

SLO Good Practices and Recent Disputes *Illustrative Examples Across Europe*

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Authors

Austria: Gerfried Tiffner and Kornelia Lemmer (VESTE/Eisenerz), Michael Tost (Montanuniversität Leoben) Bosnia: Olga Sidorenko and Rauno Sairinen (University of Eastern Finland) Finland: Toni Eerola (Geological Survey of Finland) Poland: Zuzanna Lacny and Anna Ostrega (AGH University of Science and Technology) Serbia: Olga Sidorenko and Rauno Sairinen (University of Eastern Finland) Slovakia: Igor Ďuriška and Tomáš Pavlik (Technical University of Kosice) Spain: Ramon Cabrera (SIEMCALSA) Sweden: Gregory Poelzer (Lulea University of Technology) United Kingdom: Rowan Halkes and Frances Wall (University of Exeter)

Compiled and edited by Pamela Lesser, University of Lapland

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Of Note: The illustrative examples were compiled during the second and third years of MIREU – 2019 and 2020. While the authors provided updates in early 2021, because the social acceptance of projects is so fluid, there may be discrepancies between the updates and the publication date of 30 April 2021.

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Illustrative examples of social licence to operate across Europe

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Links to Illustrative Examples

Sorted by Member States

Alphabetical order by the name of member states and regions

Member State	No.	Name of project	Region
<u>Austria</u>	AU1	Erzberg	Styria

	Bosnia	BA1	<u>Olovo mine</u>	Olovo
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<u>Finland</u>	FI1	<u>Aitolampi</u>	Heinävesi, South-Savo Province
	FI2	<u>Hannukainen</u>	Kolari, Lapland
	FI3	Juomasuo	Kuusamo, Ostrobotnia
	FI4	Sokli	Savukoski, Lapland
	FI5	<u>Sakatti</u>	Sodankylä, Lapland
	FI6	<u>Talvivaara</u>	Sotkamo, Kainuu Province
	FI7	<u>Rääpysjärvi</u>	Tuusniemi, North-Savo Province
	FI8	<u>Kaapelinkulma</u>	Valkeakoski, Pirkanmaa Province
	FI9	Rompas-Rajapalot	Ylitornio, Lapland

Poland	PL1	-	Chełm, Budziszów Mały
	PL2	-	Jaracz, Rożnowice
	PL3	-	<u>Krosinko</u>
	PL4	-	Lipnica, Trzebielsk
	PL5	-	Żabnica
	PL6	Project Olza	Zawiercie (planned), Poręba, Łazy,
		Project Olza	Ogrodzieniec

Republic of Serbia	RS1 Veliki Majdan Mine	Lubovija	
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Sweden	SE1	Aitik	Gällivare, Norrbotten
	SE2	Gillervattnet	Skellefteå, Västerbotten
	SE3	Kallak	Jokkmokk, Norrbotten

Slovakia	SK1	<u>Kalnica</u>	Trenčín Self-Governing Region
	SK2	<u>Bystričany</u>	Trenčín Self-Governing Region
	SK3	<u>Nováky</u>	Trenčín Self-Governing Region
	SK4	Kremnica	Banska Bystrica Self-Governing
		Kreimica	Region



Illustrative examples of social licence to operate across Europe

SK5	Kremnické Vrchy - Bartošova	Banska Bystrica Self-Governing
	<u>Lehôtka</u>	Region
SK6	<u>Považský Chlmec</u>	Žilina Self-Governing Region
SK7	Detra	Banska Bystrica Self-Governing
	<u>Detva</u>	Region
SK8	Novoveská Huta	Košice Self-Governing Region
SK9	<u>Košice - Jahodná</u>	Košice Self-Governing Region

<u>Spain</u>	ES1	San Finx Project	Galicia
	ES2	Salave Project	Asturias
	ES3	Muga Project	Navarra-Zaragoza
	ES4	Salamanca Project	Retortillo, Salamanca
	ES5	Valdeflores Project	Cáceres, Extremadura
	ES6	Alconchel Project	Badajoz, Extremadura
	ES7	Fontanarejo Project	Ciudad Real, Castilla-La Mancha
	ES8	Barruecopardo Mine	Barruecopardo, Salamanca

United Kingdom	UK1	Bradley	Durham, England
	UK2	<u>Cauldhall</u>	The Midlothian area, Scotland
	UK3	Cononish	Tyndrum, Scotland
	UK4	<u>Curraghinalt</u>	Tyrone, Northern Ireland
	UK5	<u>Duntanlich</u>	Aberfeldy, Scotland
	UK6	Nant Llesg and Ffos-y-Fran	Merthyr Tydfil, Wales
	UK7	<u>Hemerdon (Drakelands)</u>	Devon, England
	UK8	Highthorn Mine	Tyndrum, Scotland
	UK9	Woodhouse	Cumbria, England
	UK10	Woodsmith Mine	Yorkshire, England

Sorted by commodities

Alphabetical order by the name of the commodities and the projects

Commodity	Project	Member State
Andesite	<u>SK2</u>	Slovakia

Barite	<u>UK5</u>	The United Kingdom

Bentonite SK5 Slovakia

Copper	<u>SE1</u>	Sweden
	<u>ES6</u>	Spain
	<u>FI2</u>	Finland
	<u>FI5</u>	Finland
	<u>FI6</u>	Finland
Graphite	<u>FI1</u>	Finland



FI7 Fin	Finland
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Gravel	<u>PL1</u>	Poland
	<u>PL2</u>	Poland
	<u>PL3</u>	Poland
	<u>PL4</u>	Poland
	<u>SK6</u>	Slovakia

Gold	<u>SE1</u>	Sweden	
	<u>ES6</u>	Spain	
	<u>UK3</u>	UK	
	<u>UK4</u>	UK	
	<u>SK7</u>	Slovakia	
	<u>F12</u>	Finland	
	FI3	Finland	
	<u>FI8</u>	Finland	
	<u>SK4</u>	Slovakia	
	<u>F19</u>	Finland	
	ES2	Spain	

Industrial minerals PL4 Poland

Iron ore	<u>AU1</u>	Austria
	<u>ES4</u>	Spain
	<u>FI2</u>	Finland
	<u>SE3</u>	Sweden

Lead	BA1	Bosnia
	<u>PL6</u>	Poland
	<u>RS3</u>	Serbia

Lithium	ES5	Spain
Manganese	<u>FI6</u>	Finland
Metallurgical Coal	<u>UK9</u>	The United Kingdom
Niobium	<u>FI4</u>	Finland
Nickel	<u>FI5</u>	Finland
	<u>FI6</u>	Finland
Phosphate	<u>ES7</u>	Spain



	<u>FI4</u>	Finland
Phosphorus	<u>FI4</u>	Finland
Polyhalite	<u>UK10</u>	The United Kingdom
Potassium	ES3	Spain
	<u> </u>	
Rare earth	FI4	Finland
	FI6	Finland
		· · · ·
Sand	SE2	Sweden
Silver	<u>SE1</u>	Sweden
Thermal Coal	UK1	The United Kingdom
	UKI	
	<u>UK2</u>	The United Kingdom
	<u>UK6</u>	The United Kingdom
	<u>UK8</u>	The United Kingdom
Tungsten	<u>ES8</u>	Spain
	<u>UK7</u>	The United Kingdom
Tin	<u>ES1</u>	Spain
	ES5	Spain
Tungsten	ES1	Spain
-	<u>ES5</u>	Spain
Uranium	FI3	Finland
	<u>SK1</u>	Slovakia
	SK9	Slovakia
	<u>SK8</u>	Slovakia
	F19	Finland

Zinc	<u>PL6</u>	Poland

<u>ES4</u>

FI4

FI6



Spain

Finland

Finland

<u>FI6</u>	Finland
RS3	Serbia

Sorted by mining life cycle

Mining life cycle	Project	Member State
Exploration	<u>FI1</u>	Finland
	<u>PL6</u>	Poland
	<u>FI7</u>	Finland
	<u>F19</u>	Finland

Planning/permitting	<u>PL5</u>	Poland
	<u>PL1</u>	Poland
	<u>ES6</u>	Spain
	<u>UK4</u>	The United Kingdom
	<u>UK5</u>	The United Kingdom
	<u>ES7</u>	Spain
	<u>F12</u>	Finland
	<u>F13</u>	Finland
	<u>SE3</u>	Sweden
	<u>F15</u>	Finland
	ES2	Spain
	ES1	Spain
	<u>FI4</u>	Finland
	<u>ES5</u>	Spain

Construction	<u>UK10</u>	The United Kingdom
Operation	<u>SE1</u>	Sweden
	<u>ES8</u>	Spain
	<u>AU1</u>	Austria
	<u>BA1</u>	Bosnia
	RS1	Serbia
	<u>PL3</u>	Poland
	<u>UK3</u>	The United Kingdom
	<u>UK5</u>	The United Kingdom
	<u>UK6</u>	The United Kingdom
	<u>UK9</u>	The United Kingdom
	<u>UK10</u>	The United Kingdom
	<u>FI8</u>	Finland
	ES3	Spain
	<u>FI6</u>	Finland

Post-closure	<u>SE2</u>	Sweden

Cancelled/suspended projects	<u>PL4</u>	Poland
	<u>PL2</u>	Poland



<u>SK2</u>	Slovakia
<u>SK7</u>	Slovakia
<u>SK1</u>	Slovakia
<u>SK9</u>	Slovakia
<u>SK4</u>	Slovakia
<u>SK5</u>	Slovakia
<u>SK8</u>	Slovakia
<u>SK6</u>	Slovakia
<u>ES4</u>	Spain
<u>UK1</u>	The United Kingdom
<u>UK2</u>	The United Kingdom
<u>UK7</u>	The United Kingdom
<u>UK8</u>	The United Kingdom



Introduction

The idea of compiling short summaries of projects from the partners in the MIREU project emerged at the half-way mark when it became clear that while every exploration, mining and metallurgy project will have differences, for a pan-European project such as MIREU, it is the similarities which provide for the most immediate learning. The partners were interested in exploring three questions:

- What are the most visible reasons that people support or oppose mining?
- What approaches seem to be the most successful at both sustaining support and overcoming opposition?
- Are there approaches used more often in some parts of Europe than others?

The first two bullet points comprise the majority of information in these illustrative examples. As to the last bullet, the answer is simply that we do not know. Coming to any definitive conclusion requires many more projects and a much more rigorous methodology.

To be clear, this report is not a deliverable and not a requirement for the SLO work package in MIREU. It is an extra effort contributed by many partners so they could learn from one another. The decision to make this report public was taken by the contributing authors in the hope of it benefitting a wider audience. All of the authors are partners in MIREU and the backgrounds are diverse including researchers, industry and authorities.

Because this report is not a requirement, coupled with constraints such as limited time and budget, the decision was made early on to use information in the public domain (secondary sources) and not supplement it with primary sources such as interviews, surveys, observations or ethnographic research. This lead to the compiled information being heavily weighted in the dispute category, as that is what the news media currently tends to write about when it comes to exploration, mining and metallurgy projects. To uncover good practices, it was necessary to make a number of personal queries. The examples represented here are by no means exhaustive and they were selected at the discretion of the authors simply because information could be found about them in the public domain and they provide different perspectives of SLO.

Perhaps the most important point is that the definition of 'good practice' or 'dispute' is very much in the eye of the beholder. It also is a rare case where a single project is either a perfect model of SLO or a terrible model of SLO, so it becomes impossible to say project X's approach to SLO is good and project Y's approach is bad. Rather, it is more accurate to acknowledge, especially when it comes to judging whether an action has contributed to acceptance or not, that the realm of people's perceptions is murky. This said, there have to be some parameters, hence, good practices are seen to function in three ways:

- Achieve support from the visible majority to continue moving forward while continuously building trust and good-will with local communities and other relevant stakeholders
- Aid in learning what works and does not work in different contexts
- Provide inspirational guidance for decision-making

A dispute is when the information reviewed reflects a lack of consensus or overt opposition, whether it is controversy during public hearings, public protests or a municipality referendum against mining activities.

From the date when these illustrations were put together to the date of publication of the report, it is probably not wrong to say that each and every one has experienced some change in their level of SLO or lack thereof. Neither people nor SLO are static, rather both are in constant flux. These examples are but a snapshot in time – no more and no less.



AUSTRIA

ERZBERG MINE



- Commodity: Iron Ore
- Location: Styria/Austria
- Stage of development: Active mine

SOCIO-DEMOGRAPHICS

Population/dominant age groups :

Table 1 : Inhabitants

	2018	2017	2016	2015	2014	2010	2005
Population district Leoben	60.451	60.943	61.558	60.949	61.041	62.683	65.094

Table 2: Age structure in district Leoben

	2018	2017	2016	2015	2014	2010	2005
< 20 years	15,7%	15,9%	16,0%	15,6%	15,9%	16,9%	18,0%
20 - 65 years	59,3%	59,4%	59,3%	59,5%	59,3%	58,9%	60,2%
> 65 years	25,0%	24,7%	24,6%	24,9%	24,8%	24,3%	21,8%

Economic condition of area

Table 3: Regional GDP: Eisenstrasse is Nr. 2 in the Styrian ranking (behind Graz)

GDP in Mio €	1995	2015
Eastern Upper Styria	3.141	5.846

State of Styria	21.936	43.463
Austria	174.613	344.493

Source: Statistik Austria, adapted by Landesstatistik Steiermark

Table 4: Economic Sectors

Gross value added of economic sectors in %						
NUTS3-Region	primary s	sector	Secondary sector		Tertiary sector	
	1995	2015	1995	2015	1995	2015
Eastern Upper Styria	3,4	2,3	49,1	49,1	47,5	48,6
State of Styria	3,9	2,1	34,7	33,5	61,4	64,4
Austria	2,6	1,2	30,8	28,1	66,6	70,7

Source: Statistik Austria, adapted by Landesstatistik Steiermark

MINING/METALLURGY

<u>History of mining in region</u>: According to legend, iron ore was discovered at Erzberg more than 1300 years ago (712 AD). Due to the mine, the region become the cradle of industrialisation in Austria, and iron processing has been the most important employer in the region. Around 1900, the mine changed from underground to open-cast mining thus physically shaping Erzberg in a very significant way. The impressive and well-known mine is regarded as both landmark and ambassador of the "Styrian Iron Route".

<u>Economic role of mining in the region:</u> Neither mining nor metallurgy's contribution to regional GDP is available. Annual revenue generation at Erzberg mine is approximately 40 million euros and there are approximately 230 employees (most important employer in the city of Eisenerz).

Voestalpine is a large metallurgic company with roughly 10.000 employees in two locations: Leoben and Kapfenberg. It is the most important employer in Upper Styria and has the largest steel plant in Leoben, with more than 2000 employees, and also in Kapfenberg, with roughly 3000 employees. Most importantly, it is the only costumer of Erzberg. The regional metallurgic industry and Erzberg mine both rely heavily on one another.

<u>Media coverage of mining/metallurgy activities</u>: Topics in the national mainstream media including the following

- Only large iron mine in Central Europe, very modern & innovative with the latest technology such as Electro-mobility for mining trucks.
- Mine is an attractive touristic hotspot receiving approximately 50.000 visitors per year and engages in touristic marketing and public relations activities.
- It is an important location for sports events; for example, the Erzberg Rodeo is the most challenging Enduro motocross race in the world with global media coverage.
- Television movies and documentaries are filmed regularly at Erzberg. It often serves as a film location.



In 2020, Erzberg became the host of the most modern tunnel research centre in Europe with regular media coverage of events.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> As the mine has a long history and therefore deep roots in the community with community identity strongly bound up with it, the mine is predominately well accepted by the public. Erzberg is the largest employer in the town of Eisenerz, and Voestalpine the major employer in Leoben, important not only because of the number of jobs, but because of high wages which support other branches of the regional economy as well.

<u>Major stakeholders</u>: Municipality, Styrian government, mining university, tourist associations, Voestalpine

<u>Issues of concern</u>: Some irregular minor conflicts with the locals (emissions such as noise & dust) are solved on an informal basis, mostly with the municipality as intermediary.

Back to the list of case studies by <u>Member State – Austria</u> <u>Commodity – Iron ore</u> <u>Mining Cycle – Operation</u>





OLOVO

- Mineral: Lead
- Location: Olovo town, 50 km from Sarajevo, Bosnia
- Stage of development: Production started

SOCIO-DEMOGRAPHICS

Population/dominant age groups: 10,175 (Census 2013).

<u>Economic condition of area</u>: Underdeveloped compared to other European mining regions; however, generally on the same level as other regions of the country of Bosnia.

MINING/METALLURGY

<u>History of mining in region</u>: Long history from 14th century. Active mining operations during Yugoslavian times, which ended before the conflict in 1991. New exploration activities started in 2013-2014.

<u>Economic role of mining in the region:</u> On the state level, moderate due to the small scale of mining operations. However, for the municipality, the mining project is significant and one of the biggest employers as it employs nearly 150 persons.

<u>Media coverage of mining/metallurgy activities</u>: General opinion towards new mining projects in Bosnia is positive due to employment expectations. Coal mining and metallurgy, however, trigger more concerns among citizens due to environmental pollution.

SLO-RELATED INFORMATION



<u>Is there a general level of support among the community, politicians, local government officials?</u> Yes, mining investments are supported both on the state and local levels. The municipality willingly collaborates with the mining company. The mining permitting process, which is today quite long and complex in Bosnia, can be improved at the state level.

<u>Major stakeholders at local level</u>: Municipality officials, heads of small local communities, representatives of other businesses in the area and representatives of different social groups.

<u>Issues of concern</u>: Main concerns of local communities revolve around possible environmental risks and water pollution.

SLO-related actions:

- Close collaboration with town officials
- Openness in providing information to the local communities
- Hiring of local citizens is key for building SLO

<u>Are there opposing voices to the mining activity?</u> In the study area, there were no significant opposing voices to mining. However, on the country level, some opposition to coal mining and metallurgy can be observed in the mass media. The concerns mostly relate to the use of old technologies in coal processing and pollution of the environment.

<u>Does the community feel comfortable participating and voicing their opinions?</u> In the study area, there is no strong trend of "public participation", which is probably not natural for the Bosnian cultural context. At least, "participation" is not a key local community demand in building relationships with mining companies. On average, local people are satisfied with the fact that municipality officials are taking care of mining issues and representing community voices so local people do not seek opportunities for closer involvement in decision making.

Back to the list of case studies by <u>Member State - Bosnia</u> <u>Commodity - Lead</u> <u>Mining Cycle - Operation</u>



FINLAND



Figure 1. Finnish cases of mining disputes subdivided in mines and mine and mineral exploration projects.

European

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TALVIVAARA

- Commodity: Ni-Cu-Co-Zn-Mn, U, REE, Li
- Location: Sotkamo, Kainuu Province
- Company: Formerly Talvivaara Oy (Finnish), now Terrafame Oy (70% owned by the Finnish Minerals Group Ltd, state-owned company, and the rest by the Trafigura Ltd.)
- Stage of development: Production

SOCIO-DEMOGRAPHICS (2018)

<u>Population/dominant age groups:</u> 10 389; 4/km²; <15 years-old: 15.5%; 15-64 years old 58.6%; > 64 years old: 25.9%; 29.4 retired; male 49.7% and female 50.3%

<u>Economic condition of area</u>: Lowest unemployment (6.6%) of the whole province and below the national average; regional economy includes other mines, agriculture, forestry

MINING/METALLURGY

<u>History of mining in region</u>: The Talvivaara polymetallic deposit was discovered by GTK in 1977 and owned by the state mining company Outokumpu Oy (see Tiainen 2014 and Sairinen et al. 2017). The founder of the Talvivaara company bought the property in 2003 and built the mine in 2008. Metal extraction is by bioleaching. Due to environmental problems and bankruptcy, the state mining company, Terrafame Oy, assumed ownership. There are talc and silver mines close by, with the other two mines in the province to resume production in 2025.

Economic role of mining in the region: High in Sotkamo and the whole province.

<u>Media coverage of mining/metallurgy activities</u>: Significant since 2006, covered by Tiainen et al. 2014. More than 22 000 media hits. Currently quite neutral.

SLO-RELATED INFORMATION

<u>Is there general support for the mine</u>? For many years there was support for the Talvivaara mine, and government, authorities, public opinion, and the industry were largely favourable toward the project. The local support for Talvivaara was still strong for a long time even with problems, but the national public opinion started to change in 2010 when it came to light that the mine intended to produce uranium. Negativity increased with continuing problems and the gypsum pond leak in 2012 became the flash point and catalyzed the debate around mining in Finland (Sairinen et al. 2017). Nationwide protests were organized, and authorities and their actions were also challenged. This influenced the whole mining industry in Finland. In response, the government launched its plan for Sustainable Mining and the Finnish Independence Fund (Sitra) created the Finnish Network for Sustainable Mining, which is a collaborative forum between the mining companies and its stakeholders including NGOs.

The situation has now improved due to changes in overall mine management measures such as transparency, communication, safety, and the environment, but also due to measures taken by the authorities. For example, the Ministry of Environment convened a working group to address topical issues related to the environmental safety of mines (KYTU working group) and the working group has subsequently proposed launching a mine specialization program of three northern Environmental Authority Centres.

The Talvivaara example is, without a doubt, the most important dispute case in Finland, and the only Finnish mining dispute selected for the Environmental Justice Atlas (EJAtlas).



<u>Major stakeholders</u>: Finnish government, ministries and politicians, regional and local authorities, unions, local communities, landowners, NGOs, Stop Talvivaara.

<u>Issues of concern</u>: Environment, lake and river contamination, affecting also the recreational use of the water bodies, and local concerns about the reduced property values.

<u>SLO-related actions</u>: Open days and public hearings succeeded in building SLO initially, but the uncontrolled environmental impacts, especially the gypsum leak of 2012, coupled with poor public communication, turned public opinion against Talvivaara and against mining as well.

Back to the list of case studies by <u>Member State - Finland</u> <u>Projects Listed by Commodity</u> <u>Mining Cycle - Operation</u>



KAAPELINKULMA

- Commodity: Au
- Location: Valkeakoski, Pirkanmaa Province, Southern Finland
- Company: Dragon Mining Oy (Australian)
- Stage of development: Production

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: 21 137; 77.80/km²; <17 years old: 19.5%; 18-64 years old: 54.1%; <64 years old: 26.5%; 28.1% retired; male 49.2% and female 50.8%

<u>Economic condition of area</u>: unemployment 8.9%; services, agriculture, forestry, industry, and a weakening economic situation is predicted for years to come

MINING/METALLURGY

<u>History of mining in region</u>: The Kaapelinkulma gold deposit was discovered in 1986, and the mine was opened in 2019. The Orivesi gold mine, also owned by Dragon Mining Oy, was in close proximity and is now closed. Other older mines were open between the 1960s-1980s.

Economic role of mining in the region: Negligible

<u>Media coverage of mining/metallurgy activities</u>: quite negative <u>https://www.aamulehti.fi/a/201402214; https://www.hameensanomat.fi/kanta-</u> <u>hame/mielenosoittajat-kiipesivat-tyokoneiden-paalle-valkeakosken-kaivosalueella-668076/;</u> <u>https://dynamic.hs.fi/2019/dragonmining/index.html;</u> <u>https://www.satakunnankansa.fi/a/a8dca3ef-4a31-4272-b8dc-f63a48b3eec2;</u> <u>https://www.aamulehti.fi/a/201035102.</u>

SLO-RELATED INFORMATION

The municipality has been supportive of mining. The company has quite a negative reputation since its project in Kuusamo (Juomasuo), where it produced a completely inadequate EIA and was involved in a dispute (Lyytimäki and Peltonen 2016). The Friends of the Earth also found small uranium concentrations in the downstream sediments of its Orijärvi gold mine. After a newspaper story relating the CEO's declarations to the Hong Kong Stock Exchange in 2018 that the company would not obey the environmental laws or permits at the Kaapelinkulma mine site, but mine the gold before the permits became valid (see Muhonen and Gröndahl 2019), national public opinion has been very critical towards the company. A company employee also cut down forest in a protected area nearby the site contrary to the environmental permit, which led to a police investigation; however, he was not prosecuted. Dragon Mining's activities and attitudes have not only been one of the biggest contributing factors to reopening the Mining Act in Finland, but they have also been targeted by a coalition of national and international ENGOs since 2013 (Mauranen et al. 2014).

There have been non-violent civil disobedience, blockades, and action camps by the Tsunami (Hyökyaalto) Network and Pelastetaan (Save) Kaapelinkulma Movement, both in the mine area and the processing plant in Sastamala (Hämeen Sanomat 2019). This kind of direct action has been quite rare in Finland, especially in anti-mining protests in Finland. In this sense, it resembles the 1990s radical environmental activism where anarchists played an important role (Konttinen and Peltokoski 2004). However, according to the company, the sites have been calm since May 2019, and opponents have lost all appeals against the company in the Administrative Court of Hämeenlinna.



<u>Major stakeholders</u>: Local and regional authorities, municipality, community, NGOs, social movements (Tsunami Network, Pelastetaan Kaapelinkulma).

<u>Issues of concern</u>: Public declarations by the company, its illegal waste dump in the now closed Orivesi gold mine, environmental impact close to Natura 2000 and residential areas, illegal deforestation.

<u>SLO-related actions</u>: Apparently, there has not been any stakeholder engagement or attempts to be in touch and dialogue with the local community and opponents.

Back to the list of case studies by <u>Member State - Finland</u> <u>Commodity - Gold</u> <u>Mining Cycle - Operation</u>



HANNUKAINEN

- Commodity: Fe, Au, Cu
- Location: Kolari, Lapland, North-Western Finland
- Company: Hannukainen Mining Oy (Tapojärvi Oy, Finnish)
- Stage of development: Mine project, applying for permits

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: 3 811; 1.50/km²; men 50.9%; women 49.1%; <14 years old: 13.2%, 15–64 years old: 63.7%; >64-years old: 23.2%; 29.7% retired

Economic condition of area: unemployment 14.9%, forestry; seasonal tourism, reindeer herding

MINING/METALLURGY

<u>History of mining in region</u>: Mining in the region since 1662, Hannukainen was in production from 1975 to 1990. Plans for its reopening started in 2005 by Northland Oy, which went bankrupt in 2014. Hannukainen Mining Oy restarted the process in 2015. The closed mines of Rautuvaara, Pahtavuoma and Saattopora are located nearby.

Economic role of mining in the region: None at this moment in the Kolari region, but important elsewhere in Lapland.

<u>Media coverage of mining/metallurgy activities</u>: High, mainly negative, but there are also positive ones, and according to the company, the tone has shifted towards more neutral or even positive more recently:

https://www.lapinkansa.fi/hannukaisen-kaivoshanke-tuhosi-mokkihaaveet/48688; https://www.metalbulletin.com/Article/3452781/Finnish-company-buys-Northlands-Hannukaineniron-ore-deposit.html; https://www.hs.fi/talous/art-2000006310149.html; https://www.lapinkansa.fi/kaivosyhtio-sai-kannustusta-kolarilaisilta-ymparis/134401; https://yle.fi/uutiset/3-10972977

The information below was compiled from the Horizon 2020 funded NEXT – New Exploration Technologies project's work package on Social License to Explore and is used here to demonstrate what is meant by high coverage that is mainly negative.

Company (current holder)	Project and its current stage	Number of media reports	Number of contentious articles	Covered period
Hannukainen Mining Oy	Hannukainen mine project	359	110	2006- 2020

SLO-RELATED INFORMATION

Authorities and the government have been supportive towards mining. At the start of mine project by Northland, the relationship was good with the local community, even though the mine is located 10 km from the Ylläs Ski Centre (Heikkinen et al. 2013, Koivurova et al. 2015, Lesser et al. 2017). Apparently, after a query on attitudes towards mining and tourism made by researchers of the DILACOMI project in 2014, the opposition began, especially from the local and international tourism entrepreneurs and holiday cottage owners. This also coincided with economic difficulties of the company and it no longer kept up its stakeholder engagement (Lesser et al. 2017). The operator changed but the situation did not. The opposition collected 51 000 signatures against the mine project of which many were seasonal tourists and people from elsewhere in Finland (Ruokangas and Aula 2019). The biggest issue is the conflicting land use interests, as the region is a popular ski and hiking destination (Koivurova et al. 2015).



There are National Park and nature protection areas nearby and associated tourism facilities including six hotels, cottages and entrepreneurs that depend on the tourism. The protestors are afraid not only of the environmental damages, but also of the image of the region and livelihoods potentially changed due to mining (Heikkinen et al. 2013).

Western Lapland, though a good prospect for iron oxide-copper-gold (IOCG) deposits, and where Hannukainen is located, is also increasingly becoming a potential *no-go zone* for mining and mineral exploration due to several types of land use overlap: reindeer herding, tourism and nature conservation (Eerola and Nousiainen 2019). Stakeholder consultation with the local communities is essential before any activity occurs.

<u>Major stakeholders</u>: Government, local and regional authorities, municipality, community, landowners, NGOs, tourists, tourism, service and other entrepreneurs, holiday cottage owners, reindeer herders, Pro Ylläs movement.

<u>Issues of concern</u>: Tourism, image, reindeer herding, livelihoods, environmental impact in the rivers and landscape.

<u>SLO-related actions</u>: Stakeholder engagement, communication, and open days were successful in the beginning. When the opposition began, those efforts have been continued but with apparently reduced influence. However, according to the company, the situation has recently started to turn more positive and supportive.

Back to the list of case studies by <u>Member State – Finland</u> <u>Projects Listed by Commodity</u> <u>Mining Cycle – Planning/Permitting</u>



JUOMASUO

- Commodity: Au, Co (association with U)
- Location: Kuusamo, Ostrobotnia, North-Eastern Finland
- Company: Latitude 66 Cobalt Oy (Australian)
- Stage of development: Mineral exploration and mine project

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: 15 119; 3.20/km²; male 50.8%; female 49.2%; <14 years old 15.7%, 15-64 years old 62.4%; >64 years old 21.9%; 29.3% retired

Economic condition of area: unemployment 12.6%, seasonal tourism, forest industry, reindeer herding

MINING/METALLURGY

<u>History of mining in region</u>: Kuusamo is located in a highly prospective area for Au, Co and U, which has a history of mineral exploration that continues to the present day. There is only one mine in the region - Mustavaara mine (V). Juomasuo was discovered by GTK in the 1980s, and developed by Outokumpu Oy, Polar Mining Oy Dragon Mining Oy and Kuusamo Gold Oy from the 1990s to 2015. After a rejected EIA, Dragon Mining Oy sold the prospect to the Latitude 66 Cobalt Oy.

Economic role of mining in the region: None at this moment, mineral exploration and mine project evolving

<u>Media coverage of mining/metallurgy activities</u>: High, neutral to negative <u>https://www.kaleva.fi/uutiset/pohjois-suomi/kuusamon-kaivoshankkeen-kieltava-kaava-nurin-korkeimmassa-hallinto-oikeudessa-kaivosyhtio-tyytyvainen-paatokseen/820646/; https://www.iltalehti.fi/kotimaa/a/201806282201035455</u>

The information below was compiled from the H2020 NEXT project's work package on Social License to Explore (SLO) and is used here to demonstrate what is meant by high coverage that is neutral to negative.

Company (current holder)	Project and its current stage	Number of media reports	Number of contentious articles	Covered period
Latitude 66 Cobalt Oy	Juomasuo mine project	148	69	2008- 2020

SLO-RELATED INFORMATION

Kuusamo has a history of diverse natural resources struggles (forests, fishery, hydropower, reindeer, mineral exploration, Eerola 2017). Uranium exploration was opposed in the region during the 2000's (Eerola 2008). The local NGOs, Kitkan Viisaat ry and Pro Kuusamo ry have opposed the projects since then.

Juomasuo is associated with uranium and there was opposition towards the project already even during the former ownership by Dragon Mining Oy (Lyytimäki and Peltonen 2016). The company also applied for areas close to the Ruka Ski Center (Mauranen et al. 2014). After a rejected environmental permit application, the Dragon Mining Oy sold the prospect for the Latitude 66 Cobalt Oy. Although the company has now been much more open and communicative, opposition has continued (Hämeenniemi 2018). Several years ago, the Municipality of Kuusamo tried to exclude mining from its county through urban planning, but it was not considered legal. According to a poll in February 2018, almost half of the local people oppose the mine. The government and mining authorities have been supportive to neutral. The mine would be close to National Parks, Nature Protection sites and leisure centres; hence, the dispute relates mainly to conflicting land use interests and nature tourism vs. mining. There have been



allegations that a metallurgical plant near the Oulanka National Park is planned, but according to the company, this is not true.

<u>Major stakeholders</u>: Government, local and regional authorities, municipality, community, NGOs, local associations, tourists, tourism entrepreneurs

Issues of concern: Tourism, environmental impact in the rivers, landscape and Oulanka national park.

<u>SLO-related actions</u>: The former owner, Dragon Mining, failed completely in its stakeholder engagement. The current owner is making a concerted effort to improve engagement and communication through activities such as open days, but their effectiveness is difficult to be estimated.

Back to the list of case studies by <u>Member State - Finland</u> <u>Projects Listed by Commodity</u> <u>Mining Cycle – Planning/Permitting</u>



SOKLI

- Commodity: P, Nb, REE, U
- Location: Savukoski, Lapland, Northern Finland
- Company: Yara Finland Oy (Norwegian)
- Stage of development: Mine project, applying for permits

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: 1 018; 0.17/km²; males 54.3%; female 45.7%; <14 years old 11.7%, 15-64 years old 60.3%, >64 years old 28%; 35% retired

Economic condition of area: unemployment 19.2%, forestry, agriculture, reindeer herding, some tourism

MINING/METALLURGY

<u>History of mining in region</u>: Except for Sokli, there have not been any mining-related activities in the region, except sporadic mineral exploration. The deposit has been under investigation and development since 1967, when it was discovered (Pohtila 2018). There have been several attempts to start mining, but its remote location and lack of appropriate infrastructure has made it uneconomic. The deposit was the property of the state-owned companies Rautaruukki Oy and Kemira Oy, and in 2007, Kemira sold it to Yara Finland Oy, which was developing it until recently (Pohtila 2018). Yara Finland had applied for a mining permit and was preparing a feasibility study. As part of Yara's feasibility study, the government proposed to improve the road from Sokli to Kemijärvi railway station for ore transportation. However, Yara sold the property recently to the national state-owned company Suomen malmijalostus Oy.

The plan is to produce phosphorite for fertilizer. It has also considerable resources of uranium and niobium, but Yara Finland Oy did not have plans to exploit them. Its current owner's plan regarding that is not yet known.

<u>Economic role of mining in the region</u>: None at present in the nearby areas, but important elsewhere in Lapland

Media coverage of mining/metallurgy activities: High

https://yle.fi/uutiset/18-40600; https://www.aamulehti.fi/a/200635144; https://www.lapinkansa.fi/aihe/sokli-kasite

The information below was compiled from the Horizon 2020 funded NEXT project's work package on Social License to Explore and is used here to demonstrate what is meant by high coverage.

Company holder)	(current	Project and its current stage	Number of media reports	Number of contentious articles	Covered period
Yara Finland Oy		Sokli mine project	294	92	2007- 2020

SLO-RELATED INFORMATION

Due to its association with uranium, resistance against the Sokli project emerged during the uranium dispute in 2007, when Yara Finland Oy bought the deposit and announced its intentions to develop a mine (Bruun 2014, Lipsanen 2014, Eerola 2015, Pohtila 2018). Since then, the opposition has been quite sporadic and limited to occasions when Yara made announcements, such as presenting EIA results or submitted applications for permits. The Sokli deposit is located between two Natura 2000 areas and there is also reindeer herding. The FANC and Wilderness Sokli movement oppose the project and reindeer herders have appealed the permits to the Supreme Administrative Court (Kurko 2020). However, many local people, the government and the regional authorities have been supportive of the



mine project for a long time because of the employment potential and regional development policy. It remains to be seen how the national state ownership will influence the opposition of the project.

Major stakeholders: Local and regional authorities, municipality, community, NGOs, reindeer herders

Issues of concern: Environmental and social impacts, Natura 2000 areas and reindeer herding

<u>SLO-related actions</u>: Public events/hearings have been conducted but their effectiveness is difficult to estimate.

Back to the list of case studies by <u>Member State - Finland</u> <u>Projects Listed by Commodity</u> <u>Mining Cycle – Planning/Permitting</u>



SAKATTI

- Commodity: Ni-Cu
- Location: Sodankylä, Lapland, Northern Finland
- Company: Sakatti Mining Oy (subsidiary of the British Anglo American plc)
- Stage of development: Feasibility study, applying for mining permits

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: 8 876; 0.80/km²; <14 years old 13.8%, 15-64 years old 63.7, >65 years old 22.6%; 30.1% retired; male 52.3% and female 47.7%

Economic condition of area: unemployment 10.1%, reindeer herding, forestry, agriculture, services

MINING/METALLURGY

<u>History of mining in region</u>: Mining municipality with Pahtavaara gold mine (started in 1996) and Kevitsa Ni, Cu, Au mine (founded in 2012)

Economic role of mining in the region: Important

Media coverage of mining/metallurgy activities: High: https://www.lapinkansa.fi/aihe/sakatti-paikka;

The information below was compiled from the Horizon 2020 funded NEXT project's work package on Social License to Explore and is used here to demonstrate what is meant by high coverage.

Company (curre holder)	Project and its current stage	Number of media reports	Number of contentious articles	Covered period
Sakatti Mining Oy	Sakatti mine project	340	59	2011- 2020

SLO-RELATED INFORMATION

The Sakatti project is located at the margin of the Viiankiaapa Natura 2000 area, which is the reason the Finnish Association for Nature Conservation (FANC) opposes the project (Bruun 2014, Lipsanen 2014, Eerola 2015, 2017, Lassila 2020). However, according to successive polls, the major part of the local population does not oppose the mine (e.g. Suopajärvi et al. 2019). After opposition from FANC emerged, the company decided to change their plans and build an underground mine in order to avoid impact on the Natura 2000 area, even though that would raise the cost. The government, authorities, and the municipality have been mainly in favour of the project. The first sustainable mine contract between a company and the local stakeholders has been in preparation. And in another example of collaboration, the municipality and mining companies are jointly developing the region's sustainable mining industry.

This is one of the cases in Finland where a project is opposed by a NGO but approved by the local community. However, some local opposition also exists in the form of the Save Viiankiaapa Movement and reindeer herders (Lassila 2020).

<u>Major stakeholders</u>: Government, local and regional authorities, municipality, community, NGOs, reindeer herders

Issues of concern: Environmental impact on Natura 2000 area and reindeer herding.



<u>SLO-related actions</u>: Public events/hearings, constant and well-received systematic long-term stakeholder engagement, closed circuit drilling developed for sensitive areas.

Back to the list of case studies by <u>Member State - Finland</u> <u>Projects Listed by Commodity</u> <u>Mining Cycle – Planning/Permitting</u>



ROMPAS-RAJAPALOT

- Commodity: Gold, cobalt, uranium
- Location: Ylitornio, Lapland, Northern Finland
- Company: Mawson Oy (Canadian, subsidiary of the Mawson Gold Ltd.)
- Stage of development: Mineral exploration

SOCIO-DEMOGRAPHICS

Population/dominant age groups: 4 448; 2.20/km²; 11.7% 0–14 years old, 57.7% <15–64 years old and 30.5% >64 years old; 37.9% retired; male 50% and female 50%; population is decreasing

Economic condition of area: unemployment 13.8%, reindeer herding, forestry, services, agriculture

MINING/METALLURGY

<u>History of mining in region</u>: No previous mining at the local level, but active mining elsewhere in Lapland. Active mineral exploration going on in the region. The prospect has been explored since 2008, when French Areva discovered it. Initially the project explored for uranium. In 2010, Areva sold the property to the Canadian company Mawson Oy, as the amount of uranium in the area was economically inadequate. Gold and cobalt were subsequently found, and the company now concentrates on these commodities. As uranium is associated with gold, radiometric surveys have been applied in mineral exploration in Rompas.

Economic role of mining in the region: None at the moment

<u>Media coverage of mining/metallurgy activities</u>: High, now mostly positive/neutral but the legal battle between the company and FANC and environmental authorities have been intensely covered in past years.

https://suomenluonto.fi/uutiset/malminetsinta-mawsonin-tutkintapyynto-luonnonsuojelijoistaaiheeton/; Lapissa taas malminetsintälupa Natura-alueelle

(suomenluonto.fi)https://www.tekniikkatalous.fi/uutiset/ylitorniolta-loytyi-kultaa-kuparia-jauraania/be32cff8-cc37-358e-83bd-cc2a31ee45b1; https://yle.fi/uutiset/3-9878875; https://yle.fi/uutiset/3-10607205

SLO-RELATED INFORMATION

The main opposition comes from FANC as the site is partially located within a Natura 2000 area (Bruun 2014, Lipsanen 2014, Eerola 2015). Although the Rajapalot prospect is not associated with uranium, FANC continues to appeal the company's permits also on that basis (Väinönheimo et al. 2020). For years, the company, NGO and environmental authorities have been engaged in a battle in the courts and there have been successive requests for police investigations on alleged environmental impacts within the Natura 2000 area (Niskasaari 2016, Suomen luonto 2018). Conversely, the local population apparently does not oppose exploration activities. This is shown by a recent survey made by the Horizon 2020 Programme financed New Exploration Technology (NEXT) Project (Beland Lindahl et al. 2021). Many local landowners lost their lands for the compulsory Natura 2000 program without any consultation, and there has been a great deal of frustration because of that. For this reason, many of them are supportive of mineral exploration. The government, authorities and municipality appear to be neutral; however, the environmental authorities (Centre for Economic Development, Transport, and the Environment) have been critical because of operation within a Natura 2000 site. Recently, the media announced that the company started to prepare an environmental impact assessment for a mine.



Illustrative examples of social licence to operate across Europe

Beyond Sakatti, this is another case in Finland where an external NGO opposes a project instead of a local community.

<u>Major stakeholders</u>: Local and regional authorities, municipality, community, NGOs, landowners, reindeer herders

Issues of concern: Environmental impact on the Natura 2000 area, association with uranium

<u>SLO-related actions</u>: Public events/hearings, constant and well-received systematic long-term stakeholder engagement, use of new low impact technologies in mineral exploration.

Back to the list of case studies by <u>Member State – Finland</u> <u>Projects Listed by Commodity</u> <u>Mining Cycle - Exploration</u>



AITOLAMPI (HEINÄVESI)

- Commodity: Graphite
- Location: Heinävesi, South-Savo Province, Eastern Finland
- Company: Oy Fennoscandian Resources Ab (subsidiary/joint-venture of British Beowulf Mining Ltd.)
- Stage of development: Mineral exploration

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: 3 654; 3.50/km²; 12.1% 0–14 years old, 55% <15–64 years old and 32.9% >64 years old; 41% retired; male 51.6% and female 48.4%.

Economic condition of area: unemployment 13.6%, tourism, agriculture, forestry, services **MINING/METALLURGY**

<u>History of mining in region</u>: No previous mining in the region, but in the surrounding areas (e.g. Outokumpu in the neighbouring province of Northern Karelia).

Economic role of mining in the region: None

<u>Media coverage of mining/metallurgy activities</u>: High, especially in 2018, mostly concentrated on the dispute. One of the first newspaper articles (2016) about the Beowulf Mining Ltd. dealt with its bad reputation in Sweden (Gallak project).

https://www.ts.fi/uutiset/talous/841490/Ruotsissa+saamelaisten+vastustama+kaivosyhtio+laajentaa +Suomeen; https://esaimaa.fi/uutiset/lahella/0be0168a-ad39-4816-ae9e-148664df6798; https://www.mtvuutiset.fi/artikkeli/heinaveden-grafiittikaivoshanke-halutaan-estaa-nyt-on-tehtava-

toita-ettei-kaivosta-tulisi/7011682#gs.rhixa1; https://www.apu.fi/artikkelit/heinavedelle-kaavailtugrafiittikaivos-herattaa-vastustusta-nyt-kaivosyhtiot-voivat-ottaa-hyodyt-ja-haipya;

<u>https://www.heinavedenlehti.fi/yleisotilaisuuden-viesti-oli-selva-enemmisto-ei-halua-</u>grafiittikaivosta-heinaveden-rantojen-aarelle/

SLO-RELATED INFORMATION

The dispute is one the more recent ones in Finland and unique as it received a great amount of media attention without a precipitating event, when several public personalities and local monasteries participated in the campaign against the project (Niemelä 2020). The location of the project appears to be unfavorable for SLO. The Heinävesi and Tuusniemi examples, along with the now obsolete Leppävirta cases, are closely related being in the same Saimaa Lake area and operated by the same company with exploration interest spurred by the drive for battery materials. All of them created movements for their regions which are networked with each other and with their own social media groups (Keränen 2020, Niemelä 2020).

The dispute began in the summer of 2018, when a representative of the FANC, who moved to the region, gave an interview for an article, and stated the project "will pollute the whole Saimaa Lake area" (Kokkonen 2018). The region is a very popular summer tourism destination with many holiday cottages. The summer holiday home-owners are one of the most influential stakeholder groups with respect to mining in Finland, and celebrities as well as politicians who have holiday cottages there have joined the campaign against the mineral exploration project along with two local monasteries, increasing the negative publicity. There are also nature conservation areas and the waterway is considered a national landscape. The company came to Finland with an already tarnished reputation from Sweden, where it was involved with a dispute over the Gallak Project (Persson et al. 2017, Beland Lindahl et al. 2018). This was also noticed by the Finnish press (Kallio 2016).



It seems that the company did not engage with the local community since the beginning. Media, locals and NGOs frame the Heinävesi dispute as a 'mining project' even though it is in the mineral exploration phase. The Pro Heinävesi Movement was founded by the opposition, and in addition to other Finnish anti-mining movements and via a petition, it contributed actively to the popular legislative initiative to renew the national Mining Act (Niemelä 2020). Due to resistance, the company has postponed the project to concentrate on the EIA for mineral exploration and potential mining. The government and authorities seem to be neutral, but the municipality and province are against it (Keränen 2020). The company also has other mineral exploration license applications in the region that face resistance, one of which it has already given up (Leppävirta).

The case was investigated in detail by Leino and Miettinen (2020).

<u>Major stakeholders</u>: Government, local and regional authorities, municipality, community, NGOs, Pro-Heinävesi Movement, monasteries

Issues of concern: Environmental impact on the Saimaa Lake area, tourism

<u>SLO-related actions</u>: Due to opposition, the company representatives have participated in public events in the town, but those have been quite hostile.

Back to the list of case studies by <u>Member State – Finland</u> <u>Commodity – Graphite</u> <u>Mining Cycle - Exploration</u>



RÄÄPYSJÄRVI (TUUSNIEMI)

(geographically proximate to Heinävesi)

- Commodity: Graphite
- Location: Tuusniemi, North-Savo Province, Eastern Finland
- Company: Oy Fennoscandian Resources Ab (subsidiary/joint-venture of British Beowulf Mining Ltd.)
- Stage of development: Mineral exploration

SOCIO-DEMOGRAPHICS

Population/dominant age groups: 2 789; 5.10/km²; 12% 0–14 years old; 59.2% 15–64 years old; 28.8% > 64-vuotiaita. Retired 40.5%; 50.8% men; 49.2% female

Economic condition of area: unemployment 46.7%, tourism, agriculture, forestry, services

MINING/METALLURGY

<u>History of mining in region</u>: Asbestos mined 1904–1975 at the Paakkila Village. Exploration for graphite has already occurred in the region.

Economic role of mining in the region: None

<u>Media coverage of mining/metallurgy activities</u>: Low, mainly from the end of 2018, concentrated on the dispute and permits. One of the first newspaper articles (2016) about the Beowulf Mining Ltd. Focused on its bad reputation in Sweden (Kallak project):

https://www.ts.fi/uutiset/talous/841490/Ruotsissa+saamelaisten+vastustama+kaivosyhtio+laajentaa+Su omeen; https://yle.fi/uutiset/3-10506322; https://www.savonsanomat.fi/savo/Ryhm%C3%A4kansanedustajia-vastustaa-kaivoshanketta-Tuusniemell%C3%A4/1291801

SLO-RELATED INFORMATION

The dispute is among the most recent ones in Finland together with Heinävesi and Leppävirta, which are all located in the same region and close to one another. The dispute started at the end of 2018. The lake area is a very popular summer tourism destination with many holiday cottages, and there are also nature conservation areas and its waterway and a road along a ridge is considered a national landscape scenery.

As stated in the previous case, the company arrived in Finland with an already tarnished reputation from Sweden, where it was involved in a dispute over the Gallak Project (Persson et al. 2017, Beland Lindahl et al. 2018). It seems that the company did not engage with the local community since the beginning, and like the situation in Aitolampi, the Tuusniemi dispute is a result, at least in part, of its being described in the media and by locals and NGOs as a "mining project", when it is in fact about mineral exploration. The Pro Tuusniemi Movement was founded by the opposition, and in addition to other Finnish anti-mining movements, it contributed actively to the popular legislative initiative to renew the national Mining Act (Niemelä 2020). There is also the Love Saimaa movement formed by Parliament members. The government and authorities seem to be neutral, but the municipality and province are against.

<u>Major stakeholders</u>: Government, local and regional authorities, municipality, community, NGOs, Pro-Tuusniemi Movement

Issues of concern: Environmental impact on the Saimaa Lake area, tourism



<u>SLO-related actions</u>: Due to opposition, the company representatives have participated in public events in the town but those have been quite hostile.

Back to the list of case studies by <u>Member State – Finland</u> <u>Commodity – Graphite</u> <u>Mining Cycle - Exploration</u>



PAST/INACTIVE DISPUTES OR OPPOSITION (not on the map)

The past/inactive disputes are also interesting and reveal important aspects about the dynamics of the mining-related disputes in Finland. They occurred years ago and have been generally short-lived (Table 1). Most of them were related to mines, namely gold and base metals. As the Suhanko PGE mine project is active, and there have been concerns about the project's potential impacts, the possibility exists that opposition may be re-ignited in the near future when the mine is planned to be constructed.

In 2014-2015, there was one dispute related to diamond exploration in the far north and it was the first case where the Sámi people were involved in mining-related issues in Finland (Lassila 2018). Ultimately, the local people received international attention for their struggle, and it was this external pressure which eventually forced the company to withdraw from its claim reservation.

Among those short-lived disputes is also the very recent one of Leppävirta, also in the region of Heinävesi and Tuusniemi in South-Eastern Finland. It was related to graphite exploration and the company withdraw from its mineral exploration license. However, the Pro-Leppävirta movement is still active.

Project/ owner	Commodity	Phase/Status	Location	lssue	Comments
Kylylahti	Copper- zinc	Mine/Past or Inactive	Kylylahti	Local concerns regarding traffic, processing plant expansion, and the environment	Mononen and Björn (2019)
Laiva	Gold	Mines/ Past or Inactive	Raahe	Environmental concerns	
Suhanko	PGE	Mine project/Past or Inactive	Rovaniemi, Lapland	Environmental concerns	
Kevo Natural Park/Karelian Diamond Resources Oy	Diamonds	Mineral exploration/Past (2014-2015)	Utsjoki, Lapland	Reindeer herding, Sámi homeland, nature conservation	Lassila (2018), first case in which the indigenous Sami people were involved in Finland
Leppävirta/Oy Fennoscandian Resources Ab	Graphite	Mineral exploration/Past or inactive (2018)	Leppävirta, Saimaa Lake region, SE Finland	Tourism at the Saimaa Lake area, summer holiday homes, concerns about environmental impacts	Not engaged with communities. Poor corporate conduct and lack of social responsibility. Mining skeptical movement generated in localities. Started a new cycle of resistance against mineral exploration in Finland brought

Table 1. Past/inactive disputes/opposition in Finland from 2010


	on by the battery minerals boom
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RECENT/ONGOING DISPUTES

The most recent and/or ongoing disputes on mineral exploration are shown in the Table 2. Those are mostly related to battery minerals (nickel, cobalt, graphite). They are considered as part of a new contentious cycle started by the cases of Heinävesi, Tuusniemi and Leppävirta in 2018 by Oy Fennoscandian Resources Oy/Beowulf. They have been mostly focused on the Saimaa Lake area, South-Eastern Finland, but include also one case in the Sámi homeland area.

Table 2. Recent/ongoing disputes in Finland

Project/ owner	Commodity	Phase/Status	Location	Issue	Comments
Akkerman Finland Oy	Nickel, copper and cobalt	Claim reservation application for exploration/2020	Hietakero, Enontekiö, Lapland	Sámi homeland and reindeer herding.	Melamies (2020), Seipiharju (2020); company did not engage with communities, poor corporate conduct and lack of social responsibility, mining skeptical Sámi movement generated in the locality, part of a new cycle of resistance against mineral exploration in Finland brought on by the battery minerals boom. The only ongoing case in which the indigenous Sámi people is involved. Over thirty thousand signatures collected for a petition against the project with involvement of well- known musicians.
Boliden Finnex Oy	Nickel, coppe cobalt	er, Mineral exploration/ 2019	Pieksämäki and Joroinen	Concerns about groundwater	Kosonen (2019); engagement with the community in public meeting that



					not dissipated concerns and suspicions. Part of a new cycle of resistance against mineral exploration in Finland brought on by the battery minerals boom.
BR Gold Mining Oy	Gold	Mineral exploration/ 2019	Osikonmäki	Tourism, Lake Saimaa area	Kilpeläinen (2019); company did not engage with communities, poor corporate conduct and lack of social responsibility, mining skeptical movement generated in the locality, part of a new cycle of resistance against mineral exploration in Finland brought on by the battery minerals boom.
Dragon Mining Oy	Gold	Mine/Closed	Orivesi/ Kutemajärvi	Illegal dump within the mine, company's bad reputation and conduct	Muhonen and Gröndahl (2019)
Rio Tinto	Nickel, graphite	Claim reservation application/ 2020	Rautalammi	Tourism, Saimaa Lake area, concerns about environmental impacts	Ronkainen (2020); company did not engaged with communities, poor corporate conduct and lack of social responsibility, mining skeptical movement generated in the locality, part of a new cycle of resistance against mineral exploration in Finland brought on by the battery minerals boom.



Suomen Malmitutkimus Oy	aphite Claim reservation applications/ 2020	Juva, Sulkava, Puumala	Tourism, summer holiday homes, Saimaa Lake area, concerns about environmental impacts	Porvari (2020); company did not engaged with communities, poor corporate conduct and lack of social responsibility, mining skeptical movement generated in the locality, part of a new cycle of resistance against mineral exploration in Finland brought on by the battery minerals boom.
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SUMMARY

Even though the evolution of the Finnish anti-mining attitudes and struggles started already during the uranium dispute (2006-2008, see Eerola 2008, 2015, 2017), its cases were not considered here.

15 examples of active disputes

- Mine operations = 2 examples
- Mine projects = 4 examples
- Mineral exploration = 9 examples

Commodities

- Gold = 3 examples
- Diverse base metals = 3 examples
- Industrial minerals (phosphorite) = 1 example
- Uranium (associated with gold, cobalt or nickel) = 4 cases

(Graphite is another commodity that stands out in the examples from SE Finland.)

Location

- Northern Finland (Lapland) = 5 cases
- Northern Finland (Kuusamo and Kainuu) = 2 cases
- The Saimaa Lake area in southwest Finland has the second highest number of dispute cases.
- Most in remote locations with small population density.

Most visible causes of disputes

- Land use, especially regarding tourism, nature conservation, reindeer herding and Sámi homeland
- Commodities, especially uranium
- Company reputation (i.e. Beowulf, Dragon Mining)
- Poor corporate conduct: Company attitude and activity both during exploration (i.e. new mineral exploration companies exploring for battery minerals) and mine project (poor communication and stakeholder engagement or a complete absence of both)



• Resource nationalism (opposition toward foreign companies)

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PROJECT OLZA

• Investor: Rathdowney Polska Sp. z o.o.

Rathdowney Polska Sp. z o.o. is a division of the Canadian company Rathdowney Resources Limited, which belongs to the Hunter Dickinson Inc. Group. (HDI), an international concern in the field of exploration and exploitation of mineral resources. The main goal of the company is to look for new deposits of basic metals (zinc and lead) in southern Poland.

- Commodity: Lead and zinc
- Location: Zawiercie (planned location of the mine), Poręba, Łazy, Ogrodzieniec (mineral deposit area)
- Stage of development: Exploration, Environmental Impact Assessment

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: Zawiercie - 48 599, Łazy - 15 998, Poręba - 8 568, Ogrodzieniec - 9 146/ 30-45 yo, 55-65 yo



Economic condition of area/Commune income per capita: Zawiercie - 4 064 zł, Poręba - 3 263 zł, Ogrodzieniec - 4 173 zł, Łazy - 3 920 zł

MINING/METALLURGY

<u>History of mining and metallurgy in region</u>: The city of Zawiercie has been developing since the 15th century mainly due to the iron industry, which at first was based on the work of manufactories and forges powered by water wheels. The development of Zawiercie was strongly influenced by the Warsaw-Vienna Railway (operating since 1847) and an extensive network of beaten roads. The second half of the nineteenth century was a period of great industrial development in the city. At that time, various metal factories and enterprises operated in Zawiercie. In 1893, the "Ernest Erbe" and "Sambor and Krawczyk" Iron Casting and Machine Building Factory was established. There were many metal-related factories in the city at this time: "Ferrum", "Ułan", "Poręba", "Liniarnia", "Jan Mecner", the Tin Packaging Factory, "Suchy Element Elektryczny". "Huta Zawiercie" (ironworks) launched in 1901 and it is still operating (today as CMC Poland Sp. z o.o.). Lignite and iron ores were also extracted in Zawiercie. In 1897, the steelworks "Hulczyński" opened. After some downtime in development during World War II, companies resumed their production.

Economic role of mining in the region: Currently no mine operates in the Zawiercie area.

There are ironworks (CMC Poland Sp. z o.o.), as well as the glass industry and an iron foundry.

The Śląskie Voivodeship (Silesia Region), however, has a rich history of coal mining and here are some of the most industrialized areas in Poland. The Śląskie Voivodeship has the highest percentage of people working in the industry (over 400,000). The development of this region has been based on mining for years.

<u>Media coverage of mining/metallurgy activities</u>: The media regularly describes the project's level of advancement, legal situation of the project and local community activities (e.g. meetings, protests). There are also a few regional websites, which seem to be divided into pro-mining and anti-mining.

Opponents of the mine established the association "No for zinc and lead mine" (http://niedlakopalni.org), where they publish information about the activities of their association, Rathdowney company and local authorities.

SLO-RELATED INFORMATION

<u>Major stakeholders</u>: Rathdowney company, CMC Poland Sp. z o.o. (employees of the ironworks company from Zawiercie), local community, local authorities (mayors and commune councils of Zawiercie, Poręba, Łazy and Ogrodzieniec)

<u>Issues of concern</u>: Disturbance of water conditions (the biggest concern), pollution and degradation of the environment, impact on tourism (in fact Zawiercie is an industrial town, but the area is a popular tourist destination due to landscape), uranium radiation, export of commodity (foreign company)

<u>SLO-related actions</u>: For the first years of field research (since 2010), the company had no problems communicating with the local community. The opposition was initiated by employees of the CMC Poland Sp. z o.o. ironworks. In 2015 they established an association against the mine, which at the beginning consisted of 15 people. In 2019, the protest escalated. Over 5,000 people have already completed the online petition against mine construction (December 2019). Rathdowney stopped organizing regular meetings with the locals because the discussions turned into protests. However,



according to comments posted on the internet, some residents support the construction of the mine, seeing it as a chance for the development of the city.

One of the turning points was the company's publication of the planned location of the project on their English website, while assuring the local community in Zawiercie that this location is not yet known. As a result, residents have lost trust in the company.

Back to the list of case studies by <u>Member State – Poland</u> <u>Projects Listed by Commodity</u> <u>Mining Cycle – Exploration</u>



LIPNICA

- Commodity: industrial minerals
- Investor: DRO-BET, IMKOP, Zakład Produkcji Materiałów Budowlanych Kazimierza Gintera (2007), LIP-TOR S.C. (2016)
- Location: Lipnica (the part called "Trzebielsk")



• Stage of development: Suspended

SOCIO-DEMOGRAPHICS

Population/dominant age groups: 5 230, 25-35; >70

Commune income per capita: Lipnica - 5 940 zł

MINING/METALLURGY

<u>History of mining and metallurgy in region</u>: There are two aggregate quarries managed by Lafarge in the area. The plant in Gliśno was established in 1974, in Ostrowite in 1982. Since 2006, both belong to Lafarge company.

<u>Economic role of mining in the region</u>: Most of the commune's area is designed for agriculture and forestry, yet the commune is relatively rich. This may be the result of the operation of a quarry, which in the years 2017-2018 paid around 700 thousand euros of taxes (real estate tax and mining fees).

<u>Media coverage of mining/metallurgy activities</u>: Regional websites share the opinion of the residents and do not speak positively about the quarry.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials</u>? In 2007, three mining companies applied for permission to start exploring aggregates deposits in Lipnica. Commune authorities did not give permission, justifying their decision based on the



opposition of the local community. However, they promised to hold a referendum on this matter, which took place in 2009. The local community opposed the construction of the quarry.

In 2016 another investor asked for the permit to start mining operations. Local authorities again rejected the request based on the results from the 2009 referendum.

The mining entrepreneur asked to organize public consultations so that he could present to the community how the quarry functioned, answer their questions and clarify doubts. The authorities did not agree and rejected the change of the local land use plan, thus blocking development of the mineral deposits.

Major stakeholders: Local community, mining company, local authorities

Issues of concern: environmental pollution, increased transport

<u>SLO-related actions</u>: In this case, the company did not have a chance to engage with the community as the local authorities did not allow the companies to conduct public consultations and present their arguments. Instead, they held a referendum in which the local community opposed the construction of the quarry based on their perception of the mining industry.

While consultations are usually thought of as opportunities for community participation, this example suggests that public consultations should not be organized only for the local community, but also for the investor so there is a chance to present project plans and answer questions.

Back to the list of case studies by <u>Member State – Poland</u> <u>Commodity – Industrial Minerals</u> <u>Mining Cycle – Cancelled/Suspended</u>



KROSINKO

- Investor: Żwirex
- Commodity: gravel
- Location: Krosinko



• Stage of development: operating since 2018

SOCIO-DEMOGRAPHICS

Population/dominant age groups: 860; 25-40, 50-65

<u>Commune income per capita</u>: Mosina - 4 397 zł (Poland's average)

MINING/METALLURGY

History of mining and metallurgy in region: One aggregate quarry operating since 2005

<u>Economic role of mining in the region</u>: Mining does not play a significant role in this part of the Wielkopolskie voivodship. There are only several small aggregate quarries here. However, 100 kilometers away is the open-cast mine complex - the Konin brown coal mine (and power plants), which is the engine of economic growth in the region and one of the biggest open-pit mining complexes in Poland.

<u>Media coverage of mining/metallurgy activities</u>: The media described the conflict in Krosinko, but were objective in this matter as the story focused only on how the situation developed.

SLO-RELATED INFORMATION



<u>Is there a general level of support among the community, politicians, local government officials?</u> There is no data about local community attitude towards mining. Local environmental organizations were the opposing group.

Major stakeholders: Environmental organizations, mining company

Issues of concern: Environmental pollution, water level disturbance, impact on national park

<u>SLO-related actions</u>: Because the quarry area is small and does not significantly affect the environment, the local authorities had no reason to prevent mining operations. Environmental organizations wrote an appeal in this matter, but they did not achieve the intended goal, which was to suspend the construction of the quarry. In this case, the main role was played by legislation that allowed the quarry to be opened.

Back to the list of case studies by <u>Member State – Poland</u> <u>Commodity – Gravel</u> <u>Mining Cycle – Operation</u>



JARACZ

- Investor: Dolata •
- Commodity: Gravel
- Location: Jaracz, Rożnowice



Stage of development: The company withdrew its application for license to operate (30th April 2018)

SOCIO-DEMOGRAPHICS

Population: 83 (2016)

Commune income per capita: 4 339 zł (Rogoźno) (Poland's average)

MINING/METALLURGY

History of mining and metallurgy in region: Mining does not play a significant role in this part of the Wielkopolskie voivodship. There are only several small aggregate quarries here. However, 100 kilometers away is the open-cast mine complex - the Konin brown coal mine (and power plants), which is the engine of economic growth in the region and one of the biggest open-pit mining complexes in Poland.

Media coverage of mining/metallurgy activities: The media (regional websites) described the conflict, but were objective in this matter by only showing how the situation developed.

SLO-RELATED INFORMATION

European

Is there a general level of support among the community, politicians, local government officials? There was general opposition against opening a quarry in that area. When residents and environmentalists learned about plans to build the quarry (around 2016), they addressed their concerns to local authorities. With their help, they prepared petitions and sent letters to units responsible for environmental decisions. In response, a special commission was established (consisting of scientists and specialists in the field of environmental protection), which clearly stated that the documents presented by the company were incomplete and that the building of a quarry would threaten nearby protected areas. Consequently, the investor decided to withdraw the application for a license to operate, thereby resigning from exploitation.

<u>Major stakeholders</u>: Local community, local authorities, environmental organizations, mining company

Issues of concern: Environmental pollution, impact on tourism

<u>SLO-related actions</u>: In this case, there was a lack of dialogue between the company and the local community. From the beginning, the residents adopted a defensive attitude and made every effort to prevent the building of a quarry.

Back to the list of case studies by <u>Member State – Poland</u> <u>Commodity – Gravel</u> <u>Mining Cycle – Cancelled/Suspended</u>



ŻABNICA

- Investor: Unknown
- Commodity: Gravel
- Location: Żabnica
- Stage of development: Planning

SOCIO-DEMOGRAPHICS

Population: ~500

Commune income per capita: 4758 zł (Gryfino) (above Poland's average)

MINING/METALLURGY

History of mining and metallurgy in region: No significant mining history in nearby area

<u>Economic role of mining in the region</u>: Mining does not play a significant role in this part of the Zachodniopomorskie voivodship. There are only several small aggregate quarries here (the closest is 30 km away).

<u>Media coverage of mining/metallurgy activities</u>: The media (websites) described the conflict, taking the side of the local community

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> There is general opposition against the quarry among the local community and this is supported by local authorities.

Major stakeholders: Local community, local authorities, mining company

Issues of concern: Environmental pollution, noise, bad odour (sic)

<u>SLO-related actions</u>: Residents started a protest against the construction of the quarry long before the investor applied for a license to operate. As soon as information about the potential quarry appeared, the residents began to organize meetings and collect signatures against its construction. On this basis, the local authorities established an Act prohibiting the building of a quarry in their commune. To date, the investor has not started the process of applying for a license, probably due to lack of public acceptance.

Back to the list of case studies by <u>Member State – Poland</u> <u>Commodity – Gravel</u> <u>Mining Cycle – Planning/Permitting</u>



CHEŁM

- Investor: Unknown
- Commodity: Gravel
- Location: Chełm, Budziszów Mały
- Stage of development: Planning

SOCIO-DEMOGRAPHICS

Population: Chełm~60, Budziszów Mały ~150

Commune income per capita: 4 611 zł (Malczyce), 6 394 zł (Wądroże Wielkie) (above Poland's average)

MINING/METALLURGY

<u>History of mining and metallurgy in region</u>: The Lower Silesian Voivodship has a long mining history. Copper has been extracted since the 15th century. To this day, the largest copper mines in Europe operate here (KGHM company). There is also a history of gold and uranium exploitation. Lower Silesia is also one of the richest voivodships when it comes to rock raw materials. Near the border with Germany and the Czech Republic is the Turów brown coal mine.

<u>Economic role of mining in the region</u>: Mining plays a significant role in the development of the Lower Silesia voivodship, especially due to copper mining. Communes where copper is mined and processed are among the richest in Poland. The Copper Basin is located 30 km from the area of the case study. The is also an operating slate quarry nearby (10 km).

Media coverage of mining/metallurgy activities: The media presented the situation objectively.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials</u>? The local community is opposed to the building of the quarry, arguing that in the neighbouring commune, a wild waste dump was created at the site of the closed quarry. They fear the same situation as well as environmental pollution and increased transport. The local authority is favourable toward the investment due to potential revenue and financial benefits, however, in accordance with the will of the residents, the authority has not yet agreed to change the local spatial development plan, which will allow the start of mining operations.

Major stakeholders: Local community, local authorities, mining company

Issues of concern: possible wild waste dump, environmental pollution, increased transport

<u>SLO-related actions</u>: It appears that negative experiences from other quarries (in this case creating an illegal waste dump in a closed quarry) have a great impact on the opinion of the local community regarding mining and may determine whether or not an investment is blocked. This example shows the importance of proper reclamation of post-mining areas and its impact on acceptance.

Back to the list of case studies by <u>Member State – Poland</u> <u>Commodity – Gravel</u> <u>Mining Cycle – Planning/Permitting</u>



REPUBLIC OF SERBIA



VELIKI MAJDAN

- Name: Veliki Majdan mine
- Mineral: Lead and Zinc
- Location: Lubovija, 135 km from Belgrade
- Stage of development: In operation since 2007

SOCIO-DEMOGRAPHICS

Population/dominant age groups: 14, 469 (Census 2011)

<u>Economic condition of area</u>: Ljubovija is defined as an underdeveloped area in Serbia. Population is declining and many people are unemployed.

MINING/METALLURGY

<u>History of mining in region</u>: Long history from the 14th century. Modern mining started in 1930s and processing in the 1960s and continued until the war in the 1990s. Mineco mining company acquired the mine in 2007 and restarted production.



<u>Economic role of mining in the region</u>: Agriculture is a major source of income in Ljubovija municipality. At the same time Veliki Majdan mine is one of the significant employers. It employs about 300 personnel; almost all of them are local people.

<u>Media coverage of mining/metallurgy activities</u>: In the study area, the media coverage of today's mining activities in Veliki Majdan is positive. However, in the whole of Serbia, opinions towards mining are diverse, especially because of some cases of irresponsible environmental management and the start of new large-scale mining projects.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> Yes, mining investments are generally supported both on state and local level. The municipality willingly collaborates with the mining company treating it as one of the main enterprises in the area.

<u>Major stakeholders at local level</u>: Municipality officials, heads of small villages and communities, representatives of other business in the area, representatives of different social groups

Issues of concern: The mine's environmental impacts on the surroundings.

<u>SLO-related actions</u>: Company has close collaboration with the municipality and village officials. The hiring of local citizens has been found to be key for SLO-building.

Are there any opposing voices to the mining activity? Are there any environmental pollution legacies from that time? And if so, does it affect people's views toward mining? In the study area, the most common possible environmental risks that local people connect with the mine are the discharge waters that could be released to the environment. However, locals believe that a strong environmental management system can prevent the harmful consequences of the discharge waters.

<u>Environmental pollution legacies</u>: There was a case of destroyed tailing dams in the 1990s, however, they were effectively reconstructed by the new mining company.

What is the community's outlook on 'participation', meaning, do they feel comfortable voicing their opinions? Or is there a reticence to do so, even if the opinions are good? The same as in the Bosnian case, "greater" participation is not an important question or requirement for the local community. People are generally satisfied with the work of municipality and local community bodies in company-community relations. At the same time, the relatively small scale of mining operations, the location of the mining office in the nearest village and the fact that local people are employed at the mining site creates flexible and easy connections with the company's management. Local people have the opportunity to express concerns immediately just by coming to the gate of the mining facilities and forwarding messages to the head of the mining company via other employers.

Back to the list of case studies by <u>Member State – Serbia</u> <u>Projects Listed by Commodity</u> <u>Mining Cycle – Operating</u>





- 1. Kalnica (U)
- 2. Bystričany (Andesite)
- 3. Nováky (Lignite)
- 4. Kremnica (Au)
- 5. Bartošová Lehôtka (Bentonite)
- 6. Považský Chlmec (Gravel)
- 7. Detva (Au)
- 8. Novoveská Huta (U)
- 9. Košice Jahodná (U)

KALNICA

- Uranium
- TSK Trenčín Self-Governing Region
- Exploration stage

SOCIO-DEMOGRAPHICS

Population: 1 048 inhabitants/Dominant age groups: Mean age 40,00 - 41,99

Economic condition of area: Unemployment rate: 4 %

MINING/METALLURGY

History of mining in region: no significant mining history

Economic role of mining in the region: no role

Media coverage of mining/metallurgy activities: sporadically covered

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> Local authorities sided with the opponents of mining.

<u>Major stakeholders</u>: For exploration: BECKOV Minerals, s. r. o. (LLC). Against exploration: local community, Priatelia Zeme, Sosna, Greenpeace (NGOs)

Issues of concern: Environmental and health issues

<u>SLO-related actions</u>: The project was terminated/ suspended under pressure from the resentment of local communities.

Back to the list of case studies by <u>Member State – Slovakia</u> <u>Commodity – Uranium</u> <u>Mining Cycle – Cancelled/Suspended</u>



BYSTRIČANY

- Andesite
- TSK Trenčín Self-Governing Region
- Exploration stage

SOCIO-DEMOGRAPHICS

Population: 1 798 inhabitants/Dominant age groups: Mean age 40,00 - 41,99

Economic condition of area: Unemployment rate: 5,2 %

MINING/METALLURGY

<u>History of mining in region</u>: Connected with coal mining. Targeted industrial coal mining in the region dates back to 1909, when the construction of Mine Handlová was completed. The peak of coal mining was in the 70s.

<u>Economic role of mining in the region</u>: Strong economic significance in the Prievidza region, the company Hornonitrianske bane Prievidza is the largest employer in the Prievidza region.

Media coverage of mining/metallurgy activities: Highly covered topic

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> Local authorities sided with the opponents of mining.

<u>Major stakeholders</u>: For mining: VSK Minerals, a. s. (joint stock company). Against mining: local community

Issues of concern: Environmental and heritage issues

<u>SLO-related actions</u>: The project was terminated/ suspended under pressure from the resentment of local communities.

Back to the list of case studies by <u>Member State – Slovakia</u> <u>Commodity – Andesite</u> <u>Mining Cycle – Cancelled/Suspended</u>



NOVÁKY

- Lignite, Brown coal
- TSK Trenčín Self-Governing Region
- Production stage

SOCIO-DEMOGRAPHICS

<u>Population</u>: 4 203 inhabitants/Dominant age groups: Mean age 34,00 – 35,99 <u>Economic condition of area</u>: Unemployment rate: 5,2 %

MINING/METALLURGY

<u>History of mining in region</u>: Targeted industrial coal mining in the region dates back to 1909, when the construction of Mine Handlová was completed. The peak of coal mining was in the 70s.

<u>Economic role of mining in the region</u>: Strong significance, the company Hornonitrianske bane Prievidza is the largest employer in the Prievidza region.

Media coverage of mining/metallurgy activities: Highly covered topic.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> Local authorities as well as government sided with the miners.

<u>Major stakeholders</u>: For mining: Hornonitrianske bane Prievidza a.s. (joint stock company). Against mining: Greenpeace (NGO)

Issues of concern: environmental, water and health issues

<u>SLO-related actions</u>: The project was allowed.

Back to the list of case studies by <u>Member State – Slovakia</u> <u>Projects Listed by Commodity</u> <u>Mining Cycle – Operating</u>



KREMNICA

- Gold
- BBSK Banska Bystrica Self-Governing Region
- Exploration stage

SOCIO-DEMOGRAPHIC

Population: 5 392 inhabitants/Dominant age groups: Mean age 40,00 – 41,99

Economic condition of area: Unemployment rate: 6,9 %

MINING/METALLURGY

<u>History of mining in region</u>: The beginnings of mining in the Kremnické vrchy region date back to the 10th century, when gold and silver were mined around the city of Kremnica. Later in the 14th century, a mint was established so that Kremnica could produce gold and silver coins. To this day, the Kremnica Mint produces world-class coin products, however, the last mining operations stopped in 1972.

<u>Economic role of mining in the region</u>: Historically the role of mining in the region's economy was very significant. Today the only economic role of mining in this region is related to mining tourism.

<u>Media coverage of mining/metallurgy activities</u>: To some extent related to the mining history, mining tourism and coin minting.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials</u>? Local authorities sided with the opponents of mining.

<u>Major stakeholders</u>: Pro exploration: ARC Minerals Ltd. Against mining: OZ Kremnica nad zlato (civil association)

Issues of concern: Environmental issues

<u>SLO-related actions</u>: The project was terminated/ suspended under pressure from the resentment of local communities.

Back to the list of case studies by <u>Member State – Slovakia</u> <u>Commodity – Gold</u> <u>Mining Cycle – Cancelled/Suspended</u>



KREMNICKÉ VRCHY - BARTOŠOVA LEHÔTKA

- Bentonite
- BBSK Banska Bystrica Self-Governing Region
- Exploration Deposit enlargement stage

SOCIO-DEMOGRAPHICS

Population: 369 inhabitants/Dominant age groups: Mean age 38,00 – 41,99

Economic condition of area: Unemployment rate: 6.9 %

MINING/METALLURGY

<u>History of mining in region</u>: The beginnings of mining in the Kremnické vrchy region date back to the 10th century, when gold and silver were mined around the city of Kremnica. Later in the 14th century, a mint was established in Kremnica to produce gold and silver coins. To this day, the Kremnica Mint produces world-class coin products; however, mining operations stopped in 1972.

<u>Economic role of mining in the region</u>: Historically the role of mining in the regional economy was very significant. Currently the only economic role mining plays is related to mining tourism.

<u>Media coverage of mining/metallurgy activities</u>: Related to mining history, mining tourism and coin minting.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> Local authorities sided with the opponents of mining.

<u>Major stakeholders</u>: For mining: REGOS, s. r. o. (LLC). Against mining: Kremnické vrchy pre život, o. z. (civil association)

Issues of concern: Environmental issues

<u>SLO-related actions</u>: The project was terminated / suspended under pressure from the resentment of local communities.

Back to the list of case studies by <u>Member State – Slovakia</u> <u>Commodity – Bentonite</u> Mining Cycle – Cancelled/Suspended



POVAŽSKÝ CHLMEC

- Gravel
- ZSK Žilina Self-Governing Region
- Cancelled/Suspended

SOCIO-DEMOGRAPHICS

Population: 1 373 inhabitants/Dominant age groups: Mean age 38,00 - 39,99

Economic condition of area: Unemployment rate: 4 %

MINING/METALLURGY

History of mining in region: No significant history.

Economic role of mining in the region: No economic role.

Media coverage of mining/metallurgy activities: No media coverage.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> Local authorities sided with the opponents of mining.

<u>Major stakeholders</u>: For mining T+T (joint stock company). Against mining OZ Budúcnosť Považského Chlmca (civic association), local community

Issues of concern: Environmental issues

<u>SLO-related actions</u>: The project was terminated/ suspended under pressure from the resentment of local communities.

Back to the list of case studies by <u>Member State – Slovakia</u> <u>Commodity – Gravel</u> Mining Cycle – Cancelled/Suspended



DETVA

- Gold
- BBSK Banska Bystrica Self-Governing Region
- Exploration stage

SOCIO-DEMOGRAPHICS

Population: 14 875 inhabitants/Dominant age groups: Mean age 40,00 – 41,99

Economic condition of area: Unemployment rate: 5,2 %

MINING/METALLURGY

<u>History of mining in region</u>: No significant history directly in the region. However, this region is neighbouring historically more significant mining regions.

Economic role of mining in the region: No economic role.

<u>Media coverage of mining/metallurgy activities</u>: Sporadically covered before the exploration of gold deposit. Main media coverage related to mining is connected presented mining plan for gold mining in Detva.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> Local authorities sided with the opponents of mining.

<u>Major stakeholders</u>: For mining: Eastern Mediterranean Resources (based in Cyprus) and Mining Gold, s. r. o. (LLC). Against mining: local community, representatives of municipalities

Issues of concern: Environmental and health issues

<u>SLO-related actions</u>: The project was terminated/ suspended under pressure from the resentment of local communities.

Back to the list of case studies by <u>Member State – Slovakia</u> <u>Commodity – Gold</u> <u>Mining Cycle – Cancelled/Suspended</u>



NOVOVESKÁ HUTA

- Uranium
- KSK Košice Self-Governing Region
- Cancelled/Suspended

SOCIO-DEMOGRAPHICS

Population: 62 inhabitants/Dominant age groups: Mean age 34,00 - 35,99

Economic condition of area: Unemployment rate: 10,1 %

MINING/METALLURGY

<u>History of mining in region</u>: Very significant mining history dating back to the prehistoric period. The most important mined commodities in the Spiš region include: copper ore, iron ore, gypsum and anhydrite. Mining flourished during the period after the Second World War when the state subsidized the mining of iron and copper ores, albeit at a loss. After the transition to an open market in 1989, the mines began to close. The only remaining operational mine is the anhydrite and gypsum mine - Novoveska Huta.

Economic role of mining in the region: Historically very significant, currently almost no economic role.

<u>Media coverage of mining/metallurgy activities</u>: The media coverage is related mainly to mining history.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> Local authorities sided with the opponents of mining.

<u>Major stakeholders</u>: For mining: Ludovika Holding (LLC). Against: mining local community and Greenpeace (NGO)

Issues of concern: Environmental and health issues

<u>SLO-related actions</u>: The project was terminated/ suspended under pressure from the resentment of local communities.

Back to the list of case studies by <u>Member State – Slovakia</u> <u>Commodity – Uranium</u> <u>Mining Cycle – Cancelled/Suspended</u>



KOŠICE – Jahodná

- Uranium
- KSK Košice Self-Governing Region
- Exploration stage

SOCIO-DEMOGRAPHICS

<u>Population</u>: 239 171 inhabitants/Dominant age groups: Mean age 40,00 – 41,99 <u>Economic condition of area</u>: Unemployment rate: 7,6 %

MINING/METALLURGY

<u>History of mining in region</u>: Košice city, as the main city of the region, was connected to polymetallic mining in the neighbouring mining villages (Horný Klátov, Hýľov, Opátka, Zlatník pri Košickej Belej, Jahodná, Zlatá Idka) during the middle ages and early to late modern history. The mining directly in Košice city started with magnesite mining in 1901 and ended in 1996.

<u>Economic role of mining in the region</u>: Today the economic role of mining is not significant; however, the role of metallurgy is very important (U.S. Steel Košice).

<u>Media coverage of mining/metallurgy activities</u>: Significant role in relation to metallurgy activities of U.S. Steel Plant Košice.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> Local authorities as well as government sided with the opponents of mining.

<u>Major stakeholders</u>: For mining: exploration company - Ludovika Energy s.r.o. (LLC). Against mining: Greenpeace (NGO)

Issues of concern: Health issues

<u>SLO-related actions</u>: The project was terminated/ suspended under pressure from the resentment of local communities.

Back to the list of case studies by <u>Member State – Slovakia</u> <u>Commodity – Uranium</u> <u>Mining Cycle – Cancelled/Suspended</u>



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2017: stiahnutie návrhu

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- 1. San Finx
- 2. Salave
- 3. Muga
- 4. Salamanca
- 5. Valdeflores
- 6. Alconchel
- 7. Fontanarejo
- 8. Barruecopardo

Legend

Commodities: red-metallics; green-industrial minerals

Big circles represent commodities included in the EU 2020 list of critical raw materials (only if the CRM is the main commodity of the project).

Administrative boundaries: thick line-regions (autonomous communities); fine line-provinces

A note on the methodology for the Spanish examples

The following summaries present information about eight mining projects in Spain. Seven are associated with disputes and one is considered a good practice. The information was compiled in the period 2018-19 (updated in May 2020).



As most (if not all) exploration and mining projects can have opposition to some extent, an initial selection of 25 cases was compiled representing projects in which the opposition had visible impact in the media.

Subsequently, seven cases out of the 25 were selected as examples of disputes. The selection criteria used is as follows: 1) varied geographic distribution 2) different commodities and 3) well-known cases with significant opposition in the referred period.

It should be noted that these seven summaries are not an in-depth analysis of each particular project; rather, the intent is to provide an overview of mining projects that have raised opposition in Spain.

The sources of information are digital newspapers and official webpages. The information relative to commodities, location and stage of the project comes from Spanish official bulletins. Socio-demographic data is available from the municipal/regional webpages. The history of mining and its economic role in the regions come from specialised publications (e.g. regional mining books, university papers) available on the internet. The SLO-related information and the media coverage comes from the review of digital newspapers.

In these seven cases, there has been no personal contact with companies, administrations or opposition groups, in part due to the lack of time and budget, but also because the purpose of the work is simply to provide an overview of information that can be found in the public sphere. Due to the lack of contact, there are no names of companies, opposition groups or other organizations in the report. There is also no analysis as the summaries only reflect existing information in the public domain.

The eighth case, Barruecopardo, is an example of a mining project that has no significant opposition and is also considered to exemplify good practices. Part of the information for the summary comes from the sources mentioned previously, while the other part has been kindly provided by employees of the mining company.



SAN FINX PROJECT (A CORUÑA, GALICIA)

- Commodity: Tin-Tungsten
- Location: Lousame, A Coruña. X=514002; Y=4733844
- Stage of development: Planning/Permitting

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: The project is located in the municipality of Lousame, with a total population of 3,386 inhabitants (58% active, 30% retired and 12% children approximately).

<u>Economic condition of area^{*1}</u>: The primary sector is predominant, especially in livestock (sheep). Industrial activities and construction are also important in the area. The tertiary sector is a minority, although has been growing in the last years.

MINING/METALLURGY

<u>History of mining in region</u>: Galicia has important mining activity in ornamental rocks (granite and roofing slate) and industrial minerals (china clay, quartz), although there were also notable exploitations of lignite and metals. San Finx mine started in the middle ages, but the main period of activity was 1884-1990, when several companies exploited the deposit underground. There was another period of activity in 2009-2013.

<u>Economic role of mining in the region</u>: Currently, Galicia has 270 companies and 7,000 workers in the mining sector (ornamental rock, aggregates, industrial minerals and water springs) but nothing in metal mining. Mining generates 600 M€/year in Galicia (granite and shale sector mainly), which is 1.2% of the Galician GDP.

<u>Media coverage of mining/metallurgy activities</u>: In the last few years, the main media coverage has been related to environmental problems, with news about contamination and the EIA predominantly.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> There is opposition against the mining project at the local and regional levels led by two platforms.

Major stakeholders: Two platforms representing the local and regional opposition.

<u>Issues of concern</u>: The opponents are concerned about two waste dams in the middle of a river potentially at risk of failure. As a result, there could be contamination of waters by acid drainage and heavy metals, with possible damage to shellfish and public health. These dams are not included in the restoration plan.

Back to the list of case studies by <u>Member State – Spain</u> <u>Projects Listed by Commodity</u> <u>Mining Cycle – Planning/Permitting</u>

¹ The primary sector involve primary raw materials industries: agriculture, livestock, fisheries, forestry and partially mining. The secondary sector are those industries who transform raw materials into finished or semi-finished products: energy, building and partially mining. The tertiary sector produce services: transport, communications, trade, health and education systems, financing, administration, tourism, hostelry, restaurants, shops, etc.



SALAVE PROJECT (ASTURIAS)

- Commodity: Gold
- Location: Tapia de Casariego, Asturias. X=668547; Y=4822786
- Stage of development: Planning/Permitting

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: The municipality of Tapia de Casariego has 3,795 inhabitants (62% active, 27% retired and 11% children approx.).

<u>Economic condition of area</u>: The primary sector (especially livestock for milk production, but also agriculture and fishing) is the most important, with 42% of the employment. The tertiary sector, thanks to tourism, has grown in recent years and represents 40% of total jobs.

MINING/METALLURGY

<u>History of mining in region</u>: Asturias has a clear mining tradition, mainly linked to coal but also related to metals, industrial minerals and quarries. There is also important metallurgical activity (steel, Al, Zn).

In Salave, there were Roman gold mines (as in many parts of western Asturias), with a land movement of 2 to 6 million tonnes to obtain 5-7 tonnes of gold. In the 1940's there were shallow underground drifts to extract molybdenum. Modern exploration began in the Salave area in the late 1960s. There was a proposal for exploitation that was rejected by a negative EIA in 2014.

<u>Economic role of mining in the region</u>: The region of Asturias has a total of 61 active mining exploitations (9 industrial minerals, 1 gold, 6 coal products, the rest ornamental rocks and aggregates), generating 165 M€ in 2017 with more than 2,500 jobs. Coal mining, together with the thermal power plants, are in a process of closure.

<u>Media coverage of mining/metallurgy activities</u>: Mining (especially coal) and metallurgy have wide coverage in the regional press. The Salave project has also regular media coverage, reporting about the permitting processes and the activities of opposition.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials</u>? There is significant opposition to the mine at the local level, which was especially active during the former project.

Major stakeholders: A platform representing the local opposition.

<u>Issues of concern</u>: The former project was rejected in 2014 due to a negative statement from the Hydrological Confederation that pointed out the risk of spills to rivers and the sea during and after exploitation. Other concerns for opponents included: hazardous deposit of sludges and use of pollutant compounds (cyanide) in a densely populated area; effects to the primary sector (especially milk production); land rendered unusable from residues generated during the processes of extraction and treatment of the mineral; weak creation of jobs; proximity to the village and protected areas; damages to archaeological sites.

Back to the list of case studies by <u>Member State – Spain</u> <u>Commodity – Gold</u> <u>Mining Cycle – Planning/Permitting</u>



MUGA PROJECT (NAVARRA-ZARAGOZA)

- Commodity: Potash (sylvinite)
- Location: Sangüesa, Navarra
- Stage of development: Planning/Permitting

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: The Muga Project affects four villages in Navarra and Zaragoza: Sangüesa, Javier, Undués de Lerda and Urriés, with a total population of 5,170 inhabitants (17% children, 62% active people and 21% over 65 years).

<u>Economic condition of area</u>: Together with the primary sector, the industrial sector predominates (66 companies in 2008, comprising 9 in the energy sector, 3 chemical, 45 metallurgy and 9 other manufacturing industries), as well as the corresponding tertiary sector.

MINING/METALLURGY

<u>History of mining in region</u>: Before the 20th century, the only notable mining was of iron and the related forges. In the 20th century, the main mining activity focused on magnesite and potash. In the late 1950's, the mining of potash resulted in the main company, Navarra, being established in the 1960's, with activity until 1997.

<u>Economic role of mining in the region</u>: The region of Navarra has 42 active mining exploitations (three industrial minerals, the rest ornamental stones and aggregates), generating 42.5 M€ in 2017 with more than 500 jobs.

<u>Media coverage of mining/metallurgy activities</u>: There is coverage in the regional media, reporting about the progress of the project, expected benefits (e.g. jobs) and the concerns of social groups and platforms.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> There is opposition among local communities through the platform established against the project, with the support of politicians.

Major stakeholders: A platform representing the local opposition.

<u>Issues of concern</u>: The opponents refer to concerns about seismicity (effects on the Loiti fault and the Yesa Swamp); impacts on the hydrological system; risk of salinization of the basin of the Aragón river and effects on irrigation waters and the Bardenas canal as well as subsidence. Also cited are impacts on urban centres and the historical heritage (e.g. Camino de Santiago); impacts on territorial mobility and worsening conditions of roads by heavy traffic.

Back to the list of case studies by <u>Member State – Spain</u> <u>Commodity – Potassium</u> <u>Mining Cycle – Operation</u>



SALAMANCA PROJECT (SALAMANCA, CASTILLA Y LEÓN)

- Commodity: Uranium
- Location: Retortillo, Salamanca
- Stage of development: Planning/Permitting

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: The Salamanca Project is located in the municipality of Retortillo, with 198 inhabitants (64% active, 30% retired and 6% children approximately).

<u>Economic condition of area</u>: The main economic activity in this zone (Campo Charro) is the primary sector, dominated by livestock. Tourism is also important (there is a natural spa).

MINING/METALLURGY

<u>History of mining in region</u>: Although there has been no mining activity in the past within the boundaries of the current project, the west zone of Salamanca, more specifically the Ciudad Rodrigo-Villavieja de Yeltes area, has hosted the most important uranium mine in Spain (Mina Fe), exploited between the years 1974-2000. In addition, metallic mining has been present in this region and several tin and tungsten mines were exploited in the 40s-50s continuing to the present day.

Economic role of mining in the region: Castille and Leon has a total of 483 active mining exploitations (73.5% aggregates, 20.9% ornamental rocks, 3.3% industrial minerals, 2.1% energetics and 0.2% metallics) that generate more than 360 M€ y 4,000 jobs. All metallic mining activity is developed in the Salamanca province, with 2 tungsten mines in operation.

<u>Media coverage of mining/metallurgy activities:</u> There is coverage of new projects in the province. In this case, the coverage has been broad, reporting about administrative procedures, mining company activity and activities of the opposition.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> There is both support and opposition among the community. Some political parties are against the project.

Major stakeholders: Several platforms representing local and provincial opposition.

<u>Issues of concern</u>: The opponents are concerned about the radioactive pollution of land and waters (streams and aquifers), with effects on living beings; radioactive residues; risk of rupture in slopes and ponds and air pollution by radon. Concerns also include impacts on the landscape and on a Natura 2000 area; impacts on agriculture and livestock by land occupation and loss of quality in tradeable products and impacts on the natural spa. Platforms have doubts about profitability and concerns about compliance with restoration requirements.

Back to the list of case studies by <u>Member State – Spain</u> <u>Commodity – Uranium</u> <u>Mining Cycle – Cancelled/Suspended</u>


VALDEFLORES PROJECT (CÁCERES, EXTREMADURA)

- Commodity: Lithium, Tin, Tungsten
- Location: Cáceres
- Stage of development: Exploration

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: The project is located in the municipality of Cáceres. This city has a population of 96,720 inhabitants (16% children, 68% active person and 16% people over 65).

<u>Economic condition of area</u>: The city is the main commercial, administrative and economic hub of the province of Cáceres. Its economy is based mainly on the services sector, tourism and construction, with a limited contribution from the industrial sector (focused on food, textiles, ceramics and rubber products).

MINING/METALLURGY

<u>History of mining in region</u>: Since the 19th century, there has been mining activity in Extremadura mainly in metals (Pb-Zn, Sb, Ni-Cu), industrial minerals (phosphates, feldspar, pyrophillite) and construction rocks (ornamental and aggregates). In Valdeflores, the San José underground mine was active from the late 19th century to the 1960s, producing Sn and Li as sub-product.

<u>Economic role of mining in the region</u>: The region of Extremadura has in total 78 active mining exploitations (two industrial mineral and the rest ornamental rocks and aggregates) that generated 41 M \in in 2017, with more than 1,000 jobs. Specifically in the province of Cáceres, mining activity generates 16 M \in /year, with 32 active mines.

<u>Media coverage of mining/metallurgy activities</u>: Media coverage focuses on the exploration activity of companies. The Valdeflores project has broad coverage in the regional and national media.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> No estimations about the level of support among the community. There is rejection, as demonstrated by local opposition groups and the municipality. More than 35,000 allegations have been attributed to this project (relating to a former permit now cancelled).

Major stakeholders: A platform representing the local opposition.

<u>Issues of concern</u>: The opponents are concerned about the closeness of the open-pit to the city (<3 km), impacts on infrastructure (drinking-water plant, hospitals), extensive land movement and surface occupation (doubts about the reclamation) and loss of a valued place (landscape, nature). Also, there are concerns about the high demand of water, effects on human health (air pollution, use of chemical compounds, noise, heavy traffic), loss of jobs in the primary sector, and loss of tourism. The platform concerns are primarily unclear permitting procedures.

Back to the list of case studies by <u>Member State – Spain</u> <u>Projects Listed by Commodity</u> Mining Cycle – Planning/Permitting



ALCONCHEL PROJECT (BADAJOZ, EXTREMADURA)

- Commodity: Copper, Gold
- Location: Alconchel, Badajoz
- Stage of development: Planning/Permitting

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: The Alconchel Project affects the village of Alconchel, with a population of 1,704 inhabitants (14% children, 65% active people and 21% over 65 years).

Economic condition of area: Livestock is the main economic activity.

MINING/METALLURGY

<u>History of mining in region</u>: Since the 19th century in Extremadura, there have been exploitations of metals (Pb-Zn, Sb, Ni-Cu), industrial minerals (phosphates, feldspar, pyrophillite) and construction rocks (ornamental and aggregates).

<u>Economic role of mining in the region</u>: Extremadura has a total of 78 active mining exploitations (two industrial minerals and the rest ornamental rocks and aggregates), that generated 41 M€ in 2017, with more than 1,000 jobs.

<u>Media coverage of mining/metallurgy activities</u>: Media coverage in Extremadura focuses on exploration activities. In the case of the Alconchel project, the media has reported on the progress of the project and the activities of the opposition.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> There is opposition within the community, as demonstrated by the platform against the project.

Major stakeholders: A platform representing the local opposition.

<u>Issues of concern</u>: Opponents are worried the open pit would lead to a loss of jobs in the agricultural sector and the loss of other local activities; the amount of water required for the mine; use of land when the mining activity ends as well as dust and noise in the urban centres. The mine also affects an area included in the Natura 2000.

Back to the list of case studies by <u>Member State – Spain</u> <u>Projects Listed by Commodity</u> <u>Mining Cycle – Planning/Permitting</u>



FONTANAREJO PROJECT (CIUDAD REAL, CASTILLA-LA-MANCHA)

- Commodity: Phosphate
- Location: Fontanarejo, Ciudad Real
- Stage of development: Planning/Permitting

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: The project is located in the village of Fontanarejo, with a population of 261 inhabitants (52% active population, 40% retired and 8% children approximately).

Economic condition of area: The economy of this zone is based on agriculture, livestock and rural tourism.

MINING/METALLURGY

<u>History of mining in region</u>: The province of Ciudad Real has a mining tradition mainly linked to the Almadén mine (one of the oldest mines in the world, active from the 4th century BD to 2002) and the Puertollano coal basin (active from 1873 to 2017). There has been metal mining activity in San Quintín mines (16th century) and Horcajo mine (1858).

<u>Economic role of mining in the region</u>: The region of Castilla La Mancha has a total of 292 active mining exploitations (22 industrial minerals, the rest ornamental rocks and aggregates) that generated 110 M€ in 2017 and more than 2,000 jobs. Specifically in the province of Ciudad Real, there are 35 active mines and mainly quarries (only 3 industrial minerals). Ciudad Real generated only 5M€ through its mining activity in 2017.

<u>Media coverage of mining/metallurgy activities</u>: There is news in the regional media about the complaints and concerns related to the project.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> There is support from the regional government and the municipality. Within the community there is support and opposition (as demonstrated by a platform against the project).

Major stakeholders: A platform representing the local opposition.

<u>Issues of concern</u>: Opponents are concerned about possible effects on a nearby protected area (less than 10 km away and with several species of importance); conflicts with local development potentially negatively impacting long- and short-term employment; damage to human health due to noise, vibrations and dispersed particles (less than 2 km to the village); impacts on surficial and underground waters (heavy metals and acid waters); negative synergies with other mining projects; possible presence of radioactive elements and possible impact on fossils and an archaeological site.

Back to the list of case studies by <u>Member State – Spain</u> <u>Commodity – Phosphate</u> <u>Mining Cycle – Planning/Permitting</u>



BARRUECOPARDO MINE (SALAMANCA, CASTILLA Y LEÓN)

- Commodity: Tungsten
- Location: Barruecopardo, Salamanca
- Stage of development: The mine has been in operation since February 2019.

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: Barruecopardo currently has a population of 450 inhabitants, of which 7% are under 16 and 35% over 64. In 1960 there was a peak population of 1,595 inhabitants, coinciding with the most active period of the old mine; since then, population has been on the decline: 1,113 in 1970; 800 in 1981; 491 in 1991; 587 in 2001 and 520 in 2011. The rate of unemployment was 18.48% in 2012; today there is practically full employment.

<u>Economic condition of area</u>: The main economic activity in this zone (before SALORO opened the mine) is the primary sector, mainly livestock.

MINING/METALLURGY

<u>History of mining in region</u>: The tungsten mining tradition in Salamanca started in the first decade of the 20th century (1902 in Barruecopardo). There was an increase in production and employment during the 1st World War. Later, there was a boom of tungsten mining in the province of Salamanca in the early 40's. In 1940 there were 31 mining permits and in 1943 this number grew to 540. The tungsten was produced in small exploitations (as in Barruecopardo) and was used to manufacture weapons in the 2nd World War. Metallic mining (mainly W and Sn) had importance until the early 1980s when the steep decline of metal prices forced the abrupt closure of all mines. Prices increased again in the first decade of this century allowing the opening of two W mines in Salamanca, which are still in operation: Los Santos in 2006 and Barruecopardo in 2019. Apart from tungsten, Salamanca has an important uranium mine (1975-2000), and there has been minor but continuous activity in quarries for some industrial minerals (e.g. feldspar), ornamental stones and aggregates.

<u>Economic role of mining in the region</u>: Castille and Leon has in total 483 active mining exploitations that generate more than 360 M€ and 4,000 jobs. 73.5% corresponds to quarries products, 20.9% Ornamental rock, 3.3% industrial minerals, 2.1% energetic mineral and finally 0.2% metallic mining. All current metallic mining activity is developed in Salamanca province, with the 2 tungsten mines in operation before mentioned.

Media coverage of mining/metallurgy activities: There has been coverage in the regional and national (to a lesser scale) newspapers, radio and TV, highlighting the advantages of the new mine. For example, the last news in a provincial newspaper reported on the production of tungsten concentrates and the employment generated by the mine.

In February 2020, a documentary on national TV reported about the renaissance of Barruecopardo thanks to the mine (new jobs, new people, more activity in schools, shops, etc.). It also pointed out how the people missed the golden times of the old mine and that Barruecopardo is part of the "Empty Spain", which is what the large, depopulated and depressed areas with uncertain futures are called.

SLO-RELATED INFORMATION

Is there a general level of support among the community, politicians, local government officials? Yes, there is. There is support at all levels within the community and administration. Since the very



beginning, the company has been transparent and open and this has resulted in a good relationship with the community, politicians and government officials.

<u>Major stakeholders</u>: Administrations (regional, provincial, local) covering several fields (mining, environment, industry), ecologist associations, labour unions, educational centres, media, etc.

<u>Issues of concern</u>: From the point of view of the company, maintaining good relationships with the provincial and regional government, administrations and institutions, and especially with the municipality of Barruecopardo, is crucial. SALORO strives to integrate as much as possible its activity into the way of life of the local community. Another important issue of concern is the environment.

<u>SLO-related actions</u>: SALORO signed an agreement with the municipality of Barruecopardo to support its socio-economic development, including giving preference for residents to work in the mine. Currently the mine employs 200 workers, of which 33% are living in the village, 56% live in the adjacent municipalities and the remainder come from other parts of the province of Salamanca. In Barruecopardo, the presence of SALORO has resulted in almost full employment.

SALORO is well-integrated into municipal life, participating in the local festivities (SALORO received the Honour Medal in 2018) and inviting the neighbours to the celebrations of Santa Barbara.

SALORO maintains a continuous relationship with the local school, making presentations about their mining activities, organising tree plantings, etc. In addition, the company has collaboration agreements with universities (e.g. Univ. Salamanca) for internships.

The relationship with administrations, institutions and organizations is smooth and open. When the mine was starting up and the facilities being built, the project was explained to everyone, including the delegations of the national and regional governments; mining, environmental and industrial administrations; Civil Guard; labour unions; ecologist associations, etc. Even when some of these representatives were replaced as the result of normal processes, the company made the effort to explain again the project to the incoming representatives.

The company has always had an open-doors policy towards the institutions, administrations and organizations who can visit the project, including the mine, treatment plant and laboratories.

Likewise, the relationship with the media (press, radio, agencies, etc.) is always cordial, giving any information required by journalists. Every time the company has to report something new about the project, media releases have been sent to the different local and national media.

SALORO thoroughly complies with the legislation promulgated by the regional ministry of environment and is in close collaboration with the local, provincial and regional authorities. The mining project is located within a Natura 2000 protected area (for bird protection) and bordering the Natural Park of Los Arribes. Because of this, SALORO's environment department has collaborated from the beginning with the Territorial Environmental Service of the regional administration. SALORO's objective is to minimize all possible secondary effects on birds and the environment in general and maintain the outstanding and emblematic fauna in this zone. To do so, the company has designed a set of measures to prevent, correct and compensate any possible impact that the project may produce in different areas: fauna, flora, environment and local society. Most of these measures are ongoing or already completed, and all of them have been agreed to in cooperation with the authorities and environmental agencies. In addition, all of these measures are and will continue to be monitored throughout the life of the project, as established in the Program of Environmental Monitoring designed by the company.

Back to the list of case studies by <u>Member State – Spain</u> <u>Commodity – Tungsten</u> <u>Mining Cycle – Operation</u>





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AITIK – ECOLOGICAL COMPENSATION

- Copper, Gold, Silver
- Gällivare, Norrbotten
- Operating; Production of 45 Mton a year, among the world's most productive copper mines, low copper grades (0.2 %), approx. 700 employees

MINING/METALLURGY

<u>History of mining in region</u>: The mine was established in 1968. The new environmental permit allows the project to raise its production and to raise the dams of the tailings pond.

<u>Economic role of mining in the region</u>: Aitik is Sweden's largest open-pit Coppermine (established in 1968). Ore is mined from chalcopyrite that contains copper, gold and silver. The mine employs 800 people, which makes it the largest private employer in the area. In 2019, around 40 700 K tonnes of ore was processed.

SLO-RELATED INFORMATION

Major stakeholders

- The company
- Local authorities (county administration)
- Land owners
- Sámi community

SLO-related actions: Ecological compensation for Sarkanenä's old boreal forest

Aims and measures:

- Long-term protection; 50-year agreement between Boliden, County administration and Landowners. No activities other than for the fulfillment of compensation plan will be carried out. The County administration is granted the right (without further compensation) to protect the areas as a nature reserve.
- Managing & repairing the forest by adding dead wood from affected area, burn-clearing, adding deciduous trees, improving birdlife, improving possibilities for outdoor activities. Affected area 167 ha of forests with natural values. Total compensation areas of 837 ha of which 527 ha forestland.

<u>Approaches</u>: Mitigation hierarchy, planning, communication, commitment, compensating for the remaining impact of habitat loss and red-listed species, compensating in a reasonable way - not to measure losses and profits in all respects and details, focus on follow up and research.

<u>Sámi relations</u>: Identify Sámi villages of concern for the project, learn about their situation and knowledge, establish contact–call—working plan, identify potential consequences/ risks, if needed plan for a consultation meeting, field trip etc. Create respect and understanding. Local presence, continuous monitoring of impacts. Adapt the project as far as possible to minimize consequences. Impact Assessment made in cooperation with reindeer herders. Development projects with Sámi community include: 'Renvarnaren', GPS project, development of warning scaring systems with



Trafikverket, responsibility and safety working on road with Trafikverket, reduce contorta forests, re-establisment of lichens for winter grazing as a rehabilitation method.

What has been done so far:

- Management plan up to 10 years in cooperation with Enetjärn Natur and Sveaskog. Annual reports to the county administration.
- Research project started with Swedish University of Agricultural Sciences Comprehensive baseline studies. Unique large-scale research project together with the Swedish university of agricultural and forestry sciences. Boliden is also financing a PhD student. Research reports to be published.
- Inventories of affected area, in detail at logs before transport
- 640 numbered logs of 8 types of dead and dying wood transported to test plots in compensation areas to create a platform for research projects.

Ongoing activities:

- Further transports of dead wood
- Creation of dead wood
- Free felling
- Cooperation with community, reindeer herders and the local Swedish Society for Nature Conservation

Back to the list of case studies by <u>Member State - Sweden</u> <u>Projects Listed by Commodity</u> <u>Mining Cycle - Operation</u>

GILLERVATTNET – OLD TAILINGS POND

- Commodity: Sand
- Location: Skellefteå, Västerbotten
- Stage of development: Post-closure

SLO-RELATED INFORMATION

Major stakeholders: the company

<u>SLO-related actions</u>: Swedish law requires the reclamation of former mining sites. The company from the beginning announced its aim to keep ahead of the legal requirements and improve environmental conditions and thereby create possibilities for the wildlife to inhabit the area. Boliden's goals have been to stabilise sulphur-rich sand and transform part of the site into a wetland habitat for wildlife (enhance biodiversity on the sites).

Reclamation of Gillervattnet began in 2013. The pond was first partially drained and a layer of waste rock was laid on top of the tailings sand to stabilise the ground. Then a compacted layer of till was laid followed by a protective layer of unsorted till to prevent the compacted till from being fractured by freezing or plant roots. Approximately 190 hectares of the Gillervattnet site will be covered with water between 0 and 1.5 m deep, and a layer of composted sewage sludge will be laid as a bed for vegetation on areas above the water level.

1.3 million m³ of excavated soil and rock from the new Hötjärn tailings pond was used on the Gillervattnet reclamation; moraine for capping has also been taken from moraine quarries in the immediate vicinity of Gillervattnet. Waste rock taken from the Kankberg, Renström and Långdal mines is used for ground stabilization.

Prior to reclamation, the site was already a popular site for migratory birds, and the aim has been and continues to be to further enhance the site. Large stones are planned to be placed to create sheltered nesting areas for birds, and the large shallow lake will provide suitable wetland habitats for a wide variety of species.

The company plans to monitor the area for at least 30 years to check that the tailings sand is stabilised. Monitoring may be extended as the company will remain responsible for the site into the future. Monitoring will be done primarily by testing the acidity and sulphate levels of surface water and groundwater, as well as the quantities of metals present in the water, such as zinc, copper, cadmium, lead and arsenic. The water level will also be carefully observed.

Sources : https://www.boliden.com/sustainability/case-studies/gillervattnet-reclamation-project

Back to the list of case studies by <u>Member State – Sweden</u> <u>Commodity – Sand</u> <u>Mining Cycle – Post Closure</u>



KALLAK

- Iron ore.
- The Kallak magnetite iron ore deposit is located about 40 km west of the Jokkmokk town centre (see red dot on the map above). The Kallak North and Kallak South ore bodies are centrally located and cover an area approximately 3,700m in length and 350m in width. The mineralized structures at both Kallak North and Kallak South are almost vertically dipping, generally covered by shallow glacial overburden. The plan is to extract the iron, to start with one open pit mine over a period of 20 to 30 years. However, plans to develop additional mines in the area exist as well.

SOCIO-DEMOGRAPHICS

Age % of total population

- 0-15 15,7
- 16-24 8,4
- 25-44 23,5
- 45-64 27,2
- 65-25,1

Foreign born: 9,2 % of total population.

Open unemployment in % (age 16-64)

2018: 2,8

2008: 3,6

Unemployment rose to 5.1 % in 2011 and then fell to 4.5 % in 2017. Steep decrease to 2.8 % in 2018.

Currently low open unemployment

% of total employed in the municipality (top 15 consist of ca 70 %)

- Jokkmokk Municipality (service, education and administration): 31,4
- Vattenfall (state owned hydro power corporation): 7,5
- Norrbotten County (health care): 4,5
- Lapplands Kommunalförbund (education): 4,5
- Samhall (state company for disabled): 2,1
- 10,2 % work in their own businesses (average in Sweden 6,3 %) and the growth of new small businesses is larger than average

MINING/METALLURGY

Spanning back centuries, Sweden engaged in mining and two major mining companies developed: LKAB, a state-owned company, and Boliden, a private company. For the better part of a century, these two companies dominated the sector and bear responsibility for settlement patterns in the northernmost part of Sweden – building two towns in the region, Kiruna and Gällivare. Both companies made significant public



investments, particularly LKAB with investments in schools and training in the region as benefit to both society and company.

During the early 21st century, multiple mining projects were launched, several by junior companies of Anglo-American origins. Substantial resources were invested in exploration, increasing production capacity in operating mines, re-starting old mines and building entirely new mines.

Norrbotten accounts for over 83% of the export value of mining, and of the total exports from this county 64% are mineral products. The dominant part of this can be attributed to iron ore. In 2013, these counties' share of total mining employment in Sweden amounted to 93%.

SLO-RELATED INFORMATION

Historically relatively good and cooperative relations between different population groups (Swedes, Sami and other ethnic minorities). Now, conflicts over mine-establishment.

The iron deposit in Kallak, about 40 km west of Jokkmokk in Jokkmokk Municipality, has been known since the 1940's. The British company Beowulf Mining PLC has explored the area since 2006. Their subsidiary, Jokkmokk Iron Mines AB (JIMAB), applied (and was granted) permission to carry out test extractions in 2013. The extractions generated protests and were temporarily stopped by activists who were removed by the police. Later the same year, JIMAB submitted an application for a Mining Concession for Kallak K 1 to the Mining Inspectorate (MI). Assessing a mining concession involves making tradeoffs between possibly competing land uses and designated "national interests" (in this case reindeer husbandry and minerals). The mining plans affect at least three SRHCs who all oppose the project, and the local community is split (about as many want a mine as those who do not want it). In February 2015, the MI referred the application to the Government after having received a negative opinion from the CAB. In February 2016, a sentence by the Supreme Administrative Court, regarding another controversial mining case, clarified the application of the Mineral Act's land use assessment requirements associated with mining concessions. Consequently, the Government decided to return JIMAB's application to the MI for a new assessment in light of the new sentence. A new opinion from the CAB was received by the MI in January 2017 in which the SEPA and Swedish National Heritage Board (SNHB) asked JIMAB to supplement the information about possible impacts on the adjacent World Heritage Site Laponia. After receiving the requested information from the company, the application was once again referred to the CAB for opinion. The CAB did not consider the knowledge about possible impacts satisfactory and requested additional information and a position from SEPA and SNHB. Although more information regarding impacts on the World Heritage Site Laponia was obtained, the CAB and MI disagreed as to which authority has the mandate to assess impacts on the World Heritage Site. Accordingly, the case was once again deferred to the Government in June 2017. The Government then requested the CAB to submit a supplementary opinion. Accordingly, the CAB once again recommended against approving JIMABs application for mining concession (November 2017). Since then, a number of organizations and authorities have submitted additional statements and opinions, but the Government has not yet made a decision. The project is still attracting attention by local actors who mobilize against the project, the emerging national mining sceptic movement, the Sami community in Jokkmokk and beyond, and the international environmental and human rights movements. JIMAB, as well as other parts of the Swedish mining sector, are growing increasingly frustrated over the lengthy process.

Back to the list of case studies by <u>Member State – Sweden</u> <u>Commodity – Iron</u> <u>Mining Cycle – Planning/Permitting</u>





A note on the methodology for the United Kingdom examples*

This study looked into mining projects from across the UK and their Social Licence to Operate (SLO) related aspects. Only projects that have advanced beyond the early stages to the planning process in the last 10 years at the time of writing have been considered, because it is during the planning process that most public consultation takes place in the UK; hence, it narrows down the eligible projects. Quarrying operations were not considered; however, because of the significance of coal mining in the UK, especially historically, and the and the potential for lessons learned, these projects were considered even though formally outside the scope of MIREU. This is neither an authoritative nor complete 'list' of potential projects. Owing to a lack of peerreviewed publications that focus on individual projects, the study has been limited to information predominantly from the 'grey literature' such as news items in the public domain, with its associated drawbacks. The amount of information available varied between projects, and this is reflected in the detail and length of the case studies. Furthermore, the SLO-related actions section is not solely focused on the operator's actions but those of all stakeholders.

BRADLEY

- Commodity: Thermal Coal
- Location: Near to Leadgate village, County Durham (Durham County Council area), England
- Company: Banks Mining
- Project background/Stage of development: The UK Government Planning Inspector granted, the now liquidated, UK Coal planning permission for the Bradley site in 2015, following previous rejections and a three-year appeal process. Banks 'inherited' the permission in 2015 when it acquired the site from UK Coal, and planned to extract ~550,000 tonnes of coal. Work began on-site in May 2018. Banks applied for planning permission to extend the opencast mine and extract a further ~90 000 tonnes of coal and ~20 000 tonnes of fire clay in early 2019. The extension planning application was rejected by Durham County councillors in July 2020 and mining at the site ceased in August 2020.

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups:</u> The population of County Durham (2 230 km²) is ~517 800, with Leadgate having a population of ~4 300. The County Durham population has a large percentage of 15 – 24yr olds due to the high number of students. There is a smaller proportion of 25 – 39yr olds compared to 40 – 74yr olds. Overall County Durham has a slightly older age profile than the North East region and England in total with 19% aged >65yrs old.

Economic condition of area: 5.1% of the population in County Durham are unemployed compared to 3.9% for Great Britain, but this is lower than the 5.5% in the North East. Gross weekly pay is £520.1 in County Durham compared to £587.1 for Great Britain. In County Durham wholesale & retail and motor repairs & sales is the largest employment sector (14.9% of employment) followed by manufacturing (14.4%).

MINING/METALLURGY

<u>History of mining in region</u>: Coal mining in the area has been significant even in medieval times with the Industrial Revolution leading to rapid expansion. In the 19th century, the growth of mining transformed the landscape and population of the county. Production peaked in 1913 with many pits closing in the 1950s & 1960s, there are now no working collieries and extensive areas of the exposed



coal measures restored to agriculture and forestry land. Lead and fluorspar have also been mined and the area was one of the world's leading ore fields in the 19th century.

<u>Economic role of mining in the region</u>: The mass closure of pits through past decades has meant the local economy has moved away from mining with mining & quarrying accounting for 0.2% of employment in County Durham.

<u>Media coverage of mining/metallurgy activities:</u> Media coverage has featured both positive and negative aspects of the project featuring in local and national news. The rejection of the extension received widespread national coverage due to it being one of the last operating coal mines in the UK.

SLO-RELATED INFORMATION

Is there a general level of support among the community, politicians, local government officials? Environmental groups report that initially, the planning permission was rejected three times by Durham County Council in 1974, 1986 and 2011, partly influenced by public response with ~3 000 local people objecting to the most recent planning application and ~90 000 petitioners demanding its rejection. According to news articles, Durham County Council's planning officers recommended the extension of the mine but more than ~6 000 objection letters were received and it was rejected by councillors.

The Campaign to Protect Pont Valley formed a camp that blocked access to the site for ~2 months in 2018. In February 2020, local campaigners joined Extinction Rebellion and Christian Climate Change in a 3-day blockade. They were calling for a rejection of the extension of the mine as they viewed it as going against the policy of Climate Emergency, declared by both Durham County Council and the UK Government. Campaigners also launched a legal challenge against Banks after Great Crested Newts (a European Protected Species) were found at the site during the encampment.

A news article reported that eight campaigners were arrested, fined and given a restraining order from the mine site for obstructing a highway and resisting arrest after campaigning there in 2018. They were reportedly campaigning against the mine due to Great Crested Newts being found on the site.

According to environmental groups, local residents have reportedly repeatedly reported Banks to the authorities for failing to comply with planning and environmental conditions, and frequently made complaints to the county council regarding dust and noise levels.

Banks has stated some residents support the extension, feeling it is better than importing the coal.

Major stakeholders

- Local residents/communities
- Banks Mining
- Local Campaign Groups
- Durham County Council
- UK Government

Issues of concern

- Environmental impacts
 - Impacts on wildlife/protected species
 - Noise, dust and light pollution
 - Haulage
 - Blasting and vibrations
- Visual impact



- Climate change
- Legal and procedural fairness

SLO-related actions

Community/Outreach: According to their website Banks set-up the Bradley Liaison Committee with the first meeting held in early 2018 and regular meetings thereafter. During these meetings, air and noise quality monitoring data were shown and exceedances explained. Complaints received since the last meeting were talked through and updates on work at the site, market conditions and haulage were provided. Community update newsletters were also used by Banks. Some members of the Liaison Committee reportedly felt communication from Banks was reactive, rather than proactive.

According to a local news article, some local people who live near the mine said it and the potential extension was not a concern for them, and Banks were regularly in touch and they felt it makes more sense to source coal from the UK rather than import it.

Environmental groups have reported on and questioned the legality of the mine after Banks reportedly commenced work before key planning conditions were completed. The deadline for work to commence was the 3rd June 2018; otherwise, the mines planning permission would be void. They have reported there was evidence of ground engineering work beginning on-site in May 2018 before some of the conditions under the Section 106 agreement, which must be met before work can commence, had been fulfilled. Reportedly, following this, the UK Government agreed to reassess its decision to grant planning permission after admitting a flaw in the decision-making process.

Economic: Banks has said, and news articles reported, the extension of the mine would have supported ~30 jobs (including 6 apprenticeships), with 50% of staff living within ~10 miles of the site. As of November 2019, >£3.5 million had been invested in the local supply chain with the majority going to businesses and services providers based in North East England and supporting ~40 local businesses.

Banks Mining has said they have provided funding to local community groups and charities through the Bradley Community Benefits Fund with individual grants of up to \sim £3 000 available. \sim £52 000 has reportedly been made available, which the extension would have increased to \sim £100 000.

Environmental: Banks has stated that ~0.2 km² acres of land was gifted to the community, to be turned into new nature reserves and ~10 500 new trees planted alongside the installation of 30 bat boxes and 24 bird boxes. Banks also signed up to the British Hedgehog Preservation Society's 'Hog Heroes' campaign at the invitation of a local hedgehog protection centre. This involved making information available on how best to spot hedgehogs and their nests on the site and placing reminder stickers on equipment to encourage checking for hedgehogs.

According to local and environmental news sources during the Campaign to Protect Pont Valley encampment, a Great Crested Newt (a European Protected Species) was found and Banks was taken to court by campaigners for wildlife crimes. Teeside Magistrates Court reportedly expressed doubt over the legality of Bank's actions at the site during a trial of campaigners who had been taken to court for peacefully protesting against the mine. The campaigners were found not guilty.

When taken to court for wildlife crimes Banks reportedly failed to appear in court for the hearing but entered a plea of not guilty. Reportedly, the judge concluded the summons had been properly served and the court process had been manipulated by Banks not attending. The case was initially thrown out on a technicality, but the High Court overturned this so it could resume . According to a



fundraising page for The Campaign to Protect Pont Valley they ended the court action after the extension application was rejected and the mine closed.

Education: Banks has said, and news articles reported, the extension of the mine would have supported ~30 jobs with 6 of these being apprenticeships.

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Illustrative examples of social licence to operate across Europe

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CAULDHALL

- Commodity: Thermal Coal
- Location: ~14 km south of Edinburgh between Penicuik and Rosewell, in the Midlothian Council area of Scotland.
- Company: Hargreaves Services
- Project background/Stage of development: In 2013, the two largest coal mine operators in Scotland, Scottish Coal and ATH resources were placed into liquidation. Hargreaves Services subsequently purchased several assets from Scottish Coal including Cauldhall in 2013.

Hargreaves planned to extract ~10 million tonnes of coal over 10 - 12 years from the ~2 km²- site. In 2013, a planning application was submitted and approved, partly on the basis, it would supply the nearby Longannet power station. The power station closed in 2016, reducing demand in the region and stalling the project's planning application. Eventually, the planning application was withdrawn in 2016 with no work commenced at the site.

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: The Midlothian area (353 km²) had a population of ~92 500, while Penicuik has a population of ~13 825, and Rosewall ~1 600. In Midlothian, 45 - 64yrs is the largest age group with ~25 100, and 75+ the smallest with ~7 360.

Economic condition of area: The unemployment rate in Midlothian is 2.5% compared to 3.3% for Scotland and 3.9% for Great Britain. The area has lower benefit claims than others in Scotland but gross weekly pay is ~£25 less than the Scottish average. The main employment sectors are wholesale & retail and motor repairs & sales (19.4% of employment) and education, human health & social work (11.3%). In Pencuick itself, health (23%) and retail (14%) are the largest employment sectors.

MINING/METALLURGY

<u>History of mining in region</u>: Midlothian has a long history of coal mining stretching back to the 12th century and was one of the most important coal mining areas in Scotland, containing 26 collieries employing around ~11 000 miners at its peak in 1957. Rosewell itself is a former mining village established by a mining engineer. Midlothian is also associated with one of Scotland's worst mining disasters when at Mauricewood, near Penicuik, 63 miners died in an underground fire in 1889. According to the Scottish Mining Museum in 1984 – 1985, the area saw some of the bitterest scenes of the miners' strike.

Scottish Coal was required to pay an amount per tonne mined into a trust fund, to be made available for community benefit projects around the mine. Following their liquidation, thousands of pounds remained unpaid and unavailable to the local communities and the sites poorly restored.

<u>Economic role of mining in the region</u>: Mining and quarrying account for 0.1% of employment in the Midlothian council area. In Pencuick mining and quarrying account for 1% of employment.

<u>Media coverage of mining/metallurgy activities:</u> There has been little media coverage of the project due to the planning application being withdrawn. National news sources covered the planning application progress while local news sources and anti-coal mining sites also reported on the project. Media coverage has featured both positive and negative aspects.



SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> One news article reported that Midlothian Council originally approved the planning application by 9 votes to 5.

Local news has reported that the Stop Cauldhall Opencast campaign staged demonstrations and organised complaint letters and petitions among other activities. They also report that some local people were angered by the initial approval of the planning application and following the closure of the Longannet power station called on Midlothian Council to have the application withdrawn.

Environmental groups have stated several organisations including Transport Scotland, Historic Scotland, Scottish Natural Heritage, Scottish Wildlife Trust, the Forestry Commission for Scotland, East Lothian Archaeological Service, the RSPB, Scottish Water and the Scottish Environment Protection Agency voiced their concerns about the project and its impacts.

Major stakeholders

- Local residents/communities
- Hargreaves Services
- Local Campaign Groups
- Midlothian Council

Issues of concern

- Environmental impacts
 - Noise, dust and blasting
 - Haulage
 - Groundwater depletion and pollution
 - Visual impact
- Economic impacts
 - Doubt over local employment/economic benefit claims
- Health impacts
- Climate change
- Mining legacy
 - Poor restoration of previous sites
- Viability

SLO-related actions

Community/Outreach: News articles have stated campaigners and politicians were angered as they felt approving the mine ignored both national and local planning policy and the mine would have unacceptable negative impacts on local communities.

Campaigners and environmental groups have reported some local people feel Hargreaves did not inform the council in a reasonable timeframe of its intention to withdraw the planning application, despite knowing the project would not go ahead for some time.

Economic: News articles have reported Hargreaves estimate the project would have created ~350 full-time jobs and stimulated the local supply chain and economy. Environmental and campaign groups feel that the jobs would not be available to them and the workforce sourced from existing mines.

Environment: Hargreaves Services, according to one news article, as part of obtaining approval signed a legal agreement to provide for the restoration of the site.



News articles have also reported that campaigners were angered as they felt approval of the mine ignored its impacts on, and the threat of, climate change.

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CONONISH

- Commodity: Gold
- Location: Within Cononish Glen, ~6km south-west of the village of Tyndrum, in the Perthshire region of the Scottish Highlands. The project is located within the boundaries of the Loch Lomond & Trossachs National Park.
- Company: Scotgold Resources
- Project background/Stage of development: Gold was discovered at Cononish in the 1980s, and Stirling Council approved plans for a mine during this time (before the national park existed) and a 900m long exploration adit was excavated between 1989 – 1991. Work stopped and the planning permission expired before the project developed further.

The Loch Lomond & Trossachs National Park was established in 2002, making the park authority the acting planning authority and placing the project within the national park itself and a special area of conservation. In 2007, Scotgold Resources acquired the project, after an initial rejection, planning permission was granted in 2018, and the first gold was poured on the 30th November 2020. The life of the underground mine is estimated at ~10 years, with ~60 employees at full production, producing ~23 370oz gold per year. Scotgold is also exploring for further gold as well as base metals & PGM resources in the nearby area and the Cononish mine previously had permission for trial operations on material that was previously extracted.

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: At the time of the 2011 census, Tyndrum had a population of 167, while the wider Strathfillan County Council area (245 km²) had a population of ~400. The Stirling council area (2,186 km²) has a population of 94,300. Compared to Scotland as a whole, Strathfillan has a higher percentage of under 5 – 64-year-olds and a lower percentage in the 65+ age group.

<u>Economic condition of area</u>: 2.6% of the population are classed as unemployed in the Stirling Council area, compared to 3.3% for Scotland, and 3.9% for Great Britain. Weekly wages are slightly lower than the Scottish average and the main employment sector is wholesale/retail and motor repairs/sales (14.3%), followed by education, human health and social work, accommodation and food services all of which account for 10.2%.

Tyndrum is located on the main road to the Scottish Highlands and islands and one of the UK's most popular hiking trails, The West Highland Way passes through the village (~36 000 people walk the entire 154 km route each year). In the Strathfillan area tourism, land-based businesses and the service sector dominate the local economy with accommodation and food services accounting for 43.6% of employment, followed by wholesale & retail and motor repairs & sales (12.0%).

MINING/METALLURGY

<u>History of mining in region</u>: Tyndrum was a lead mining centre in the 1800s with a mine situated above the village, evidence of which is still visible, and the nearby hamlet of Clifton was specifically created to house newly arriving miners.

Economic role of mining in the region: Within the Stirling Council area mining & quarrying accounts for 0.2% of employment.



<u>Media coverage of mining/metallurgy activities:</u> Media coverage has featured both positive and negative aspects with national and local news sources reporting on the project. It has also been the subject of a BBC documentary in 2011 named 'Tales from the National Parks – Loch Lomond and the Trossachs'. A second 3-part BBC documentary about the project named 'Gold Town' has been released in early 2021.

SLO-RELATED INFORMATION

Is there a general level of support among the community, politicians, local government officials?

The documentary and news articles report the majority of the local community in Tyndrum, and local councillors, support the project. Reportedly, largely due to the economic benefits and opportunities the mine could bring, tourism bodies view the mine as a potential draw for tourists. They also report some of the local community oppose the mine because of its potential negative impacts on tourism and environmental impact on the area.

According to the first documentary, news articles, and environmental group articles, local authorities gave a mixed response, rejecting the initial planning application but supporting amended plans. Apparently, the national park planning officer was initially opposed to the project with a view the potential economic gain would not outweigh the environmental costs.

Scottish Natural Heritage (SNH) reportedly opposed the original planning application in 2011 wanting further commitments to guard against long-term effects, but at the time did believe this could be rectified. The John Muir Trust (a conservation charity) did not object to the original planning application but did voice concerns about visual impact, lack of detail over jobs and job creation, and encroachment into 'Wild Land Area'.

News articles and the documentary about the project record the revised planning proposal was received positively by both local councillors and the national park and was subsequently approved. However, the John Muir Trust and the Mountaineering Council of Scotland objected due to the damage to the landscape and increase in tailings tonnage and disturbed area.

Major stakeholders

- Local residents/community
- Scotgold Resources
- Loch Lomond & Trossachs National Park

Issues of concern

- Environmental impacts
 - Encroachment into 'Wild Land Area'
 - Tailings
 - Pollution of the River Tay
 - Impacts to Cononish Glen
- Visual impact
- Economic impacts
 - Lack of detail over job creation
 - Impact on tourism/local economy
- Operating within a national park

SLO-related actions

Economic: According to Dalgleish Associates planning and environmental statement and Scotgold, 50 - 60 local jobs will be created during production and Scotgold saying they aim to source the majority from the local area, with ~14 being specialist positions likely needing to be recruited from further afield. Dalgleish Associates estimate the average salary for employees at the mine will be ~£32,500, which they noted as being ~21%



higher than the median wage in the Stirling Council area in 2010.² However, news articles and the documentary report that some local people felt the initial planning application lacked detail about local job creation and therefore did not believe claims about employment.

~£500 000 has been offered to support the local community by funding projects identified by the Strathfillan Community Development Trust, according to news articles and the first documentary. Analysis by Dalgleish Associates suggests that during operation every ~£1 million generated from production will indirectly generate ~£520 000 worth of goods purchases and services within Scotland. They also estimate the operational phase will generate ~£72.2 million worth of economic activity, with construction generating a further ~£9.2 million.

The national park website states that Scotgold has agreed to contribute ~£425 000 for visitor and conservation projects which will be distributed by The Countryside Trust in both the Strathfillan community area (30% of funds) and the wider national park (70% of funds).

Dalgleish Associate's statement also states there is the possibility of the mine becoming a tourist attraction post-closure as an interpretation/visitor centre. A local tourist stop has also released a whiskey named 'Tyndrum Gold' after the mine.

Environmental: According to the documentary and news articles, the initial planning application's proposals about tailings storage and restoration were worrying to local people, planning authorities and environmental groups. After the initial rejection of the planning application, the documentary and news articles report Scotgold worked cooperatively with the national park to amend the tailings storage facility design while also removing the need for the diversion of an on-site stream.

News articles have also reported that a new bridge will keep site traffic away from the West Highland Way and Scotgold say they will recover ~25% as 'free gold' by gravity and will process and market it as Scottish gold. The remainder will be recovered in the form of a sulphide concentrate, which will be sent for smelting and refining in Europe. Using these methods the need for the use of cyanide or other chemicals at this site is avoided.

Dalgleish Associates as well as news articles have stated Scotgold has committed to funding a long-term landscape and ecological management plan for Cononish Glen, in liaison with the national park, SNH and landowner, which includes reforestation elsewhere in the glen. This is known as the Greater Cononish Glen Management Plan and the national park reports it is valued at ~£268 000.

According to the national park, an aftercare bond of ~£537 000 has been secured through a legal agreement, with a further voluntary contribution from Scotgold also agreed. Dalgleish Associates also state an 'Ecological Clerk of Works' will be employed to ensure the protection of sensitive habitats and to monitor the final restoration operations & effectiveness of the revegetation.

Education: Scotgold has committed to providing 7 – 8 apprenticeship places, has provided work experience for Edinburgh University graduates and supported numerous research projects.



² This is a consistent theme throughout the UK examples, as the issue around jobs is not how many will be provided, but that the jobs are well-paid and given to local people. Hence, these jobs are very valuable to the local economy and particularly in those areas heavily reliant on tourism, with its relatively low paid jobs and insecurity.

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CURRAGHINALT

- Commodity: Gold
- Location: Between the villages of Gortin and Greencastle in County Tyrone, Northern Ireland within the Fermanagh and Omagh District Council area. The site is located within the Sperrin Mountains, designated as an Area of Outstanding Natural Beauty. The site is adjacent to the Owenkillew River, designated a Special Area of Conservation, and the Owenreagh River which is a designated Area of Special Scientific Interest. The rivers are home to Freshwater Pearl Mussels, the only globally endangered species found in Ireland.
- Company: Dalradian Gold
- Project background/Stage of development: An attempt to mine the Curraghinalt deposit was first made in the 1980s but was abandoned. Work has been ongoing since Dalradian brought the project in 2009 from Tournigan Gold Corp., including a feasibility study with the mine life estimated at 20 25 years. A planning application for an underground mine was submitted in November 2017. In June 2020, it was announced an independent public inquiry, first declared in 2017, into the project would commence and in October 2020 a High Court challenge against the mine was launched by local campaigners.

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: The Fermanagh & Omagh district has a population of ~117 000 and covers an area of 2 857 km². Gortin had a population of 412 at the 2011 census, while Greencastle had 195. The nearest town of Omagh had a population of 19 682 in 2011. The demographics of the Fermanagh & Omagh district are: 0 - 15yrs: 22%, 16 - 39yrs: 29%, 40 - 64yrs: 32%, 65+yrs: 17%. Representing an older population and mirroring Northern Ireland as a whole to within 1% for each age bracket.

<u>Economic condition of area:</u> In 2019, the unemployment rate in Northern Ireland fell to 3%, lower than the UK rate of 3.9% and only 2% of the population are claiming unemployment in the Fermanagh & Omagh district. Northern Irelands GVA per head in 2018 increased by 0.5% to £22 428 but was still below the UK's of £28 216. Agriculture is the largest industry in the Fermanagh & Omagh district (34% of employment), followed by construction (32%) and Agri-Food (20%).

MINING/METALLURGY

<u>History of mining in region</u>: Northern Ireland has >2 000 abandoned mine workings, dating largely from the $18^{th} - 20^{th}$ century, mostly related to iron, coal, lead and salt. The earliest reference to gold in North Ireland is to alluvial gold in 1652 but there were no recorded workings. Exploration for gold in Northern Ireland did not start until the 1980s, an attempt to mine the Curraghinalt deposit was first made during this time but was abandoned because of security difficulties caused by using explosives during 'The Troubles' in Northern Ireland.

Galantas Gold operates the nearby Cavancaw Mine. Work commenced there in the late 1990s. In 2012, £10 000 was awarded to three residents by the Department of Environment in compensation for failing to enforce planning conditions related to haulage at Cavancaw.

<u>Economic role of mining in the region</u>: The Cavancaw mine employs ~50 people, but there were fears jobs could be lost when blasting was suspended in early 2020. Blasting has since resumed but the affect on jobs is unclear. Dalradian currently employs ~40 people.

<u>Media coverage of mining/metallurgy activities:</u> There has been extensive media coverage, both nationally and locally. Media coverage has featured both positive and negative aspects.



SLO-RELATED INFORMATION

Is there a general level of support among the community, politicians, local government officials? The 2017 planning application received >41 000 responses, of which ~37 000 were in opposition and ~4000 in support.

Several local campaign groups have been formed, including Save Our Sperrins (SOS), Greencastle, Rouskey, Gortin Concerned Community (CRG), Greencastle Peoples Office (GPO), Cooperate Against Mining In Omagh (CAMIO), Love Tyrone and Communities Against Mining with a website called 'Don't Mine Us' set-up as a joint platform for these groups.

According to campaign group websites, environmental group reports and news articles campaign groups have coordinated letters of objection, staged peaceful demonstrations at Dalradian and Fermanagh & Omagh District Council offices and set-up the GPO, a collection of caravans operating as a community base for opposing the project which had been running for >1000 days by the end of 2020. They have also reportedly attended investor events, to deter investors and chained themselves to drill rigs. At the end of October 2020, campaigners announced a High Court challenge against the mine.

According to news articles and not for profit organisation reports an Independent Councillor was elected in part due to their anti-mine stance. News sources have reported the political party Sinn Féin has voiced its support for campaign groups opposed to the mine and vowed to review and amend the current mining licence system.

According to news articles, local sports clubs have rejected funding from Dalradian, and three anti-mine campaigners were reportedly advised by police to increase their personal security after a threat was made against their lives, believed to be linked to their stance on the mine.

National and local news sources have reported Dalradian feel the majority of local people support the mine but tend to stay quiet. They have also reported that between March – April 2015 Dalradian conducted a door-to-door survey (608 houses), with the results showing 93% of respondents, 91.48% of whom were local residents, were in favour or neutral about the project. ~3 000 letters stating support for the mine have been received according to local news and Dalradian state ~2 000 people have expressed interest in working at the mine.

Major stakeholders

- Local residents/communities
- Dalradian Gold
- Local Campaign Groups
- Fermanagh & Omagh District Council
- Northern Ireland Assembly

Issues of concern

- Environmental impacts
 - Haulage
 - Tailings/Cyanide use
 - Noise and light pollution
 - Impacts to the Owenkillew River
- Visual impact
- Health impacts
- Impact on local economy
- Access to historically valuable land
- Legal and procedural fairness



- Consultation process
- Foreign ownership/Diversion of profits offshore

SLO-related actions:

Community/Outreach: Dalradian states they employ a Community Liaison Manager who was born in the local area and estimate ~1 600 people have visited the site and engaged with their proposals. Local news sources have reported between March and April 2015 (early stages of the project) Dalradian conducted a door-to-door survey in the Gortin and Greencastle area (608 houses) asking local people for their views on the project.

News sources have reported public consultations were booked to take place at Rouskey Community Centre when shortly before the event the centre's management committee said it was unsuitable and cancelled the booking. Dalradian reportedly took out multiple newspaper adverts and distributed ~1 500 leaflets to advertise the change of location to their headquarters so the local communities were aware and the meeting could go ahead. There were reportedly allegations that being at Dalradian's headquarters meant the meetings were not held on neutral ground.

According to some news articles, following mandatory community consultation (ahead of the planning application submission) campaigners felt that the consultation was flawed, as plans displayed were significantly different to those in the proposals and launched a legal challenge. Reportedly, this was rejected by the judge due to planning laws not requiring finalised plans to be published and consulted on at that stage.

Local news sources have also reported campaigners felt Dalradian were not complying with the rules of their exploration licence (reportedly only permitting removal of the ore for analysis, test, trial or experiment) when they shipped ~15 000 tonnes of ore from a sampling programme to the USA for processing and selling. It was also reported The Crown Estate, which manages, and receives royalties on, gold said under the terms of the bulk sampling lease Dalradian had permission to sell any gold they recovered from those ~15 000 tonnes.

One news article reported Dalradian refused access to the land surrounding the mine, which is a religious and historical area, for a religious ceremony with some local people apparently fearing they may no longer be able to access the site in the future.

In 2016, multiple news articles reported that Dalradian is in dispute with the Police Service of Northern Ireland (PSNI), with both sides seeking legal advice, over the payment of security costs (reportedly totalling nearly ~£400 000) the PSNI charged Dalradian for escorting explosives. Dalradian is reportedly arguing that no other mining or quarrying operation in Northern Ireland pays for this service. According to a question and response posted on the Northern Ireland Policing Board website, the legal proceedings have not begun as of March 2020.

Economic: Dalradian say they currently employ ~40 local people in Tyrone and >350 full-time jobs will be created when the mine is operational (with an average salary of ~£40 000) with an additional ~270 jobs created during construction. Examples of current local employees are listed on their website to give examples of what work may be available to local people. Campaign groups have challenged the availability of jobs to local people and are sceptical about the sustainability of the jobs after the mine closes.

Dalradian state and news articles report, Dalradian expects to spend ~\$1 billion on the supply chain (aiming to spend as much as possible locally) and in 2015, Dalradian established the Tyrone Fund (which would total ~£4 million across the project life). Reportedly so far ~£525 000 has been donated to a range of local cultural, community and sporting groups.



One news article has reported the Department for Infrastructure decision to award a consultancy company, who have previously worked on the project for Dalradian's parent company in 2011, a ~£300 000 contract to help review the project waste management plan as a potential conflict of interest.

A not-for-profit organisation reported Dalradian is a Canadian firm and ultimately owned by the US investment fund Orion Resource Partners, leading to campaigners being concerned about diversion of profits overseas.

Environment: News articles and environmental groups have reported the Northern Ireland Environment Agency granted Dalradian a controversial discharge consent, allowing them to discharge into the Owenkillew River. Following a Judicial Review, started by local campaigners, this was reportedly overturned and Dalradian returned to operating under a previous discharge consent.

According to a news article a report by a US-based hydrology and geophysics expert, commissioned by campaigners, raised concerns about tailings at the mine and claimed the plans would be illegal in some countries.

Dalradian state the mine aims to be the first 'Carbon Neutral' in Europe by using low carbon fuels, renewables and offsets and is audited annually to maintain this claim, while water is sourced on-site and recycled as much as possible, with water only imported to site for sanitary and drinking purposes. Dalradian also states they have invested in a programme to protect the Owenkillew River and provided a financial guarantee to cover the costs of mine closure. According to news articles and environmental groups, the use of cyanide for processing was highly controversial, as such, Dalradian no longer plan to use cyanide but campaigners have said this will not affect their opposition.

Education: Dalradian states they are working with a local college to train young people in skills that will be needed and will offer internships at the mine.

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Illustrative examples of social licence to operate across Europe

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DUNTANLICH

• Commodity: Barite

Location: ~7 km north of Aberfeldy, in the Perth & Kinross Council district of the Scottish Highlands.

- Company: M-I SWACO
- Project background/Stage of development: In 1996, a planning application (submitted in 1991 by MI Great Britain) was rejected on appeal at the Court of Session, predominantly due to environmental reasons. In 2000, MI SWACO established new plans and began preliminary talks with Perth & Kinross Council and Scottish Natural Heritage but withdrew the planning application due to issues around access to a main road and lack of demand for a new mine at the time.

Perth & Kinross Council approved a revised planning permission application for the underground mine in September 2016. Production was expected to start in December 2020. The mine will produce ~7.5 million tonnes, enough to meet the UK's requirements for more than ~50 years and will replace the existing nearby Foss mine which M-I SWACO operate.

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: Aberfeldy has a population of ~2 300, while Perth & Kinross (5 286 km²) has ~150 000. Perth & Kinross has an older population than the rest of Scotland, with 29% of the population aged 45 – 64yrs and 12.5% aged 65 – 74yrs compared to 27.6% and 10.5% nationally.

<u>Economic condition of area</u>: Perth & Kinross had an unemployment rate of 2.6%, lower than both the Scotland and Great Britain averages of 3.3% and 3.9%. However, weekly wages in Perth & Kinross remain below the Scottish and Great Britain averages by £34.3 and £26.4 respectively. Wholesale and retail as well as motor repairs and sales are the largest employment sector (14.8% of employment), followed by accommodation and food services (13.1%) and human health & social work (13.1%).

MINING/METALLURGY

<u>History of mining in region</u>: The Foss mine, ~7 km north of Aberfeldy, has been operational since 1985 producing ~50 000 tonnes of barite per annum. In 1990, a locally based company began small-scale open-cast extraction on a nearby hill but this has now ceased after extracting ~25 000 tonnes.

<u>Economic role of mining in the region</u>: The Foss mine is a small employer, with ~18 people working at the site and ~30 more managing transport and crushing of the mined barite. This equates to a negligible percentage of employment in the Perth & Kinross area.

<u>Media coverage of mining/metallurgy activities:</u> Media coverage has featured both positive and negative aspects. There has been little media coverage of the project compared to others in the UK. The application for planning permission has been reported by national news while local news sources have focused more on the impacts, both positive and negative, on the local area.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> Councillors approved the proposal with Perth & Kinross development management committee voting 8-3 in favour, according to local news articles.



Local news has stated the latest proposals have attracted objections from some local people, organisations and tourists with 44 responses to the planning application with the majority, but not all, opposing the development and ~130 people reportedly signing a petition against the scheme in less than a week. They also report Scottish Natural Heritage originally objected to the plan, claiming it would have an adverse impact particularly on the famous 'Queen's View' but later withdrew their objection after M-I SWACO agreed to a series of conditions.

Local news articles have reported that people who have objected to the mine do not oppose the mine itself but are concerned a new haulage road would be detrimental to the local area and people as well as a deterrent to tourists.

Major stakeholders

- Local residents/communities
- M-I SWACO
- Perth & Kinross Council

Issues of concern

- Environmental impacts
 - Impacts on surface and groundwater quality
 - Haulage
 - Noise
- Economic impacts
 - Impact on tourism/local economy
- Visual impact (Queen's View)

SLO-related actions

Community/Outreach: News articles have reported that consultations have been held with local communities in Ballinluig, Aberfeldy and Pitlochry, and M-I SWACO state proposals were also put on display in local village halls with experts on hand to answer questions.

Economic: News articles report and M-I SWACO's website states they estimate the mine will generate ~30 skilled jobs for local people, and one article reports it will contribute ~£10 million a year to the Scottish economy.

Environment: News articles reported the original positioning of the mining platform had negative visual impacts and was not viewed as considerate of the area, renowned for its scenery. Following the withdrawal of the initial planning application, M-I SWACO undertook three years of environmental studies to address issues that were raised, reducing the visual impact and haulage.

MI-SWACO and local as well as national news have reported that new plans have re-orientated the mine so it is hidden from key viewpoints, including the Queen's View, and the new underground mine has a surface footprint smaller than a hectare and less than a quarter of the current Foss mine. They also have written that revised plans reduce production plans from ~200 000 tonnes to ~120 000 tonnes per year, intending to reduce haulage, while new haulage routes will remove existing mine traffic (from the Foss mine) from ~33 km of local roads.

Education: M-I SWACO has stated there may be an opportunity for an engineering apprentice at the site.

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NANT LLESG and FFOS-Y-FRAN (EAST MERTHYR RECLAMATION SCHEME)

- Commodity: Thermal Coal
- Location: The Ffos-y-Fran site is ~1.5_km east of the town of Merthyr Tydfil in the Merthyr Tydfil County Borough Council area of South Wales. The proposed Nant Llesg site borders the Ffos-y-Fran site and is adjacent to the town of Rhymney in the Caerphilly Borough.
- Company: Ffos-y-Fran was previously operated by Miller Argent (which underwent multiple name changes from/to Blackstone (Ffos-y-Fran) Ltd and Blackstone (Merthyr) Ltd) and was ultimately owned by the Miller Group and Argent Group. Gwent Investments brought Ffos-y-Fran from the Miller Group and Argent Group in 2016 and the operating company is now named Merthyr (South Wales).
- Project background/Stage of development: Ffos-y-Fran (also known as the East Merthyr Reclamation Scheme) was the idea of the Merthyr Tydfil Borough Council and Mid Glamorgan County Council in partnership with the Welsh Development Agency in the mid-1980s. The project aims to extract coal from the area and use the restoration phase to improve the land from its previous state of being 'derelict and dangerous' at no cost to the public by using revenues from mining. Once completed Merthyr South Wales claims the land will be suitable for upland grazing and use by the local community and will be returned to the planning authority.

Ffos-y-Fran consists of three phases, Phases I and II were completed in 1993 and 1997 respectively. Phase III is the largest phase and covers ~14 km² and involves extracting ~10 million tonnes of coal over ~15 years with work starting in 2007. Phase III was amended in 1994 to extract a larger reserve and renamed Phase IIIA, this amendment was withdrawn in 1999 due to access rights issues. In 2003, Miller Argent resolved these access issues and submitted a new planning application. In 2005, the Welsh Assembly approved the scheme following a public inquiry but the High Court overruled the decision after claims the Environment Minister decided to approve the planning application before the committee meeting. The High Court's decision, in turn, was overturned and the plans were approved in 2005. As part of the planning permission, extraction at the site is to stop by September 2022 and the site restored by December 2024.

In 2013, Miller Argent (operating company at Ffos-y-Fran at the time) submitted a planning application for a neighbouring mining and land remediation project at Nant Llesg to Caerphilly County Borough Council. The plans involved mining 6 million tonnes of coal over ~14 years from the ~4 km² site. Against recommendation by technical officers who were satisfied the benefits outweighed the environmental impacts the planning application was rejected by Caerphilly Council in 2015 on the grounds of visual impact. Miller Argent appealed, feeling the visual impact had been overstated, but the planning application was again rejected by the Planning Inspectorate in 2018 due to the applicants failing to submit additional information on the environmental statement.

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups:</u> The Merthyr Tydfil council area (110.9 km²) has a population of ~60 300 with an average age of 40.3. 20% of the population is of retirement age, compared to 21% for Wales while young people make up 19% of the area's population compared to 18% for Wales. Those of working age are relatively equal at 19.6% to 21%. The Caerphilly Borough (278 km²) has a population of ~181 000.

<u>Economic condition of area</u>: Some areas of the Merthyr Tydfil district are classified as being in the 10% most economically deprived regions of Wales, with high rates of claims for incapacity benefit, high unemployment and lower than average life expectancy. In 2015, unemployment in the Merthyr Tydfil area was nearly



double that of the UK, but this is improving and unemployment is now 5.2% compared to 3.6% for Wales and 3.9% for Great Britain. There are hopes for rejuvenation with the area becoming a hot spot for start-up businesses, which are growing at ~15% a year, and adventure tourism, with the tourism sector having a ~£100 million economic impact in 2018. The largest employment sectors in the Merthyr Tydfil area are human health & social work (20.5% of employment) and wholesale & retail and motor repairs & sales (18.2%). The Caerphilly Borough has an unemployment rate of 4.0% and the largest sector is manufacturing (21.1% of employment), followed by wholesale & retail and motor repairs & sales (14.0%).

MINING/METALLURGY

<u>History of mining in region</u>: The first record of coal mining in South Wales is from 1284AD, for use in iron production, with the first efforts to mine coal industrially around Merthyr Tydfil recorded in 1828. The industry saw rapid growth from the 1880s during the industrial revolution but declined severely during the depression of the 1930s. There was a brief resurgence during WW2 but a gradual and irreversible decline began and by the end of the 20th-century coal mining in South Wales was all but finished.

<u>Economic role of mining in the region</u>: Mining still plays a role in the local economy, albeit a reduced one from previous decades, with ~200 people employed at Ffos-y-Fran mining and quarrying equate to 0.2% of employment in the Caerphilly Borough.

<u>Media coverage of mining/metallurgy activities:</u> Due to how long the project has been operating, the size of the project and the history of coal mining in South Wales the projects have had significant media coverage. The majority of the coverage, from national and local sources, has focused on issues associated with the mine but coverage has featured positive aspects as well.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> Multiple campaign groups from the local area, the United Valleys Action Group, Merthyr Tydfil Anti-Opencast Alliance and the Green Valleys Alliance oppose the project.

According to their website, since 2007 the United Valleys Action Group (UVAG), including ex-coalminers, have fought against Ffos-y-Fran and the proposals for Nant Llesg. According to their websites, and news articles, local campaign groups have reportedly been supported by national and international environmental groups, including Friends of the Earth, Reclaim the Power and 350.org, in their campaigns against Ffos-y-Fran and the Nant Llesg proposals.

According to news articles, ~50 campaigners travelled to Downing Street to pressure the UK Government to implement a buffer zone around houses at Ffos-y-Fran, similar to restrictions in place in Scotland and campaigners also took their case against Ffos-y-Fran to the European Commission in 2008 and 2015 asking them, unsuccessfully, to investigate the mine.

News articles report members of Merthyr Tydfil Anti-Opencast Alliance collected ~1 000 signatures on a petition against Ffos-y-Fran in a few weeks, while other petitions circulated by local campaign groups have reportedly gathered ~10 000 signatures. It's also reported ~500 local residents attempted to take court action against the mine but the High Court refused their application, as they were deemed unable to afford the costs.

National & local news and environmental groups have reported on several demonstrations on and around Ffos-y-Fran including one in 2016, days before the Welsh Assembly elections, where reportedly hundreds of local people (including ex-coalminers) and campaigners occupied Ffos-y-Fran and halted operations.


Reportedly five campaigners from Earth First! and Reclaim the Power were ordered to pay £10 000 in compensation.

National & local news and environmental groups also reported campaigners staged a 'mock funeral' outside the National Assembly for Wales (opposing Ffos-y-Fran), submitted ~900 letters of objection against the Nant Llesg planning application and coordinated legal action in the form of a Group Litigation Order against Miller Argent with over ~500 claimants.

In 2017 a UN's Special Rapporteur recommended an independent inquiry into the health impacts of Ffos-y-Fran on the local community, as reported by news articles.

According to news articles and environmental groups, in 2014 campaigners staged another mock funeral (to represent the death of the valley) outside the offices of Caerphilly Council to demonstrate against the Nant Llesg proposals with other demonstrations following. The campaign group Green Valleys Alliance, a consortium of local businesses, created a short documentary focussing on what they perceived to the negative impacts of the potential Nant Llesg mine. Campaign groups also collated a petition against the Nant LLesg proposals which received ~6 000 signatures.

News articles and environmental groups have reported that there are people in the local area who support the mining projects due to the offer of jobs and economic boost to the region.

Later in 2018, after the Nant Llesg rejection, the Welsh Government made an announcement it would no longer permit new coal mines, petroleum extraction or fracking projects.

Major stakeholders

- Local residents/communities
- Miller Group and Argent Group (and subsidiaries) and Gwent Investments (and subsidiaries)
- Local Campaign Groups
- Merthyr Tydfil Borough Council
- Mid Glamorgan County Council
- Caerphilly County Council
- Welsh Assembly Government
- UK Government

Issues of concern

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- Environmental impacts
 - Economic impacts
 - Impact on tourism/local economy
 - Deter investment in the area
- Visual impact
- Health impacts
 - Proximity of site to housing
 - Health & Safety on site
 - Long term health impacts on the local population
- Climate change
- Mining legacy
 - Poor restoration of previous sites
- Legal and procedural fairness
- Restoration



SLO-related actions

Community/Outreach: Newspaper articles have reported in some places, the site boundary at Ffos-y-Fran is less than ~40m from resident's homes, with the owners set to receive no compensation and feeling their concerns have been dismissed.

One news article has reported the local council and the Welsh Assembly Government helped the project (Ffos-y-Fran) fight objections by allowing Miller Argent to recoup the costs of making its case at the public inquiry (~£800 000) out of the royalties it would pay to the council. Reportedly, objectors received no support and had to self-fund their case.

The news article also outlined controversy about the branding of Ffos-y-Fran as a reclamation project. It states some local people claim only a small part of the area was derelict/unusable with the majority consisting of usable moorland and rough pasture. They reportedly see the marketing of the project as a reclamation scheme as a way to win public approval for the opencast operation. Objectors apparently estimate reclamation without mining at Ffos-y-Fran would have taken three years and because Merthyr Tydfil qualified for European Objective One funding the clean-up may have been sponsored by the European Union.

News articles have also reported in March 2017, a UN Special Rapporteur on Human Rights & Toxics called for a health inquiry into cancer and asthma rates in the communities neighbouring Ffos-y-Fran and criticised the lack of government response to local complaints. Miller Argent said they were disappointed they were not consulted on the report and that it contained misleading information and allegations.

Miller Argent stated and news articles have reported, that Miller Argent made significant changes to their Nant Llesg proposals based on feedback from local communities and businesses, partly received through the Nant Llesg Community Forum, which was established for this purpose. On the Miller Argent website (now the Merthyr (South Wales) website) it states three community workshops were held in Jan. 2012, five exhibitions were held in Jan. – Feb. 2012, three community newsletters and public consultation board created between 2012 – 2015 and a stakeholder brochure in 2015. The website also shows different viewpoints from around the Nant Llesg area displaying how existing views would look post-mining.

Economic: News articles report, and Merthyr (South Wales) state, Ffos-y-Fran is worth ~£55 million to the local economy and more than ~£6 million has been promised in royalties to the local council for public schemes. Merthyr (South Wales) also estimates Ffos-y-Fran provides ~£12.9 million a year to the local economy (within 10 miles of the site) through expenditure on goods, services and wages.

News articles report, and Merthyr (South Wales) state, ~200 people are employed at Ffos-y-Fran, ~85% of whom live within 10 miles of the site, and an additional ~400 jobs have been created within the local area. It is also reported staff are paid the 'Living Wage', rather than the legally required minimum wage and the project will further benefit local people through a community fund, managed by Merthyr Tydfil County Borough Council, which will contain ~£11 million worth of contributions.

According to environmental groups and news articles, campaigners feel few of the promised benefits from Ffos-y-Fran will actually be felt in the local area and the project deters investment and drives away tourists.

Miller Argent stated and news articles reported, Nant Llesg would have created between 144 – 239 new fulltime jobs (dependent on shift patterns) and an additional (to Ffos-y-Fran) £13 million investment in the local area a year with a fund set-up to support local community projects. The Miller Argent website also states they would have undertaken road improvement works in the local area. One news article reports that Green Valleys Alliance commissioned research, which reportedly found Nant Llesg could negatively affect future inward investment prospects.



Environment: Merthyr (South Wales) claims the majority of coal from Ffos-y-Fram is transported using rail, minimising haulage through the local area. They also state revenues from Ffos-y-Fran will redevelop the area from former industrial workings to residential and recreational use, reclaiming ~4 km² of land, with phases I and II already restoring ~1 km².

An industry magazine also reports other initiatives being undertaken at Ffos-y-Fran include creating and enhancing badger setts, hedgerows, woodlands, bat roosts and water features; while heritage aspects of the site, e.g. a wooden aqueduct over a disused railway line, are also being protected.

Merthyr (South Wales) state since 2008, Merthyr Tydfil County Borough Council and Caerphilly County Borough Council have classified all works at Ffos-y-Fran as a "Low Risk" under the Integrated Pollution Prevention and Control (IPPC) European directive and a tree planting scheme has resulted in >2 000 trees planted.

News sources have reported that when Miller Argent sold Ffos-y-Fran, the guarantee to cover restoration of the site was replaced by an escrow fund and it was agreed the operator would pay quarterly deposits into the fund, totalling ~£15 million by the start of the restoration phase. It was also reported in 2018, Merthyr Tydfil Borough Council took Blackstone South Wales (operator at the time) to court claiming they were owed ~£5 million in overdue deposits into the fund, to which Blackstone argued the agreement was flexible and they were allowed to pay the full amount at the end of extraction. Merthyr (South Wales) who were the operator at Ffos-y-Fran at the time the case was concluded was ordered to pay the payments that had been missed, totalling ~£5.6 million.

Articles by environmental groups state a report by an environmental consultancy firm investigating inadequate restoration of coal sites in South Wales for the Welsh Government in 2014 estimated the 'worst case' cost at Ffos-y-Fran at >£50 million and identified Ffos-y-Fran as being of risk of not being restored due to insufficient bond cover at the cost estimate of ~£15 million.

Miller Argent state that ~41% of the Nant Llesg site has previously been subject to surface mining, and all of it had seen historic underground mining, with the site reportedly hosting >120 known potential hazardous mine shafts and entrances. They go on to state that early remediation works (completed within 36 months from the commencement) would have seen >1.5 km² (~32% of the total site) returned to the public, alongside improving the quality of mine water discharge into the River Rhymney. Environmental groups report that local campaigners state the Nant Llesg mine would have destroyed a nearby wetland site due to waste rock and soil being dumped on peatland close to a local pond.

Miller Argent also stated they would undertake drainage works at a former colliery tip site and a tip washing scheme to help address the scouring of tip material into the adjoining watercourse, reducing the build-up of silt at the lake at Darran Valley Country Park.

Education: Merthyr (South Wales)/Miller Argent stated they were looking to create apprenticeship opportunities at Nant Llesg, similar to the 8 employed at Ffos-y-Fran. These would have been run in partnership with local colleges.

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Illustrative examples of social licence to operate across Europe

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HEMERDON (DRAKELANDS)

- Commodity: Tungsten
- Location: To the north of Sparkwell and Hemerdon villages, ~10 km from Plymouth in the South Hams district of Devon. The project is in the Devon County Council area. The mine site is ~2 km from the Dartmoor National Park boundary and adjacent to the Lee Moor china clay pits.
- Company: Wolf Minerals/Tungsten West
- Project background/Stage of development: Mining in the Hemerdon area started around the 1830s and the Hemerdon deposit was discovered in 1867. It was briefly worked during WW1 and WW2. In 1969, a planning application was submitted but withdrawn before a decision was made. The 1970s and 1980s saw exploratory work being carried out, leading to the submission of a planning application which was 'called in' by the Secretary of State for the Environment and rejected in 1984 following a public inquiry. Devon County Council approved a revised planning application in 1986.

Wolf Minerals brought the mine (with planning permission in place from 1986) in 2007. A feasibility study was completed for an open-pit operation in 2011 and production started in 2015, the first new metal mine in Great Britain for 45 years at the time. The deposit is classed as the world's 4th largest tin-tungsten deposit and the mine life was estimated at ~20 years, producing ~3 500 tonnes a year.

In 2016, Wolf got the planning permission extended from ending in 2021 to 2036 but the mine closed in 2018 after Wolf ceased trading due to owing ~£70 million to creditors and processing problems hampering production. In November 2019, Tungsten West brought the mine for ~£2.8 million and is currently studying the ore body and processing methods in order to restart the mine with production forecast for 2022.

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups:</u> The local area of Sparkwell Parish (47.5 km²) has a population of ~1 300. The nearby city of Plymouth has a population of ~262 100. 63.3% are aged 16 – 64yrs old, compared to 62.5% nationally, with a ~26 000 strong student population meaning the percentage of 18 – 24yr olds is higher (12.2%) than the national average (8.7%). 18% of people in Plymouth are >65yrs old, about the same as the national average. The South Hams (912 km²) has a population of ~87 000 and Devon (6 707 km²) has a population of ~802 400, both of which are ageing populations.

<u>Economic condition of area</u>: Plymouth has an unemployment rate of 4.7% compared to 3.9% in Great Britain and average weekly pay is £80 below the Great Britain average. The main employment sectors are human health & social work (17.9% of employment), and wholesale & retail and motor repairs & sales (14.3%). Devon has an unemployment rate of 3.2% and gross weekly earnings are £528.3 compared to £587.1 for Great Britain. Wholesale & retail and motor repairs & sales account for the majority of employment (18.5%), with human health & social work in second with 13.5%.

MINING/METALLURGY

<u>History of mining in the region</u>: The project is located near the Tamar Valley & Tavistock part of the Cornwall & West Devon Mining Landscape UNESCO World Heritage Site. Tin mining on Dartmoor is thought to have begun in pre-Roman times, peaking in the medieval period and continued into the 20th century. From the 18th century onwards, other metals, namely copper, silver and lead, were also mined but metal mining in Devon largely stopped by the mid-20th century with the last mine near Dartmoor closing in 1930. China clay has been produced in the area since the early 19th century.



Economic role of mining in the region: Mining and quarrying account for 0.3% of employment in the South Hams, and 0.2% in Devon.

<u>Media coverage of mining/metallurgy activities:</u> Due to the significance of the deposit as the world's 4th largest, and the project being the first new metal mine in Great Britain for 45 years the project has received significant national and local news coverage. Media coverage has featured both positive and negative aspects.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> National and local news reported there was strong support for the project and Wolf Minerals (Wolf), with little local opposition. It is unclear if this support for the project has changed now it is owned by Tungsten West, partly due to the early stage of their operations.

National and local news did report there was some opposition to the project under Wolf Minerals, principally due to environmental concerns and reportedly some local people and Sparkwell Parish Council were concerned about the effects on the local area, especially regarding the proximity of the mine to people's homes and haulage, and therefore impacts to quality of life, property values and children's safety. Reportedly, a local MP who overall supported the mine, wrote to the UK Government asking for the original (1986) planning application to be 'called in' regarding the creation of a link road and associated haulage.

According to national & local news and Devon County Council, vibration and noise issues that started after production began, reportedly affected ~56 households and up to ~103 individuals, with more suspected outside of the parish area. Despite being well below regulatory limits the noises and vibrations were disruptive. Due to this, in response to Wolf's application to extend the planning permission in 2016, Sparkwell Parish Council raised concerns about the effect of blasting and vibrations on residents and their properties; and felt this planning application should have been delayed or rejected until it could be proven the levels of disturbance were not likely to occur. The planning permission extension was approved following the planning officer's recommendation.

While they have not directly criticised the Hemerdon project, the Straitgate Action Group (a campaign group opposing plans for a quarry near Ottery St Mary, in east Devon), has criticised Devon County Council for approving 24/7 operations at the site despite the noise and vibrations issues on their website.

Major stakeholders

- Local residents/communities
- Wolf Minerals/Tungsten West
- Sparkwell Parish Council
- Devon County Council

Issues of concern

- Environment impacts
 - Impact of blasting and vibrations on people and their properties
 - Haulage/road building
- Delay in buying of residents houses
- Proximity to houses
 - Impact on property values & quality of life
 - Children's safety



SLO-related actions

Community/Outreach: News articles have reported, and Wolf said they employed a dedicated Community Relations Manager and engaged with the community through newsletters, mail drops, Parish Council meetings and mine visits with ~800 people visiting the mine over 18 months.

News articles have also reported Wolf had to buy 15 local houses to construct the mine but paid full market price for them. It was also reported people whose houses Wolf arranged to buy felt their life had been disrupted by the uncertainty caused by delays, over 5 years, in the purchasing. Wolf reportedly said they tried to move forward and complete the purchases as quickly as possible.

Local news and Wolf reported that following agreements to acquire surface rights with local landowners Wolf renamed the project the 'Drakelands Mine' to recognise the local community (Sir Francis Drake, born in the area, became mayor of Plymouth and sailed from there in 1588 to face the Spanish Armada). Wolf also promised to create jobs for local people and hired people from the South West and Plymouth.

According to Devon County Council and local & national news, after production started in 2015, some local people living within ~2 km of the mine claimed vibrations and noise from the mine made their lives a "living hell" and had to stay at their workplace office to sleep. The noises were reportedly below regulatory and legal limits but feedback from the local community was negative.

Local and national news and Wolf themselves say following the noise and vibrations issues, Wolf voluntarily shut down the processing screens at weekends to minimise disturbance. They also held public consultations to update local people on their efforts to address the problems. This included forming an investigation team, formed of internationally recognised acoustic experts and engineers, to identify and fix the problem and working with South Hams Council, the Environment Agency, and Devon County Council to investigate complaints and address them. Wolf also reportedly contacted people before blasts and tried to undertake them at consistent times to try to minimise disturbance.

News articles also reported that part of the planning agreement in place from 1986 concerned building a new link road in the area. Reportedly, a local MP who supported the mine overall but not the road-building wrote to the UK Government asking for it to be 'called in'. Saying there had been no engagement by Devon Council planners with residents the road would affect, reportedly because no further planning permission was needed to build the road despite a reported ~1 000 homes being built in the area since 1986.

Economic: National & local news and Wolf reported that ~200 people were employed and estimated the project would invest millions into the Devon economy each year, with spending in the local area reaching ~£2-2.5 million a month with contracts for infrastructure and equipment going to companies in Devon, Cornwall and Somerset. The project also improved transport links by developing a new link road in the area.

According to news articles, when Wolf ceased trading in 2018, ~200 workers lost their jobs. According to local news, Tungsten West have said they expect to create a similar amount of jobs and would look to hire those who lost their jobs when Wolf ceased trading, some of which have already been re-employed.

Environment: According to news articles and Wolf, as part of the original legal agreement associated with the 1986 planning permission, Wolf put a ~£15 million bond in place, through an escrow account, to restore the land. A liner was placed, voluntarily, in the tailings dam to improve its safety at an extra cost of ~£3 million and due to the heavy nature of the ore, gravity separation methods, a chemical-free and clean method, was used. Wolf also built new permissive paths for people to use as well as bat shelters and estimated they would plant >1 million trees by the end of the restoration, with ~40 000 planted before they closed the mine in 2018.



Commodity focused news sources have reported Tungsten West have stated they are in discussions with local renewable energy projects about using 'green energy' and have also expressed interest in using 'green' mining equipment.

Education: Wolf collaborated with both local universities offering student projects & internships and giving presentations about the project.

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HIGHTHORN MINE

- Commodity: Thermal Coal
- Location: Close to Cresswell village near Druridge Bay in Northumberland, northeast England. Druridge Bay is close to a nature reserve. The project is located in the Northumberland County Council area.
- Company: Banks Mining
- Project background/Stage of development: Banks planned to extract ~3 million tonnes of coal, sandstone and fireclay through opencast mining. The planning application was approved by Northumberland County Council in 2016, however the Secretary of State for Communities and Local Government 'called-in' the planning application with a public inquiry starting in May 2017.

In March 2018, a UK Government inspector recommended approval but the Secretary for Housing, Communities and Local Government at the time rejected the proposal on the grounds of contribution to climate change and negative impacts on landscape and tourism. Banks challenged the decision, which the High Court upheld, forcing the UK Government to reconsider. In September 2020, the Secretary for Housing, Communities and Local Government rejected the planning application again, a decision Banks did not challenge.

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups:</u> Northumberland (5 013 km²) has a population of ~316 000, while Creswell and the nearby town of Lynmouth have ~200 and ~1 800 respectively. Northumberland has a lower proportion of under 16s and a higher 65+ population (23.1%) than both the North East region (19%) and England (17.7%) as a whole.

Economic condition of area: In Northumberland, the unemployment rate is 4.4%, while this is higher than the Great Britain rate (3.9%) it is below the 5.5% of the North East area. Average wages are lower than the national average, £496 per week compared to £591 per week for Great Britain. In Northumberland, human health & social work is the largest employment sector (17.6% of employment), followed by wholesale & retail and motor repairs & sales (16.7%).

MINING/METALLURGY

<u>History of mining in region</u>: There is evidence of coal mining in the region dating back to the Roman times, becoming widespread in the 13th and 14th centuries, before sharply declining in the 20th century. Lead and associated barite and fluorite mining also date back to the Roman period, becoming extensive in the 19th century with Northumberland becoming one of the most important lead producing areas in the country, but work ceased altogether in the latter part of the 20th century.

<u>Economic role of mining in the region</u>: Mining and quarrying account for 0.3% of employment in Northumberland. Banks Mining employed ~200 people at its Shotton and Brenkley Lane coal mines (now undergoing restoration) in Northumberland, and claim these contributed ~£35 million to the economy every year through wages, investments, and the local supply chain.

<u>Media coverage of mining/metallurgy activities:</u> The project has featured in national news, especially its rejection due it being one of the last operating coal mines in the UK, alongside local news. Media coverage has featured both positive and negative aspects

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> The planning application was initially approved by Northumberland County Council in 2016, however the Secretary of State for Communities and Local Government 'called-in' the planning application with a public inquiry starting in May 2017. This culminated in the rejection of the planning application. After Banks challenged through the High Court the planning was rejected by the UK government again.



News articles report the local MP, at the time the planning application was submitted, opposed the mine, as do several environmental groups, including Friends of the Earth. Local people opposed to the mine formed the 'Save Druridge Group' more than 20,000 people have signed petitions claiming the mine would damage the environment, wildlife and tourism according to news and environmental group reports.

One news article reported that three miles from Druridge is the village of Widdrington Station where reportedly the majority view is the mine should go ahead, partly due to the need for jobs according to a news article.

- Major stakeholders:
 - Local residents/communities
 - Banks Mining
 - Local Campaign Groups
 - Northumberland County Council
 - UK Government
- Issues of concern:
 - Environmental impacts
 - Noise and dust pollution
 - Haulage
 - Economic impacts
 - Doubt over local employment claims
 - Impact on tourism/local economy
 - Health impacts
 - Proximity to housing
 - Climate change

SLO related actions:

Community Engagement

According to their website Banks held 'Meet the Team' events and four community workshops in 2015 alongside stalls at community events, and dedicated young people and tourist consultation events. In 2016, they held a public exhibition at Widdrington Community Centre where local people were able to view plans and ask the team questions. Banks also state they made changes to their plan in response to comments on its draft proposals and reduced the area of the mine and volume of coal to be mined by ~3 million tonnes.

Economic

Banks and news articles report the mine would have created ~50 new jobs and maintained ~50 others from nearby sites increasing and maintaining local employment. There would also have been a community fund of ~£450 000 split evenly into the Highthorn Community fund for local causes and a 'Skills Fund' to help people overcome barriers to work. Banks estimated ~£48 million would have been generated in supply chain contracts over the lifetime of the project.

According to environmental groups and news articles, some local people did not think the mine would create new jobs for them, and instead, Banks would source the workforce from their existing operations.

Banks and local news also report as part of their planning application, Banks proposed 'Discover Druridge', a partnership aiming to improve tourism in the area that was developed in line with feedback provided by local people, community groups, local businesses and conservation bodies over two years. The project aimed to create and improve the following:

- Dark sky facilities
- Gateway features to the bay and dunes



- Visitor facilities at Druridge Bay Country Park
- Car parking facilities at Druridge
- Funding for a formal coastal path
- Bird hide facilities
- Wider access route improvements
- WW2 signage and interpretation
- Cycle shuttle
- Dedicated management officer

Banks were to act as the coordinating body and provide the initial investment.

Environment

Banks and news articles report Banks agreed to create ~8km of footpaths, bridleways and cycle paths in the area and that no mining activity would take place within 0.5km of the beach.

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WOODHOUSE

- <u>Name:</u> Woodhouse Colliery
- <u>Commodity:</u> Metallurgical (Coking) Coal
- Location: Both onshore and offshore near St Bees, West Cumbria, in the County of Cumbria and Cumbria County Council area, England. The area to the north is designated as the Solway Firth potential Special Protection Area (pSPA). The nearby cliff habitats are designated as St Bees Head Site of Special Scientific Interest (SSSI), while the coast is designated as a Marine Conservation Zone (MCZ) and the area around St Bees is designated as St Bees Head Heritage Coast.
- Company: West Cumbria Mining
- <u>Project background/Stage of development</u>: The Cumbria Development Control and Regulation Committee (DC&R) approved the planning application in 2017 with the UK Government rejecting requests for them to 'call-in' the decision at this time. However, a judicial review brought by campaign groups led to West Cumbria Mining having to submit a revised planning application in May 2020.

This was approved (12-3 with 2 abstentions) in September 2020 by Cumbria County Council's planning committee. In October 2020, the UK Government temporarily blocked the project's approval to have more time to decide whether to 'call-in' the decision or not.

The mine will use existing tunnels from historic coal and anhydrite mining as much as possible and extract ~2.7 million tonnes a year, with production scheduled to begin in the second half of 2021. The project originally planned to operate for ~50 years but as part of the revised planning application, the mine must now shut by 2049, a year before the UK's net-zero emissions target.

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: St Bee's population is ~1 672 (0-17: 19.5%, 18-64: 56.8%, 65+: 23.7%). Whitehaven, the nearest town, has a population of ~23 810 while West Cumbria (1 223km²) has a population of ~166 000. Cumbria County (6 768km²) has a population of ~500 000. When compared to the national average, both St Bees & Cumbria have a lower proportion of younger residents and a higher proportion of older residents.

Economic condition of area: The unemployment rate in Cumbria is 2.9%, lower than the Great Britain rate of 3.9%, but salaries average £24 003 compared to £29 900 for England. The largest employment sectors are wholesale & retail and motor repairs & sales (16.6% of employment), followed by manufacturing (16.2%).

West Cumbria is described as a socially and economically diverse area with pockets of deprivation directly neighbouring affluent areas. It is a globally recognised centre of nuclear expertise and home to one of the UK's largest concentrations of advanced manufacturing related to chemicals, metals, precision engineering, materials security and other related activities. The Copeland district of West Cumbria, which the project is located in, has an unemployment rate of 3.3% but weekly wages are £189 higher than the Great Britain average. Manufacturing is the largest employer (36.4% of employment), followed by human health & social work (12.1%).



MINING/METALLURGY

<u>History of mining in region</u>: Mining is a traditional industry in Cumbria, historically it provided iron ore and coal which formed the basis for the steel and railway industries. Many of the pits closed in the latter part of the 20th century and the proposed site is near the former Haig Colliery, which opened in 1916 and closed in 1986 with the loss of ~3 500 jobs.

Economic role of mining in the region: Mining does not feature in the Cumbria Economic Strategy 2009 – 2019 and mining and quarrying accounted for 0.3% of employment in Cumbria =, and 0.1% in

<u>Media coverage of mining/metallurgy activities:</u> Media coverage has featured both positive and negative aspects. Due to the project being of national significance and controversy, it has featured frequently in national news, as well as local news.

SLO-RELATED INFORMATION

Is there a general level of support among the community, politicians, local government officials? Environmental groups, and local & national news, have reported many of the local community have expressed support for the mine and feel re-introduction of mining would be a positive thing partly due to it being a traditional industry for the area and it offering well-paid employment outside of the nuclear sector. They also report issues related to the nuclear industry have made people wary of promises and are concerned the businesses, politicians and stakeholders supporting the mine may forget about their wellbeing and promises made. Local news has reported that people have travelled from around West Cumbria, Lancaster and London to demonstrate against the mine.

According to information available on their website, the local campaign group Keep Cumbrian Coal in the Hole was founded by the campaign group Radiation Free Lakeland (set up in 2008 to fight the plan for the geological disposal of nuclear wastes under Cumbria). Keep Cumbrian Coal in the Hole started a petition against the project which received ~2 000 signatures. They also launched a legal challenge against the decision to approve the mine, post regular anti-project and general anti-mine blog posts and organise demonstrations.

The South Lakes Action on Climate Change group website, and news articles, show they also object to the mine have challenged claims that coking coal is essential to the UK steel industry, and claims it would replace coal imported from elsewhere. They have also criticised the project for its impacts on climate change, marine conservation zones and challenge economic benefit claims.

A report on the original planning application listed the Environment Agency, Natural England, Network Rail, the Coal Authority, Highways England and Cumbria County Council as objecting to aspects of the planning application and requesting further information on certain aspects (detailed below).

According to mining news sites, environmental groups and news sources Friends of the Earth, Coal Action Network, Extinction Rebellion, Greenpeace and the Royal Society for the Protection of Birds have raised concerns about the mine's impacts and argue by emitting 8 million tonnes of carbon a year it contradicts the UK's pledge to be Carbon Neutral by 2050. Campaign groups have also reportedly challenged the project over its ability to provide long-term job security.

News articles have reported that local councils support the project, largely due to its economic benefits and the planning proposals have received backing from Cumbria County councillors multiple times, in turn, this has led to objections, including a call for central government scrutiny and a sit-in demonstration on the floor of the council chamber. According to a report on the original planning application and local & national news



support has been received from several local MP's including the, at the time, Secretary of State, Department for International Trade, and President of the Board of Trade. The Labour party (current opposition in the UK Parliament) has reportedly said the planning application should be 'called-in' concerning net-zero commitments and climate change.

Major stakeholders

- Local residents/community
- West Cumbria Mining
- Local Campaign Groups
- Cumbria County Council
- UK Government

Issues of concern

- Environmental impacts
 - Subsidence
 - Hydrological impacts
 - Noise, dust & light pollution
 - Haulage
 - Location and impact of rail loading facility
 - Induced seismicity & proximity to Sellafield Nuclear site
- Visual impact
- Economic impacts
 - Doubt over local employment claims
- Health impacts
- Climate change
- Operating within landscape designations
- Rights of way
- Consultation process
- Foreign ownership/Diversion of profits offshore
- Viability

SLO related actions

Community/Outreach: West Cumbria Mining state and local news has reported, there have been numerous public consultations with each stage advertised by site notice and in the local press in addition to individual notifications to neighbouring properties and local people. According to other news articles, some local people feel publicity and consultation have been inadequate, especially for people living near the rail haulage route.

Environmental groups have also reported that, regarding the initial planning application, some local people have raised concerns that the location of the rail loading facility had changed from the original presentation and the West Cumbria Mining website was not updated to reflect what was being proposed.

A report on the original planning application states that responses were received that objected to the possibility of purpose-built accommodation/welfare blocks built for the new employees, due to feelings this would harm integrating the workers within the local community.

A report on the original planning application listed the Environment Agency, Natural England, Network Rail, the Coal Authority, Highways England and Cumbria County Council as objecting to aspects of the planning application. Between them requesting more information regarding footpaths, rail transport, highways, hydrology, ecology, landscape and visual impacts and seismicity and subsidence and requesting further



information on footpaths, rail transport, highways, hydrology, ecology, landscape and visual impacts and seismicity and subsidence.

Economic: West Cumbria Mining state, and news articles report, that the project plans to recruit ~80% of its workforce from within ~32.2km, creating around ~500 direct jobs when in production with construction creating another ~260 jobs. West Cumbria Mining has expressed an intention to use local suppliers and hire local people where possible and estimate a further ~370 indirect jobs will be created.

Environmental news sites have reported that some local people are sceptical about local job creation, due to the decline of the mining industry in Cumbria they apparently feel it is likely West Cumbria Mining will recruit from further afield.

Environmental news sites have reported that due to West Cumbria Mining being backed by an overseas private equity company (EMR Capital) some people fear profits will not be reinvested in the area.

Environment: West Cumbria Mining state that at least ~80% of the coal will be transported via rail instead of by road and they will also create a cycle track through the Pow Beck Valley. Local news has reported, and West Cumbria Mining has stated, they have also applied for permission to build a solar farm that would cover ~240 hectares and provide ~40% of the operations electricity needs.

Education: West Cumbria Mining has said that ~50 apprenticeships will be created.

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WOODSMITH

- Commodity: Polyhalite
- Location: Dove's Nest Farm, Sneaton, between Scarborough and Whitby in North Yorkshire (North Yorkshire County Council area), England and within the North York Moors National Park.
- Company: Sirius Minerals/Anglo American
- Project background/Stage of development: The project area contains the largest, highest-grade resource of polyhalite in the world, ~2.69 billion tonnes, giving the mine a potential lifespan of >100 years. Planning permission was granted in 2015, after initial proposals were withdrawn and reviewed, with construction starting in 2017. Progress halted in August 2019 due to Sirius failing to unlock the next stage of their funding. Anglo American bought Sirius, and the project, in March 2020.

SOCIO-DEMOGRAPHICS

<u>Population/dominant age groups</u>: North Yorkshire (8 654 km²) has a population of ~604 900, while the Scarborough district (816.5 km²) has ~108 700 with ~23 400 living within the North York Moors National Park (1 436 km²). North Yorkshire has an ageing population, with almost double the proportion of residents aged >65yrs than the UK average.

Economic condition of area: 2.8% of people in the Scarborough district are unemployed compared to 1.2% for North Yorkshire and 3.9% for Great Britain. Wages though are comparatively low (£25 400 compared to the average of £29 900 in England in 2018). In the Scarborough district, human health & social work is the largest employment sector (18.6% of employment) followed by wholesale & retail and motor repairs & sales and accommodation and food services joint on 16.3%. In North Yorkshire, the largest employment sector is wholesale & retail and motor repairs & sales (15.4%), followed by human health & social work (12%).

MINING/METALLURGY

<u>History of mining in region</u>: Coal mining is a traditional industry for Yorkshire with evidence dating back to the Roman period, but the industry declined rapidly in the 20th century. In December 2015 the Kellingley colliery in North Yorkshire, the last deep coal mine in the UK, closed. Lead was also historically mined with production peaking in the 18th and 19th centuries. The Boulby mine (~29_km north of the Woodsmith Mine) commenced operations in 1973 with potash as the main product. As potash reserves have been depleted the mine is transitioning to and is still producing polyhalite, currently targeting one million tonnes per year.

<u>Economic role of mining in the region</u>: Within the North York Moors mining and quarrying have always played a part in the local economy but this has declined in recent times. Within the Scarborough district and the wider North Yorkshire county mining and quarrying accounts for 0.2% of employment in each. The Boulby potash mine (just outside the Scarborough district) employed ~1 000 people in 2013, but this dropped to ~470 by the end of 2018 partly due to switching from mining potash to polyhalite.

<u>Media coverage of mining/metallurgy activities:</u> Media coverage has featured both positive and negative aspects. Due to its national significance, the progress of the project's development has been widely reported in national news alongside local news sources.

SLO-RELATED INFORMATION

<u>Is there a general level of support among the community, politicians, local government officials?</u> According to a local news report, 96% of the ~550 public comments made in response to the planning application were in support of the project. Local and national news has reported the project has also received support from



the regions Local Enterprise Partnership (LEP), MPs and parish councils; as the area is predominantly rural, the mine is reportedly seen as key to creating well-paying and secure rural jobs.

Local news and national news have reported the original proposals were met with some objections, ~30 environmental and leisure organisations apparently urged the rejection of these plans, including the Royal Society for the Protection of Birds, the Caravan Club and Campaign for National Parks, and Natural England.

When Anglo American brought Sirius Minerals investors lost money, some of these were retail investors who have now formed the Sirius Shareholder's Group (SSSG), which is supported by ShareSoc (UK Individual Shareholders Society). According to their website and news articles, the group is investigating the potential to make claim(s) for legal redress for Sirius shareholders. They have recently created a group called Sirius Claim to take this forward. They are opposed to the takeover deal made by Anglo American rather than the project itself.

Major stakeholders:

- Local residents/communities
- Sirius Minerals/Anglo American
- Sirius Shareholders' Group (SSSG)/SiriusClaim Group
- North Yorkshire County Council
- North York Moors National Park
- UK Government

Issues of concern:

- Environmental impacts
 - Disposal of foul water
 - Impacts on wildlife, habitats and landscape
 - Noise pollution
- Visual impact
- Economic impacts
 - Impact on Boulby Potash Mine workforce
 - Operating within a national park
- Anglo American takeover

SLO related actions:

Community/Outreach: According to national, local and financial news articles local people were invited to become shareholders in Sirius minerals. Reportedly about ~85 000 retail investors brought shares in Sirius, with ~25 000 and ~10 000 of these reportedly located in the Yorkshire & Northeast and the area surrounding the project respectively. This reportedly gave local communities a strong sense of ownership in the project but news articles state it appears not all of them were aware of the risk involved. Apparently, some people invested their entire pensions, losing tens of thousands of pounds in the Anglo-American takeover, while others reportedly remortgaged their homes and borrowed money to invest. One news article reports some feel it was mis-sold to them while Sirius said they were confident they had complied with all legal and regulatory requirements.

Furthermore, according to financial news articles, some investors, including some local people, do not view the takeover price paid by Anglo American as being representative of the true value of the project. Anglo American has defended the bid as reasonable given the amount of work needed to bring the project to production.

Local and national news has reported the SSSG has called for an inquiry following the revelation Robert Jenrick, Exchequer Secretary of the Treasury at the time, met the ultimate owner of the nearby Boulby mine (who is reportedly a family friend and hence the reason for the meeting) in March. At the time, Robert



Jenrick was considering a request for UK Government support from Sirius. This request was ultimately rejected by the UK Government, a contributing factor in Sirius's sale to Anglo American and the shareholder loss.

Economic: Reports analysing Sirius's impact in the area state Sirius was involved with local employment initiatives and recruitment programmes, including job fairs, websites & social media and advertising of jobs in partnership with their contractors and local employment services. The reports show in 2018, Sirius provided ~£160 000 to local councils, part-funding the East Cleveland Training and Employment Hub as well as Scarborough Construction Skills Village and Scarborough Jobmatch.

Anglo American state up to ~1 700 jobs will be created during construction with ~1 000 direct long-term jobs and a further ~1 500 jobs created in the supply chain. Sirius aimed to source its workers from within 60 minutes travel time of the site, corresponding to a ~4.3% increase in the number of jobs available within the national park according to reports on Sirius impact in the local area.

These reports also found some of the impacts of Sirius and its main contractors in 2018 were:

- ~£288 million of GVA generated directly and through the supply chain, of which ~£199 million was generated within Yorkshire and the North East
- ~900 people employed people across project sites in North Yorkshire & Teeside
- ~66% of employees across all sites travel less than an hour to work
- Supported a further ~245 indirect and induced jobs

The reports also stated Sirius and its contractors paid nearly ~£35 million in salaries, with employees earning above the average wages for both the region and the UK (for 2018).

According to articles by Sirius, Anglo American and the Sirius Minerals Foundation (an independent charity set up by Sirius in 2013 to leave a positive legacy from the Woodsmith Mine) the Foundation is due to share a 0.5% revenue royalty when production begins. The Foundation has awarded three separate rounds of funding since December 2017, with >£800 000 donated to 150 local projects supporting education and skills training, improving public spaces and facilities, health and wellbeing, vulnerable people and delivering environmental and community building initiatives. From the first round of funding:

- ~£13 700 was awarded to programmes in schools, improving equipment and facilities for children and support STEM teaching
- ~£5 500 was awarded to support school leavers and university level young people in STEM
- ~£31 644 was awarded to employability, life skills and family support programmes aimed at reducing deprivation and supporting local people into work

Following its takeover of the project, Anglo American stated its support for the Sirius Minerals Foundation and committed to providing an additional ~£4 million in advance of future revenues from the Woodsmith Mine. In mid-2020, the Sirius Minerals Foundation pledged ~£350,000 to help charities and voluntary groups on the North Yorkshire coast recover from the effects of the COVID-19 pandemic.

Environment: According to news articles and reports on Sirius's impact, in 2013 Sirius, withdraw its initial planning application before formal consideration to re-examine key elements, particularly the environmental impact. Reportedly, the initial planning application was not viewed as properly considerate of the environment and operating in a national park.

According to Sirius and news articles, the plans were resubmitted in 2014 with a new underground system of conveyor belts to transport material instead of a slurry pipeline and other mitigation efforts including building the deepest mineshafts in Britain and one of deepest in Europe. All major infrastructure will be sunk below ground so that when the mine is completed, no mining equipment will be visible on-site, with surface



buildings kept to a minimum and landscaped to blend in with the natural environment. The production from the mine will not be brought to the surface; it will be transported to the processing plant at Teesside via an underground conveyor system 23 miles long, avoiding the need for surface transportation/haulage.

Furthermore, the reports found, Sirius spent ~£252 000 on landscape and ecology, restoring ~20 km of footpaths, historic buildings and improving infrastructure in the national park. Anglo American states they plan to offset carbon emissions at the mine through planting ~7 000 hectares of trees.

Education: Reports on Sirius's impact also outline how Sirius was involved with skills development and training for school children alongside entry-level, apprenticeship, undergraduate and graduate-level residents. They ran ~56 education outreach events and ~50 engineering apprenticeships were launched. These education outreach events reportedly focused on working with disadvantaged young people.

The reports also found, and news articles reported, in 2018, Sirius met with ~20 000 young people and visited ~80 schools to speak about opportunities related to the project and associated industries. They also offered graduate and undergraduate placements in operations, process engineering, commercial, external affairs and geology. Sirius pledged to recruit ~50 apprentices in the first 5 years following the start of construction with the apprenticeship programme ongoing.

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