on behalf of the whole society. Ordinary citizens are considered to be laymen without the necessary knowledge and skills to speak up on issues deemed strictly technical. The SIE-field-actors, however, have developed alternative narratives, according to which the energy transition process is primarily a social phenomenon. The way energy is produced and consumed directly affects different social groups - citizens, entrepreneurs, local governments, scientists, youth, activists, etc. - therefore, they should all be involved in the decision-making process. This alternative framing concerns reclaiming agency by actors whose voices have not been previously heard (i.e. the 'thinking' aspect of SIE). However, with regard to the peripheral position occupied by the change agents, which prevented them from speaking out and being heard, the SIE-actors have often engaged in direct actions of physically occupying fossil fuels extraction sites (e.g. Zurawlow inhabitants, Greenpeace activists in Ostroleka, Climate Camp activists in Drzewce), organising marches (e.g. Earth Strike, Youth Climate Strike) or protests and boycotts (e.g. Extinction Rebellion, protest against the 'Lex coal' act, inhabitants of Gubin and Brody, or Eastern Wielkopolska). Blocking streets, excavators, entrances to banks or passages to the Parliament allowed protesters to become visible and their demands to be heard by the broader public. Therefore, by skilfully introducing to their practices the material realm of the energy system, even a handful of protesters can spark a far-reaching discussion (i.e. the 'doing' aspect of SIE).

PHASE 5: Striving for a just transition of the coal-dependent regions

Context: In April 2016 the Paris Agreement was signed by the Prime Minister Beata Szydło. The main long-term goal of this agreement is to keep the increase in global average temperature to well below 2 °C above pre-industrial levels. Limiting the increase to 1.5 °C would substantially reduce the risks related to climate change. In December 2017 an initiative 'Platform on Coal Regions in Transition' was established by the European Commission to support the EU regions heavily dependent on the hard coal or lignite industry. The aim has been to develop, in cooperation with local communities and experts, regional energy transition strategies toward low-carbon economies. In Poland, there are three regions that belong to the Platform: Silesia (since 2017), Wielkopolska and Lower Silesia (both since 2018). The regions can receive significant financial support for their energy transition plans from the Just Transition Mechanism, which was launched in January 2020 as a part of the European Green Deal Investment Plan. Initially, Poland had been about to receive EUR 8 billion, which would have made the country the largest beneficiary of the Fund. However, at the European

Council Summit in July 2020, Prime Minister Morawiecki has negotiated new terms of the Deal that reduced the Fund's resources by half. This may have a negative impact on the transition plans prepared by Polish coal regions, which as a result may set much less ambitious goals than previously expected.

In order to receive the funding, Poland should present Territorial Just Transition Plans for the coal regions by the end of 2020. To meet this end, in 2018 WWF established the **Forum of Mayors**, an initiative aimed at informing and bringing together mayors from coal regions in Poland and abroad. The NGO has also been engaged in lobbying for public consultations of the territorial plans with the involvement of local governments, communities and experts.

"Our goal is to empower local governments in the process of coal regions' just transition to obtain funding. We want the process to take place in the form of a dialogue. The voice of mayors and their vision of change need to be taken into account when preparing the transition plans. It needs to be a truly participatory process and not a transition prepared somewhere on the desks in Warsaw or in the central office in the region." Interviewee 1

In order to enable an inclusive public dialogue, WWF has framed the energy transition concept as accommodating interests of both miners and ecologists. It has stressed that the economy based on extracting coal is unsustainable both ecologically, and financially. This was based on recognizing that by using economic narratives and financial arguments, it can be convincingly shown what the actual costs of keeping the *status quo* are, including health and environmental costs. This way of reasoning has allowed engaging all interested parties in the process, regardless of the differences between various worldviews.

"We focus on the local governments of the coal regions and we want to encourage them to prepare their future themselves. We provide them with knowledge, take them to Brussels, show them which tools they can use to reach their goals. And by doing so, we want the projects that will be submitted to the Just Transition Fund to be consistent with our idea: that they will be inclusive and supportive of the green economic growth. Although my ultimate goal is to move away from coal as soon as possible, my work focuses on removing that stone lying in the middle of the road and dismantling it as quickly as possible without harming anyone." Interviewee 1



"The Forum of Mayors is an innovation because we break a certain barrier between a global NGO and local governments. There is little trust in NGOs in Poland."
Interviewee 1

Introduction to the selected SIE-initiative 2

According to some of the interviewees, the exemplary process of just energy transition has been taking place in the eastern part of Wielkopolska Voivodship. Only three years ago it was difficult to imagine that the direction of further development of this coal-based region could shift to a greener one. As one interviewee explained, there are two main reasons for this. First, the local economy has been dependent to a large extent on the largest private energy group in Poland Zespół Elektrowni Pątnów-Adamów-Konin SA (ZE PAK). ZE PAK owns two mines (KWB Konin and KWB Adamów), and three lignite-fired power plants (Pątnów I, Pątnów II and Konin) - all based in the region. The longlasting Eastern Wielkopolska's strong dependence on the coal industry has made it difficult to discuss alternative strategies for the future of the region. Maintaining its prosperity was perceived as inevitably linked to the continued operation of the lignite mines and power plants. Second, state support for regions departing from coal has been traditionally directed primarily at Silesia, where there is a high concentration of mining industry. As it was mainly state-owned companies that operated in Silesia, it was believed that this was where public money should go. As a result, the region of Eastern Wielkopolska was repeatedly overlooked in support measures, and the challenges associated with the process of restructuring the sector providing employment to a significant part of the population were being belittled.

It was urban activists from Konin (the main city in the region) who, with the help of larger NGOs, had worked tirelessly on the admission to the pilot programme of the European Platform on Coal Regions in Transition. This initiated the process of involving more actors at the municipal, regional and national level in the discussions about the future development of the region. It has ultimately led to a broad transdisciplinary collaboration on developing a strategic plan of the region's just transition towards decarbonisation. As a result, a strategic document entitled "The Concept of Just Transition for Eastern Wielkopolska" was recently created, according to which the region is to achieve climate neutrality by 2040. Eastern Wielkopolska is to become a national leader in green transformation: a leading producer of energy from renewable sources and an exporter of hydrogen.

In June 2017, the 'Development YES - Open-Pit Mines NO' Foundation organised the Conference "Konin. Return to the future", during which a Green politician and an activist from the Action Konin Association (Pol. Stowarzyszenie Akcja Konin; launched in 2011, aimed at supporting the development of Konin and improving the quality of life for its inhabitants) first spoke out loud: "We are moving away from coal". The document review revealed that the conference was attended by



“Sometimes we forget what a big deal it can be for local initiatives to be involved in the Brussels processes; to take a picture when you are involved in negotiations with the Commission. When they returned, their status changed completely.”
Interviewee 2

local government representatives, urban activists, trade unionists and residents. A proposal was made to create a space for collective discussion about the future of Konin and the whole region. It was also emphasized that properly conducted transformation would be a valuable opportunity for the region to develop socially, economically and technologically. Shortly afterwards, the organisers decided to hold another conference "We heat up Konin. How to best provide heating to the city and the inhabitants of Konin municipality?". The conference took place in January 2018 in response to problems with heating in the city due to the temporary closure of the power plant. As one of the interviewees explained, this topic was used to implicitly suggest the need to reduce the region's dependence on coal.

Around that time, the urban activists' application to join the pilot programme of the Platform on Coal Regions in Transition was accepted. Several interviewees stressed that this was a great success and provided the activists with necessary publicity and access to valuable tools for systemic regional change. Establishing contact with a European institution, which resulted in gaining its political and financial support, helped to change the narrative about the future of the region, but also to empower its inhabitants and local government. As a result, in February 2018, the first working meeting of the Platform took place in Brussels, attended by a Green politician from the Action Konin Association. This was when the local government noticed that the region could gain a lot from developing direct connections with the EU institution. In a consequence, the officials applied to the European Commission to formally join the Platform. Having been accepted, the representatives of the local government participated in the second working session of the Platform in July 2018.

According to one of the interviewees, the first evident change in the local political narrative was Maciej Sytek's standing as a candidate in elections to a voivodeship sejmik (provincial assembly) in October 2018. In his campaign, he included elements of the green energy transition programme. Over time, more actors began to share this approach, which was formally expressed in the "Agreement for just energy transformation of Eastern Wielkopolska" signed in April 2019 by over 40 entities from public, private and non-governmental sectors. It was an important step in the Platform's negotiation process, proving that various actors in the region were ready to carry out the just energy transition process in a collaborative way. Importantly, ZE PAK was also a signatory of the Agreement. The company submitted eight projects which were presented to the European Commission, including the construction of photovoltaic and wind farms and the adaptation of the

coal installation to burn biomass. Moreover, the decision was made to involve the inhabitants more strongly in the process. As a result, in 2019 a series of debates were held with the residents of Konin as part of the project "Sustainable agriculture and food in Eastern Wielkopolska in the context of the energy transition".

Some of the interviewees argued that the agreement between all partners at the regional level was a landmark step in the just transition process, but it quickly became clear that without governmental support the transformation could not succeed. Thus, in June 2019, an appeal called "Plan, Participation, Agreement" (Pol. „3P: Plan, Partycypacja, Porozumienie”) was made to the Prime Minister to create support measures for all coal-dependent regions, as well as a round table dedicated to their just transformation. The appeal was prepared a response to information that appeared in the local media concerning plans to reduce employment in ZE PAK SA. It was prepared and signed by Akcja Konin and other organisations from the region, but also the Foundation 'Development YES - Open-Pit Mines NO', EKO-Unia, as well as the Polish Green Network.

Soon afterwards, some important changes were introduced at the governmental level. In November 2019 the Parliamentary Panel for Just Energy Transition was established, and in June 2020, the first meeting dedicated to developing the regional transition plan was held. Four separate groups were working on different topics: environment, energy, infrastructure and social challenges. Moreover, around that time, a Round Table for eastern Wielkopolska was initiated by the Ministry of Development. Soon, the working groups will be joined by representatives of other ministries, among others the Ministry of Funds and Regional Policy.

The Regional Development Agency in Konin has set three main goals for the energy transition process: providing new workplaces, ensuring income for local governments, and improving the quality of life for inhabitants through the delivery of public services. According to one of the interviewees, the activists are currently struggling to ensure that the topics of water resources and environmental protection are included in the regional development plan. They have also been engaged in protests against opening the Oscisłowo opencast mine located near Konin (the final decision was made in September 2020 to withdraw from the plans of opening this mine). They have received support primarily from the 'Development YES - Open-Pit Mines NO' Coalition but are also strongly supported by the Polish Green Network and EKO-Unia. Additionally, they work closely with

the Ecological Association 'Eko - Przyjezierze' which has been working since 2007 to protect the Ostrowskie Lake and Gniezno Lake District in the area of influence of the Konin brown coal mine. The activists also have connections with the Silesian Climate Movement and the Green Imielin Association (see p. 54), supporting each other in their protests against opening new mines and exchanging lessons learnt regarding their participation in the Platform on Coal Regions in Transition.

Policies and policy making

One of the SONNET's research questions is which role policy mixes play in SIE processes. The following definition has been adopted: Policy mixes of relevance for SIE encompass policy strategies and instrument mixes at different governance levels and policy fields which enable or impede the development of SIE, and have developed incrementally over many years through policy processes. Particular attention is paid to the co-evolution between policy mixes and SIE within the energy system, as well as to the multi-level nature of policy mixes and the role of SIE in policymaking (D1.2, 49-50).

As the empirical findings suggest, although the ultimate goal of the SIE-field-actors has been to influence the national policymaking, they have engaged in direct lobbying only to a limited extent. This is because the Polish government has been strongly supportive of the fossil fuels industry and pro-environmental MPs have been few and far between. In the context of such an unfavourable structure of the political scene, the SIE-field-actors, a relatively small group, had to look for alternative ways to apply political pressure. Only recently, with the dynamic development of the broader environmental movement, some of the SIE-initiatives started to be perceived as having real political agency (e.g. Youth Climate Strike).

Among the most important ways of exerting indirect political pressure by the SIE-actors are the following:

- pushing financial institutions to withdraw from providing finance to the coal sector and insuring new coal projects; this has ultimately made further development of the fossil fuels industry economically unfeasible;
- uncovering deficiencies in Poland's implementation of the EU climate, environmental or energy regulations (e.g. in the case of anti-fracking protests in Zurawlow, anti-smog campaigns, or protests against opening an open-pit mine in Oscislowo);
- organising local referenda on opening new open-pit mines (e.g. in Gubin and Brody);

- writing petitions to the European Parliament, e.g. to make the results of the local referendum on planned coal investments in Legnica binding, or to take away the license for continued operation of existing Turów lignite mine in Bogatynia;
- MEPs' mediating between local communities and the Polish government by writing petitions regarding a withdrawal from the planned fossil fuels investments (e.g. in the case of the anti-fracking protests in Zurawlow).

In the case of the just energy transition in coal-dependent regions, ecological activists and/or local governments have been striving to join the EU's Platform on Coal Regions in Transition and to receive funding from the Just Transition Mechanism. They also aim to create Territorial Just Transition Plans in a collaborative way with active participation of all interested parties and officials representing all governance levels. However, the Polish government, under the influence of the mining lobby, has blocked some of the EU's arrangements towards achieving carbon neutrality and has been postponing the coal phase-out date, which results in a reduction of the Fund's resources for Poland. So far, the only effective just energy transition process is taking place in Eastern Wielkopolska. What distinguishes the region is the fact that the owner of the coal infrastructure, ZE PAK, is a private company. For this reason, unlike state-owned energy companies, it could independently decide to move away from coal and to resign from opening the last open pit mine in Oscislowo. The situation in almost all other coal-dependent regions is much more unpredictable, as the mines and power plants belong to the state-owned companies that are dependent on decisions taken by the national government. Since the coal phase-out date, detailed strategy for energy transition and schedule for closing subsequent mines have still not been approved, these regions are operating in a highly uncertain environment. Local governments cannot plan a long-term transition towards a green economy nor can be confident they will receive any EU funding. Overall, this indecisiveness of the national government has a negative impact on the long-term socio-economic development in many coal-dependent regions in Poland.

The **Green Imielin Association** (Pol. Stowarzyszenie Zielony Imielin), based in the small Silesian town of Imielin, is another good example of a bottom-up initiative aiming at changing the policy of a large energy company and developing a green strategy for the region's development within the Platform on Coal Regions in Transition. For many years, both local communities and larger NGOs were afraid to openly oppose the mining industry in Silesia as it seemed all-powerful and benefiting from strong public support. As one interviewee said, 20 years ago, every third household in Imielin was sustained by a miner. Therefore, the prevailing belief was that as Silesia has been dependent on coal extraction

for decades, it should never change. Nevertheless, in 2017 the Green Imielin Association was created which, in cooperation with local environmental organisations and informal community groups, organised protests against the plans to extend the existing Piast-Ziemowit mine by its owner, PGC (a Polish joint-stock company, the largest mining company in Europe and the largest hard coal producer in the EU). According to these plans, hard coal is to be mined under the terrains where houses and infrastructure were not properly strengthened, as the inhabitants were previously assured that there would be no extraction there. Among the main risks related to expanding the mine, residents have pointed to the probable cracking and tilting of houses and infrastructure, as well as potential damages to a drinking water tank providing water for around 1/3 of Silesia inhabitants.

As one of the interviewees observed, the Association's members realised that it would be difficult for them to achieve their goals on their own, hence they turned to look for allies both inside and outside the region. Soon, they joined forces with inhabitants from the nearby towns - Rybnik, Pszczyna and Mysłowice - who have been facing similar threats related to opening new hard coal mines in their neighbourhoods. Also, at a protest in Katowice, the Association's members met representatives of large ecological NGOs: the 'Development YES - Opencast mining NO' Foundation, Greenpeace, and Polish Green Network who connected them with other activists and organisations. Soon, they received some broader support and became a well-known case among Polish anti-coal initiatives and environmental organisations. Up to date, they organised a demonstration "Chain of Hands for Imielin", co-organised (with the association "Borders of Nature" - Pol. "Granice Natury") a picket in front of the headquarters of the Regional Directorate for Environmental Protection in Katowice and co-organised (with the association "Our Imielin" - Pol. "Nasz Imielin") a road blockade in Imielin. They also participated in some protests in other towns, supporting their colleagues from other locations.

The local community also received support from abroad. In 2018, the Association's representatives went to Brussels to take part in the meeting of the Platform on Coal Regions in Transition. This has had a similarly empowering effect on them as on the activists involved in the just transition of Eastern Wielkopolska. Also, in December 2018 Imielin welcomed the Climate Pilgrimage. International activists walked for over 1500 km from the Vatican to Katowice for the COP24 climate summit. For this occasion, Imielin activists organised a concert and meetings of pilgrims with school

"Foreign activists from the Climate Pilgrimage were absolutely exotic to children at school, they were very impressed. Imielin is a small town, this event really made history for us here."

Interviewee 5

children about the climate crisis. It turned out to be a very special event for pupils who heard about many important climate-related issues for the first time. In addition to the pilgrimage, the COP24 has also brought about an unexpected effect of drawing media attention to the case of Imielin. Before, when the residents had tried to get the media interested in their dispute with the energy company, no Polish newspaper, neither local nor national, had wanted to write about it. It was only when the foreign press and television covered the story in relation to the COP24, Polish journalists started coming to Imielin.

"Three years ago, we kept hearing that we wouldn't do anything. But now a lot has changed - we have the pandemic and reduced demand for coal, the Green Deal and Just Transition Fund, horrendous Polish coal prices." Interviewee 5

Although the anti-coal protests in Imielin have not been the first ones in Silesia, this is the first time that local communities have managed to gain such wide publicity. The opposition of Silesian residents to the opening of new mines has so far been ignored (e.g. as in the case of the protests in Mysłowice in 2014). Activists and residents from Imielin have managed to break through into the public consciousness thanks to their cooperation with the media (since the first protest they have consistently reported on everything, even if initially it had not attracted much interest) and environmental organisations: local, national and international. Representatives of the Association have also tried to be visible by participating and speaking at important events, such as COP24 or the protest against the 'Lex coal' act. Moreover, as one of the interviewees noted, they have not let anyone tell them that they would not be able to do anything, despite strong pressure from the mining community. The protests consolidated the inhabitants, who had been told for a long time that they had no power "because this is Silesia and coal is mined here."

Based on the document review, it became apparent that one of the greatest strengths of the Imielin community has been the close cooperation between residents and officials. The residents and activists organise demonstrations and exert pressure on the management of the mine, while the mayor's office seeks legal and administrative solutions. In October 2018, the Regional Directorate for Environmental Protection issued a positive environmental decision for the mine expansion, which was challenged by the city authorities. Then, more than one thousand inhabitants (as compared to the total population of 9175 people) signed the petition against the planned investment. Finally, in March 2020, the municipality appealed to the Administrative Court in Warsaw. Since then, the case is still unresolved.

Diversity, contestations and relations between actors

As the empirical findings suggest, close cooperation, shared aims and interests between local governments, communities and ecological organisations have not always been the case. For example, in a conflict over extending the Turów open-pit mine situated close to the border with the Czech Republic and Germany, activists from the Foundation 'Development YES - Open-Pit Mines NO' have acted against the local community and local government. The activists from the three countries formed a cross-border coalition and sent a joint petition to the European Parliament demanding to take away the license for opening the new mine and to extinguish the Turow mining complex within 10 years. In response, 30 thousand local supporters of the mine signed their own petition, endorsing the investment of the mining company. The CEO of PGE has stated that the ecologists' demands are irrational since there are much larger lignite mines operating in the close neighbourhood in the Czech Republic and Germany. Moreover, PGE's assets meet all emission standards. Also, according to the CEO, the Turów mining complex plays a very important role in Lower Silesia: providing jobs and reliable power supply. The Polish government has shown its solidarity with PGE and Turow residents by supporting the investment plans. As a consequence, the European Commission has rejected the region's application for the Platform on Coal Regions in Transition. The decision was justified by the fact that the region does not intend to decarbonise, but rather plans to extract coal for the next 24 years, i.e. until the license expires. Thus, the region lost the opportunity to access substantial funds that could be invested in dynamic social and economic development.

6 Summary, synthesis and conclusions

6.1 How do SIEs and SIE-fields emerge, develop and institutionalise over time?

The story of the field's development shows that for years, Polish ecological organisations used to operate in a very traditional way. They focused primarily on issuing expert reports or monitoring administrative paths of legal acts and decisions facilitating environmentally harmful investments. However, for most people, this level of activity is not available. To fill this gap, broad ecological movements (e.g. Youth Climate Strike, Earth Strike, Silesian Climate Movement) have been developing in order to give people a sense of agency. As one of the interviewees observed, from a

socio-psychological point of view, going out on the streets and observing that 'you know that I know' is often an empowering revelation that motivates to engage even more in the pro-ecological activism, especially for young people.

Moreover, the empirical findings indicate that while at the beginning most of the SIE-initiatives used to have hierarchical structures (e.g. Workshop for All Beings, WWF Poland, Action Democracy Foundation), over time more flat and decentralized organisations emerged, which developed effective collective decision-making mechanisms. For example, in the Silesian Climate Movement, initially, there were some elements of hierarchy introduced with a group of people leading the initiative. However, later the Movement has shifted to the bottom-up coordination based on the method of 'social organising'. The method supports the members in the process of self-organising, with one person functioning as a caretaker of the initiative who is responsible for contacting people and facilitating meetings or decision-making processes. The working groups don't have sharp boundaries, with some members fluctuating between them. It is also very easy to join the Movement. Similarly, the Youth Climate Strike's priority is inclusiveness and creating space for everyone to feel welcome. The Strike has an almost perfectly flat organisational structure, and anyone willing can easily join the coordinating group.

The ultimate goal of the SIE-field-actors is to decentralise the Polish energy system, that is, taking away the power to produce and distribute energy from a few large energy companies and transferring the agency to a network of RES prosumers. To meet this end, they had to confront the dominant discourse of the energy companies and the Polish government. For example, the energy transition towards shale gas extraction was perceived in terms of keeping the status quo of the centralized, fossil-fuel-powered system, rather than democratising the whole system of energy production and distribution. The state partnered with gas companies in shale gas exploration, excluding citizens and NGOs from the decision-making process. The same approach has been evident in plans to expand brown or hard coal mining sector. However, in the process of changes taking place in the field, it has been found that although the fossil fuels industry and supporting financial institutions might seem all-powerful, there are ways to exert pressure on them, e.g. by applying legal means, using direct pressure through organising marches, strikes, boycotts or methods of civil disobedience. Moreover, the underlying principle of the EU's mechanisms of just

energy transition in coal-dependent regions is to include in the decision-making process all interested parties: citizens, local governments, NGOs, scientists, business representatives, etc. In accordance with this, the WWF's Forum of Mayors works towards empowering local officials in the process of developing Territorial Just Transition Plans in a collaborative way, needed for obtaining the EU funds.

The SIE-actors have gradually recognized that the SIE's development depends on their ability to address needs, values and interests of various social groups. This has allowed them to generate different framings against fossil fuels depending on their target audience. Hence, on the one hand, the Climate Camp and Smog Alarms are mostly urban initiatives that engage better-situated people who have more resources to spend, e.g. on their health or quality of life. On the other hand, the topic of water protection, threats of resettlement or destruction of local infrastructure resonate more strongly in the countryside.

However, the available framings have also changed in time. Some of the interviewees observed that since 2018, issues related to climate change, environmental protection, and green energy have been much more present in mainstream media and, consequently, in public awareness. Even in the countryside, these arguments have been growingly considered relevant. Arguably, the most significant change in public discourse that has taken place in recent years concerns the coal phase-out date. For many years, environmental organisations had been involved in blocking particular investments in the energy sector, but they had resigned from pushing the framing of moving away from coal out of fear of fierce social opposition.

It was the COP24 and the associated international attention paid to the Polish climate policy that finally made it possible to speak out loud about the need to shift away from fossil fuels in Poland. The suggested phase-out date was first announced by Greenpeace just before the Conference. In February 2019, a political party Spring (Polish social liberal and a pro-European political party led by Robert Biedroń) came out with a postulate to move away from coal by 2035. The environmental social movements, such as the Youth Climate Strike and the Silesian Climate Movement, quickly picked it up and put it on their banners. Since then, the topic has been most often raised in

connection with the Just Transition Fund and the need to set the phase-out date in order to obtain the full amount of funding from the EU.

Since the SIE-field-actors have been working towards the same goal, i.e. the decarbonisation of the Polish energy sector and development of RES, their relations are predominantly based on cooperation. Indeed, the SIE-field has emerged from the conflict between the SIE-field-actors and the all-powerful fossil fuels industry, which enhances solidarity in the field. As the field is relatively small, even when the SIE-actors operate in different contexts and use different tools, they still work in close cooperation, supporting and learning from each other. This cooperation might engage actors on different levels of aggregation (e.g. representatives of local communities, ecological organisations, social movements or coalitions, as well as interested individuals taking part in the protest against the 'Lex coal' Act), but also from different societal spheres (e.g. the process of just transition in Eastern Wielkopolska that engages representatives of various sectors: market, state, community, third sector etc.)

6.2 How do SIE-field-actors and other field-actors interact with the 'outside' institutional environment and thereby co-shape the SIE-field over time?

One of the main goals of the SIE-field-actors has been to move away from the highly centralised Polish energy system, greatly dependent on fossil fuels, to decentralised energy production based on RES prosumerism. This shift would not be possible without changing the dominant social discourse determining who can demand to take part in the discussion about the direction of the energy sector development (i.e. the cultural-cognitive pillar of institutions). In the conventional approach, only large energy companies and the national government are seen as competent actors who should make all decisions on behalf of the whole society. Ordinary citizens are considered to be laymen without the necessary knowledge and skills to speak up on issues deemed strictly technical. The SIE-field-actors, however, have developed alternative narratives, according to which the energy transition process is primarily a social phenomenon. The way energy is produced and consumed directly affects different social groups - citizens, entrepreneurs, local governments, scientists, youth, activists, etc. - therefore, they should all be involved in the decision-making

process. This alternative framing concerns reclaiming agency by actors whose voices have not been previously heard (i.e. the 'thinking' aspect of SIE). However, with regard to the peripheral position occupied by the change agents, which prevented them from speaking out and being heard, the SIE-actors have often engaged in direct actions of physically occupying fossil fuels extraction sites (e.g. Zurawlow inhabitants, Greenpeace activists in Ostroleka, Climate Camp activists in Drzewce), organising marches (e.g. Earth Strike, Youth Climate Strike) or protests and boycotts (e.g. Extinction Rebellion, protest against the 'Lex coal' act, inhabitants of Gubin and Brody, or Eastern Wielkopolska). Blocking streets, excavators, entrances to banks or passages to the Parliament allowed protesters to become visible and their demands to be heard by the broader public. Therefore, by skilfully introducing to their practices the material realm of the energy system, even a handful of protesters can spark a far-reaching discussion (i.e. the 'doing' aspect of SIE).

The normative pillar of institutions clearly manifests itself in the case of actors impeding the development of the SIE-field, i.e. trade unions of miners. Local communities or environmental activists engaging in protests against the mining industry confront not only energy companies but also miners. As one of the interviewees explained, miners have a strong work ethic and tend to be very pragmatic. Financial considerations are more important to them than abstract problems related to the climate crisis. Some of them even claim that the climate crisis has been invented by the UE and RES producers to oppress the Polish coal industry. As a consequence, miners often consider environmentalists as villains who want to deprive them of their workplaces. In some cases, miners are threatened by trade unionists of losing their jobs if they decide to join the protests. Apparently, there exists a very strong pressure to protect their workplaces, especially from union leaders. Sometimes they even decide to take more drastic measures. For example, during the last protest in Imielin, union leaders became aggressive towards the local protesters, shouting: "Let's get the green weeds out", or "The hand raised to the mining industry will be cut off". It was only retired miners who took the side of protesters, as they are no longer under the pressure of the mine's management, trade unions and other miners. In the presence of such strong resistance, local communities protesting against fossil fuels extraction (e.g. from Imielin) have to seek allies outside their own towns or villages. This influences the way how protesters organise their activities: some of them take place on-site, but others require travelling (in order to exchange experiences and get support from

more experienced actors). Excursions might be organised to support protests in neighbouring towns, but also to attend conferences held by larger NGOs or meetings with representatives of foreign institutions (i.e. the 'organising' aspect of SIE).

The SIE-field-actors started to leverage the regulative institutions relatively recently. Initially, opposition to the fossil fuels extraction manifested itself in organising protests or writing expert reports proving the harmfulness of conventional energy pathways. Over time, environmental organisations began to see an opportunity to achieve their goals also by legal means. One example is the ClientEarth Foundation, which in 2019 filed an unprecedented lawsuit against the owner of Bełchatów Power Plant, PGE GiEK. The Foundation demanded that the court order PGE GiEK to abandon coal combustion in Bełchatów Power Plant by 2035 at the latest or to install devices eliminating CO2 emission by the same date. During the trial, the court stated that the climate crisis is a fact for which coal companies bear partial responsibility. The court obliged both sides of the process to hold conciliatory talks on limiting the impact of the Bełchatów Power Plant on the climate and environment. Moreover, the ClientEarth Foundation became a shareholder of Enea and won two cases against the energy company, ordering Enea to disclose documents proving the profitability of investing in the power plant Ostrołęka C construction. Ultimately, the company has suspended the project's financing. Successful application of legal measures has primarily contributed to pushing more effectively the framing that Polish energy companies, which have been long perceived as all-powerful, may be held responsible for actions that are harmful to the environment or economically unjustified (i.e. the 'thinking' aspect of SIE).

In the case of the just energy transition in coal-dependent regions, ecological activists and/or local governments have been striving to join the EU's Platform on Coal Regions in Transition and to receive funding from the Just Transition Mechanism. They also aim to create Territorial Just Transition Plans in a collaborative way with active participation of all interested parties and officials representing all governance levels. However, the Polish government, under the influence of the mining lobby, has blocked some of the EU's arrangements towards achieving carbon neutrality and has been postponing the coal phase-out date, which results in a reduction of the Fund's resources for Poland. So far, the only effective just energy transition process is taking place in the Eastern Wielkopolska. What distinguishes the region is the fact that the owner of the coal infrastructure, ZE

PAK, is a private company. For this reason, unlike state-owned energy companies, it could independently decide to move away from coal and to resign from opening the last open pit mine in Oscislowo. The situation in almost all other coal-dependent regions is much more unpredictable, as the mines and power plants belong to the state-owned companies that are dependent on decisions taken by the national government. Since the coal phase-out date, detailed strategy for energy transition and schedule for closing subsequent mines have still not been approved, these regions are operating in a highly uncertain environment. Local governments cannot plan a long-term transition towards a green economy nor can be confident they will receive any EU funding. Overall, this indecisiveness of the national government has a negative impact on the long-term socio-economic development in many coal-dependent regions in Poland.

6.3 What are the enabling and impeding factors for SIE-field-actors and other field-actors to conduct institutional work and change the 'outside' institutional environment?

The empirical findings indicate that in the Polish energy sector, there has been a prevailing myth, according to which phasing out coal is impossible because of its strategic role in ensuring the country's energy security. Such a strong belief is a leftover from the times of the Polish People's Republic, when the mining industry was in its bloom, upholding the country's economy based on heavy industry. Moreover, it is believed that the mining sector is too extensive to be liquidated, as it provides jobs to thousands of miners and employees of the related companies. After the political transformation, the miners united and fought for their rights, arguably most effectively among all professional groups in Poland. The strong mining lobby successfully convinced both politicians and the public that the state should continue to subsidize the sector in order to avoid a social and economic disaster. According to them, obtaining energy from other sources is not achievable in Poland due to inadequate geographical conditions for RES, overly expensive nuclear power plants development and political risks related to dependence on gas or coal imports from Russia. This myth has not been challenged for many years, while the mining lobby has been supported by the successive governments. Therefore, the SIE-field-actors faced a particularly difficult task of changing the dominant, institutionalized discourse about conventional energy pathways, aiming for fossil fuels phase-out.

Nevertheless, the SIE-actors, despite their peripheral positions in the energy sector, have managed to benefit from the changes taking place in the wider institutional environment: raising public awareness about the harms of burning fossil fuels with regard to the climate change (social shock), dynamic development of RES (technological shock), and EU's climate and environmental policies exerting pressure to shift away from fossil fuels in the European countries (normative shock). Throughout the story of the SIE-field development, the occurrence of skilled actors initiating change in the highly institutionalised Polish energy sector is of paramount importance. However, the major changes in the field have been introduced as a consequence of both bottom-up pressure exerted by the SIE-actors, and top-down regulations introduced by the EU institutions, as well as changing socio-technical trends.

Although the ultimate goal of the SIE-field-actors has been to influence the national policymaking, they have engaged in direct lobbying only to a limited extent. This is because the Polish government has been strongly supportive of the fossil fuels industry and pro-environmental MPs have been few and far between. In the context of such an unfavourable structure of the political scene, the SIE-field-actors, a relatively small group, had to look for alternative ways to apply political pressure. Only recently, with the dynamic development of the broader environmental movement, some of the SIE-initiatives started to be perceived as having real political agency (e.g. Youth Climate Strike).

Among the most important ways of exerting indirect political pressure by the SIE-actors are the following:

- pushing financial institutions to withdraw from providing finance to the coal sector and insuring new coal projects; this has ultimately made further development of the fossil fuels industry economically unfeasible;
- uncovering deficiencies in Poland's implementation of the EU climate, environmental or energy regulations (e.g. in the case of anti-fracking protests in Zurawlow, anti-smog campaigns, or protests against opening an open-pit mine in Oscislowo);
- organising local referenda on opening new open-pit mines (e.g. in Gubin and Brody);
- writing petitions to the European Parliament, e.g. to make the results of the local referendum on planned coal investments in Legnica binding, or to take away the license for continued operation of existing Turów lignite mine in Bogatynia;

- MEPs' mediating between local communities and the Polish government by writing petitions regarding a withdrawal from the planned fossil fuels investments (e.g. in the case of the anti-fracking protests in Zurawlow).

The SIE-field-actors have occupied peripheral positions in the Polish energy sector, having access to very limited resources as compared to the most powerful actors in the field, i.e. state-owned energy companies. In order to succeed in their goals of changing the dominant discourse, they recognised the need to tightly cooperate with each other (i.e. through building formal and informal coalitions, and supporting each other in their initiatives, e.g. protests), to find allies for their cause (e.g. in European institutions), and to engage more people in their campaigns (i.e. through creation of a broad environmental movement). Therefore, the agency in this case can be viewed as dispersed, meaning that institutional work has been exercised by multiple actors simultaneously (Lawrence et al., 2002).

The empirical findings show that the SIE-field-actors have been engaged predominantly in creating and disrupting institutions. By definition, acting against the dominant energy pathways excludes the maintenance work meant as "reproducing existing norms and belief systems" (Lawrence and Suddaby, 2006:230). In disrupting dominant institutions in the Polish energy sector, the SIE-field-actors have been pushing a framing of phasing out or limiting extraction of fossil fuels, e.g. through highlighting negative environmental and economic impacts of the fossil fuels industry. In creating institutions, the SIE-field-actors have been developing alternative framings in the Polish energy sector, e.g. through lobbying for the RES development.

To meet these ends, the SIE-field-actors have engaged predominantly in boundary work (arguing that it is not only energy professionals and politicians who can decide upon further development of the energy sector; rather, this process should entail collaboration between all affected parties: citizens, SMEs, local governments, NGOs, scientists, environmentalists, etc.), identity work (facilitating the shift from citizens as passive consumers of energy to conscious prosumers), strategy work (stressing the need to develop long-term just energy transition plans for the coal-dependent regions), emotion work (creating opportunities for people to express their anger and fear regarding the climate change and environmental threats caused by the fossil fuels industry), and practice work

(day-to-day campaigning against political or economic agendas supportive towards fossil fuel energy pathways). Moreover, one of the most important types of institutional work conducted in the field has been material work. It has been manifested through different means, e.g. boycotting banks by organising happenings at their headquarters, physically blocking excavators at lignite mines, or physically blocking access to the planned fracking sites.

7 Recommendations for our city partners, national and EU policy makers and SIE practitioners

SIE practitioners

The effective development of initiatives opposing fossil fuels extraction relies on their ability to:

- engage local, directly affected communities in order to gain credibility,
- attract wide social support in order to assert a political impact,
- connect and learn from other initiatives in order to benefit from knowledge transfer,
- perform legal, financial, or political work supported by expert knowledge in order to challenge the position of incumbents and influence policy-making processes.

In order for these initiatives to engage a critical mass of supporters, they need to exhibit:

- flat organisational structure,
- decentralized and democratic decision-making processes,
- clear set of the key postulates related to their main goals,
- effective mechanisms for recruiting new members,
- considerable media coverage.

Moreover, it is recommended to bear in mind the following insights:

- In case of an unsupportive national context, bottom-up initiatives tend to develop their agendas in line with the EU regulatory frameworks and expertise. This provides legitimisation to their actions and empowers these initiatives in legal, political, financial, and symbolic ways.

- Institutions tend to react faster to financial risks than environmental threats. Changes in the energy policies of insurance companies and banks may lead to withdrawing from financing and underwriting of the coal industry by making it not economically viable.
- Framings of emerging initiatives are often constructed with the active role of more mature ecological organisations that support their initial development and provide them with a political agenda.
- Framings of local protests (their aims, theory of change, rationale, etc.) are often constructed with the active role of more experienced national or international activists. They support local protests physically and provide regulatory, legal, technical, and strategic advice.
- Local communities in cooperation with larger NGOs and foreign allies form networks and coproduce counter-expertise against incumbents' (i.e. powerful energy companies and the national government) narratives.
- Sometimes, it is possible to achieve similar goals by framing the problem differently (e.g. approaching the subject from a very different angle, i.e. air pollution, opened the field for anti-coal narratives).
- Foreign actors' support often allows local communities to gain a presence in media and broader recognition.
- Local communities tend to connect with each other, on the national or international level, in order to exchange lessons learnt and provide mutual support.

SONNET city partners

In case of an unfavourable national context, bottom-up initiatives tend to connect directly with the EU institutions, seeking legal, political, financial, or symbolic support. Cities may support (e.g. by providing engaged actors with needed assistance) and benefit from these dynamics (e.g. by receiving funds for sustainable socio-economic development from the Just Transition Fund). The main role of the cities is to mediate between these initiatives and the national government (e.g. in preparing regional just transition plans) and to ensure that the process of the energy transition is conducted collaboratively.

National and EU policymakers

In case of the bottom-up initiatives, when the dominant framings are unfavourable for the prospected change, legitimisation and recognition of local protests may be mediated by the engagement of foreign actors, e.g. the EU institutions. It is important, then, to master mechanisms that directly engage local communities or initiatives on the ground (like Platform on Coal Regions in Transition). This would ensure, for example, that the Territorial Just Transition Plans are prepared in a truly collaborative manner. Moreover, there are various ways in which the EU may exert significant pressure on the environmental decisions taken by the Polish government. For example, the decisions regarding the coal industry used to be based primarily on political calculations (i.e. aiming for the political support of the trade unionists and the coal regions inhabitants) until the EU Emissions Trading System has made producing energy from coal too expensive to be continued. Despite opposition from the Polish energy companies and politicians, the EU should follow this policy-making direction, creating unfavourable conditions for the fossil fuels industry and supporting the development of RES.

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9 Annex

Methodology

As the sole researcher investigating this embedded case study, I am not formally related to the field being investigated, i.e. I am not a member of any of the SIE-initiatives. However, despite my best efforts, my personal beliefs, i.e. my support for the investigated SIE-initiatives, may have influenced the outcome of the study. Prior to the study, my knowledge of the field was minimal. I took part several times in marches organised by e.g. Earth Strike, and have followed Facebook profiles of several SIE-initiatives. I also signed several petitions prepared by the Action Democracy Foundation. I believe that I managed to reach a diverse group of the field's representatives and familiarise myself with a variety of documents. Taking into account the time constraints of working on the project, I think I have managed to cover the subject adequately. However, I am sure the research would have been enriched by conducting more interviews, e.g. with the ranks of regular activists - among my interviewees, there were almost exclusively those holding leading positions. In order to find appropriate persons to conduct the interviews with, I used the snowball sampling, asking my interviewees for further recommendations. This was important because of the specificity of the field

under study: people who are involved in organising protest campaigns are generally concerned about confidentiality issues. Therefore, when asking for consent to take part in this study, referring to a familiar person was very helpful in building trust. As far as participatory observation is concerned, due to the Covid-19 pandemic, I could only conduct an online observation (except for the participation in “Green Days in Sokolowsko”), which has its obvious limitations (such as observation of participants' reactions or the possibility of conducting interviews with people participating in the event). The advantage was the possibility to participate in webinars on very different topics, regardless of their location. Overall, during this 1.5-month research, I was able to conduct 9 in-depth interviews, review in-depth around 11 documents, and participate in 7 online conferences and webinars. See tables below in this section for more details.

Documents reviewed

- Apel organizacji społecznych do Mateusza Morawieckiego, Prezesa Rady Ministrów ws. „Specustawy węglowej”
<https://elektrowniaostroleka.com/upload/filemanager/pracownia.org.pl/Dokumenty/Apel%20do%20Premiera%20Mateusza%20Morawieckiego.pdf>
- Atlas energii 2018 - Fakty i dane o energetyce odnawialnej w Europie. Fundacja im. Heinricha Bölla oraz Fundacja Instytut na rzecz Ekorozwoju
- Atlas węgla 2015 - Dane i fakty o globalnym paliwie. Fundacja im. Heinricha Bölla, Instytut na rzecz Ekorozwoju
- Dirty Business: Insurance companies supporting the growth of Polish coal. Published by Foundation Development YES - Open-Pit Mines NO, Friends of the Earth France, Greenpeace Switzerland, Re:Common, The Sunrise Project and urgewald; Lucie Pinson 2018
- Gaz łupkowy - wyzwanie dla demokracji. Raport z monitoringu. Centrum Zrównoważonego Rozwoju - Obywatele Kontrolują, 2013 <https://obywatelekontroluja.pl/wp-content/uploads/2014/11/Raport-roboczy-31.01.2014.pdf>
- Poselski projekt ustawy o zmianie ustawy - Prawo geologiczne i górnicze oraz ustawy o udostępnianiu informacji o środowisku i jego ochronie, udziale społeczeństwa w ochronie środowiska oraz o ocenach oddziaływania na środowisko (Druk 3818) <https://www.sejm.gov.pl/Sejm8.nsf/druk.xsp?nr=3818>
- Sprawiedliwa transformacja Wielkopolski Wschodniej. Studium przypadku, Miłostawa Stępień, Stowarzyszenie Akcja Konin, 2019
- Sprawiedliwa transformacja Wielkopolski Wschodniej. Wyzwania z perspektywy społecznej - analiza i rekomendacje, Emilia Ślimko, Związek Stowarzyszeń Polska Zielona Sieć, Fundacja Otwarty Plan, Warszawa 2019

- Transformacja energetyczna ponad podziałami. Jan Popczyk, 2018
[http://ppte2050.pl/platforma/ksckpu/pkks/tepp/files/TEP4-2019\(5\)%20%20Propozycja%20dzialan%20programowych.pdf](http://ppte2050.pl/platforma/ksckpu/pkks/tepp/files/TEP4-2019(5)%20%20Propozycja%20dzialan%20programowych.pdf)
- Ustawa nr VIII / 131 / 19 Sejmiku Województwa Wielkopolskiego z dnia 3 czerwca 2019 r. w sprawie: przyjęcia stanowiska dotyczącego inicjatywy Sprawiedliwej Transformacji w Regionie Wielkopolski Wschodniej,
<https://www.umww.pl/attachments/article/58560/stanowisko%20sejmiku%20Konin,%203.06.2019.pdf>
- World shale gas resources: An initial assessment of 14 regions outside the United States. Energy Information Administration 2011
<http://www.eia.gov/analysis/studies/worldshalegas/archive/2011/pdf/fullreport.pdf>

List of interviewees

Code	Role of interviewee	Date	Duration of the interview (minutes)
Interviewee 1	Campaigner in the topics of energy, climate and just transition, experienced in work for two Polish pro-environmental NGOs	29.05.2020	110
Interviewee 2	Foundation "Development YES - Open-Pit Mines NO" - Senior Finance Campaigner	24.06.2020 and 14.07.2020	126
Interviewee 3	EKO-UNIA - CEO, former Deputy Minister of the Environment	29.05.2020	135
Interviewee 4	Foundation "Development YES - Open-Pit Mines NO" - CEO	24.06.2020	144
Interviewee 5	Representative of the Green Imielin Association	1.07.2020	66
Interviewee 6	Action Konin Association - CEO, Green Party politician	23.07.2020	56
Interviewee 7	Heinrich Böll Foundation - Energy and Climate Programme leader, Action Democracy Foundation - Founder	3.06.2020 and 3.07.2020	110
Interviewee 8	Youth Climate Strike in Rybnik - Coordinator	22.07.2020	38
Interviewee 9	Former Deputy Minister of the Environment, former Chief National Geologist	30.06.2020	178

List of meetings and events attended

- 12.05.2020 - online interview 'What does a just transition look like in central Poland? (Pol. Jak wygląda sprawiedliwa transformacja w środkowej Polsce?) with Miłka Stępień from the Polish Greens and Action Konin Association, led by Patryk Białas from Śląska Opinia
- 14.05.2020 - webinar 'Energy transition in Poland - challenges and dilemmas' (Pol. 'Transformacja energetyczna w Polsce - wyzwania i dylematy') with PhD Andrzej Kassenberg, organised by the Workshop for All Beings
- 17.05.2020 - webinar 'Mining industry and just energy transition' (Pol. 'Przemysł górniczy i sprawiedliwa transformacja energetyczna') with Oliwia Fajak from the Silesian Climate Movement, organised by the Youth Climate Strike Katowice
- 19.05.2020 - webinar 'Just transition for the mining community' (Pol. 'Sprawiedliwa transformacja dla społeczności górniczej') with PhD Łukasz Trembaczowski, organised by the BoMiasto Association
- 2.06.2020 - webinar 'Labour market in Upper Silesia - analysis and forecasts' (Pol. 'Rynek pracy na Górnym Śląsku - analiza i prognozy') with Piotr Lewandowski, organised by the BoMiasto Association
- 23.06.2020 - online interview 'Bogusław Hutek about miners' fears connected with the closure of mines' (Pol. 'Bogusław Hutek o obawach górników związanych z zamknięciem kopalń') led by Patryk Białas from Śląska Opinia
- 28-30.08.2020 - "Green Days in Sokolowko" (Pol. „Zielone dni w Sokołowsku”) organised by the Polish Greens, MEP Jakop Dalunde, the Green Zone Foundation (Pol. Fundacja Strefa Zieleni), and the Heinrich Boell Foundation Polish office

10 Annex 2

Detailed SIE-field timeline and its actors over time

DATE/ TIME	TYPE OF EVENT	DESCRIPTION OF EVENT
PHASE 0: Emergence of non-profit, professional ecological organisations		
Pre- 2009	SIE-field event	The initiatives active in the field could be divided into three groups: 1) earliest expert ecological organisations with hierarchical structures, 2) formal coalitions of organisations for sustainable development and climate protection; 3) Polish

		offices of international environmental NGOs. Overall, these initiatives had little to no success in engaging citizens in their activities.
PHASE 1: Mobilising local communities against opening new open-pit mines and shale gas extraction.		
6.2009	SIE-field event	The 1st local referendum in Poland on expanding an open-pit mine
11.2009	Policy 'event'	Approval, without the required consultations with local governments, of the project 'Polish Energy Security Policy until 2030' facilitating lignite mining investments
2011	SIE-initiative event	The Social Committee 'Stop the Open-pit Mine' writes a petition to the European Parliament to make the results of the referendum binding on planned coal investments
2011	SIE-initiative event	Establishing the national Coalition 'Development YES - Open-Pit Mines NO', which aims to protect local communities more effectively against the coal industry
2011	External shock	Publication of a report by the US Energy Information Administration, which estimated Poland's shale gas reserves at 5.3 trillion cubic meters.
8.2012	SIE-field event	11 organisations make an agreement against fracking in Poland
6.2013	SIE-initiative event	Inhabitants of Żurawłów start their occupation-style anti-fracking protest against Chevron, lasting non-stop for 399 days
PHASE 2: Anti-smog campaigning and lobbying for RES		
2011	Policy 'event'	The Polish government blocks the adoption of the EU climate strategy - the so-called EU Roadmap 2050
2012	SIE-field event	The first Smog Alarm, a bottom-up social movement for reducing emissions, is initiated in Krakow. In the following years, more Smog Alarms emerge in various Polish towns
2.2015	Policy 'event'	The parliament passes the RES law with the definition of a prosumer
2015	SIE-field event	Establishing the More than Energy movement, a broad social coalition aimed at the development of civic energy
10.2015	Policy 'event'	President Andrzej Duda signs amendments to the Environmental Protection Law
1.2016	Policy 'event'	The Sejmik (regional parliament) of the Małopolska Region accepts an anti-smog resolution for Krakow, which introduces a ban on heating with coal and wood from 2019
6.2016	Policy 'event'	The government introduces a law that hinders investments in wind energy, the so-called "Anti-wind turbines Act"
2018	External trend	Electricity prices rise due to increasing prices for CO2 emissions

9.2018	Policy 'event'	Initiation of the governmental program "Clean Air" offering subsidies for replacing old furnaces in households
2.2019	SIE-field event	EKO-UNIA and the Poland's Green Party organise a conference "Sun on the roofs" encouraging investing in photovoltaic installations
8.2019	Policy 'event'	Initiation of the governmental program "My Electricity", offering subsidies for photovoltaic installations in households
PHASE 3: Conducting campaigns against financing and underwriting of the Polish coal industry		
2013	External trend	Bankwatch succeeds in changing the energy policies of the European Bank for Reconstruction and Development and the European Investment Bank
6.2015	SIE-initiative event	Establishing the Foundation 'Development YES - Open-Pit Mines NO'
10.2015	External shock	The parliamentary elections are won by a party denying the climate change and openly opposing environmental protection activities
2.2018	SIE-field event	The 'Dirty business' briefing revealed the European insurance companies underwriting of the coal industry in Poland
2019	External trend	Some insurers resign from investing in lignite and hard coal mines in Poland
4.2020	External shock	Decision is made that the planned power plant Ostrołęka C will be gas-fired, instead of coal-fired - first protests against gas
PHASE 4: Developing a social climate movement demanding phasing out coal		
8.2014	SIE-field event	'The Human chain - STOP opencast mining' protest with 7000 participants
2015	SIE-initiative event	Establishing the Action Democracy Foundation
2018	SIE-field event	The first Climate Camp takes place in Poland
10.2018	External shock	The Special Report on Global Warming of 1.5 °C is published by the Intergovernmental Panel on Climate Change
12.2018	External shock	The 24th United Nations Climate Change Conference (COP24) takes place in Katowice (Silesia)
1.2019	SIE-initiative event	The Silesian Climate Movement announces its founding manifesto
1.2019	SIE-field event	Initiating the project 'Energy transition above the divisions' coordinated by Eko-Unia, Poland's Green Party, experts and academics
2019	SIE-initiative event	Initiation of the Youth Climate Strike in Poland
10.2019	SIE-field event	Joint protest at the Parliament against a special act 'Lex-coal'

3.2020	External shock	COVID-19 pandemic outburst
9.2020	Policy 'event'	The Ministry of Climate presents an updated draft of the document 'Energy Policy of Poland until 2040', which assumes two possible scenarios (dependent on the future prices of CO2 emissions): a 28 or 11 percent share of coal in electricity generation in 2040.
PHASE 5: Striving for just transition in the regions dependent on coal		
4.2016	Policy 'event'	The Paris Agreement is signed by Prime Minister Beata Szydło
2017	SIE-field event	The 'Development YES - Open-Pit Mines NO' Foundation contacts the urban activists in Konin and organises the conference "Konin. Return to the future", where the postulate is made to move away from coal in the Eastern Wielkopolska region
2017	SIE-initiative event	The protests in Imielin against the expansion of hard coal mines are initiated. These are the first protests against the mining industry in Silesia.
12.2017	Policy 'event'	The Platform on Coal Regions in Transition is established by the European Commission
2018	SIE-field event	WWF initiates the Forum of Mayors aimed at empowering mayors from towns in coal regions and lobbying for public consultation of Territorial Just Transition Plans before submitting them to the European Commission
11.2019	Policy 'event'	The Parliamentary Panel for a Just Energy Transition is established
12.2019	Policy 'event'	The European Council summit - Poland, as the only country, does not agree on the goal of getting carbon neutral by 2050
1.2020	Policy 'event'	Introduction of the European Green Deal Investment Plan and the Just Transition Mechanism for coal regions in the EU
6.2020	Policy 'event'	The Ministry of Development establishes the Round Table for eastern Greater Poland energy transition
7.2020	External shock	The European Council summit - Prime Minister Morawiecki successfully negotiated the goal of climate neutrality to be set at the EU level, and not at the level of individual countries. Due to these less demanding criteria, the Just Transition Fund will be reduced by more than half.
9.2020	SIE-field event	Miners' trade unions reach an agreement with the government, according to which the last coal mine in Poland will be closed in 2049

Key actors and their networks & relations

Actor name	Type of actor	SHORT DESCRIPTION OF MAIN ROLE, AIM, EXAMPLE OF MAIN ACTIVITY	SHORT DESCRIPTION OF RELATIONS TO OTHER ACTORS
PHASE 0: Emergence of non-profit, professional ecological organisations			
Workshop for All Beings	SIE-field actor - intermediary	Role: an ecological association Aim: protecting wild nature in Poland Activities: engaged in campaigns against coal, conducting educational trainings for activists on the topic of climate change	Involved in knowledge exchange and joint activities, e.g. leading a coalition against building new coal-fired power plant blocks Ostroleka C and Pólnoc, or taking part in a protest at the Parliament against the 'Lex-coal' act
EKO-Unia	SIE-field actor - intermediary	Role: an ecological association Aim: protecting the natural environment and counteracting climate changes Activities: engaged in working for sustainable development of rural areas and promoting RES	Involved in joint activities (e.g. the 'Human chain - STOP opencast mining', the coalition 'Stop Ostroleka C Power Plant'), providing advice to local communities protesting against fossil fuel extraction (e.g. in Zurawlow, Brody and Konin) and running campaigns promoting RES (e.g. 'Sun on the Roofs')
Climate Coalition	SIE-field actor - network	Role: networking ecological NGOs Aim: protecting the natural environment and counteracting climate changes Activities: facilitating cooperation between actors on all levels - local, regional and national - for sustainable development	Involved in networking, knowledge exchange and joint activities (e.g. the coalition 'Stop Ostroleka C Power Plant')
Union of Associations Polish Green Network	SIE-field actor - network	Role: associating various organisations in the field of environmental protection Aim: building civic support for sustainable development Activities: creating mechanisms of social control over the spending of public funds, and lobbying for RES development	Involved in networking and knowledge exchange (e.g. issuing case study reports on just energy transition in Poland); supports local protests against coal, e.g. in Imielin and Konin

WWF, Polish office	SIE-initiative	<p>Role: Polish office of an environmental INGO</p> <p>Aim: influencing policy-making processes and raising social awareness regarding environmental protection, phasing out coal and just transition of coal regions</p> <p>Activities: taking part in political negotiations, providing policymakers with thorough knowledge, running social campaigns, cooperating with mayors from coal regions</p>	Involved in networking, providing advice and knowledge exchange (e.g. establishing the Forum of Mayors, running social campaigns 'Eco-Patriots' or 'You are an endangered species')
Greenpeace, Polish office	SIE-initiative	<p>Role: Polish office of an environmental INGO</p> <p>Aim: protecting the environment and opposing fossil fuel extraction in Poland, demanding coal and gas phase-out</p> <p>Activities: conducting protests that are often based on radical tactics, e.g. occupying power plants' sites</p>	Involved in knowledge exchange and joint activities (e.g. the 'Human chain - STOP opencast mining' and protest at the Parliament against the 'Lex-coal' act); supports younger initiatives, e.g. Youth Climate Strike, or Green Imielin Association
PHASE 1: Mobilising local communities against opening new open-pit mines and shale gas extraction. Reaching out to the EU.			
Social Committee 'Stop the Open-pit Mine'	SIE-initiative	<p>Role: collaboration between local government officials, residents and activists from regions at risk of opening a new open pit mine</p> <p>Aim: making the local referendums' results officially recognised and binding on the planned coal investments</p> <p>Activities: organising protests and writing petitions</p>	Involved in knowledge exchange and joint activities (e.g. writing a petition with the support of MEP Lidia Geringer de Oedenberg to the European Parliament)
PGE GiEK SA	Field actor - impede	<p>Role: state-owned Polish energy company</p> <p>Aim: expanding or opening new open-pit mines in Turów, Gubin and Brody, or Bełchatów, among others</p>	

		Activities: a leader in the lignite mining industry in Poland and the largest national electricity producer	
MEP Lidia Geringer de Oedenberg	Field actor - enable	Role: supporting the Social Committee 'Stop the Open-pit Mine' Aim: making the local referendums' results officially recognised and binding on the planned coal investments Activities: representing the Committee at the European Parliament's Petitions Committee	Involved in joint activities (e.g. supporting the petition written by the Social Committee 'Stop the Open-pit Mine' and engagement in the following fact-finding mission)
Coalition 'Development YES - Open-Pit Mines NO'	SIE-field actor - network	Role: broad collaboration against mining lignite Aim: protecting local communities more effectively against the coal industry Activities: networking various actors, conducting campaigns against coal and organising direct actions	Involved in knowledge exchange, networking and joint activities (e.g. 'Human chain - STOP opencast mining', protest at the Parliament against the 'Lex-coal' act, supporting local communities, e.g. in Turów and Imielin); established with support of Greenpeace and EKO-Unia
Zurawłów anti-fracking protests	SIE-initiative	Role: a bottom-up initiative of residents against the plans of exploring shale gas in their village Aim: protecting their houses, local infrastructure, and surrounding water resources Activities: conducting an occupation-style anti-fracking protest 'Occupy Chevron'	A joint initiative of Zurawlow inhabitants based on networking and knowledge exchange with other anti-fracking protests around the world
Chevron	Field actor - impede	Role: American multinational energy corporation Aim: conducting shale gas exploration in Zurawlow and other locations in Poland Activities: planning test drillings in chosen locations	

ClientEarth, Polish office	SIE-field actor - intermediary	Role: environmental law charity Aim: holding governments and corporations accountable for climate change, nature loss and pollution Activities: preparing expert reports and filing lawsuits against energy companies	Involved in joint actions (e.g. anti-fracking protests in Zurawlow - preparation of an expert report; Protests against building the Ostroleka C power plant block - filing a lawsuit against Enea)
MEP Jose Bove	Field actor - enable	Role: French MEP for the Greens Aim: ending shale gas exploration in Poland Activities: delivering a petition from the Zurawlow protesters to the Minister for the Environment regarding the non-renewal of Chevron's gas exploration licence	Involved in the joint action of anti-fracking protests in Zurawlow, providing advice for the local communities
PHASE 2: Anti-smog campaigning and lobbying for RES			
Polish Smog Alarms	Field actor - enable	Role: bottom-up social movement, a network of Smog Alarms in various Polish towns Aim: improving air quality and moving away from burning coal in households Activities: conducting social campaigns and political lobbying	Joint activities conducted with ecological organisations (e.g. EKO-Unia) against smog and burning coal for heating
More than Energy Movement	SIE-field actor - network	Role: connecting local governments, public institutions, NGOs, firms and interested individuals Aim: working for the development of civic energy and improving energy efficiency Activities: organising conferences and informational campaigns	Involved in networking and knowledge exchange (e.g. organising an annual Polish National Congress of Civic Energy)
Poland's Green Party	Field actor - enable	Role: an international member of the Global Greens and European Green Party Aim: protecting the natural environment, phasing out fossil fuels and supporting RES development Activities: campaigns, political lobbying, advocacy.	Involved in joint activities (e.g. project 'Energy transition above the divisions', conference "Sun on the roofs")
PHASE 3: Conducting campaigns against financing and underwriting of the Polish coal industry			

Foundation 'Development YES - Open- Pit Mines NO'	SIE-initiative	Role: campaigning against fossil fuels, supporting RES development Aim: supporting local communities, exerting pressure on financial and insurance institutions, protecting water resources Activities: conducting campaigns and organising protests	Involved in knowledge exchange and joint activities (e.g. coalition 'Stop Ostrołęka C Power Plant', just transition of the Eastern Wielkopolska region)
CEE Bankwatch Network	Field actor - enable	Role: a global network which operates in central and eastern Europe Aim: influence decisions of international financial institutions to protect human rights and the environment Activities: enforcing modifications in energy policies of the European banks	The first Polish campaign aimed at financial institutions was initiated in relation to the Bankwatch's achievements
European, incl. Polish, financial institutions financing or underwriting of the Polish coal industry	Field actor - impede	Role: insurers and banks investing in the Polish coal industry Aim: expanding or building new Polish coal mines and power plants Activities: underwriting of both existing infrastructure and new projects	
Coalition 'Stop Ostrołęka C Power Plant'	SIE-field actor - network	Role: a campaign against building a new power plant unit in Ostrołęka Aim: withdrawal from the investment, development of ambitious plans regarding reducing carbon emissions, increasing energy efficiency and investing in RES Activities: signing petitions, writing expert reports, conducting protests and boycotts	Joint activities led by the Workshop for All Beings
Instrat Foundation	Field actor - enable	Role: an independent think-tank focusing on a public policy advisory Aim: shift towards low and emission-free economy in Poland Activities: formulating policy recommendations, preparing expert	Involved in joint activities (e.g. coalition 'Stop Ostrołęka C Power Plant') and providing advice (e.g. report 'Ostrołęka C - 1000 MW coal power plant - economic viability study' or

		reports, launching the first Polish energy, coal & climate data hub	policy paper '2030: Analysis of the border coal phase-out year in the energy sector in Europe and Poland')
Frank Bold Foundation, Polish office	SIE-field actor - intermediary	Role: purpose driven law firm Aim: solving social and environmental problems, combining for-profit and non-profit approach Activities: solving legal problems in the field of energy	Involved in joint activities and providing legal advice (e.g. coalition 'Stop Ostroleka C Power Plant')
PHASE 4: Developing a social climate movement demanding phasing out coal			
Action Democracy Foundation	SIE-initiative	Role: initiatives featuring online petitions Aim: mobilising people to act, raising social awareness and building support to move away from coal in the Polish energy sector Activities: running online and offline social campaigns, preparing online petitions	Involved in joint activities by strengthening already functioning campaigns (e.g. creating petitions against insurers in the coal industry)
Climate Camp	SIE-initiative	Role: an informal, grassroots group of people opposing the exploitation of nature and unfair social relations Aim: reclaiming agency in the energy sector by means of proactive action Activities: build a broad coalition, civil disobedience methods	Involved in joint activities (e.g. protest at the Parliament against the 'Lex-coal' act) and knowledge exchange between various actors opposing fossil fuels extraction; received support from more mature organisations, e.g. Foundation 'Development YES - Open-Pit Mines NO'
Silesian Climate Movement	SIE-initiative	Role: bottom-up association of the Silesian residents Aim: phasing out coal, zero carbon emissions, creating more green jobs Activities: protests, education, lobbying	Involved in joint activities (e.g. political happening 'Clean coal doesn't exist' during the Earth Strike in Katowice) and knowledge exchange (e.g. with activists from Imielin or Konin)
Youth Climate Strike	SIE-initiative	Role: bottom-up environmental social movement Aim: mobilising youth to demand better climate policies in Poland	Involved in joint activities (e.g. protest at the Parliament against the 'Lex-coal' act); received

		Activities: organising protests in various Polish towns	support from e.g. Greenpeace and Extinction Rebellion
Extinction Rebellion Poland	SIE-initiative	Role: a grassroots socio-political and environmental movement Aim: mitigating climate change and the loss of biodiversity Activities: organising boycotts and protests	Involved in joint activities (e.g. protest at the Parliament against the 'Lex-coal' act; supports other initiatives, e.g. Youth Climate Strike
Earth Strike in Poland	SIE-initiative	Role: grassroots environmental activist movement Aim: pressure the government and corporations to take immediate action to avoid irreversible climate change Activities: organising protests	Involved in joint activities (e.g. protest at the bank mBank against investment in the power plant Ostroleka C, organised in cooperation with Extinction Rebellion Poland, Youth Climate Strike and Workshop for All Beings)
PHASE 5: Striving for just transition in the regions dependent on coal			
WWF's Forum of Mayors	SIE-field actor - intermediary	Role: series of meetings bringing together mayors and stakeholders from coal areas in Poland and abroad Aim: empower local governments in the process of just transition and obtaining funds Activities: lobbying for public consultations of Territorial Just Transition Plans, organising meetings and providing advice to mayors	Joint activities involving local governments and other stakeholders from coal regions (e.g. Silesia or Eastern Wielkopolska)
EU's 'Platform on Coal Regions in Transition' and 'Just Transition Mechanism'	Field actor - enable	Role: supporting the EU regions heavily dependent on the hard coal or lignite industry Aim: developing, in cooperation with local communities and experts, regional energy transition strategies towards low-carbon economies Activities: offering financial support	Three Polish regions belong to the Platform: Silesia, Wielkopolska and Lower Silesia. Most of the coal-dependent regions prepare their Territorial Just Transition Plans to be submitted by the end of 2020
Urban activists from Konin	SIE-initiative	Role: initiating the just energy transition process in the Eastern Wielkopolska region Aim: sustainable development of the region	Involved in knowledge exchange and joint activities (e.g. conference 'Konin. Return to the future' organised with the Foundation 'Development YES -

		Activities: organising protests, developing a strategic plan towards decarbonisation	Open-Pit Mines NO'); received support from some other organisations, e.g. Polish Green Network and EKO-Unia
Zespół Elektrowni Patnów-Adamów-Konin SA	Field actor - impede	Role: the largest private energy group in Poland Aim: continuing its operations in the Eastern Wielkopolska region Activities: extracting lignite from two mines and producing energy from three lignite-fired power plants; investing in RES	
Green Imielin Association	SIE-initiative	Role: bottom-up protests against expanding a hard coal mine Aim: prevent an energy company PGG from extending the Piast-Ziemowit mine in Imielin, develop a green strategy for the region's development Activities: organising protests, signing petitions	Involved in joint activities (e.g. protests organised with local communities from Rybnik and Mysowice against opening new mines); received support from Konin's activists and some more mature organisations, e.g. Polish Green Network, Greenpeace and Coalition 'Development YES - Open-Pit Mines NO'
PGG SA	Field actor - impede	Role: state-owned Polish mining company Aim: continuing hard coal extraction in Poland and expanding the mine in Imielin Activities: the largest mining company in Europe and the largest hard coal producer in the EU	