

Report: **Speculative Mining in Spain**



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en acción



Imprint

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'My dear Mr Clennam', returned Ferdinand, laughing, 'have you really such a verdant hope? The next man who has as large a capacity and as genuine a taste for swindling, will succeed as well. Pardon me, but I think you really have no idea how the human bees will swarm to the beating of any old tin kettle; in that fact lies the complete manual of governing them. When they can be got to believe that the kettle is made of the precious metals, in that fact lies the whole power of men like our late many lamented.'

Charles Dickens, *Little Dorrit*

04	Glossary
06	About
07	Executive Summary
07	Financial Reorganization
07	Critical Raw Materials
08	Spanish & European Legislation
09	Unsustainable Mining Practices
10	Speculation: Financial Extraction and Financialization of the Spanish Mining Industry
10	How Are Mines Financed?
10	Speculation and Financialization
11	What Is a Junior Mining Company?
11	What Does a Junior Company Have to Do with Financialization?
12	Financial Instruments
12	Exploration of Junior Mining Companies
13	Extraction of Public Funds
14	Creating a Bankable Project
14	Subsidiary Networks and Micro-Enterprises
15	Framework: The European Mining Strategy and The Discourse of Critical Materials
15	Narrative of Critical Raw Materials
15	Raw Materials Diplomacy
16	Eu Policy on Mining: Promotion of Mining by the European Commission and the Spanish Autonomous Communities
16	The Role of the European Commission
17	Programatic Goals
17	Active Initiatives
19	Conflict of Interest
19	A U-Turn from Sustainability to Extractivism
21	Role of the Spanish Autonomous Communities
24	Policy: Spanish Legislative Framework
24	General Problems
25	Issues with the Environmental Evaluation
26	Hindering Public Participation
28	Case Study: Four Mining Companies and Their Projects in Spain
29	1. Financing and Financialization
29	2. Network and Influence
29	3. Bankable Project
29	4. Financial Extraction
30	Case Study: Atalaya Mining PLC (AIM, TSX)
31	History
31	Board
32	Shareholders
33	Funding
33	Environmental Impact

34	Operations History
36	Touro Project
37	Environmental Impact
38	Socioeconomic Impact
38	Yuso Project
40	Case Study: Berkeley Energia Ltd (ASX, LSE, BME)
41	Salamanca Uranium Project
41	History
43	Environmental Disputes
44	Opposition
44	Corruption
45	Corporate Governmental Network
45	Corporate Structure
46	Board
46	Speculative Bubbles
46	Promised Jobs
48	Case Study: Quantum Minería S.L.
49	Rare Earths Projects in Castilla-La Mancha
49	A Project Funded by the EU
49	The Composition and Connections of the Board
51	Case Study: Sacyr S.A. (BME, FRA, OTCMKTS)
52	Introduction
53	A hybrid company structure
53	San Finx and Other Tin and Tungsten Operations in Galicia
54	Speculative Renewal
55	Systemic Failure to Comply with Environmental Regulations
56	Social Opposition and Contestation
57	Ores or Subsidies? Public Funding as a Business Strategy
58	The Iberian Pyrite Belt and Ossa-Morena
59	The Aguablanca Project
60	Minas de Cala (Huelva)
60	Alconchel (Badajoz) and Further Developments in Ossa-Morena
61	Almería Projects
62	The Valdeflores Lithium Project in Cáceres
64	Sacyr's "Proxies" in Castilla-La Mancha
64	"El Moto" Tungsten and Gold Development Project in Abenojar (Ciudad Real)
65	Fontanarejos Phosphates Project
66	Arroba de los Montes Project
68	Conclusion: Reforming Sustainability
68	Un- / Sustainability of Mining
68	Status Quo
69	Reforming Legislation
70	Mining in Natura 2000 Reserves
70	Outlook

Glossary

Mining

Bre-X: was a Canadian Company involved in one of the world's biggest mining scams. Their falsely reported gold resource in Borneo lead to the evaluation of the company at 4,4 billion US dollars before collapsing, destroying hundreds of millions in public and private investments.

Converting Resources from Inferred, to Indicated, to Measured: describes the process of prospecting, establishing and modelling a resource in order to make a bankable project.

Critical Raw Materials / Minerals (CRM) resources considered critical to the economy and national security. Historically this term was introduced by the US Army in preparations for the Second World War.

Cut off Grade defines the concentration at which it is financially sustainable to mine or refine a mineral. Material above this grade is considered ore while material below it is considered waste.

Dutch Disease: the relationship between the economic development on just one sector (e.g. mineral extraction) that leads to the decline in other sectors.

Feasibility Study: the central study that evaluates the economic viability of a mining endeavour based on the results of core drilling. The study is reviewed by "competent persons" to safeguard due diligence and give credibility to the findings.

Greenfield and Brownfield Mines: the former refers to a new mine that is built on "green", previously unmined fields, while the latter refers to a site with previous mining activities.

Junior Mining Company: an enterprise that does not have a substantial income from mining, that cannot finance and run a mine independently and requires external investment and expertise. A mining company is usually considered senior when it has a capital above 500 million euros.

Life of Mine: expected time of operation based on proven mineral resources and rate of extraction.

Mining Friendly Region: a term used by mining companies to identify vis-à-vis their investors, e.g. those Spanish regional governments facilitating the licensing process and providing funding for their projects.

Resource Curse, Paradox of Plenty: a term used when the abundance of natural resources harms local economies rather than develop them. Norway is one exception where the income from natural resources is not privatized nor directly channelled into the economy.

Social Licence to Operate: considered a form of participatory decision-making which includes local residents.

Terra Nullius: a concept used to describe land as belonging to no one and thus available to be claimed.

Underground Frontier: when the underground becomes itself a financialized resource that can be exploited.

Ecology

Biodiversity Offsetting: a planning term to allow the partial destruction of eco-systems by financially compensating for conservation projects in order to achieve "No Net Loss" to the ecology.

Cost Externalizing: industries tend to have ecological and socio-economic costs attached that are not considered, priced in or paid by a company. Cost externalizing defines the process of offloading costs to third parties such as local residents and the regional or national government.

Environmental Impact Assessment: the process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made.

Extractivism: a pattern of capital accumulation that is based on the overexploitation of successively rarer and often non-renewable natural resources.

Ground Truthing: cross-referencing threshold and levels in locations with predictions from models and remote sensing data.

Sustainability: describes the exploitation at the rate of regrowth. In the case of mineral extraction, the term is often used ambiguously to conceal what exactly sustainable means, as most minerals are non-renewable resources.

Finance

Bankable Project: describes a mining project that has proven to have mineral resources that can be mined profitably. A bank can then provide a credit with the minerals as security. The credit is often issued via an Off-Take Agreement and/or a stream financing deal with a commodity trader.

Commodity Prepay: an upfront payment for future production. See Off-Take Agreement below.

De-Risking: terminating or restricting business relationships with remittance companies.

Financialization: an economic process by which exchange is facilitated through the intermediation of financial instruments. It describes the growing influence of finance over productive activities and the development of financial capitalism since 1980.

Legal Fiction: an incident that brings a case into a court that is not directly tied to its jurisdiction.

Latent Cash: inactive investments, also used to describe the minerals to be mined in order to imply their accessibility.

Market-Based Finance: a euphemism for Shadow Banking System that supply financial services outside of normal banking regulations.

Off-Take Agreement: a contract to buy a certain amount of material over a specified amount of time at floating price plus or minus a differential.

Pre-financing: in order to finance a project the producer and the trading company enter into a prepay agreement where the bank lends money to the producer. Upon delivery of the commodity from the producer to the trading firm, the trading firm pays (some or all of) the amounts it owes under the off-take agreement to the bank to repay the loan.

Rolling over commodity future contracts: in order to avoid the costs and obligations associated with settlement, contracts can be rolled over to a different month. Future contracts are most often settled by physical settlement or cash settlement.

Shadow Banking System: a term used to describe the bank-like services outside of banking regulations.

Soft Costs, General and Administrative Expense (G&A): "profits" that can be taken in the process of raising funds

Stream Financing: selling rights to future profits for a project development.

Tolling Arrangement: an agreement to put a specified amount of raw material per period through a particular processing facility.

About

Ecologistas en Acción is a Spanish grassroots confederation consisting of 300 environmental groups. Since 1998 the group has carried out awareness campaigns, as well as public and legal complaints in the context of environmental violations.

Ecologistas en Acción understands environmental issues as not separate but closely related to the social questions of economy, health and sustainability. With our increasingly globalized modes of production and consumption these questions need to be addressed both regionally and internationally in order to find adequate solutions that consider social and ecological implications.

For Ecologistas en Acción, mining is one such prevalent issue where the economic interests are very often not reconciled with environmental concerns. It has actively been accompanying projects that do not meet legal and environmental requirements with protests and litigations in Spain.

In this report, Ecologistas en Acción focuses on the recent development of the so-called junior mining companies that threaten to destroy swaths of nature reserves, agricultural land and protected areas for speculative profits.

Grupo de Minería / Ecologistas en Acción

Find more information on:

<https://www.ecologistasenaccion.org>

Executive Summary

Since 2007, Spain has seen a vast increase in the prospecting and licensing of new mining projects. In 2018 alone, there were more than 2000 mining applications filed. This poses a risk to both the economy and the environment.

The reasons for the tremendous increase of mining projects in Spain have to do with four factors, namely: a) the financial reorganisation that allows small enterprises to initiate large and highly speculative mining projects; b) the discourse of “Critical Raw Materials” (CRM) that aims to mobilize resources above environmental concerns; c) large construction companies (i.e., Sacyr) seeking expansion into the mining business after the 2007 property crisis; and d) the outdated Spanish legislation which fuels this boom and does not adequately consider social and ecological interests;

This process towards more extraction is advanced by the European Parliament and Commission as well as Spanish regional governments, who promote mining at large.

Financial Reorganization

The financing of the mining industry was reorganized following the economic crisis and the raw material price collapse of 2009. This led to the proliferation of financial constructs such as stream financing and off-take agreements. The vehicle aims to raise proceeds from trading future products for investments in the present. The constructs can be useful, but they allow junior companies with hardly any capital to use mineral resources as a security for speculation. The abstraction of finance enables juniors to appear solid with imminent profits when they have little more than a paper tiger.

This forms a well-established pattern where mineral resources are used primarily for the exploitation of capital and not of ores. Financialization pushes new companies with low-grade resources to the cheapest possible extraction method, such as open pit mining and heap leaching. In the process, local economies and ecologies suffer the destructive consequence of projects that fail, disappear and leave wrecked landscapes. The easy access to public subsidies exclusively for the mining sector in Spain further facilitates purely speculative developments.

Critical Raw Materials

Critical Raw Materials describe a set of 27 elements that the European Commission considers indispensable to the economy. The framing on the “criticality” for the economic development and the transition towards renewable energy neglects the fact that most of these elements are non-renewable. Rather, this discourse aims to mobilize the short-term extraction of resources instead of considering long-term sustainable solutions. The EU strategy to increase supply chain safety by stimulating mining across Europe is partly counterproductive as it promotes highly speculative, unsustainable and unsound mining practices.

Spanish & European Legislation

Particularly in Spain, the impact of renewed mining ventures is distinct because national and local regulations are quick to adopt EU policies and aim to be “mining friendly”.

The outdated Spanish legislation is geared towards enabling extraction over a balanced analysis of social and ecological long-term impact. For example, land can automatically be expropriated for a speculative mine. Through development funds this results in direct financial support for unsound mining projects.

European and Spanish mining policy has to consider the environmental implications more strongly and ensure that all mining enterprises have the capacity to conserve and restore the environment. Revenue from mining could, for example, contribute to land restoration of existing mines. Instead, parts of government favour short-term benefits over negative long-term environmental and socio-economic impacts. Through effective public consultation, mining legislation should also consider the rights of local communities to say no to mining. For that purpose, in 2018 Ecologistas en Acción launched a new proposed amendment of the current Spanish mining legislation.¹

 ✍ Summary

This report examines the environmental and socio-economic costs of the speculative mining boom in Spain.

The increase in mining activity in Spain after the 2007/2008 burst of the Spanish property bubble is also connected to a surge of metal prices (e.g., gold, copper, tungsten, tin, etc.) that had fallen dramatically in the 1980s.² Renewed interest for mining led to the intensification of governmental efforts to promote mining. In order to become “mining friendly”, many regions established direct funding via investments and credits to new mining projects and the provinces of Andalusia, Aragon and Castilla y Leon joined the European MIREU initiative to become mining regions of EU.³

In the last 10 years, Spain has seen a vast increase in prospecting and licensing for new mining projects.⁴ This mining boom produces unsustainable business practices focused on speculation and not economic production. One prevalent structure is the so-called “junior” mining companies that require highly speculative capital to explore and start a mine. From the outset, these projects are often economically unsustainable.

By maximising profits and neglecting environmental and social impacts these projects pose increasing health, environmental and economic risks to the Spanish public.⁵ In the process, land is expropriated and natural resources are devastated. The necessary social consent is procured by shaping a positive public perception of mining and concealing the socio-ecological impact and the resulting resistance.

The reasons for this development lie in the public tender for mining rights offered by regional governments and the funding support provided by the European Commission, in conjunction with the discourse of “Critical Raw Materials” and speculative financing.

In this report, we examine four companies: Atalaya Mining PLC, Berkeley Energia Ltd, Sacyr (Valoriza Minería S.L.) and Quantum Minería S.L., which highlight the environmental and socio-economic impact of the current mining boom in Spain.

² [Tungsten price 2019, Metalary](#); [Gold price 2019, Metalary](#); [Copper price 2019, Metalary](#); [Tin price 2019, Metalary](#).

³ ‘Mining regions of EU’ *European Commission* Available at: <https://mireu.eu/>

⁴ [Copper, cobalt, gold, lead, iron, nickel, rare earths, tungsten, silver, sulphur and zinc in Andalusia](#); [antimuonium, copper, gold and zinc in Asturias](#); [cobalt, copper, feldspar, niobium, tantalum, tin, tungsten and uranium in Castilla y León](#); [potash and tungsten in Cataluña](#); [cobalt, rare earths, manganese, phosphates, titanium and tungsten in Castilla-La Mancha](#); [antimuonium, gold, lithium, tantalum, scandium, tin, tungsten, vanadium, zinc and zirconium in Extremadura](#); [potash in Aragón and Navarre](#); [baryte, gold, graphite, copper, lithium, feldspar, niobium, silicon metal, rare earths, tantalum and tungsten in Galicia](#) etc. See also information published in English for easy understanding of potential international investors by the Spanish regional governments under the Permitting Procedure Commitment reached with the European Commission (<https://ec.europa.eu/growth/tools-databases/eip-raw-materials/en/content/permitting-procedure-spain>).

⁵ See below, e.g., the analyses of Riotinto and Berkeley Energia.

✓ Summary

A well-established pattern in mining uses Spanish mineral resources for speculative exploitation of capital and not of ores. In the process, local economies and ecologies suffer the destructive consequences of failed projects.

How Are Mines Financed?

Historically, mining has always been a speculative and investment heavy endeavour, but in recent years the structure of how new projects are financed has changed. The 2007 financial crisis led to a liquidity shortage that forced many mines to either foreclose their business or to transform their financing. Partly triggered by the retreat of direct financing through bank credits, the mining industry developed a series of new investment vehicles to raise money. While traditionally banks took on the risk of defaults through credits, today's investment schemes involve commodity traders who pass on risks while carving out a share of the profits.

Yet mining is only the first step in turning natural resources into profits. It is part of an extensive process of smelting and refining, shipping and storing as well as marketing and brokerage, which today is mostly managed by large commodity traders. The restructuring of financing contributed to the concentration of a few large corporations that manage the trading, financing and mining all at once. This growing influence of finance over production becomes tangible in the direct involvement of traders in mining companies, notably Glencore, Noble and Trafigura, amongst others.

At the same time, mining is still a very speculative industry that draws largely from private and public investments. In this system, junior mining companies are seen as a high-risk extension that serve as an exploratory function. Yet they appear to be a speculative excess enabled by the process of financialization.

Speculation and Financialization

The term financialization describes the growing influence and dominance of finance over other industries.⁶ For mining this means that the model of capital growth changes from production of goods to a more speculative endeavour of earning money with money. If the traditional model develops mines through investment, the new model sells and speculates on drawing rights and future revenue through structures such as stream financing.

This means that miners and commodity traders converge in their capacity and become more closely involved in managing the development of mines as well as the supply and demand of markets. This transition from investment to finance brings in new money but also new dependencies and stronger pressure to increase profits. At the same time, the new model of making a profit moves away from production. Through pre-selling contracts, amongst other instruments, mines and the potential profits from natural resources form securities for speculation and can become tradable before production even begins. These financial and organizational developments have contributed to an increased activity of the so-called junior mining companies.

What Is a Junior Mining Company?

Junior companies can be hard to define because they vary greatly. The central distinction between a senior and a junior mining company, however, is that their income does not stem from mining but from investments. While a senior company successfully runs operations, a junior enterprise is either developing a mine or is in an exploratory phase and seeking to develop a mineral resource. The distinction, however, is the capability to do so independently. Mining companies are considered juniors if they do not have sufficient capitalization to develop and operate a mine on their own and require partners and investors for both funding and expertise. Because of these uncertainties, junior mining companies are considered a speculative, high risk and potentially high reward investment.⁷

Companies with assets below 1,5 million euros are sometimes called junior companies or juniors, and by some experts considered part of the illegitimate mining sector.⁸

What Does a Junior Company Have to Do with Financialization?

The greatest problem for junior mining enterprises is the lack of track record and credibility. Yet by definition a junior company cannot sustain its operation from mining but is dependent on external sources for funding. That applies both to fully functioning mines as much as it does to purely speculative exploration companies. Depending on the company's purpose, the business model and funding structure may change but the necessity to raise cash remains. This is done by financialising the assets of a mine.

Most junior mining enterprises aim to generate cash by auctioning shares to partners or through capital markets such as the Alternative Investment Market (AIM) in London and TSX Venture Exchange (TSX-V) in Canada and the Australian Stock Exchange (ASX). The price at which a share is traded on the stock exchange determines the value of the company. A miner can therefore raise capital by selling shares but in order to not deflate its share price it has to increase its evaluation, which requires building profit expectations from investors.

In this process of becoming an attractive investment, junior mining companies have to compensate for their lacking track record. The evaluation only goes up if investors see promising potentials and the inevitability of profits materialising. Part of the strategy to create credibility

⁷ MacDonald, A. (2002) Industry in transition: a profile of the North American mining sector, International Institute for Sustainable Development, p. 33-35.

⁸ Ibid., p. 35.

is by establishing ties to more senior companies and large trading firms in the industry. But because established players are well aware of the risks involved in investing in junior mining companies, a series of financial instruments are deployed to avoid and pass on the attached risks.

Financial Instruments

This is where finance becomes essential for the intermediating risks and profits in mining endeavours. A common example is “pre-financing”. This construct allows a borrower (a mine) to take a “prepay” from a bank on commodity by entering “off-take agreements” with a trader. For this, the commodity-trading firm agrees to buy a certain amount of a future production for a fixed percentage below the market price at the time of delivery (arbitrage). For instance, Global Tungsten & Powers Corp. agreed in 2010 to purchase future tungsten and tin production from Incremento Grupo Inversor S.L., who were then restarting operations in the *San Finx* mine in Galicia before transferring it to Sacyr.⁹ The commodity to be produced constitutes the security for the credit given by the bank in the form of the “prepay”. As soon as the commodity is delivered, the trader repays the bank loan. There are various variations that either leave the risks with the trader or forward them to the bank. The trading firm will try to insure itself against possible defaults or forward the liability.¹⁰ Other variations of this instrument are stream financing and tolling agreements.¹¹

These modes of financing do two things: in the first instance, they permit a business to raise money and to set up production in order to be able to make a profit; in the second instance, they build trust with private investors that the mine will yield a certain amount of ores. At the same time, this procedure also signifies that the miner was not able to raise the money otherwise and had to forgo parts of their profits on future production. The mine trades future profits for security.

Therefore, the appearance of progress and of being on the verge of profitability is essential for junior mining companies. This means that they often struggle both with the perception of the project and the project itself in order to continue the actual development.

Exploration of Junior Mining Companies

For purely exploratory companies financing is more speculative, as the assets are much smaller and usually the ore reserves are not yet proved to be exploitable. Instead, smaller explorations aim to be bought out or absorbed by a more senior company. But “the probability that a project is sold off by a junior to a major mining company after the permitting procedure ends is 1:1000. That is not the game. Juniors are set up as a way of ‘milking’ the projects through capitalization and the grants they can obtain from public authorities”.¹²

The only assets they can trade on are the mining rights they have acquired. The value of these rights increases with feasibility studies and continued exploration. Alternatively, they can sell options on mining rights to competitors. The so-called “Touro Project” is an example involving contiguous rights by a number of such juniors (see diagram on page 30).

⁹ Incremento value for Tungsten Mining Group

¹⁰ Pirrong, C. *The Economics of Commodity Trading Firms*, Trafigura (2014), p. 37.

¹¹ Miners turn to alternative finance to cut debt as downturn grinds on. *Reuters* (2015).

¹² Interview with anonymous senior mining executive director. Held by Elena Solis in Madrid, June 23, 2018.

For the management of mining enterprises, this process of raising money can itself become a source for profits. That is, drawing profits from funding regardless of the outcome of the mine. So called Soft Costs or General and Administrative Expense (G&A) mark the margins that can be taken during the funding rounds or offerings. This can make up to 30% of the investments. It appears that for some companies financing itself has become the business.

Extraction of Public Funds

The initial funding for highly speculative projects is very challenging. Junior mining companies often are geared towards extracting funds from public programs to initiate the first stages. In the hope of creating jobs, local and regional governments supply grants and funding.

Examples of this is W Resources (with funding from Blackrock and Oak-tree), who was granted substantial funding by the Junta de Extremadura for the tungsten project La Parrilla in Extremadura.¹³ Atalaya Mining was granted funds in 2014 from the Andalusian regional government which included EU funds.¹⁴ Minera de Corcoesto¹⁵ and Incremento Grupo Inversor¹⁶ secured large subsidies for prospections and operations in Galicia. Sacyr's mining branch, Valoriza Minería, was able to sustain its San Finx operation through R&D financing from the Spanish Ministry of Industry-CDTI,¹⁷ and even while closed down due to lack of environmental permits it accessed funds from the European Institute of Innovation & Technology Raw Materials (EIT RawMaterials) initiative, to evaluate and define "modern approaches to obtaining the social license for mining".¹⁸ Significantly, Sacyr also secured a large EU LIFE program for a degraded mining site in Huelva.¹⁹

What is more, a mining company can sue the government if the permission for a project is withdrawn. In the arbitration, miners will ask for the maximum compensation that can go into the hundreds of millions.²⁰ The most powerful of those tools is the International Arbitration Tribunal, set up by the Energy Charter Treaty and its mechanism of Arbitration Investors/States (ISDS), which effectively provides for the granting of damages to be paid out by Spanish regional authorities to investors when a project is stopped due to social opposition. Edgewater, for instance, has sued the Galician Regional Government for denying authorisation of the Corcoesto gold mine after a long and ferocious battle of social opposition.²¹

¹³ '€5.3m grant awarded for development at La Parrilla' *W Resources Plc* (2018). Available at: <https://wresources.com/wp-content/uploads/2018/03/20180328-WRES-Grant-Awarded-for-Development-at-La-Parrilla.pdf>

¹⁴ 'Approval of €8.8m Grant to EMED Tartessus for the Rio Tinto Copper Project' *Atalaya Mining* (2014). Available at: <https://atalayamining.com/blog/approval-of-e8-8m-grant-to-emed-tartessus-for-the-rio-tinto-copper-project/>.

¹⁵ 'El proyecto minero de Corcoesto acumula 350.000 euros en subvenciones del Gobierno en dos años', *Europa Press* (2013). Available at: <https://www.europapress.es/galicia/noticia-proyecto-minero-corcoesto-acumula-350000-euros-subvenciones-gobierno-dos-anos-20130318184924.html>

¹⁶ 'El primer grupo gallego de wolframio entra en concurso al no poder justificar millonarias subvenciones', *Economía Digital* (2013). Available at: https://galicia.economiadigital.es/directivos-y-empresas/el-primer-grupo-gallego-de-wolframio-entra-en-concurso-al-no-poder-justificar-millonarias-subvenciones_332980_102.html

¹⁷ *Valoriza Minería I+D+i*

¹⁸ <https://eitrawmaterials.eu/project/itarg3t/> Also see: http://www.europarl.europa.eu/doceo/document/E-8-2019-001731_EN.html

¹⁹ <http://www.life-etad.com/>

²⁰ 'Berkeley initiates Arbitration against Enusa' *Market Screener* (2012). Available at: <https://www.marketscreener.com/BERKELEY-RESOURCES-LIMITE-6496751/news/Berkeley-Resources-Limited-Berkeley-initiates-Arbitration-against-Enusa-02-04-2012-pdf-38-KB-14250755/>

²¹ https://corporateeurope.org/sites/default/files/attachments/one_treaty_to_rule_them_all.pdf

Creating a Bankable Project

In order to be able to trade future production for equity, a junior miner has to establish a “bankable project”. This can be asserted with the help of experts such as mining engineers, geologists, accountants and market analysts. They produce reports and feasibility studies to “authenticate” test-drilling results and expand the existing volume and quality of the resource.

But a resource can only become “bankable” if the feasibility study shows that the enterprise can extract the ores below market value, otherwise the ground is nothing more than dirt. This “cut off rate” is central to a proposal and pushes new companies, especially those with low-grade resources, to the cheapest possible extraction methods. These are often open pit mining and heap leaching, methods with some of the most devastating environmental impacts. Cumulatively, this can lead to resource exaggeration and the over-borrowing of an impossible project.

Subsidiary Networks and Micro-Enterprises

Part of this mechanism of abstraction are the networks of subsidiaries and ownerships within mining companies. These allow the organisation to manage and mitigate regulation, taxation, liability and operational risks.

Typically equipped with a capital of three thousand euros, micro-subsidiaries are a very popular vehicle to buy into rights, explore resources and start partnerships without attaching the resulting risk to the main organisation. This allows an operation to navigate multiple sovereignties to their benefit while distancing themselves from resulting environmental costs.

① Conclusion

The financial abstraction of mining allows junior companies to use mineral resources as a security to speculate. In the process of bringing a mine into operation, profits are extracted while the costs of failed mines are socialized.

The European Mining Strategy and The Discourse of Critical Materials

✓ Summary

The EU strategy to increase supply chain safety by stimulating mining across Europe is partly counterproductive, as it promotes highly speculative, unsustainable and unsound mining practices.

Narrative of Critical Raw Materials

The term “Critical Raw Materials” (CRM)²² is not new but one that has been mobilized as a discursive device in the EU to signify resources necessary for technological advancement and the shift towards an environmentally sustainable energy regime. As a growing sector of the economy relies on high tech products, it is becoming increasingly dependent on the supply of very specific raw materials, including rare earth elements (REE)²³ but also a series of other ores and minerals such as lithium, tungsten, cobalt, etc.

The tension at the heart of the European discourse around Critical Raw Materials is the challenge of how to reconcile economy with ecology. While the European Commission understands an ecologically sustainable economy as a chance and a competitive advantage, the result is a sort of ecological relativism where mining is perceived as a necessary environmental destruction for a green economy.

This discourse does not only fuel speculation but also motivates efforts to stimulate and promote the exploration and opening of new mines across Europe as well as efforts to harmonize mining regulation within the European Union. This framing shapes the false dilemma that the decarbonisation of the economy is the argument for extraction at all cost.

Raw Materials Diplomacy

Over the last decade, the discourse concerning the *rarity* of some raw materials has intensified, giving questions of access and supply to these materials a growing political and geopolitical significance. The combination of the industrial importance and the market dominance of third countries, as is the case in China for the rare earths market, are responsible for this perception.

The majority of the seventeen existing REE are not rare but rarely appear in high concentrations, instead they are bound to other ores and minerals.

²² The terminology of “Strategic and Critical Materials” was introduced by the American Military to describe the raw materials necessary for the preparations leading up to the Second World War. The US Strategic and Critical Materials Stock Piling Act of 1939 jointly authorized 100 million US dollars to the Secretaries of War and the Navy to stockpile “critical materials”. See Strategic and Critical Materials Stock Piling Act. 12 (The Office of the Legislative Counsel of the U.S. House of Representatives, 2018).

²³ The 17 rare earth elements are: Scandium, Yttrium, Lanthanum, Cerium, Praseodymium, Neodymium, Promethium, Samarium, Europium, Gadolinium, Terbium, Dysprosium, Holmium, Erbium, Thulium, Ytterbium, Lutetium. Rare Earth Elements, Geological Society of London (2011).

The process of separation and refinement is incredibly laborious and toxic, which is what makes these elements so valuable. The production consequently favours weak environmental and labour laws to lower costs.

From the 1960s to the 1980s, the Californian Mountain Pass mine dominated the worldwide REE supply until China increased its production. Through lax environmental regulation, the Chinese exports reduced global REE prices below most competitor's production costs. The effect was a market concentration of up to 97% of REE produced in China in 2010.²⁴

Between 2005 and 2015, China implemented export quotas for refined rare earth elements.²⁵ International markets reacted nervously with the up to tenfold price increase in 2010 that both attracted and were the result of speculation. China tried to use its market monopoly in political and trade negotiations to keep high tech manufacturing within the country, but the efforts quickly dissipated.²⁶

Liberal market ideologies argue that politics have little to do with the normalization of REE prices, that supply and demand manages itself.²⁷ The impact of the embargoes to the economy was limited but also showed that REE are more replaceable than expected. Supply shortfalls pushed innovation. While some technologies really require some amount of REE, the quantity needed is often incredibly small. The use of a given element can usually be reduced or a product can be modified to replace a rare element for a more abundant one.²⁸

The so-called Rare-Earths Crisis highlights the dependency of the West to access very specific raw materials. This helps to converge the discourse of supply chain safety with the development of "green technologies". At the same time, it ushers in a growing geopolitical understanding of resources. This change is mirrored in what the European Commission calls Raw Materials Diplomacy, whose aim is to establish partnerships and multilateral cooperation with many of the raw material producing countries.²⁹

Eu Policy on Mining: Promotion of Mining by the European Commission and the Spanish Autonomous Communities

The Role of the European Commission

In the face of global environmental challenges, economic competition and social inequality, the European Commission tries to develop an overarching strategy to reconcile these forces and their diverging interests.

In the following sections, we aim to show how the superstructure of long-term goals understands environmental challenges as deeply ingrained in questions of sociality and economy, but fail to develop strategies that

²⁴ Levkowitz, L. & Beauchamp-Mustafaga, N. (2010) China's Rare Earths Industry and its Role in the International Market. Available online at: <https://www.uscc.gov/sites/default/files/Research/RareEarthsBackgrounderFINAL.pdf>

²⁵ The export quotas on rare earths are only dropped after a decision by the World Trade Organization in 2015. <https://www.wsj.com/articles/china-ends-rare-earth-minerals-export-quotas-1420441285>

²⁶ Levkowitz, L. & Beauchamp-Mustafaga, N. (2010) 'China's Rare Earths Industry and its Role in the International Market'

²⁷ Gholz, E. 'Rare Earth Elements and National Security' 15 (Council on Foreign Relations, 2014).

²⁸ Ibid., p. 11.

²⁹ Raw Materials Diplomacy, *European Commission* (2016). Available at: https://ec.europa.eu/growth/sectors/raw-materials/specific-interest/international-aspects_nl.

bring these together. Specifically, we question how programs aim to secure raw material supplies in order to decarbonise the economy through the development of green technologies. Instead, the particular measures subsume environmental questions under economic and technological vantage points.

Programatic Goals

In 2014, the European Commission released an ambitious general programme for research, innovation and public private cooperation called Innovation Union³⁰ which is part of the overarching Europe 2020 strategy.³¹ The program is implemented through Horizon 2020 with a budget of almost €80 billion over 7 years.³²

The Horizon 2020 program defines nine key areas in order to drive economic growth. The three most central ones are Excellent Science, Industrial Leadership and Societal Challenges, which includes the challenge “Climate Action, Environment, Resource Efficiency and Raw Materials”³³. The initiative aims to reconcile economy with ecology in the context of climate change and globally decreasing natural resources. It proposes:

- “to achieve a resource – and water – efficient and climate change resilient economy and society,
- the protection and sustainable management of natural resources and ecosystems, and
- a sustainable supply and use of raw materials, in order to meet the needs of a growing global population within the sustainable limits of the planet’s natural resources and eco-systems.”³⁴

Active Initiatives

Starting in 2008, the European Commission (EC) began to assess the “criticality” and the “supply risks” of raw materials to the European Union (EU).³⁵ Under the Raw Materials Initiative (RMI)³⁶, it began to evaluate from which rare earth elements the EU economy could lose access. Since then, the EC has released three lists of Critical Raw Materials (CRM)³⁷, in the latest defining 27 materials³⁸ as critical to the EU economy.

³⁰ ‘Donnelly, C. Innovation Union’ *European Commission* (2017). Available at: https://ec.europa.eu/info/research-and-innovation/strategy/goals-research-and-innovation-policy/innovation-union_en.

³¹ Llado, Carlos de la Calleja ‘Europe 2020 Strategy’ Text. *European Commission*, 7 November 2016. https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/european-semester/framework/europe-2020-strategy_en.

³² ‘What is Horizon 2020?’ *European Commission* Available at: <https://ec.europa.eu/programmes/horizon2020/en/what-horizon-2020>.

³³ ‘Climate Action, Environment, Resource Efficiency and Raw Materials’ *European Commission* Available at: <https://ec.europa.eu/programmes/horizon2020/en/h2020-section/climate-action-environment-resource-efficiency-and-raw-materials>.

³⁴ Ibid.

³⁵ In 2008, the Raw Materials Initiative was tasked with creating the CRM lists and reports. See: ‘Raw Materials Initiative’ *IMA Europe* Available at: <https://www.ima-europe.eu/content/raw-materials-initiative>.

³⁶ ‘Raw materials, metals, minerals and forest-based industries’ *European Commission* (2016). Available at: http://ec.europa.eu/growth/sectors/raw-materials_en

³⁷ List of CRM: 2011 defining 14 materials as critical; 2014 defining 20 materials as critical; and 2017 defining 27 materials as critical. ‘Critical Raw Materials’ *European Commission* (2016). Available at: https://ec.europa.eu/growth/sectors/raw-materials/specific-interest/critical_en.

³⁸ Antimony, Fluorspar, LREEs, Phosphorus, Baryte, Gallium, Magnesium, Scandium, Beryllium, Germanium, Natural graphite, Silicon metal, Bismuth, Hafnium, Natural rubber, Tantalum, Borate, Helium, Niobium, Tungsten, Cobalt, HREEs, PGMs, Vanadium, Coking coal, Indium, Phosphate rock.

The study focuses on the economic importance and the predicted supply risk, but fails to give insight into the social and political consequences of mining. The criteria for this supposed “criticality” remain vague and disputed.³⁹ The ambiguous treatment of ecology in the question of critical raw materials is emblematic and enables the overarching strategies of the European Commission to deploy it as part of the argument for extraction.

One of the projects set up under the RMI was EURARE, which ran from 2013 to 2017. Its aim was to help develop a sustainable REE industry in Europe.⁴⁰

The EU also established a number of European Innovation Partnerships (EIP) on raw materials, among which are the EIP on Raw Materials.⁴¹ The EIP is a mode to bring together representatives from industry, public services, academia and NGOs. The intention is to foster technological and non-technological innovation along the entire value chain of raw materials, from raw material knowledge bases to exploration, licensing, extraction, processing, refining, re-use, recycling, and substitution.⁴²

The European Commission offers funding to particular projects where a group of stakeholders pool together under a particular figure designed for such purpose, namely, a European Innovation Partnership Commitment (EIPC). One of the EIPC in place is AREMON⁴³, which stands for Economic Assessment of Monazite Sands⁴⁴ in Europe. The objective of *Matamulas* is “to maximise the recovery through innovative methods of low-grade⁴⁵ ore deposits. The funding disclosed for this project is €9 million on the part of the EU. Spanish mining companies such as Valoriza Minería (Sacyr) receive significant EU funding through the Horizon 2020 research and innovation programme (a Sacyr-participated mining project received 6.9 million euros for the 2018-2021 period) and the European Institute of Innovation & Technology (EIT) Raw Materials initiative.

ERECOM is a group of experts dedicated to REE that aim to resolve the roadblocks for mining in Europe, whose members meet at biannual conferences.^{46, 47} This body of experts has produced a ‘Scientific Report’, with contributions from both corporations and academics.⁴⁸

The European Joint Research Committee (JRC) is a key expert group that produces independent scientific research for EU policies and policy

39 Moody, R. A ‘Critical Matter’ *German Investments in the Mining Sector*. 41 (Heinrich Böll Stiftung, 2014), p. 5.

40 Rare Earth Element deposits in Europe, *euRare*. Available at: <http://www.eurare.eu/countries/home.html>. See also: https://cordis.europa.eu/project/rcn/106537_en.html and Research and development for the Rare Earth Element supply chain in Europe, *euRare* (2018).

41 European Innovation Partnership on Raw Materials (EIP Raw Materials), *European Commission* (2019). Available at: <http://tinyurl.com/yx24zr3v>.

42 Tzimas, E. ‘Critical Materials in Energy Technologies’ *European Commission* (2015). Available at: <https://setis.ec.europa.eu/setis-reports/setis-magazine/materials-energy/critical-materials-energy-technologies-evangelos>.

43 ‘AREMON Commitment Detail’ *European Commission* Available at: <http://tinyurl.com/vnk75jd>.

44 Monazite is a compound mineral that contains various concentrations and compositions of rare earth elements.

45 Confer to Quantum’s claims that the monazite found in Matamulas contains ‘high concentration’ of REEs.

46 ‘European Rare Earths Competency Network’ (ERECOM) *European Commission* (2016). Available at: http://ec.europa.eu/growth/sectors/raw-materials/specific-interest/erecon_en.

47 It is revealing that the literature of the first conference on REE in 2014 acknowledges that: ‘in the last four years there has been both intense political and research activity in Europe for exploring potential European REE resources and developing novel processing and recycling technologies’.

ERES 2014 – 1st International Conference on European Rare Earth Resource. 52 (*European Rare Earth RESources*, 2014) p. 9.

48 ‘Strengthening the European Rare Earths Supply Chain’ 104 *European Rare Earths Competency Network (ERECOM)*.

makers.⁴⁹ The demand of REE by the European energy system alone is projected to grow in double digits. The projected economic growth can only be achieved with the use of REE.⁵⁰

Conflict of Interest

The coalescing of corporate and governmental interests becomes visible not only in public private partnerships but also at the very top of the Horizon 2020 program. Arias Cañete, a former Spanish minister for Agriculture, Food and Environment, is responsible for the implementation of Horizon 2020⁵¹. He joined the European Commission as Commissioner for Climate Action and Energy, despite numerous protests regarding a likely conflict of interests. Among them are the initial holding of oil industry shares, the investigation of irregular contracts and connections to the Panama Papers⁵². Arias Cañete also signed the approval for Berkeley Energia's uranium mine for which his former employee, Manuel Lamela, lobbied.⁵³

A U-Turn from Sustainability to Extractivism

The following chronological overview intends to retrace how a formally environmentally considerate initiative can lead to contrary actions. One example is how the European Commission's strategic objective for a sustainable growth led to mining projects in protected natural reserves which are part of Natura 2000.

- **23/03/2000** In Lisbon, the European Council adopts the strategic objective for the next decade: to become the most competitive and dynamic knowledge-based economy in the world, able to grow in a sustainable manner with more and better jobs and with greater social cohesion.
- **15/06/2001** In Gothenburg, the European Council completes the economic and social strategy of Lisbon with an environmental dimension. Policy decisions and studies should recognise that economic, social and environmental policies are interdependent and impact each other.
- **05/07/2006** The European Economic and Social Committee approves the initiative "Risks and problems associated with the supply of raw materials to European industry"⁵⁴. The opinion paper warns that the cheap availability of raw materials is not sufficient to achieve the Lisbon objectives. It recommends greater efficiency, technological innovation and environmental management.
- **04/06/2007** The European Commission prepares the working document "Analysis of the competitiveness of the non-energy

⁴⁹ 'JRC in brief' *European Commission* (2012). Available at: <https://ec.europa.eu/jrc/en/about/jrc-in-brief>.

⁵⁰ Tzimas, E. Critical Materials in Energy Technologies. *European Commission* (2015). Available at: <https://setis.ec.europa.eu/setis-reports/setis-magazine/materials-energy/critical-materials-energy-technologies-evangelos>. (Accessed: 18th November 2018)

⁵¹ Miguel Arias Cañete. *European Commission* (2015). Available at: https://ec.europa.eu/commission/commissioners/2014-2019/arias-canete_en.

⁵² 'The disputed Commissioner: Cañete involved in new controversies' *Corporate Europe Observatory* (2016). Available at: <https://corporateeurope.org/power-lobbies/2016/03/disputed-commissioner-ca-ete-involved-new-controversies> and Controlling Conflicts of Interest. *Greens/EFA* Available at: <https://www.greens-efa.eu/en/article/news/controlling-conflicts-of-interest/>.

⁵³ Rubio, M. Manuel 'Lamela cobró por mediar a favor de una mina de uranio ante el departamento de Arias Cañete' *Cadena SER* (2015).

⁵⁴ CCMI/028 – Risks and problems associated with the supply of raw materials to European industry – 05/07/2006

extractive industry in the EU”⁵⁵. The analysis affirms that the EU depends on imported metallic minerals, mainly due to the absence of these in the Union and the Chinese competition. Based on the information provided by the Raw Materials Supply Group⁵⁶, the report raises concerns about a limited access to deposits by the regulatory framework, especially the Natura 2000 network. The analysis states that there is no shortage but that the industry anticipates a limitation for new sites. It also notes that the directives do not completely exclude extractive activities in Natura 2000 sites but that the decision can only be taken on a case-by-case basis. The evaluation of the general situation requires the cartographic superposition of geological and environmental information.

→ **04/11/2008** The European Commission presents the so-called Raw Materials Initiative (RMI) to the Parliament and the Council.⁵⁷ The document states that:

- a) the European Union depends on imports to supply itself with metallic ores, especially high-tech metals;
- b) “there are limitations in the application of the current national and Community regulatory framework that jeopardize the future development of extractive industries in the EU”;
- c) “Strategies are required to safeguard access to these sites for future use”.

And an integrated strategy is proposed based on the following pillars:

- 1) guarantee access to raw materials from international markets under the same conditions as other industrial competitors;
- 2) establish the appropriate framework conditions in the EU to enhance a sustainable supply of raw materials from European sources;
- 3) promote overall resource efficiency and promote recycling to reduce EU consumption of primary raw materials and decrease their relative dependence on imports.

For the second pillar, the Commission considers access to land for extraction to be key and adds that experience recommends simplifying the conditions and expediting the processing of authorizations. In addition, the Commission and the Member States undertake the development of guidelines for the industry and authorities, in order to clarify how to reconcile extractive activities with environmental protection of Natura 2000 and contiguous areas.

→ **28/03/2011** The European Commission publishes the orientation document on the non-energy mineral extraction in accordance with Natura 2000.⁵⁸ In the presentation, commissioners Janez Potocnik and Antonio Tajani assert that the document shows how it is possible to meet both the needs of the extraction industry and avoid the negative effects on nature and wildlife. They omit the fact that the destruction of ecosystems always has negative effects.

⁵⁵ SEC (2007)771 - Commission staff working document - Analysis of the competitiveness of the non-energy extractive industry in the EU: https://ec.europa.eu/growth/content/analysis-competitiveness-non-energy-extractive-industry-eu-0_mt

⁵⁶ Raw Materials Supply Group (E01353)

⁵⁷ COM(2008)699 EU - Communication The raw materials initiative : meeting our critical needs for growth and jobs in Europe.

⁵⁸ EC guidance on undertaking non-energy extractive activities in accordance with Natura 2000 requirements, *European Commission & Directorate-General for the Environment, Publications Office* (2011).

The document presents generally the legislative framework for the protection of biodiversity, and then analyses the effects of mining activities on the natural environment. It specifically examines the rules with regard to the projects that may impact the Natura 2000 network.⁵⁹ The report then states that the Non-Energy Extractive Industry also makes an important positive contribution to the conservation of biodiversity, for example, through the rehabilitation of places at the end of the project cycle.⁶⁰ To consider the obligatory restoration of ecosystems that have been destroyed in the first place an important positive contribution is a fallacy.

- **11/10/2012** The General Directorate for the Internal Market, Industry, Entrepreneurship and SMEs (DG GROW) establishes the European Innovation Partnership (EIP) platform on raw materials with the aim of promoting concrete initiatives. This association prepared the Strategic Implementation Plan (SIP) in 2013, that defines the objectives (2), goals (7) and actions (95). In order to apply the plan so-called Raw Material Commitments (RMC) are made – these are joint raw material undertakings that innovate products, processes, services, technologies and business models which the Commission evaluates to confirm that they meet the established criteria. In particular, commitments are initiated that directly relate to mining authorizations and the Natura 2000 network, such as the permitting procedure in Spain, PPS (2014–2016) and SUMAN 2000 (2014–2016).
- **02/02/2014 - 31/01/2015** A commitment is made to raw materials called the *Procedimiento de autorización en España* (Permitting procedure in Spain, PPS). It starts by recognizing the existing heterogeneity of the autonomous legal regimes and the objective to facilitate the authorization of mining projects. The coordination corresponds to the General Directorate of Mines of the Ministry of Industry, Energy and Tourism (Minetur), the corresponding directorates-general of the Autonomous Communities of Andalusia, Castilla-La Mancha, Castilla y León, Cataluña and Extremadura, as well as the Confederation of Extractive Industries of Rocks and Industrial Minerals (Cominroc), the National Confederation of Mining and Metallurgy (Confedem) and the Association of Research, Extraction, Mining-Metallurgical, Auxiliary and Services Transformers (Aminer).
- **2017** The European Commission funds the MINLEX study,⁶¹ with the objective to identify issues that restrict permitting procedures and act against a level playing field for the Non-Energy Extractive Industry sector. It seeks to harmonize and relax the mining legislation of EU member states and their permitting procedures. Mining authorities from fifteen countries revise the reports but only eight environmental authorities do so. The relevant EU legal framework analysed in MINLEX is the TFEU⁶², 8 conventions, 7 directives of the internal market and 6 of the environmental legislation, the Nature Directives, the Occupational Safety and Health at Work Directive, and various rulings by the European Court of Justice.

⁵⁹ Managing Natura 2000 sites. The provisions of Article 6 of the 'Habitats' Directive 92/43/EECA.

⁶⁰ Ibid., p. 31.

⁶¹ Legal framework for mineral extraction and permitting procedures for exploration and exploitation in the EU 1920, *MinPol* (2017).

⁶² The Treaty on the Functioning of the European Union (TFEU), also referred to as the Treaty of Rome held in 1957.

The Autonomous Communities in Spain have established strategies that can be framed in relation to the EU raw materials initiatives, such as:

- Galicia Sectoral Plan for Extractive Activities (2013), submitted for public information in 2013 and subsequently withdrawn. Various sections of that document were included in Law 5/2017 of October 19th, on the Promotion of Business Initiatives in Galicia.
- Extremadura Industrial Strategy Agreement signed by the Autonomous Government, the employers and the unions on October 14th 2014 and its update on April 20th 2018.
- Resolution of November 12th 2014 of the Ministry of Development, which approves the Strategic Plan of Non-Energy Mineral Resources of Castilla-La Mancha. Horizon 2020 (Permine) [2014/15176] (DOCM 26/11/2014).
- Agreement of June 28th 2016 of the Governing Council, approving the Mining Strategy of Andalucía 2020 (BOJA 7/7/2016).
- Agreement of August 24th 2017 of the Governing Council, approving the Mineral Resources Strategy of Castilla y León 2017-2020.

In line with facilitating the authorization procedures for mining rights, massive public tenders of expired mining records have been opened. The realization of public competitions was already foreseen in the mining legislation,⁶³ the novelty being that they are made with such an emphasis. The research permits and exploitation concessions span vast territorial areas that will subsequently be subjected to an environmental impact assessment. The permits may affect the Natura 2000 network without being subjected to the appropriate and required evaluation.⁶⁴ Examples include Andalusia, Aragón, Cantabria, Castilla-La Mancha, Extremadura, Galicia, Madrid and Navarre.⁶⁵

⁶³ Articles 39 and 53 Law 22/1973.

⁶⁴ Article 6.3 of Directive 92/43 / EEC and Article 3.1.b of Directive 2000/42 / EC.

⁶⁵ Andalusia: Mining competitions in Andalusia:

- Announcement of 4/12/2014 Almería (BOJA 12/17/2014).
- Announcement of 13/8/2013 Cádiz (BOJA 8/21/2013).
- Announcement of 9/8/2013 Córdoba (BOJA 8/19/2013).
- Announcement of 27/1/2014 Granada (BOJA 03/19/2014).
- Announcement of 28/1/2013 Huelva (BOJA 5/2/2013).
- Announcement of 8/16/2013 Jaén (BOJA 4/9/2013).
- Announcement of 8/19/2013 Málaga (BOJA 8/30/2013).
- Announcement of 1/29/2013 Sevilla (BOJA 5/2/2013).

Aragón: Expiration of mining rights:

- Resolution 12/3/2013 Zaragoza, Huesca and Teruel (BOA 21/3/2013).
- Resolution 8/9/2017 Zaragoza, Huesca and Teruel (BOA 27/9/2017).

Cantabria:

- Resolution 9/5/2017 (BOE 12/5/2017).
- Resolution of 7/11/2017 (BOE 11/14/2017).

Castilla-La Mancha: Public mining rights contests:

- Resolution 12/2/2015 Albacete (BOE 12/2/2015).
- Announcement 2/12/2016 Ciudad Real (BOE 2/1/2017).

Extremadura public mining rights contest:

- Resolution 6/7/2010 (BOCM 16/7/2010).
- Resolution 11/16/2015 (DOE 12/3/2015).

Madrid mining area:

① Conclusion The current critical raw material strategy offers a speculative solution to problem of speculation.

Instead of promoting extractivism for temporary supply chain safety, the European Commission should focus on a stricter definition of sustainability and take the non-renewability of mineral resources into account. In the long run, economy as well as ecology would profit from such a perspective.

This situation is aggravated by Autonomous Communities in Spain that invite public tenders of expired mining rights – vast areas of land, many within Natura 2000, that are made available to mining companies.

→ Resolution 11/17/2016 (BOCM 12/30/2016).

→ Ad 11/29/2016 (BOCM 12/30/2016).

Navarre:

→ Announcement of 4/4/2016 (BOE 4/28/2016).

✓ Summary

The Spanish mining legislation requires deep structural reform in order to fall within EU law and enable the implementation of a more sustainable approach to mining.

This section aims to give an overview of the most relevant conflicts between extractive activities in Spain and the compliance with environmental law of the European Union.

General Problems

The current Spanish mining legislation⁶⁶ is outdated and lacks amendments in accordance with the environmental *Acquis Communautaire*⁶⁷. It infringes EU law for the following reasons:

The Spanish mining legislation does not sufficiently incorporate environmental and social interests. Ecological issues are not considered in the planning and design, processing and execution of mines – instead, the legislation seeks to promote extractive activities. The only mention of the environment in the mining law is when it orders the mining administration to set the conditions for environmental protection in mining.⁶⁸

The mining legislation recognizes that it is essential to apply a “special treatment” to the sector within the general regimes established for the industry.⁶⁹ Under the treaties, the requirements of environmental protection must be integrated into the definition and implementation of Union policies and actions, in particular with a view to promoting sustainable development⁷⁰ and through the *Acquis Communautaire*. This environmental integration must also be fulfilled in the policies of the Member States.

The current law, also, poses an unjustified environmental exceptionality. Unlike what happens in the rest of industrial activities, the Spanish Government has attributed competences to the mining authorities that, due to their content, should sit with the environmental authorities. This results in a sectoral bias that prevents the fulfilment of environmental objectives.

Furthermore, the wrong jurisdiction is in charge of the restoration of sites and mining waste. Instead of the environmental agencies, it is the mining authority that is in charge of the environmental impact of mining activities and the resulting corrective measures.⁷¹ The environmental authority only issues a document of assessment for the “restoration plan”, which is a non-binding report.⁷² This contradicts the jurisdictional independence

⁶⁶ Law 22/1973, of July 21, of Mines (BOE 24/07/1973) and Law 6/1977, of January 4, on the Promotion of Mining (BOE 8/1/1977). Royal Decree 2857/1978, of 25 August, by which the General Regulation for the Mining Regime is approved (BOE 11/12/1978).

⁶⁷ *Acquis Communautaire* describes the complete body of EU law that is applicable in its Member States. See <https://eur-lex.europa.eu/summary/glossary/acquis.html>.

⁶⁸ Art. 5 of Law 22/1973.

⁶⁹ Statement of reasons of Law 6/1977.

⁷⁰ Art. 11 TFEU.

⁷¹ Art. 41 of RD 975/2009.

⁷² Art. 5.1 of RD 975/2009 and Art. 2.2.d of Law 22/2011.

that must govern environmental decisions and often leads to the mining administration ignoring critical environmental impacts.

The current law does not allow that the instruments that manage land use, such as the management of the Special Zones of Conservation, can establish generic prohibitions of extractive activities.⁷³ This means that the environmental decisions are adopted by an environmental authority,⁷⁴ and that its “autonomy” is breached, with the result that the law in question does not fulfil the tasks entrusted to it by the environmental law of the European Union.⁷⁵

It can also be affirmed that there is insufficient technical specification, given that the Spanish mining legislation has not been sufficiently developed to guarantee the use of the best available techniques. Nor does it fully specify the documentation that must be presented by the promoter of any authorization, making public and environmental control difficult.⁷⁶ This lack of clarification also makes it difficult for the promoter to comply with an environmental assessment of a very broad and extensive scope.⁷⁷

There is also opacity in authorizing extraction, where mining rights are granted without a detailed specification of the actions to be carried out and being the annual work plans automatically approved without objections, the law not requiring their publication.⁷⁸ This opacity also makes it difficult to comply with the objective of the environmental impact assessment.⁷⁹ Environmental organizations and the general public have been continuously challenged by unmatched difficulties in accessing environmental information held by the various departments of mines. This often leads to a breach of international obligations in terms of both public participation and rights of access to environmental information regarding mining projects (Aarhus Convention). Annual work plans, for example, are often deemed to be protected under intellectual or industrial secret, and thus cannot be scrutinized by civil society actors.

Issues with the Environmental Evaluation

(Natura 2000, EAE, EIA)

In the current mining legislation, there is no obligation to plan a public policy in regards to participation or environmental assessment.⁸⁰ Nor are strategic mining decisions submitted to public consultation or environmental evaluation. Such planning would allow the autonomous establishment of maps of substances and compatibility (territorial, urban, environmental, cultural, etc.) that would grant legal certainty, as well as the ordering of extractive activities in a more concrete way according to the different nature of the exploitable substances.

What is more, the current laws promote mass public contests of expired mining rights. Although the realization of public competitions was already foreseen in the mining legislation,⁸¹ the novelty is that they are made with a massive character. They are carried out on very large territorial areas, are a framework of actions subject to environmental impact assessment

⁷³ Art.122 of Law 22/1973.

⁷⁴ STJUE 16/3/2006, Commission against Spain, C-332/04, EU: C: 2006: 180, paragraph 33.

⁷⁵ ECJ, 20/10/2011, Seaport (NI), C-474/10, EU: C: 2011: 681 [42].

⁷⁶ E.g. art. 47 of Law 22/1973 and art. 66 of RD 2857/1978.

⁷⁷ ECJ, October 24, 1996, Kraaijeveld, C-72/95, EU: C: 1996: [404] & [31].

⁷⁸ Art. 70 of the Law 22/1973.

⁷⁹ STJUE October 24, 1996, Kraaijeveld, C-72/95, EU: C: 1996: [404].

⁸⁰ Art. 5 of Law 22/1973.

⁸¹ Art. 39 and 53 Law 22/1973.

(research permits and exploitation concessions) and may appreciably affect places in the Natura 2000 network but are not subjected to evaluation. There is also an underestimation of the affected areas since the environmental area is not considered as an affected area within the requested mining grids, although it is on such extension that the rights are granted.⁸² In that respect, there is a breach of Article 6.3 of Directive 92/43/EEC and Article 3.1.b of Directive 2000/42/EC.

Another important problem is the disregard for the analysis of alternatives. The promoters, the mining and environmental administrations, do not strictly assume the importance of the analysis of alternatives – the justification of the proposed option and the assessment of the environmental effects of each alternative. Thus, there is a breach of the obligation to make a description of the reasonable alternatives studied, that are related to the project and its specific characteristics, and an indication of the main reasons in favour of the chosen option, taking into account the effects of the project on the environment in accordance with Article 5.1 and Annex IV.2 of Directive 2011/92/EU.

The current mining legislation also lacks rigor in ensuring that it will not cause harm to the integrity of the place in question. Public authorities do not have a protocol for strict action that allows the developer to require sufficient technical documentation to ensure that the plan or project does not cause harm to the integrity of the threatened place. This occurs in many cases because they do not have enough information of their own about the environmental values they have to protect. It follows, therefore, that the obligation that the competent national authorities will only declare themselves in accordance with that plan or project after having ensured that it will not cause harm to the integrity of the place in question is not fulfilled.⁸³

Due to the fact that the current mining legislation lacks concreteness and conservation objectives, an adequate evaluation in the Special Areas of Conservation is difficult or impossible. For example, the management plan of the ZEC ES4310067 Sierra de Alor and Monte Longo approved by Decree 110/2015⁸⁴. Thus, there is a breach of the obligation set out in Article 6.3 of Directive 92/43/EEC.

Hindering Public Participation

Firstly, the current laws provide for a merely reactive public participation. The administration is limited to making a reactive public participation, consisting of the publication of an announcement in the corresponding official newspaper – and in some occasions to make available to the public the corresponding documentation. This often requires insistence with subsequent requests on the part of the public, the payment of copying fees and even long processes of judicial litigation to access the information, all in breach of the information and intervention obligations that are provided for in Art.6.2 and 6.7 of the Aarhus Convention.⁸⁵

⁸² Art. 44, 62.2 and 65.3 of Law 22/1977.

⁸³ Art. 6.3 of Directive 92/43/EEC.

⁸⁴ DOE 3/6/2015.

⁸⁵ Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in the Field of the Environment, made in Aarhus (Denmark) are breached on June 25, 1998, ratified by the EU through Decision 2005/370 on February 17, 2005.

Secondly, it is difficult, or even impossible, to access environmental information of the mining rights in question.⁸⁶ Environmental organisations and the general public have been continuously challenged by unmatched difficulties in accessing environmental information held by the various mining authorities. This often leads to a breach of international obligations in terms of both public participation and rights of access to environmental information regarding mining projects (Aarhus Convention). Other crucial environmental documents, such as annual work plans, are denied on the basis of protecting industrial and intellectual property rights.

Another common occurrence is the absence of personal notification of affected landowners. The mining legislation does not require that potentially affected landowners are personally notified in the process of permitting. It only requires notification after the authorization and only in case of occupation and expropriation, which is in breach of the Aarhus Convention of participating in and accessing governmental decisions.⁸⁷

Additionally, there are often unreasonable deadlines for public participation. For example, the 10-day period of article 16.4 of Law 16/2015⁸⁸. This again breaches the obligation to establish reasonable deadlines that allow sufficient time to inform the public in accordance with article 6.2.e of the Aarhus Convention.

① **Conclusion** The Mining Law 22/1973 is an obsolete law dating back to the last years of the Franco dictatorship. It is part of a developmentalist conception and is alien to social and environmental justice, as it seeks to promote extractive activities without adequately integrating environmental or social objectives in their design, processing and execution.

⁸⁶ For example: announcements of 11/10/2017, Extension to Valdeflórez (DOE 11/24/2017); of 5/9/2018 Idra (DOE 06/15/2018); 7/5/2018 Sol-1 (DOCM 7/5/2018).

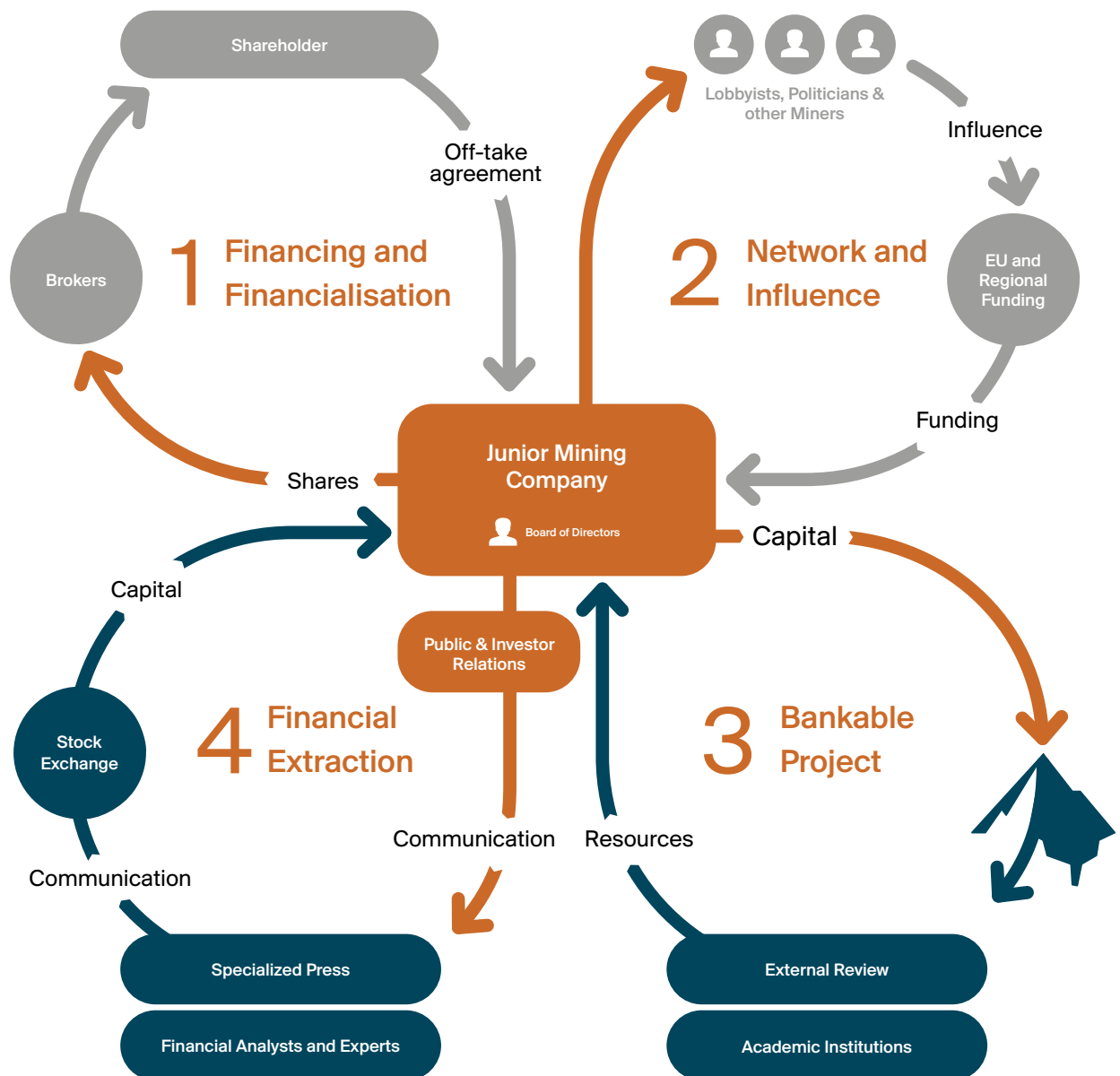
⁸⁷ For example: announcements of 11/10/2017 Valdeflórez (DOE 11/24/2017); of 5/9/2018 Idra (DOE 06/15/2018); of Alcudia I (DOCM 6/9/2017). This is in breach of Art. 6.2.d.vi of the Aarhus Convention and Art. 6.5 of Directive 2011/92 / EU.

⁸⁸ Spain's Official State Gazette (B.O.E.) on May 19, 2015.

Four Mining Companies and Their Projects in Spain

✓ Overview

The speculative cycle of junior mining companies follows a well-established pattern that utilizes four interdependent processes.



1. Financing and Financialization

In the first step, the junior company raises equity for the exploration and development of a mining project. A specific financial construct, the so-called *off-take agreements*, allow it to pre-sell future production. These agreements often take place between a bank that provides a credit and a trader who facilitates the deal by trading shares of the company in return for future contracts. These products allow a small, underfunded and inexperienced company to initiate investment in heavy endeavours often with little or no environmental considerations.

2. Network and Influence

In order to move the permitting process forward, many projects hire lobbyist and cultivate connection forums to exchange with political players. This helps not only in permitting but also in the process of extracting regional funding. Most board members of a junior mining company are involved in other speculative exploratory companies or represent institutional shareholders. Such networks include media corporations, public relations companies, academics in universities willing to lend their legitimacy in exchange for funding, and local political power brokers.

3. Bankable Project

To create a bankable project, it is essential to convert inferred minerals to measured resources with the help of specialists and academic institutions that lend credibility to a study. Often, it is not the resources that are exaggerated but the calculation by the junior mining company of how competitively the resources can be extracted. This calculation turns still hidden minerals into bankable goods that become security for credits.

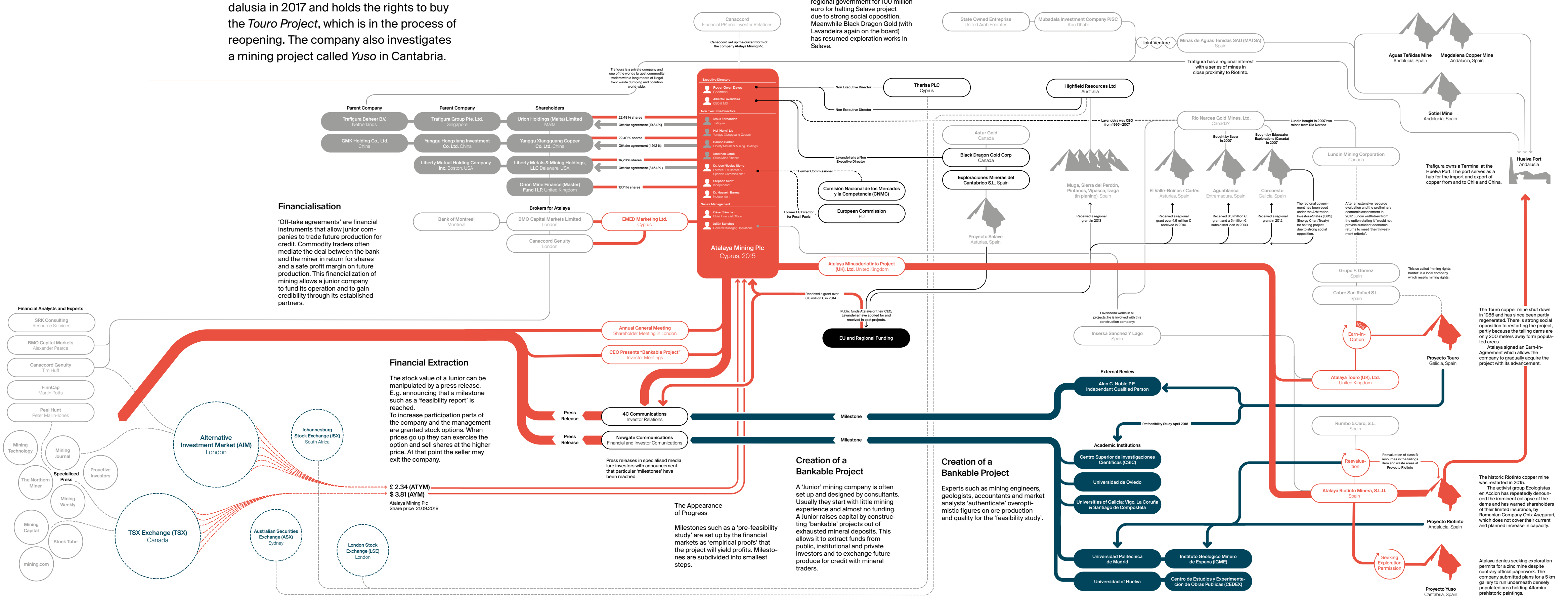
4. Financial Extraction

Finally, the junior miner can cash in and extract money from private and institutional investors on international markets. The company creates an image of imminent success and credibility, when in reality its project is little more than a paper tiger.

These speculative cycles normally last a few years after which the miner changes its name or sells its rights on to the next group.

① Profile

Atalaya is a junior exploration and development company registered in Nicosia, Cyprus. It reopened the *Riotinto* mine in Andalusia in 2017 and holds the rights to buy the *Touro Project*, which is in the process of reopening. The company also investigates a mining project called *Yuso* in Cantabria.



History

Riotinto is part of a series of historic mining sites located in the Iberian Pyrite Belt in the province of Huelva, Andalusia. In the 1870s, legislative changes began to promote foreign investments, which allowed British investors to acquire the mine and establish the Río-Tinto Company Limited.⁸⁹ Subsequently, open pit mining significantly increased exploitation until the Second World War. The majority of the company was bought back by Spanish investors in 1954, and in 1966 a new company was formed to again increase the extraction. With surging copper prices in 1980, the mining reached its peak in 1985. Partly due to the following pull back in demand and growing environmental awareness, the Río Tinto Mine partially closed and extraction shifted to silver and gold. A small-scale copper exploitation was restarted in 1994 but only lasted 4 years as the endeavour proved to be economically unsustainable which led to the complete closure of Río Tinto in 2001. By this time, the 535 meters tall peak of the Cerro Colorado was reduced by 245 meters to a pit with an altitude of 290 m.⁹⁰

Atalaya Mining⁹¹ was founded in 2004 under the name Eastern Mediterranean Resources Public Ltd., which was later shortened to EMED and renamed to Atalaya Mining PLC in 2015.⁹²

The company has gone through several transformations. In the beginning, it broadly explored resources with a focus in Cyprus and later,⁹³ in 2006, it discovered the Biely Vrch Gold Deposit in Slovakia, which it failed to develop into a project due to environmental concerns. In 2007, the company began to acquire the mining rights of the Proyecto Riotinto and shifted its focus from exploration towards bringing the closed mine back into operation. Thereafter, the rights were sold to both the Czech and Cypriot exploratory subsidiaries.⁹⁴

Board

The company consists of 9 board members, the majority of which represent the central investors. As anticipated for a junior mining company, the CEO and the chairman have a long history of being on the board of other junior mining companies and are well connected amongst other juniors.

Since May 2018, the chairman Roger Owen Davey also sits on the board of Orosur Mining Inc and Tharisa PLC, and is freshly appointed to Highfield Resources.⁹⁵ Alberto Lavandeira, the Chief Executive Officer and Managing Director (CEO), is also on the board of Black Dragon Gold⁹⁶ and was formerly CEO of Río Narcea, and president during the takeover by Lundin Mining.

Jesús Fernández represents Trafigura, where he is Head of Mergers and Acquisitions. He is also on the board of Trafigura mining division and Bowie Resources Partners, the largest Bituminous coal producer in the

⁸⁹ Olías & Nieto, Background conditions and mining pollution throughout history in the Río Tinto (SW Spain), 2015, p.302.

⁹⁰ Ibid., p.304.

⁹¹ Atalaya Mining PLC is not connected to the Australian mining company with the name Río Tinto.

⁹² *Atalaya Mining Plc Annual Report 2017*, p. 58 (2018).

⁹³ See: https://atalayamining.com/wp-content/uploads/2015/07/EMED_AIM_Admission_Document_May051.pdf.

⁹⁴ *Atalaya Mining Plc Annual Report 2016*, p. 61 (2017).

⁹⁵ Prior to this, he was Senior Mining Engineer at NM Rothschild & Sons; Director, Vice-President and General Manager of AngloGold's subsidiaries in Argentina; Operations Director of Greenwich Resources Plc, London. See: <http://atalayamining.com/blog/director-appointments/>

⁹⁶ <https://www.blackdragongold.com/corporate/>.

US.⁹⁷ Also on the board are Damon Gilbert Barber from Liberty Metals & Mining Holdings,⁹⁸ Jonathan Lamb from Orion Mine Finance LLP and Hui (Harry) Liu, who is vice president of and represents Yanggu Xiangguang Copper Co. Ltd.⁹⁹ Dr. Hussein Barma¹⁰⁰ and Stephen Scott¹⁰¹ appear to be so-called independent non-executive directors.

Dr. Jose Nicolas Sierra López was the former Commissioner of the National Energy Commission of Spain and EU Director for Fossil Fuels for the European Commission.¹⁰²

Shareholders

As of May 2018, 72,87% of Atalaya Mining PLC was owned by institutional investors largely from the mining industry.

The largest shareholder, with 22,48%, is Trafigura Beheer B.V., one of the main multinational energy and metals commodity traders. In an effort for more control in the market, the Swiss company based in Singapore acquired shares in a series of mining and smelting operations. It already holds a 50% stake in the copper mine Aguas Teñidas in direct proximity to Riotinto. Trafigura's acquisition of Atalaya's majority was not entirely friendly and went hand in hand with an effort to replace all but one board member in 2014.¹⁰³

The Chinese company Yanggu Xiangguang Copper Co. Ltd holds 22,40% and is one of the world's largest copper smelting, refining and processing group.¹⁰⁴ The American Liberty Metals & Mining Holdings is a Delaware based holding that owns 14.28% of Atalaya.¹⁰⁵ Orion Mine Finance (Master) Fund I LP, a specialized investor of the so-called low risk mines, owns 13.71%. They are one of the world's largest alternative finance providers and specialize in structuring debt, equity, streaming, off-take and royalty investments.¹⁰⁶ Orion appears to be related to a whole series of offshore branches in Bermuda.¹⁰⁷ The British private asset management fund Majedie Asset Management Limited owns 6,7% of the shares, and a subsidiary of the world's largest private asset manager, BlackRock Investment Management (UK) Ltd, owns a stake of 0,93%.¹⁰⁸

⁹⁷ <https://www.trafigura.com/about-us/leadership/board-member?Member=Jesus+Fernandez&Board=Management+Committee>

⁹⁸ He is a senior managing Director, formerly head of Deutsche Bank Metals Mining investment banking practice in Asia - Pacific and investment banker in Credit Suisse's Energy Group. See: <http://atalayamining.com/wp-content/uploads/2015/10/Atalaya-Mining-Investor-Presentation-October-2015-Web.pdf>.

⁹⁹ *Atalaya Mining Plc Annual Report 2017*, p. 34 (2018).

¹⁰⁰ Dr. Hussein Barma was formerly CFO for the Chilean conglomerate Antofagasta PLC and is now with New Generation Power. See: <http://www.newgenpower.com/bioHusseinBarma.php>

¹⁰¹ Stephen Scott is the CEO of the minor mining company Entree Resources Ltd (Entrée Gold) with a project in Mongolia and worked prior with Rio Tinto PLC. See: <https://www.entreeresourcesltd.com/corporate/management/>.

¹⁰² https://www.rns-pdf.londonstockexchange.com/rns/6829P_1-2011-10-6.pdf.

¹⁰³ <https://www.ft.com/content/7ae8ace0-545c-11e4-84c6-00144feab7de>.

¹⁰⁴ *Yanggu Xiangguang Copper Co. Ltd* is owned by the conglomerate GMK Holding Co., Ltd. that has further branches in finance and food production. See: <https://www.prnewswire.com/news-releases/yanggu-xiangguang-copper-co-ltd-512632271.html>; <http://en.gmkholdings.com/about/intro.html>.

¹⁰⁵ Liberty Metals & Mining Holdings LLC is managed by Liberty Mutual Holding Company Inc through an indirect subsidiary that is specialized in stock insurance. See <https://www.sec.gov/Archives/edgar/data/1508844/000119312516684925/d241425dsc13da.html>.

¹⁰⁶ <https://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=260400374>

¹⁰⁷ Through the law firm Appleby, Orion appears to be included in the Paradise Papers database. Appleby was part of the so called "Offshore Magic Circle", a group of lawyers that helped their clients to reduce taxes through offshore shell companies. See: <https://offshoreleaks.icij.org/nodes/80109137>

¹⁰⁸ <https://markets.ft.com/data/equities/tearsheet/profile?s=ATYM:LSE>

From the current board, only Alberto Lavandeira and Jesús Fernández own a part of the company, at 0.14% and 0.02% respectively.¹⁰⁹ At the 2018 annual general meeting, a resolution was passed that gave the board stock options of 10% and authorizes the board to acquire up to 20% of the company at a maximum market discount of 20%.¹¹⁰

Funding

Atalaya Mining PLC received a grant of €8.8 million from the Andalusian regional government in 2014 to reopen the Riotinto mine.¹¹¹ The grant is constituted of EU funds and administered by the Innovation and Development Agency of Andalusia (IDEA Agency), which is run by the Junta de Andalucía.¹¹²

A second grant was not issued to Atalaya. At the shareholders Annual General Meeting (AGM) on the 27th of June 2018, Lavandeira replied to the question of a shareholder that it would be unlikely to happen. It appears the government has processed the paperwork for the grant.¹¹³

Environmental Impact

The Río Odiel as well as the Río Tinto have contributors that flow from the mine of Riotinto through the Ría de Huelva into the Gulf of Cádiz. The Ría de Huelva is one of the most polluted estuaries in Europe with high concentrations of heavy metals in both waters and sediments as well as biota. The Tinto and Odiel rivers carry almost half the zinc contributed by all the world's rivers to the seas and oceans¹¹⁴.

Historically, the question whether the water of the Río Tinto, Río Odiel and the estuary of Huelva are naturally acidic or polluted by the mining has been a matter of debate.¹¹⁵ The mining industry has often used the arguments of alleged natural geogenic background concentrations or the unlikely impact of Phoenician and Roman mines to try to escape their environmental clean-up responsibilities. But recent research has evidenced how this is a fallacy, with pollution being correlated to the large-scale industrial mining excavations that started in the 1870s¹¹⁶.

Over the last 140 years, a “naturalisation” of the pollution has taken place. The reason for this is partly due to a lacking environmental awareness in the 19th and 20th centuries and the belated arrival of effective legislation against mining pollution in the 1980s. The more restrictive environmental regulation has led to the closure of a series of mines in the Iberian Pyrite

¹⁰⁹ Atalaya Mining Directors' Dealings & Insider Trades | LON:ATYM, *Stockopedia*. Available at: <https://www.stockopedia.com/share-prices/atalaya-mining-LON:ATYM/directors-dealings/>.

¹¹⁰ Resolution 12 and 13: Notice of the Annual General Meeting of Shareholders to be Held on 27 June 2018, *Atalaya Mining PLC* (2018).

¹¹¹ Approval of €8.8m Grant to EMED Tartessus for the Rio Tinto Copper Project. Atalaya Mining (2014). Available at: <https://atalayamining.com/blog/approval-of-e8-8m-grant-to-emed-tartessus-for-the-rio-tinto-copper-project/>.

¹¹² Innovation and Development Agency of Andalusia, *IDEA Agency* (2010). Available at: <https://ec.europa.eu/growth/tools-databases/regional-innovation-monitor/organisation/innovation-and-development-agency-andalusia-idea-agency>.

¹¹³ Reply to a question at the AGM 2018, Elena Solis.

¹¹⁴ <http://www.life-etad.com/index.php/en/acid-mine-drainage>. Also see: Vicente-Martorell, J. J., Galindo-Riaño, M. D., García-Vargas, M. & Granado-Castro, M. D. Bioavailability of heavy metals monitoring water, sediments and fish species from a polluted estuary, *J. Hazard. Mater.* 162, 823–836 (2009).

¹¹⁵ Jr, R. A. D. et al. 'Rio Tinto estuary (Spain): 5000 years of pollution' *Environ. Geol.* 39, 1107–1116 (2000).

¹¹⁶ Olías & Nieto, Background conditions and mining pollution throughout history in the Río Tinto (SW Spain), *Environments* 2, 295–316 (2015).

Under the “Water Framework Directive” of the European Union,¹¹⁸ these findings imply that the river has to be restored to its natural condition. Contrary to the claims of the mining industry, they are to be made liable for the restoration and the prevention of toxic efflux.

Operations History

The pollution of the rivers and the environment is closely linked to breaches and leaks in the processing. The mining activity at Riotinto has been accompanied by a series of accidents and leakages.

- **09/02/1999:** Exploitation works of Riotinto Mine are suspended. The exploitation leaves a complex of waste dams abandoned, divided into three sections called Aguzadera, Cobre and Gossan. During the 90s, in addition to the sludges of mining activity, chemical wastes are illegally discharged into the dams.
- **05/2007** EMED acquires the option to the mining rights of “Proyecto Riotinto”. Today, Atalaya Mining PLC owns the mine via its wholly owned Atalaya MinasdeRiotinto Project (UK), Ltd. and its Spanish subsidiary Atalaya Riotinto Minera, S.L.U.
- **27/03/2014:** Proyecto Riotinto is authorized for 10 years. The environmental authorisation (in Spanish, Autorización Ambiental Unificada, or AAU) is signed by Jesús Nieto González,¹¹⁹ General Director of Prevention and Environmental Quality of the Junta de Andalucía. The AAU required the company to use a sand wall regrowth system for the waste dams and to thicken the sludge beyond 50% during the first 5 years, and to 65% during the following 5 years. For that purpose, it was necessary to build a plant to thicken the sludge¹²⁰ that to this date has not been built. It has also been reported in the media that under Atalaya’s management the number of spillings in Riotinto became so bad in 2011 that the shared owner of the tailing dams, Rumbo, took control of the dams after Atalaya’s negligence.¹²¹
- **11/04/2014:** The Resolution of the General Director of Industry, Energy and Mines authorizes the transmission of mining rights to EMED Tartessus S.L.U.
- **31/07/2014:** Ecologistas en Acción starts legal action before the 1st Section of the Administrative Litigation Room of the TSJA (High Court of Justice of Andalucía)
- against the AAU.
- **23/01/2015:** Resolution authorizes restoration works of Riotinto by the company EMED Tartessus S.L.U. It is signed by the General Director of Industry, Energy and Mines, María José Asencio Coto¹²² and contains the condition that: “The waste material or sludge to fill

¹¹⁷ Ibid. p.304, p.309.

¹¹⁸ Directive 2000/60/EC.

¹¹⁹ Jesús Nieto had authorised the mining project “Los Frailes”, in Aznalcóllar, including the regrowth of the walls of the waste dam. Nieto ignored the denunciations of Ecologistas en Acción and mining engineers about leaks and deficiencies of the dam, since December 1995, which burst on April 25, 1998.

¹²⁰ Spanish environmental authorisation or Autorización Ambiental Unificada (AAU), p. 28.

¹²¹ Rumbo 5-Cero asumirá la gestión de las presas de estériles de Minas de Riotinto ante la inacción de Emed, *La Vanguardia* (2011). Available at: <https://www.lavanguardia.com/local/agencias/20110806/54196400603/rumbo-5-cero-asumira-la-gestion-de-las-presas-de-steriles-de-minas-de-riotinto-ante-la-inaccion.html>.

¹²² María José Asencio Coto is currently being investigated for prevarication in connection with the award of the mining tender, in February 2015, of the reopening of the Aznalcóllar Mining Zone.

the dams would have to be concentrated at 50%.” It also imposes “spinning” as a construction method for the dam¹²³. The expected storage capacity of the sludge to be added to the existing sludge is 17.8 million tons in the Copper section and 15 million tons in the Aguzaderas section. In total, 32.8 million tons for the first 5 years.

- **02/03/2015:** The mining activity restarts, and Ecologistas en Acción denounces the illegal construction of several mining ponds within the Cerro Colorado mining area. The resulting sanction is appealed by the company and in 24/01/2018, the sanction is confirmed by the Court of Huelva.
- **30/09/2015:** EA begins before Section 1 of the Administrative Contentious Chamber of the TSJA (appeal 780/2015 against the resumption order), which is currently pending judgment of appeal 519/2014. Likewise, a positive verdict would result in the immediate stoppage of the project.
- **28/12/2015:** The resumption of the sterile deposit activity in the Gossan, Copper and Aguzaderas dams is authorized.
- **14/04/2016:** The Territorial Delegation of Huelva halts the deposit of muds in the dams of Riotinto due to the breach of the condition that it must be concentrated at 50% solids, after verifying that the existing solids were only at 30%.
- **14/12/2017:** £31 million is raised in the financial market for the expansion of Riotinto.¹²⁴ This expansion includes the building of a hydrocyclone plant, which does not exist to date.
- **13/04/2018:** 55% of the Riotinto tailing dams are owned by Rumbo 5.Cero, S.L. (“Rumbo”) with whom Atalaya originally entered a joint venture to evaluate the potential class B silver and gold resources. Atalaya entered into a royalty agreement with Rumbo for the use of the dams. In early 2018, it agrees to buy out Rumbo by issuing new ordinary shares.¹²⁵
- **24/04/2018:** Coinciding with the 20th anniversary of the collapse of the Aznalcollar dam, the five main environmentalist NGOs in Spain denounce the imminent collapse of the Riotinto tailing dams, which would cause a flood of toxic waste 10 times larger than the breakage of Aznalcóllar dam 20 years ago.
- **27/06/2018:** EA denounces at Atalaya's AGM the threats posed by the bad state of two of the Riotinto dams.¹²⁶
- **26/09/2018:** Judgment of TSJA on the law suit filed by EA against the Government of Andalucía and ATYM, as co-defendant, annuls the Unified Environmental Authorization (AAU) for a breach of the right of interested parties to be heard in the proceedings leading to the AAU, contrary to Spanish legislation on transparency and public consultation procedure. Atalaya Mining misleads its investors by informing that the Spanish court had ruled that the AAU was

¹²³ Spinning is a process whereby the thick sand is separated and used to build the external contention walls of the dams. Atalaya is not using this method but “spiggotting”, whereby the dams are being built with fine sands, encouraging the weakening of the dam's walls.

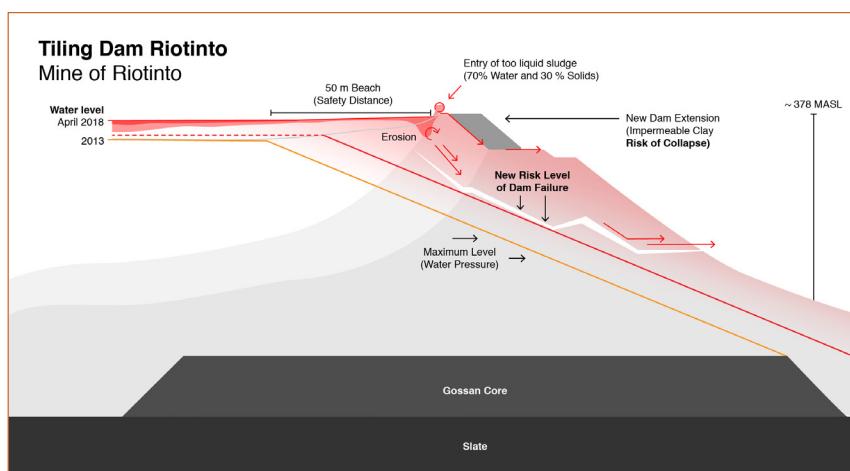
¹²⁴ Approval of 15 Mtpa Expansion Project at Proyecto Riotinto, *Atalaya Mining PLC* (2017). Available at: https://atalayamining.com/wp-content/uploads/2017/12/2017.12.04-Atalaya-15-Mtpa-Expansion-RNS-_-FINAL.pdf.

¹²⁵ Issue of Equity-Buyout of Rumbo Royalty, *Atalaya Mining PLC* (2018). Available at: <https://atalayamining.com/wp-content/uploads/2018/04/ATYM-Issue-of-Equity-Announcement.pdf>.

¹²⁶ <https://www.europapress.es/andalucia/noticia-organizaciones-ecologistas-alertan-riesgo-nuevas-catastrofes-mineras-andalucia-relajacion-controles-20180424151819.html>; <http://londonminingnetwork.org/2018/06/atalaya-tailings-dams-at-imminent-threat-of-collapse/>.

“correct”, and that therefore mining operations did not have to be suspended.¹²⁷

- **21/03/2019:** Judgment of the Supreme Court confirms the above decision.
- **11/04/2019:** Judgment by TSJA annuls the administrative decision of 23/01/2015 to restart works in the mine¹²⁸. In other words, the Atalaya Riotinto mining complex currently has no environmental licence nor mining licence to continue running.
- **17/07/2019:** The Andalusian environmental authority initiates a new public consultation procedure to comply with the TSJA judgment but it does not publish all relevant documents which had been kept hidden from the public on the first public consultation. Ecologistas en Acción notifies the TSJA accordingly.
- **04/09/2019:** Ecologistas en Acción submit to the environmental authority a report by Steven Emerman on the high probability of Riotinto dams collapsing due to liquefaction.
- **12/10/2019:** Ecologistas en Acción file a new appeal against the modified AAU, asking the Court for precautionary measures to cease operations in Riotinto and to enforce the existing judicial decisions to that effect.



A forecast of collapse through junction of both sections, like Aznalcollar disaster in 1998.

Touro Project

In an effort to expand its copper operations, Atalaya Mining PLC aims to reopen the defunct Touro copper mine in Galicia. It has agreed to provide the knowhow and the funding to bring the mine back into operation.

The Touro mine was operational from 1973 to 1986, but shut down when copper prices plummeted.¹²⁹ The mining concession was held by a local construction company and later transferred to a ‘micro subsidiary’ called Cobre San Rafael S.L.¹³⁰ with a capital of 3000 euros.¹³¹ The mine was

¹²⁷ <https://atalayamining.com/blog/legal-update/>.

¹²⁸ https://sevilla.abc.es/economia/sevi-tsja-anula-autorizacion-junta-concedio-para-explotar-mi-na-riotinto-201904261210_noticia.html.

¹²⁹ Proyecto Touro, *Atalaya Mining PLC*. Available at: <https://atalayamining.com/proyecto-touro/>

¹³⁰ Cobre San Rafael S.L. is a subsidiary wholly owned by Explotaciones Gallegas S.L. which is part of the F. GOMEZ Group, a regional private construction company that owns the mining concessions. More information: Exercise of option to acquire interest in the Touro Copper Project (“Proyecto Touro”) in Spain. *Atalaya Mining PLC* (2017).

¹³¹ Cobre San Rafael S.L., A Coruña, *Internet Archive* (2016). Available at: <https://web.archive.org/>

de facto abandoned, but the small construction aggregates extraction was used as a strategy to keep the concessions 'alive'. Mine pits were transformed into waste landfills which became even more profitable.

When copper prices reached new heights in 2011, the senior company Lundin Mining signed an option to buy 80% of the Touro Project for 60 million euros.¹³² After an extensive resource evaluation¹³³ and a preliminary economic assessment, the company stepped back from the option stating it "would not provide sufficient economic returns to meet [their] investment criteria".¹³⁴ Even the 2013 Galician Sectoral Plan for Extractive Activities remarked that the Touro mining deposits lacked sufficient richness to make their development economically viable.

However, in July 2015 Atalaya Mining PLC signed an "Earn in Agreement"¹³⁵ to the Touro Copper Project by acquiring the first 10% stake in the shares of Cobre San Rafael S.L.. Atalaya 5 to buy 80% of the shares for 7.5 million euros in 4 stages, under the condition that the project was de-risked, permitted and in operation. In return, it will grant Cobre San Rafael S.L. 0.75% royalties on the Net Smelter Return.¹³⁶ Atalaya also holds the rights to buy an additional 122 km² surrounding the Touro area, leading right up to the historic city and UNESCO World Heritage site of Santiago de Compostela¹³⁷.

In March 2017, Atalaya Touro (UK) Ltd. is incorporated in the UK as a subsidiary wholly owned by Atalaya Mining PLC with a capital of 3000 pounds and Lavandeira (CEO of Atalaya), Davey (Chairman of Atalaya), Cesar Sanchez (Chief Financial Officer) and Julian Sanchez (General Managing, Operations) as their Directors.¹³⁸

Environmental Impact

According to the Galician Ecological Federation (GEF), the water authority (Aguas de Galiza) confirms that all rivers in the vicinity of the Touro Project are contaminated.¹³⁹ It appears that the new mining activity would only worsen the situation.

Only in the last six months, the Xunta de Galicia has opened three disciplinary proceedings against the company for the pollution of the river Ulla with heavy metals, Imposing substantial fines. The environmental wealth

web/20160830215747/ <http://www.infocif.es/ficha-empresa/cobre-san-rafael-sl>; Galicia, E. D. Las mineras inyectan cinco millones en el proyecto de Touro, *Economía Digital Galicia* (2017). Available at: https://galicia.economiadigital.es/directivos-y-empresas/las-mineras-inyectan-cinco-millones-en-el-proyecto-de-touro_508710_102.html; Cobre San Rafael S.L., A Coruña, *Infocif*. Available at: <http://www.infocif.es/ficha-empresa/cobre-san-rafael-sl>.

¹³² Lundin Mining Enters into Option Agreement to Acquire Copper Project in Spain, *Lundin Mining Corporation* (2012). Available at: <https://www.lundinmining.com/news/lundin-mining-enters-into-option-agreement-to-acqu-122651/>.

¹³³ Lundin Mining Reports Second Quarter Results, *Lundin Mining Corporation* (2012). Available at: <https://www.lundinmining.com/news/lundin-mining-reports-second-quarter-results-122647/>.

¹³⁴ Lundin Mining Update on Touro Copper Project Option *Lundin Mining Corporation* (2012). Available at: <https://www.lundinmining.com/news/lundin-mining-update-on-touro-copper-project-optio-122644/>.

¹³⁵ An "Earn in Agreement" or "Earn out Agreement" is a contract that allows the acquisition of a business in phases in relation to its progress. In return, the original owner receives a percentage of future profits. This contract serves to align expectations of future growth with the market value of a company. It serves as a security to the buyer and incentive to the seller to meet the expectations. See definition: <https://www.investopedia.com/terms/e/earnout.asp>

¹³⁶ Exercise of option to acquire interest in the Touro Copper Project ("Proyecto Touro") in Spain. *Atalaya Mining PLC* (2017).

¹³⁷ <https://atalayamining.com/blog/proyecto-touro-progress-update/>.

¹³⁸ Atalaya Touro (UK) Limited, *Companies House*, Available at: <https://beta.companieshouse.gov.uk/company/10664230/filing-history>

¹³⁹ Augas de Galiza confirma a contaminación de todos os ríos arredor da mina de Touro-O Pino, *Federación Ecoloxista galega* (2018).

of the Ulla River is widely recognized, not only by scientific publications but also in the environmental legislation itself. In this respect, there are several declared protected spaces, such as the Maritime-Terrestrial National Park of the Atlantic Islands of Galicia¹⁴⁰ and the Ulla-Deza Special Conservation Zone¹⁴¹.

An equally seriously affected area is the Camino de Santiago. Thus, ICOMOS (International Council on Monuments and Sites), responsible through UNESCO for declaring the Camino de Santiago a World Heritage Site, has informed and warned the Xunta that the Camino de Santiago would lose its status as a World Heritage Site¹⁴².

Socioeconomic Impact

The social response to the Touro Project has been very broad across all socio-economic sectors. There is strong opposition from the local population, resulting in the creation of civil platforms such as *Mina Touro-O Pino Non*, which stresses the loss of local jobs and the destruction of the socioeconomic landscape of the affected area.

One of the economic activities highly affected is in the Arousa Estuary, where both the shellfish and fishing industry as well as the tourism industry will be seriously altered by the Touro Project due to its impact on the contaminated waters flowing from the Ulla River into the Arousa Estuary.

There have been numerous demonstrations called by both the civic platforms and economic sectors, such as the shellfish industry of the estuary of Arousa – the largest took place in June 2018 with about 30,000 people¹⁴³, supported by hundreds of political groups and social organisations.

Yuso Project

The Yuso Project is a greenfield project, a sight previously not mined, assumed to have a deposit of zinc minerals. It is located in the central area of Cantabria.

Atalaya is seeking a research permit for 47 mining quadrants that correspond in parts to available land, as publicised by the Department of Innovation, Industry, Tourism and Commerce of the Government of Cantabria.¹⁴⁴ This grant gives them only 5 mining cadastral units located between the towns of Santillana and Ubiarco. For the two-year exploration phase, Atalaya calculates a budget of 56.8 M€¹⁴⁵.

In the second year, the company plans the construction of an exploration gallery of 5 km budgeted at €16,358,900, 28.8% of the total cost. The one-way gallery could be located under the historical-artistic site of the medieval centre of Santillana del Mar and the Cave of Altamira, World Heritage Site, and even reach municipalities that were not even within the initial perimeter of the 47 squares, such as Alfoz de Lloredo. In addition,

¹⁴⁰ Declared on 1st of July 2002, by law 15/2002.

¹⁴¹ Declared on 31st of March 2014, by Decree 37/2014.

¹⁴² <https://www.ecestaticos.com/file/a5d322516717dc4d598c1439fa478cf1/1542137540-in-forme-icomos-sobre-mina-de-touro-oct.pdf>;
https://elpais.com/cultura/2018/11/15/actualidad/1542268481_872988.html.

¹⁴³ <http://www.yestolifenotomining.org/huge-demonstrations-mining-galicia-spain/>.

¹⁴⁴ See file: CRM 2017/2 of the Public Contest of mining rights convened by the Department of Innovation, Industry, Tourism and Commerce of the Government of Cantabria according to BOE N° 113 from May 12, 2017.

¹⁴⁵ Estudio económico de financiación y de garantías para el proyecto de investigación propuesto a realizar en el permiso de investigación Yuso, *Atalaya Mining PLC 2017*, p. 6.

there is an aquifer running below the exploration area, which would likely interfere with the building of the tunnel, causing it to flood.

Contrary to the report filed for the local administration, Atalaya Mining denies being part of the exploration of the Yuso project.¹⁴⁶ At the annual general meeting 2018, both Lavandeira and Davey categorically denied being part of such efforts.¹⁴⁷ The reasons for these blunt lies remain impervious.

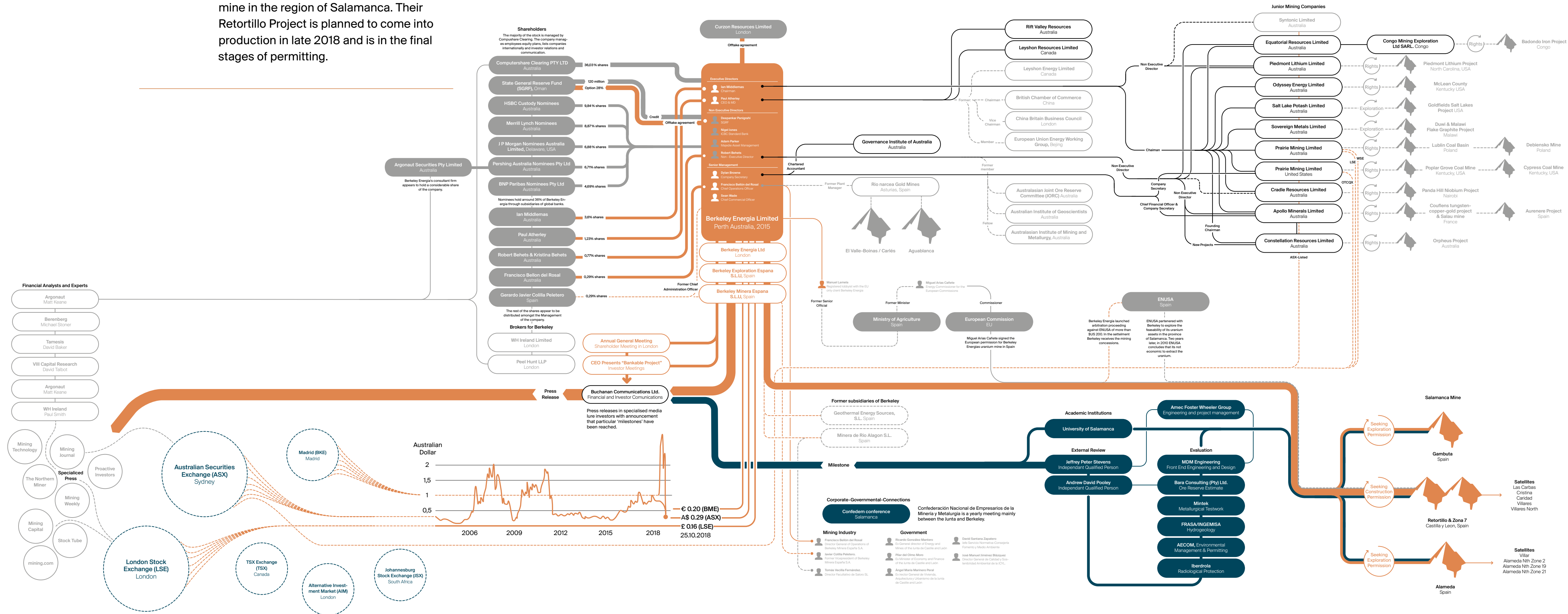
① Conclusion

Atalaya is a junior mining company that aims to establish itself by restarting a historic mining site. The central problem are the risks that result from environmental negligence that has and continues to mount due to cost saving measures.

¹⁴⁶ Ibid.

¹⁴⁷ Ties are strengthened: Spanish campaigners unite around Atalaya Mining's London AGM, *Yes to Life no to Mining* (2018). Available at: <http://www.yestolifenotomining.org/ties-strengthened-spanish-campaigners-unite-around-atalaya-minings-london-agm/>

Berkeley Energia is a junior exploratory company focused on open-cast uranium mine in the region of Salamanca. Their Retortillo Project is planned to come into production in late 2018 and is in the final stages of permitting.



The Australian junior exploration company has its headquarters in London and is listed on the stock exchange of Sydney (ASX), London (LSE) and since 2018 in Madrid (BME) under the code BKY. The company was incorporated in 1991 as a construction business and has gone through 6 name changes, in part according to shifts in focus from construction, to diamonds and finally uranium mining in Spain.¹⁴⁸

Salamanca Uranium Project

Berkeley Energia holds the rights to the Salamanca uranium mine, consisting of four deposits and a series of exploratory satellite sites. The main deposit “Retortillo” is planned as an open-cast uranium mine with a heap leaching and a processing plant. The construction of the project is under litigation. The project was planned to come into operations in late 2018.

The project is highly contested because of its ecological repercussions. It is located in close proximity to a natural reserve, upstream of a drinking water extraction site for the Villavieja de Yeltes and the Colegio Rural Agrupado.

The mounting public and political pressure from local residents, NGOs and 40 adjacent municipalities moved the Sánchez government to change course from the previous administration and stop the mine. As of October 2018, the permitting process appears to be halted because the governing party, as PSOE opposes the project, stating that the region’s primary economic sectors of agriculture and tourism would suffer.¹⁴⁹

History

The history of Berkeley in Spain is tied to the privatisation of the uranium market. In 2008, after the Spanish cabinet lifted the exclusive right for the state-run nuclear supplier ENUSA¹⁵⁰ to explore and mine uranium, a subsidiary of Berkeley (Minera de Río Alagón S.L) proposed two exploration projects, spanning 12 municipalities and a Natura 2000 protected area in the Sierra de Aragoncillo.¹⁵¹ In March 2009, after opposition and protest, the governing council of Castilla-La Mancha thwarted the research permit and any further commercial mineral exploitation in the area.¹⁵²

Yet Berkeley was pursuing interests in Salamanca as well as in Castilla-La Mancha. In 2008, ENUSA selected Berkeley as its partner to produce a

¹⁴⁸ The Company was incorporated as an Australian proprietary company, limited by shares, on July 2, 1991 as Project Constructions (Australia) Pty Ltd in accordance with the Corporations Act. The Company has been through the following changes of name since incorporation: Baracus Services Pty Ltd (July 1, 1994); Berkeley Diamonds and Resources Pty Ltd (September 19, 2001); Berkeley Resources Pty Ltd (April 3, 2002); and Berkeley Resources Limited (August 2, 2002). See: Hawley, R. & James, S. Appendix to Aim Announcement, Berkeley Energia Ltd. BERKELEY ENERGIA LIMITED ACN 052 468 569. *Australian Securities And Investments Commission*, Available at: https://connectonline.asic.gov.au/RegistrySearch/faces/landing/panelSearch.jspx?searchText=052468569&searchType=OrgAndBusNm&_adf.ctrl-state=v5s-rlqfym_15

¹⁴⁹ Tudanca: el Gobierno “va a favorecer” que mina uranio “no se ponga en marcha”, *www.efe.com* (2018).

¹⁵⁰ ENUSA INDUSTRIAS AVANZANDAS, S.A., S.M.E. (ENUSA) is a public enterprise owned by the Ministry of Finance and Public Administrations together with the Ministry of Science, Innovation and Universities. See: Who are we?, *Enusa*. Available at: <http://www.enusa.es/en/conocenos/quienes-somos/>

¹⁵¹ El uranio en la comarca de Molina, nuevo desafío de una multinacional, *Ecologistas en Acción* (2008). Available at: <https://www.ecologistasenaccion.org/?p=12664>; Chunta avisa de que la explotación de uranio en Guadalajara afectará a los acuíferos de la Comunidad de Calatayud, *Europa Press* (2009). Available at: <https://www.europapress.es/aragon/noticia-chunta-avisa-explotacion-uranio-guadalajara-afectara-acuiferos-comunidad-calatayud-20090622144001.html>

¹⁵² Satisfacción por la prohibición de extraer uranio en Mazarete, *Ecologistas en Acción* (2009). Available at: <https://www.ecologistasenaccion.org/?p=14004>

feasibility study to assess its uranium assets in the province of Salamanca, Spain. ENUSA agreed to an earn-in option with Berkeley, beginning with a payment of €5 million for the database accounting for the assets and a further €20 million for 90% ownership plus royalties or shares.¹⁵³ Berkeley gained 100% ownership over the exploitation rights in July 2012.

ENUSA concluded in 2010, 10 years after they closed their Salamanca uranium mine, that it could not extract uranium profitably, while Berkeley estimated that they could produce uranium at some of the world's lowest costs.¹⁵⁴

As a result of ENUSA's refusal to form a partnership with Berkeley due to the project's unfeasibility, Berkeley files an economic claim before the Arbitration Court in Paris for the loss of profit of 207 million Euros. Subsequently, ENUSA reached an agreement with Berkeley whereby the latter withdraws the lawsuit in exchange for obtaining from ENUSA the concession for the exploitation of the state reserves of Alameda de Gardón and Villar de Ciervo, without having engaged in any public tendering process.

In 2011, Berkeley initiated the permitting process for the Retortillo Project. In the following years, permits are given by the regional and national administration:

- The environmental licence is granted in 2013.
- The mining licence is granted for 30 years in 2014 by the Junta de Castilla y León, based on a positive environmental impact assessment, which does not consider radioactive emissions¹⁵⁵.
- The permit for the pre-construction of the processing plant in 2015 is granted. This is appealed to the Audiencia Nacional by Ecologistas en Acción together with the political party EQUO.
- The permit for water discharge is obtained in 2015, for which an appeal was admitted in 2017.
- The water use permit is obtained in 2016.
- For "Zona 7", Berkeley submitted the mining and environmental licence as well as the exploitation plan for "Almeda" in 2016.¹⁵⁶
- The authorisation of exceptional use of the rural land is approved in 2017.¹⁵⁷
- On March 2018, the Ministry of Energy suspends the construction until the Nuclear Safety Council (CSN) approves the mine.¹⁵⁸
- The CSN conditioned the licensing of the processing plant on the submission of more documentation than the provided in the Environmental Impact Statement (EIA). This was approved by the Regional Government of Castilla y León, on finding that the wastes were 1st category radioactive, which was not specified in the EIA. In addition to the waste treatment plan, the CSN asked Berkeley for complementary reports on health surveillance and waste releases to the Yeltes River.

On October 2018, the Spanish authorities reject to grant an outstanding

¹⁵³ Financial Report for the Half Year Ended 31 December, *Berkeley Resources Limited* (2008).

¹⁵⁴ Méndez, R. Una firma australiana anuncia la extracción de uranio en Salamanca después de 10 años, *El País* (2010).

¹⁵⁵ La corrupción sobrevuela la mina de uranio de Retortillo, *Ecologistas en Acción* (2016).

¹⁵⁶ Berkeley Energia Prospectus, *Berkeley Energia Ltd* (2018).

¹⁵⁷ Ibid.

¹⁵⁸ El Gobierno suspende la autorización de la construcción de una fábrica de concentrados de uranio de Salamanca, *Europa Press* (2017).

construction permit for the Retortillo mine on the basis that Berkeley does not own the land. This decision makes it hard for local authorities to issue a permit.¹⁵⁹

On the same month, the Salamanca Provincial Government issues a technical report advising the Municipality of Retortillo not to grant the planning permission for the start of works on the mine and the beneficiation plant to Berkeley because such facilities occupy part of the SA-322 road owned by the Provincial Government. To comply with the report, Berkeley was required to divert the mining installations. This has not taken place as Berkeley does not own all of the land affected by the facilities. Also, the above-mentioned report highlighted an administrative irregularity, whereby the documentation presented by Berkeley had not been properly authenticated, with the exception of the administrative buildings.

There are therefore 3 permits not yet granted to start the project: the planning permit to be issued by the Municipality of Retortillo; the non-binding favourable opinion of the CSN (cf: an unfavourable opinion is binding); and the final license by the Ministry of Ecological Transition (MITECO).

Environmental Disputes

As of June 2018, the following litigations are pending or concluded:

- In 2008 Berkeley is fined for illegal test drillings by Retortillo City Council due to public claims and social pressure.¹⁶⁰
- In 2016 Asociación Foro de Izquierdas, Los Verdes and Ecologistas en Acción file an appeal against the permission for the pre-construction of the processing plant.¹⁶¹ This appeal is currently pending before the Audiencia Nacional. Should it found in the appellants' favour, Berkeley would have to start the application process.
- In 2017 the city council of Villavieja de Yeltes and the platform Stop Uranio file two appeals against the authorisation for exceptional rural land use for mining activities in the Retortillo municipality.

The European Commission had cautioned Spain in 2015 to consider the provisions for decommissioning Berkeley's uranium mine in a report. The paper outlines the necessity to clearly define the responsibility and ready availability of funds to monitor the radiation and rehabilitation where necessary. In this context, the commission questioned the economic assessment of Berkeley that claims to be able to extract uranium below the average production cost of all other uranium mines in the world.¹⁶²

According to Francisco Castejón (Nuclear Physicist and member of Ecologistas en Acción) "an open-pit uranium mine, due to radioactive dust, has a severe impact on the health of people, animals and plants." In addition, the mine will generate "large amounts of radioactive dust that will move through the air and will be deposited in water and land." Also, the planned system of ponds (using decantation methods) could cause serious consequences, similar to the Aznalcóllar disaster.¹⁶³

¹⁵⁹ Carreño B., Exclusive: Spain rejects Berkeley uranium mine in confidential report, *Reuters* (2018).

¹⁶⁰ El Ayuntamiento de Retortillo sanciona a Berkeley con 8.000 euros por carecer de licencia municipal, *Salamanca rtv al día* (2015). Available at: <https://salamancartvvaldia.es/not/68066/el-ayuntamiento-de-retortillo-sanciona-a-berkeley-con-8-000-euros-por-carecer-de-licencia-municipal/>.

¹⁶¹ Berkeley Energia Prospectus, *Berkeley Energia Ltd* (2018).

¹⁶² La UE espera del Gobierno el proyecto de Berkeley sobre la evacuación de residuos radioactivos, *Salamanca rtv al día* (2016).

¹⁶³ <https://www.ecologistasenaccion.org/33797/>

The mine's close proximity to Portugal has caused tensions between the two countries. The Portuguese government is clearly opposed to the mine, having not been consulted on cross border contamination.¹⁶⁴ The Junta de Castilla y León has ignored such a cross-border environmental impact study, has not performed any radiological study and has not consulted the Nuclear Safety Council (CSN).¹⁶⁵

This provoked an official protest from the Portuguese Government, that its Spanish counterpart ignored – following which the former denounced the latter before the EU. As a result, an official meeting took place between the presidents of Portugal, Spain and the European Commission, Antonio Costa, Mariano Rajoy and Jean Claude Juncker. This resulted in Portugal withdrawing the complaint even though it had been unanimously backed by the Portuguese parliament.

Another central issue for the local residents is the water use and discharge permits that allow Berkeley to take more than 60,000 cubic meters of water per year from the river Yeltes, that only flows a few months a year. The intake for the mine will be at the source of the river, where the hot sulphurous waters springs (48°) feed a spa. The Yeltes supplies the residents of Retortillo with water and the Stop Uranium Platform has already warned that they will be forced to drink the water from the subsoil, containing high levels of arsenic.

Opposition

In 2013, the first large protest took place in Retortillo, with 170 participants and representatives of social and political groups. Over the last 5 years the civil protest has continued, especially around the initiative of “STOP Uranio”, leading to over 115,000 signatures against the project in 2014.¹⁶⁶ In 2018 Berkeley started to cut down 2,000 of 30,000 centennial oak trees¹⁶⁷ to give shareholders the impression that the construction is progressing, despite the fact that key permits are still outstanding.¹⁶⁸ But the felling rendered the environmental impact of the project visible – sparking protest and news coverage. Throughout 2018 civil resistance grew, drawing thousands of protestors to Salamanca and Vitigudino.¹⁶⁹

Corruption

The platform *Stop Uranio* filed a well-documented complaint against the former mayor and the two councillors of Santamartina for bribery. Other allegations of corruption include payments by Berkeley that were made through collaboration agreements. According to José Ramón Barrueco from *Stop Uranio* “they paid Retortillo 200,000 euros and another 19,000

¹⁶⁴ See: Brun, M.A. Mounting tension between Portugal and Spain over uranium mine, *META* (2018).

¹⁶⁵ Sin estudio de impacto ambiental transfronterizo para la mina de uranio de Salamanca, *Ecologistas en Acción* (2018). Available at: <https://www.ecologistasenaccion.org/?p=94488>.

¹⁶⁶ Plataforma ciudadana contra la mina de uranio en Salamanca. Junta de Castilla y León: No permita la minería de uranio a cielo abierto en Salamanca, *Change.org*. Available at: <https://www.change.org/p/no-a-la-mina-de-uranio-a-cielo-abierto-en-salamanca>

¹⁶⁷ Wandler, R. Bauern von Salamanca wehren sich gegen Uranmine, *derStandard* (2017). Available at: <https://derstandard.at/2000058672771/Bauern-von-Salamanca-wehren-sich-gegen-Uranmine>

¹⁶⁸ El Gobierno suspende la autorización de la construcción de una fábrica de concentrados de uranio de Salamanca, *Europa Press* (2017).

¹⁶⁹ New Uranium Mining Projects – Spain, *WISE Uranium Project*. Available at: <http://wise-uranium.org/upes.html>; Vincente, J. Alrededor de un millar de personas participan en la manifestación para ‘Cerrar Almaraz y todas las demás’ (2018). Available at: <https://www.salamanca24horas.com/texto-diario/mostrar/1107671/movimiento-iberico-antinuclear-celebra-manifestacion-cerrar-almaraz-todas-demas>; Manifestación en Vitigudino contra la mina de uranio, *Salamanca al día* (2018).

to Villavieja de Yeltes.”¹⁷⁰

In the process, Berkeley sued two activists of the platform for 500,000 euros in damages. Both the initiatives Equo and Ganemos Salamanca see the lawsuit as an attack on freedom of expression.¹⁷¹ These are all indicators of how tense the relationship between the different parties are. One resident and activist even reports attacks and threats of murder.¹⁷²

Corporate Governmental Network

On the 26th of December 2014, Berkeley Energia hired the former senior official from the Ministry of Agriculture, Manuel Lamela,¹⁷³ to lobby on behalf of the company. Precisely one month earlier, Lamela's former chief, minister Miguel Arias Cañete, had been appointed to be the European Commission's Energy Commissioner. Lamela registers himself as a lobbyist in the EU with Berkeley Energia as his only client despite not having experience in the mining or energy sector..¹⁷⁴ Five months later, the EU approves the uranium mine signed by Arias Cañete..¹⁷⁵ The exact arguments of the decision are not accessible because the report is classified, at the request of Berkeley.¹⁷⁶

The embroilment between the mining industry and leading politicians is not unique to Berkeley, but the company strategically developed a format for its effectiveness in the yearly Confedem conference. This is a small conference that takes place at the University of Salamanca, bringing together administrators from many relevant departments of the Junta de Castilla y León with the executive team of Berkeley. In 2017 the speakers included officials from five departments.¹⁷⁷

Corporate Structure

Berkeley manages its Spanish uranium projects through an exploration and mining company registered in Retortillo, Spain. The two enterprises are subsidiaries of a British holding that in turn is wholly owned by the Australian company Berkeley Energia Limited, registered in Perth.¹⁷⁸

Currently, the company is solely taxable in Australia. The Spanish subsidiaries do not have a taxable presence in Spain.¹⁷⁹

The company sold parts of its first, planned, production in an off-take agreement with Curzon Resources Limited, formerly known as Interallloys. The prospect of revenue through this first pre-sale allowed the company to raise additional 30 million€. ¹⁸⁰

¹⁷⁰ La corrupción sobrevuela la mina de uranio de Retortillo, *Ecologistas en Acción* 91, (2016).

¹⁷¹ Berkeley reclama 500.000 euros por injurias a dos integrantes de Stop Uranio, *Salamanca rtv al día* (2016). Available at: <https://salamancartvaldia.es/not/117421/berkeley-reclama-500-000-euros-injurias-dos-integrantes-stop/>

¹⁷² La corrupción sobrevuela la mina de uranio de Retortillo, *Ecologistas en Acción* 91, (2016).

¹⁷³ Lamela is involved in the disappearance of half a million euros of state funding for a health tourism business he chaired. See: Sevillano, E. G. Lamela, la asociación fantasma y medio millón de euros desaparecidos, *El País* (2018). Available at: https://elpais.com/ccaa/2018/07/17/madrid/1531840677_104131.html

¹⁷⁴ Lamela medió a favor de una mina de uranio ante su exjefe Cañete en la UE, *El País* (2015).

¹⁷⁵ <https://corporateeurope.org/en/power-lobbies/2016/03/disputed-commissioner-ca-ete-involved-new-controversies>.

¹⁷⁶ Rubio, M. Manuel Lamela cobró por mediar a favor de una mina de uranio ante el departamento de Arias Cañete, *Cadena SER* (2015).

¹⁷⁷ See the meeting schedules of the past 3 years: <http://confedem.com/nueva-jornada-industria-extractiva-medio-ambiente-y-urbanismo-un-desarrollo-paralelo>

¹⁷⁸ Berkeley Energia Prospectus. 261, *Berkeley Energia Ltd*, (2018).

¹⁷⁹ Ibid.

¹⁸⁰ Ibid.

Board

The board of Berkeley consists mostly of so-called independent members, many of them with a history in other junior mining companies. The Board is chaired by Ian Middlemas, the most notorious member who currently chairs at least 9 other junior companies in the field. The CEO and managing director, Paul Atherley, has experience with the British Chamber of Commerce in China and is on the board of two other exploratory mining companies.¹⁸¹

Speculative Bubbles

Since its focus on Spanish uranium resources, the company has undergone two speculative cycles and appears to be ending its third. In the last 12 years, its evaluation pumped to several hundreds of millions and later imploded down into the tens of millions.

The last speculative bubble to burst was Berkeley's debut on the Spanish stock exchange BME. Since its listing on the 18th of July, the price rose from 0.47 cents to 3.27 euro per share, a rise of almost 700% in one week, before collapsing to its original price. During the price spike in Spain, the company's shares remained stable in other markets in London and Sydney. The Spanish National Securities Market Commission (CNMV) warned that the price divergence of Berkeley's shares between the different markets were anomalies that cannot be explained. This anomaly can only be attributed to the disinformation of the investors.¹⁸²

Promised Jobs

Berkeley Energia hired the University of Salamanca to estimate the impact the company will have on employment, with estimates of around 2,000 indirect jobs that will be created as a result of mining activities.¹⁸³ While the region desperately needs employment, the mine also threatens 1,000 direct and existing jobs in agriculture and tourism. Currently, the life of mine is estimated at 18 years, but the negative effects of pollution will impact the region long after the mine is closed.¹⁸⁴

¹⁸¹ Ibid.

¹⁸² La CNMV alerta de que el elevado precio de Berkeley Energia es una anomalía, *Expansión* (2018).

¹⁸³ Annual Report 2018, *Berkeley Energia Ltd* (2018).

¹⁸⁴ <https://www.wwf.es/?42760/WWF-denuncia-ante-la-Comisin-Europea-la-mayor-mina-de-uranio-en-Europa-en-el-corazon-de-un-espacio-protegido>

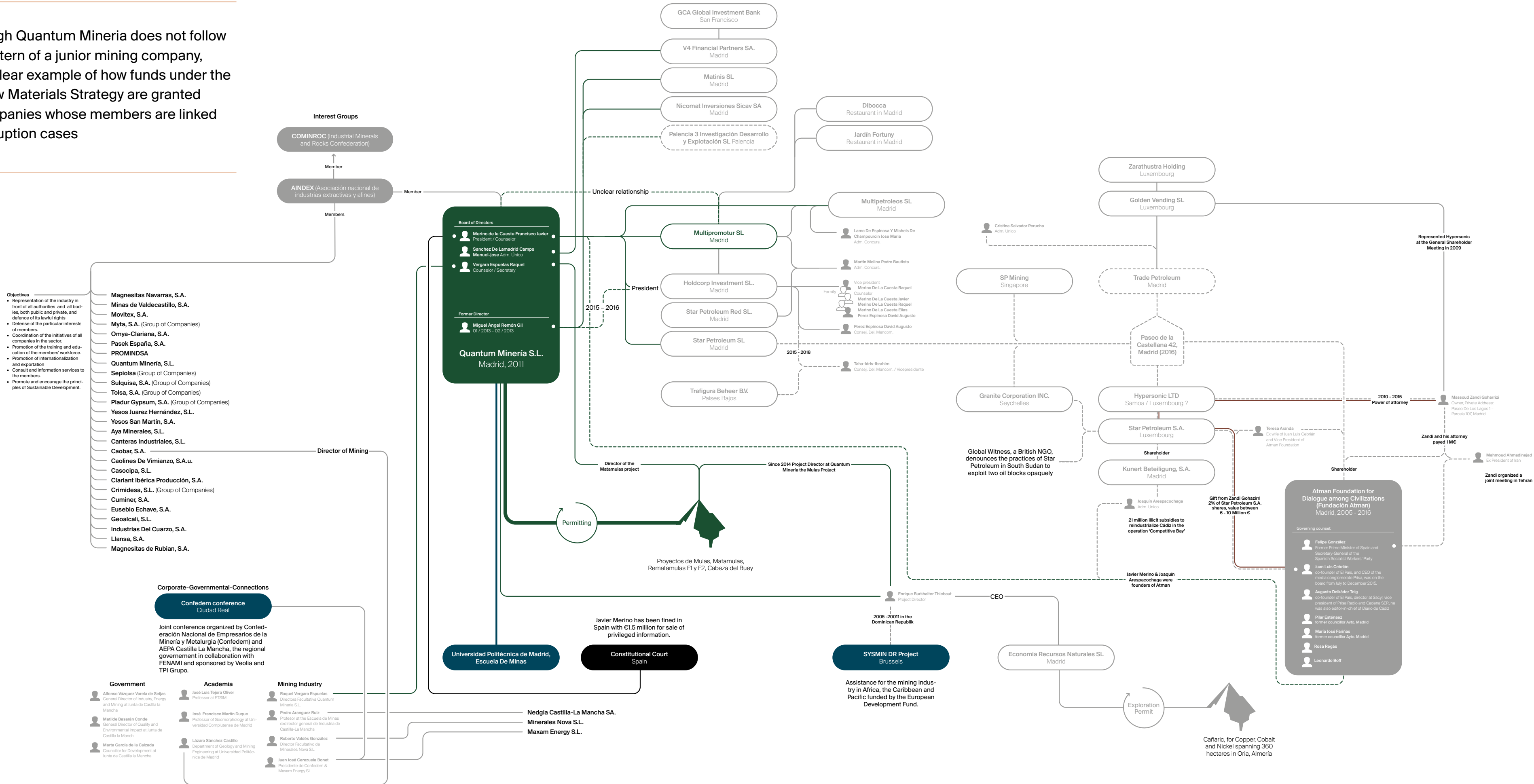
① Conclusion

Retortillo Project is an example that renders visible how political influence on a European as well as a local level is developed in order to pass the permitting process, including the suspicion of corruption.

Berkeley currently has 12 investigation permits granted for the non-energy metals of Au, W, Sn, Li, Nb, Ta, Co, Pb, REEs and others in the Salamanca area.

① Profile

Although Quantum Minería does not follow the pattern of a junior mining company, it is a clear example of how funds under the EU Raw Materials Strategy are granted to companies whose members are linked to corruption cases



Rare Earths Projects in Castilla-La Mancha

These involve several exploratory projects of rare earth elements (REEs) and one exploitation permit in Ciudad Real, Castilla-La Mancha. Together, they cover 17,330 hectares of land with high agricultural and natural value, the exploitation project *Matamulas* covering 1,620 hectares.

Quantum Minería S.L. obtained the exploratory permits in 2014 from Econatura (Economía Recursos Naturales)¹⁸⁵, which had been granted without environmental authorisation from the authorities. Initially, the Government of Castilla-La Mancha (GCLM) favoured the project. The General Director of Industry, José Luis Cabezas, had accompanied Quantum in the marketing parades around the villages affected by the project.

A Project Funded by the EU

Matamulas is also an EU project included in the PERMINE (or Strategic Plan of non-Energetic Materials).¹⁸⁶ The other major recipient of EU funding is the School of Mining Engineering of the Polytechnic University of Madrid, which holds the role of general coordinator of the project, having responsibility for the testing and methodology of the mineral concentration.¹⁸⁷ The concentration plant defined in the AREMON project is said to be designed to the 'Best Available Techniques' (BAT)¹⁸⁸. Both plants, of similar characteristics, have been in operation in the village for more than a year without planning permission or authorisation for handling dangerous substances.

Due to strong social opposition, *Matamulas* was denied environmental authorisation on 17 October 2017 – which Quantum has appealed.

The Composition and Connections of the Board¹⁸⁹

Its CEO, Javier Merino,¹⁹⁰ is linked to a number of large corruption cases. As director of 'Star Petroleum', he was found guilty of an insider trading scam. One of the administrators, Álvaro Hachuel¹⁹¹ was related to the Banesto Case and Mario Conde. Enrique Burkhalter¹⁹² holds several positions in both Econatura and Quantum, the former being the exploration company selling the mining rights to the latter.¹⁹³

Quantum shares the same address as the oil company, Star Petroleum, who obtained (according to Global Witness)¹⁹⁴ prospecting permits in South Sudan, allegedly through traffic of influences. Massoud Zandi, a Hispano-Iranian businessman, indirectly owns Star Petroleum and a number of oil and mining companies which obtain prospecting licences and sell them on. Felipe González, former socialist prime minister, was

¹⁸⁵ Both companies share the same directors and other corporate members.

¹⁸⁶ <https://ec.europa.eu/growth/tools-databases/eip-raw-materials/en/content/economic-assessment-monazite-sands-europe-application-spanish-recognized-ore>.

¹⁸⁷ Ibid.

¹⁸⁸ See video : <https://www.facebook.com/PlataformaSlalaTierraViva/videos/928812803904311/?fref=nf>.

¹⁸⁹ <http://www.infocif.es/ficha-empresa/quantum-mineria-sl>.

¹⁹⁰ http://www.eldiario.es/economia/ONG-petrolera-espanoles-Sudan-Sur_O_318469117.html
http://www.eldiario.es/economia/opacidad-Star-Petroleum-riesgo-corrupcion_O_514449049.html.

¹⁹¹ http://cincodias.com/cincodias/2014/11/24/empresas/1416851433_338977.html.
http://www.quantump.com/servicios_soluciones/estructuracion_financiera.php.

¹⁹² <http://www.opentenea.com/BURKHALTER+THIEBAUT+CRISTOBAL/empresarios/MADRID/empresario?empresario=994788>.

¹⁹³ https://gerrm.com/wp-content/uploads/2019/04/Conferencia_2.-MATAMULAS.-Tieras-Raras.-03.2016.pdf.

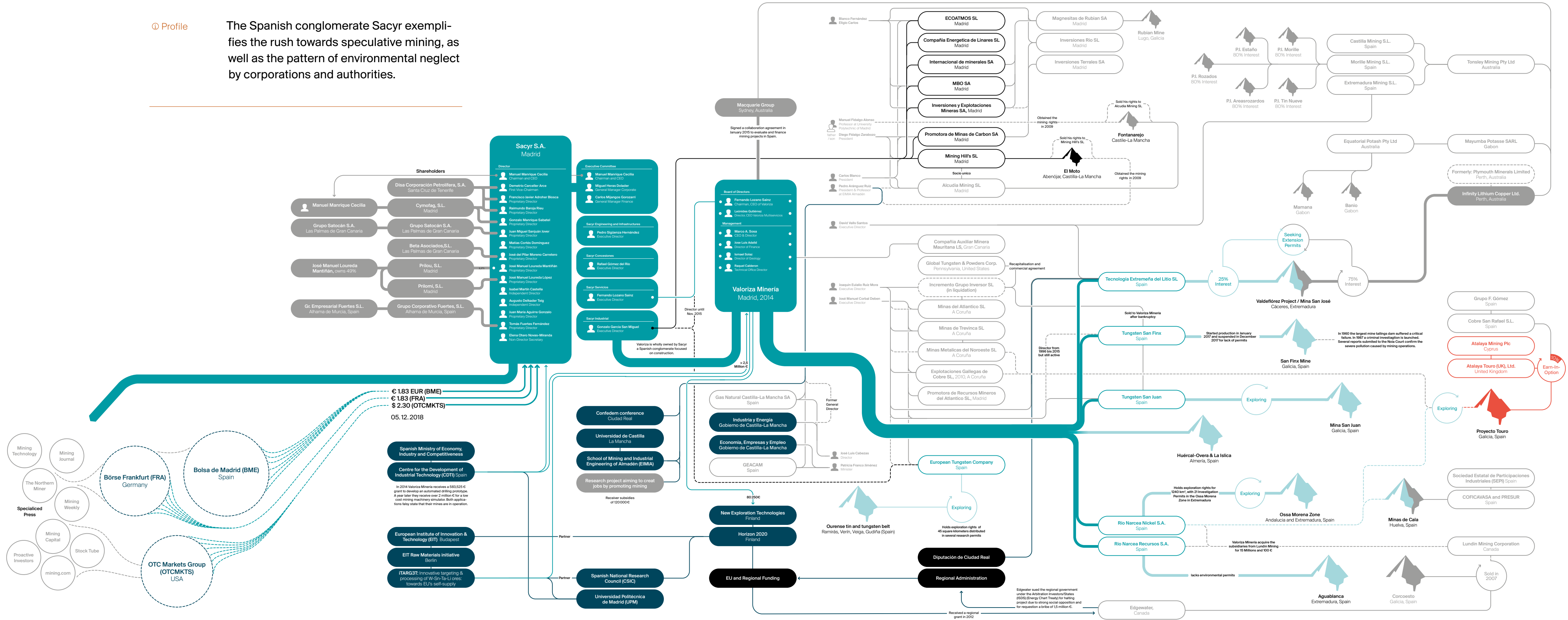
¹⁹⁴ <https://www.globalwitness.org/en-gb/reports/will-star-shine-south-sudan/>.

Zandi's facilitator for the permits in South Sudan; José Luis Cebrián, head of the media conglomerate Prisa-El País-SER, holds, through his ex-wife, shares in Star Petroleum¹⁹⁵.

① Conclusion

Quantum Minería's rare earths project receives funds through the EU Strategy of Raw Materials, holding a 'state of the art' processing plant located in a farm courtyard in Torrenueva, Ciudad Real, without the appropriate infrastructure.

The Spanish conglomerate Sacyr exemplifies the rush towards speculative mining, as well as the pattern of environmental neglect by corporations and authorities.



Introduction

Sacyr S.A. is an internationally operating service and construction conglomerate from Spain with a market capitalisation of over 1 billion euros. The politically well-connected company grew rapidly during the housing boom and was subsequently heavily impacted by the financial crisis in 2008. To restructure its debt, the company had to sell parts of the business, including a 10% stake in Repsol.¹⁹⁶

Following the 2008 burst of the Spanish property bubble, Sacyr initiated plans to move into mining, and in 2014 it formally established its mining sector Valoriza Minería. Even before the sector was formally established, in 2013, the company attempted to join Canadian corporation Edgewater in the Corcoesto open-pit gold mine development project in Galicia¹⁹⁷, which ultimately failed amidst a corruption scandal and intense social opposition¹⁹⁸.

Sacyr's first acquisitions gravitated around the Galician tin and tungsten belt, where it had a privileged position at the bankruptcy auctions of Incremento Grupo Inversor S.L. and its subsidiary Minas Metálicas del Noroeste S.L. This allowed them to gain access to the active San Finx mine, that had recently benefited from almost 2 million euros in public subsidies to modernise its facilities¹⁹⁹, as well as another new tin and tungsten development in A Gudiña, "San Juan", which had obtained its permits just prior to bankruptcy. Valoriza Minería also acquired several additional prospecting permits across the province of Ourense.

Valoriza Minería then established its first subsidiaries for the management of these initial projects: Tungsten San Finx S.L. for the San Finx mine; Tungsten San Juan S.L. for the San Juan mine; and European Tungsten Company S.L. for the remaining prospecting projects across Ourense²⁰⁰. Mr. Joaquín Eulalio Ruiz Mora, former mine director at the San Finx mine and board member of Incremento Grupo Inversor, was made responsible for these projects, in addition to the Valdeflores lithium prospection in Cáceres – where another subsidiary, Tecnología Extremeña del Litio S.L., was created.

In March 2019, Valoriza Minería claimed at the PDAC (Prospectors & Developers Association of Canada) convention that its leading projects were the San Finx tin and tungsten operation in Galicia, and the Huércal-Overa and Islica projects in Almería. But, as a matter of fact, the San Finx project remains paralyzed since December 2017 – lacking environmental permits, while the company's projects in Almería are still in the early prospection phase.

Sacyr does have a larger number of projects managed through its subsidiaries and joint ventures across Spain, including projects in Extremadura (Valdeflores, Aguablanca, Alconchel, etc.) and elsewhere. In the following sections, Sacyr's portfolio is presented, highlighting "San Finx" as an example of the group's strategies.

¹⁹⁶ Johnson, M. Repsol rescues Sacyr with stake purchase, *Financial Times* (2011).

¹⁹⁷ https://www.lavozdeg Galicia.es/noticia/carballo/2014/10/22/mineira-sacyr-llevar-once-meses-negociando-plan-corcoesto/0003_201410C22C4991.htm

¹⁹⁸ https://www.eldiario.es/galicia/politica/multinacional-recrudece-venganza-Xunta-pubiccos_0_752075198.html

¹⁹⁹ https://galicia.economiadigital.es/directivos-y-empresas/el-primer-grupo-gallego-de-wolfram-io-inicia-su-liquidacion_340003_102.html

²⁰⁰ Rodríguez, R. Sacyr acumula en dos años derechos mineros sobre 140.000 hectáreas, *Economía Digital Galicia* (2017). Available at: https://galicia.economiadigital.es/directivos-y-empresas/sacyr-derechos-mineros_404469_102.html

Through partnerships and subsidiaries, Valoriza Minería has acquired and continues to acquire rights to mineral resources of both green and brownfield projects. Its business portfolio includes operating mines, closed mines to bring back to operation, partnerships to open greenfield projects and exploration permits. Its aim is the investigation, permitting and the operation and management of existing and new projects²⁰¹, having actively sought public funding and subsidies from both Spanish and European institutions.

A hybrid company structure

Valoriza Minería does not follow the structure of a typical junior or senior mining company. With the backing of the Sacyr group, the company appears to have both capital and experience as a contractor for major infrastructure projects (including a participation in some mining developments in Latin America). Yet, as the Spanish mining division is a relatively recent endeavour, it has not actually yet managed to bring any of its mines into operation, having experienced continuing setbacks. Valoriza Minería claims to have two operating mines (the San Finx tin and tungsten mine in Galicia, and the Aguablanca nickel development in Extremadura), but both are closed due to the lack of environmental permits and difficulties in complying with environmental obligations. The San Finx mine is also the subject of a complex criminal investigation procedure, which has further hampered the company's intention to bring the mine into operation.

In other instances (such as the Valdeflores lithium development in Cáceres), Valoriza Minería has attempted to play the role of domestic facilitator in a joint venture with Australian partners and financiers, but prospects here also seem bleak due to a considerable social opposition and additional administrative setbacks. Valoriza Minería defines itself as a "good 'local player' with a good understanding of the administration"²⁰². In spite of its claims of access to local know-how and technical resources, Sacyr's projects remain relatively speculative, following in their operating structure the characteristic patterns of a junior mining company – with the exception that they are not looking for private investors through direct listings on exchanges.

San Finx and Other Tin and Tungsten Operations in Galicia

San Finx is one of the oldest groups of active mining concessions in Spain, having been established as a tin and tungsten operation in 1883 by a British prospector. The mines remained in British hands until 1940 and were responsible for fuelling European weapons industries during the two world wars. Developed by British liquor magnate Robert Banks Lavery between 1897 and 1914, the mines were then handed to an international tin and tungsten group through funding from the British Ministry of Munitions.

The San Finx Mining Group officially produced 5.672 tons of tin and tungsten concentrates between 1887 and 1943, a period when the mines were held by British owners. This level of production requires the extraction of roughly 2 million tons of ores, an extraction that produced enor-

²⁰¹ Consolidated Financial Statements and Consolidated Management Report for the year ended December 31, 2017; Auditors' report on the consolidated financial statements, *Sacyr Group* (2018) p. 195. Valoriza Minería. Available at: http://www.valorizamineria.com/es_en/Corporate/Valoriza-Mineria/default.aspx.

²⁰² http://www.minasyenergia.upm.es/attachments/article/2245/Alconchel_Nuevo_yacimiento_Cu-Au2.pdf.

mous waste piles. Production peaks occurred in 1900, 1908, 1924-1931, 1934-1943 and 1950-1953, continuing on a regular basis until 1990 – with interruptions from 2009 to present. As in any mine of such dimensions, the San Finx Mine has generated enormous environmental liabilities.²⁰³

In 1940 the mines were taken over by Barrié de la Maza (Banco Pastor). The fall of prices after the Second World War (with a brief recovery during the Korean War period) and a massive tailings dam failure in 1960 that produced a large-scale pollution downstream, forced Barrié de la Maza to sell the development. Production continued until 1990, when the mine was finally abandoned in the wake of a criminal investigation over river pollution, the collapse of international metal prices and, finally, the death of the owner.

In spite of being abandoned, the concession holders maintained an administrative fiction of activity until the year 2000 to avoid the expiration of permits. The mine also continued its hostility toward common land communities that unilaterally had reoccupied the lands usurped and degraded for decades. The Aznalcóllar tailings dam failure and its associated ecological disaster brought about a change of strategy out of fear of responsibility for two abandoned mine tailings in the San Fins River, including the one that had led to the 1960 environmental disaster. For a decade, the mine has failed to comply with basic administrative obligations (such as the presentation of annual work plans), but the administration continues to turn a blind eye to this non-compliance.

Speculative Renewal

The rise in metal prices from 2007 onwards built a renewed attention on abandoned metal developments such as San Finx, exemplifying a common pattern. Metal mines like San Finx, Santa Comba, Monte Neme or Touro, all in Galicia, had been abandoned in the 1980s with virtually no administrative control over continuing environmental impacts. Mining concessions were kept artificially active by a complicit administration – allowing the restart of activity when metal prices recovered.

The San Finx and Santa Comba tin and tungsten projects were redeveloped by Incremento Grupo Inversor S.L. (IGI) between 2008 and 2013, a company that also obtained a number of prospection permits in the Touro copper belt and the Ourense tin and tungsten deposits. As with Sacyr's mining division, IGI was also formed in the burst of the property bubble, led by construction aggregates and slate manufacturers who had seen their businesses shrink.

During those years, in spite of technical reports questioning their feasibility and quality²⁰⁴, the company received almost 2 million euros in subsidies before going bankrupt²⁰⁵. Incremento Grupo Inversor reached an agreement with US-based Global Tungsten & Powders Corp (GTP)²⁰⁶, who made an initial investment, conditioned to the delivery of ores produced

²⁰³ Reproduced with permission from "Report for the European Parliament's Committee on Petitions on the investigation regarding the situation at the San Finx Mine, Lousame (Petition 0059/2017)". Full report available at: http://www.vidaeria.org/wp-content/uploads/2018/07/report_san-finx_-ENG.pdf

²⁰⁴ Consello de Contas de Galicia, *Informe de Fiscalización de Programas de I+D+i. Ejercicios 2009-2010*, p. 106. The report states how technical reports considered the San Finx project as "questionable" and "of marginal quality".

²⁰⁵ https://galicia.economiadigital.es/directivos-y-empresas/san-finx-una-mina-de-subsenciones_623036_102.html.

²⁰⁶ https://galicia.economiadigital.es/directivos-y-empresas/sacyr-se-hace-con-la-mayor-mina-gallega-de-wolframio_363287_102.html.

at the mines. However, just as the company failed to comply with the conditions required from the large public subsidies, it also failed to honour its contractual obligations with GTP.

In 2013 the company filed for bankruptcy as workers went on strike inside the mine, claiming months of unpaid wages. Sacyr immediately became the favoured option of the ousted administrators Mr. Ruiz Mora and Mr. Corbal Deben during the bidding procedure, which ended in 2015 with Valoriza Minería's acquisition²⁰⁷. Both were immediately incorporated into the cadres of Sacyr's newly created subsidiaries²⁰⁸, working simultaneously in the new phase of development in San Finx and in Sacyr's projects in the Ourense tin and tungsten belt, and also in lithium prospection projects in Valdeflores (Cáceres), where Mr. Ruiz Mora served as prospection project coordinator. The same directors had also shown interest in the nearby "Santa Bárbara" zinc and lead mine in Requejo (El Bierzo), which did not eventually materialize²⁰⁹.

Systemic Failure to Comply with Environmental Regulations

The San Finx mine has a long history of negative environmental impacts and a lack of compliance with environmental regulations. In 1960, the largest riverine mine tailings dam suffered a critical failure, a peak in a constant and longstanding series of polluting events affecting both the river system and the Muros-Noia estuary area downstream. In 1987, the Public Prosecutor initiated criminal proceedings against the concession holders on the basis of alleged environmental crimes. In 1988, preliminary criminal investigation proceedings were initiated in the Noia Court of Instruction and several reports were exposed in the process, confirming the severe pollution caused by mining operations. In these circumstances, the mine was abandoned and with the death of the owner, the proceedings discontinued.

With the restart of operations in 2009, a mine development project and restoration plan was approved by the administration, yet with a failure to provide the environmental impact study required by the administration as part of the procedure. The abandoned riverine mine tailings dams were intentionally left out of both the development and restoration projects. The documents were not subjected to public participation, while also being withheld from the environmental body and other sector authorities. As a consequence, the currently approved projects fail to include any single measure to address the treatment of acid mine drainage coming from the mine drainage and waste piles, or the restoration of the areas affected by the tailings dams. This situation is presented in the 2019 documentary film *San Finx 1960*²¹⁰.

As a consequence of this failure to comply with environmental obligations, there has been continuing heavy metal pollution in the contiguous river and bay area, which is just 7 km downstream. The severity of the pollution has been known by the administration for decades – as the 1991 reports included in the 1988 criminal procedures evidence. Twenty-four years later, as the water analyses sent by the concession holder itself

²⁰⁷ <https://www.livingstonepartners.com/es/transactions/incremento-reabre-la-explotacion-de-sus-minas/>.

²⁰⁸ https://galicia.economiadigital.es/directivos-y-empresas/sacyr-incorpora-a-los-directivos-que-quebraron-en-la-mina-de-san-finx_619370_102.html.

²⁰⁹ <https://www.leonoticias.com/bierzo/sacyr-interesa-retomar-20171004110837-nt.html>

²¹⁰ https://youtu.be/zv_z2EEEnV8.

illustrate, downstream from mining tailings dam No. 1 Cadmium (a priority hazardous substance) levels stand at 7,47 µg/L, exceeding by 16 times the maximum allowable concentration (EQS-MAC) for cadmium, and by 93 times the maximum allowable concentrations on annual average (EQS-AA), increasing 311 times over in relation to the surface water values detected 1 km upstream that fall under the detection limits. In the same place and date, copper values (272 µg/L) and zinc values (253 µg/L) also far exceeded maximum allowable concentrations. Even 1.5 km downstream (using the most recent analyses, taken by the Water Administration on 26/01/2017), cadmium levels exceed by 42.5 times the EQS-AA and by 7.5 times the EQS-MAC, while for copper they exceed by 22.8 times the EQS-AA and for zinc by 4 times the EQS-AA²¹¹.

In the face of this situation, Sacyr's reaction, supported by the mining administration, has been of full denial. Since 2016, it has denied any responsibility for the riverine mine tailings dams, going as far as to argue that they had no connection with the mine whatsoever – in spite of being included in the Annual Work Plans presented by the concession holders until the year 2000. It also hired controversial academics to issue reports suggesting the existence of an alleged 'natural background' concentration of heavy metals and even mythical Phoenician, Roman, and Medieval ancient mining developments (of which no archaeological records exist) in a desperate attempt to dilute the company's responsibility and to avoid the necessary investments in acid mine drainage treatment facilities and the responsibility for the restoration of the area degraded by the tailings dams. In April 2019, it was made public that the Galician General Director of Energy and Mines Mr. Bernardo Tahoces had been formally summoned to court over alleged environmental crimes, involving the previously mentioned circumstances.²¹²

Social Opposition and Contestation

Since the reopening of the San Finx mine in 2008, surrounding common land communities, mussel gatherers and fishermen guilds of the estuary area downstream have confronted concession holders and administrators to stop land usurpation and heavy metal river pollution. As soon as the operations restarted in 2009, one of the contiguous common land communities, Afiosa, initiated legal action against the company for environmental damage and land usurpation, bringing the development to a standstill for a whole year²¹³. As Sacyr restarted operations in 2015, conflicts with neighbouring communities were sparked again. This time another contiguous common land community, Froxán, opposed the usurpation and closure of another stretch of land where the mine built canalizations for pumping toxic mine drainage. In May 2016, during the peak of the conflict, a forest fire started in the Froxán commons, burning 10% of its territory, immediately setting off an escalation of the conflict²¹⁴.

Also in 2016, for the first time social opposition forced public authorities to subject a water discharge permit to public participation procedure, which informed social actors about the seriousness of heavy metal pollution

²¹¹ Reproduced with permission from "Report for the European Parliament's Committee on Petitions on the investigation regarding the situation at the San Finx Mine, Lousame (Petition 0059/2017)". Full report available at: http://www.vidaeria.org/wp-content/uploads/2018/07/report_san-finx_-ENG.pdf

²¹² https://www.eldiario.es/galicia/politica/Tahoces_0_889611742.html.

²¹³ https://galicia.economiadigital.es/directivos-y-empresas/cruce-de-querellas-entre-los-socios-del-primer-grupo-gallego-de-wolframio_328748_102.html.

²¹⁴ <http://www.yestolifenotomining.org/que-hai-detras-do-lume/#content-english>.

spilling out of the San Finx mines, placing thousands of mussel gatherers in the Noia estuary under alert, who felt the mine threatened their livelihoods. Contestation led to the creation of a local movement (“*Vida e Ría ou Minaría?*”)²¹⁵ and actions aimed at the European Parliament²¹⁶ and the UN Aarhus Convention Compliance Committee²¹⁷ over a lack of compliance with environmental regulations and public participation procedures. Legal action was also taken by the Public Prosecutor at the request of environmental NGOs²¹⁸, initiating a still-ongoing criminal investigation procedure.

The mine had reached an agreement with the municipality and the mining administration to set up a mining museum that “conveyed a positive image of the mining industry” and “created a favourable state of opinion”. Thousands of school children from around the area have been brought to the museum as part of a social engineering campaign to build consent, particularly among the most affected local communities. Facing such social engineering, environmental NGOs created alternative evidence-based educational materials, including the *San Finx 1960* documentary film and the *A mina contaminada* illustrated children’s book, with its associated curriculum guides²¹⁹.

Ores or Subsidies? Public Funding as a Business Strategy

Although Sacyr’s interest for mining from 2014 onwards is evidently connected to speculative market factors related to rising metal prices and the collapse of other sectors, the intense prospection of public subsidies to fund its operations often parallels or even surpasses benefits from ore sales. Previous developments such as the Corcoesto mine project and especially the projects of the Incremento Grupo Inversor and Río Narcea have been strongly criticized for being strongly directed to obtaining public subsidies as a means of supporting their operations, all ultimately collapsing due to feasibility issues²²⁰. To illustrate how Sacyr continued this trajectory, four examples will be referred to.

In December of 2014, Valoriza Minería presented a request at the CDTI (Centre for the Development of Industrial Technology, then part of the Spanish Ministry of Economy, Industry and Competitiveness) for a 583,525 euro grant in relation to a R&D project to develop an automated drilling prototype²²¹. In the project proposal, Sacyr claimed that it had an active mining project in San Finx, while in reality the auction through which Sacyr acquired the mines took place months later, in 2015. Sacyr also claimed it had recently obtained permits for the “Minas de Cala” in Huelva and the Alconchel prospection project in Badajoz. In fact, the whole R&D project gravitated around the San Finx mine, where it was claimed that Sacyr owned the concession, which at that point was untrue. This illustrates how the acquisition of mining concessions continues to be

²¹⁵ <http://www.vidaeria.org/>.

²¹⁶ <https://petiport.secure.europarl.europa.eu/petitions/en/petition/content/0059%252F2017/html/Petici%25C3%25B3n-n.%25C2%25BA-0059%252F2017%252C-presentada-por-Ismael-Antonio-L%25C3%25B3pez-P%25C3%25A9rez%252C-de-nacionalidad-espa%25C3%25B1ola%252C-sobre-una-mina-de-wolframio-de-Lousame%252C-en-Galicia>.

²¹⁷ <https://www.unece.org/env/pp/cc/accc/c/2017/153.html>.

²¹⁸ <https://praza.gal/movementos-sociais/a-fiscalia-leva-a-xunta-ao-xulgado-por-irregularidades-e-desleixo-na-mina-de-san-fins>.

²¹⁹ <https://www.saberes.eu>.

²²⁰ https://galicia.economiadigital.es/directivos-y-empresas/el-primer-grupo-gallego-de-wolframio-entra-en-concurso-al-no-poder-justificar-millonarias-subvenciones_332980_102.html.

²²¹ Desarrollo de un sistema prototipo automatizado de perforación vertical de barrenos para su aplicación en la industria minera, *Valoriza Minería S.L.U.* (2014).

instrumental to gain access to public subsidies. In 2015, Valoriza Minería requested an even larger sum of over 2 million euros to the same body for another project to develop a low-cost mining machinery simulator²²², again arguing that the company had two active projects (“San Finx” and “Minas de Cala”), and twenty prospection projects in Badajoz. Valoriza Minería was granted both projects by CDTI in spite of the false statements contained in the applications, also including the School of Mines and Energy of the Technical University of Madrid (UPM) as a partner.

External funding was also to come through the European Union. Currently, Valoriza Minería is participating in at least two large-scale EU funding projects with significant overlap. In May 2018, the NEXT (“New Exploration Technologies”) Consortium received a 6.9 million euro grant to test and optimize “new environmentally sound exploration concepts and technologies”, under the European Union’s Horizon 2020 research and innovation programme²²³. Both projects include geological surveying at the San Finx mine. The project also seeks to generate “better knowledge about the factors influencing social licensing [to] help promote social acceptance of both exploration and mining and therefore support the further development of Europe’s extractive industry”. The project, to be completed by 2021, is led by Finland’s Geological Survey, while Spanish partners include Valoriza Minería, Minas de Aguas Teñidas S.A.U. (50% owned by Trafigura) and CSIC (Spanish National Research Council)²²⁴.

Valoriza Minería also obtained EU funding with a similar consortium through the European Institute of Innovation & Technology (EIT) Raw Materials initiative, where it joined the 2019-2021 international innovation project “iTARG3T: Innovative targeting & processing of W-Sn-Ta-Li ores: towards EU’s self-supply”²²⁵. Fellow Spanish participants also include the Spanish CSIC research council and the School of Mines and Energy of the Technical University of Madrid (UPM), which is closely linked to the company. The project aims to solve problems relating to tungsten, tin, tantalum and lithium greenfield exploration and advances, promoting the interest of junior companies in such developments. Considering the social opposition to many such projects in Europe, the project also seeks to evaluate and define the “modern approaches to obtaining the social license for mining.” Sacyr’s use of operations that it falsely claimed to be active or under its control in order to access public subsidies evidences the importance that purportedly holding active mines can have in terms of ‘mining’ public funding regardless of the feasibility of the actual operations.

The Iberian Pyrite Belt and Ossa-Morena

Sacyr’s interest in the Iberian Pyrite Belt and the Ossa-Morena zone first materialized through a 2015 agreement with the Swedish-Canadian corporation Lundin Mining. Lundin’s subsidiary Rio Narcea Nickel S.A. owned 24 prospection permits in the Iberian Pyrite Belt as well as in the Ossa-Morena area of Extremadura, aimed at copper, lead, zinc, gold and silver deposits. In addition to the research permits, Sacyr acquired the Aguablanca nickel-copper mine in Monesterio (Badajoz) that had been controversial for years and was pending environmental permits after a

²²² Desarrollo de simuladores de bajo coste modulares con aplicación al sector de maquinaria minera, Valoriza Minería S.L.U. (2015).

²²³ <https://cordis.europa.eu/project/rcn/214770/factsheet/en>.

²²⁴ <http://new-exploration.tech/>.

²²⁵ <https://eitrawmaterials.eu/project/itarg3t/> Also see: http://www.europarl.europa.eu/doceo/document/E-8-2019-001731_EN.html.

significant change in the development methods. The agreement was initially sealed as a 50:50 joint venture²²⁶, but in 2016 Lundin opted out and Valoriza Minería acquired the remaining 50% - gaining full control over the operations²²⁷. The company paid 15 million to Lundin, purchasing additional assets from the Swedish-Canadian group's subsidiaries Rio Narcea Nickel and Rio Narcea Recursos²²⁸.

The Aguablanca Project

The Aguablanca open pit mine, located in Monesterio (Badajoz) on the border between Extremadura and Andalucía, had been controversial for over a decade prior to Sacyr's acquisition, having generated a huge tailings deposit and continuing to pollute underground waters and streams. Environmental organizations had warned about such dangers before the operations started in the early 2000s²²⁹ to little avail, as the administrations turned a blind eye. The Aguablanca deposit was originally a State Reserve expanding over an area of 375 hectares, overlapping the provinces of Badajoz, Huelva and Sevilla. In 2003, Rio Narcea Recursos S.A. accessed the concession through a controversial 11-year mine development project²³⁰. As with other companies associated to Sacyr's developments, Rio Narcea Recursos received multi-million euro public subsidies to fund its operations.

Rio Narcea Recursos S.A. was purchased in 2007 by Lundin Mining, the abovementioned Swedish-Canadian multinational corporation, a take-over that included the Aguablanca operation but also a number of prospection permits across Spain. However, the 2008-2009 fall of nickel prices jeopardized the mine's economic feasibility and consequently Lundin's investment. A new project to expand the life of the operation for an additional 3 years through underground mining resulted, once again, controversial. Underground works which were not part of the 2003 development project nor environmental permits were initiated in 2013 without adequate permitting. This radical change in the development methods was only mentioned in a 26/12/2014 Annual Work Plan, which was not subjected to public scrutiny or environmental oversight.

However, underground works were paralyzed in July 2015 as a consequence of associated pollution to ground waters and the collapse of these works. Just three months before these problems emerged, Lundin Mining had signed the 50:50 joint venture agreement with Valoriza Minería, Lundin Mining finally opting out in full in 2016. The disclosure of the unauthorized underground works forced a new Environmental Impact Assessment procedure, conducted at the Spanish Ministerial level due to the project's cross-territorial impact. This new procedure evidenced the ongoing impacts of the mine and, when finalized in August 2017, estab-

²²⁶ http://www.sacyr.com/es_en/Channel/News-Channel/news/featuresnews/2015/Acuendo/05032015_Acuendo_Valoriza_Mineria_Lundin.aspx

²²⁷ <http://www.finanzas.com/noticias/empresas/20161130/valoriza-mineria-filial-sacyr-3529856.html>

²²⁸ Rodríguez, R. Sacyr acumula en dos años derechos mineros sobre 140.000 hectáreas, *Economía Digital Galicia* (2017). Available at: https://galicia.economiadigital.es/directivos-y-empresas/sacyr-derechos-mineros_404469_102.html

²²⁹ <https://vimeo.com/254371642>

²³⁰ Royal Decree 1032/2003, of July 23, declaring a definitive reserve zone in favour of the State for the exploitation of mineral resources of iron, copper, gold, silver, lead, zinc, tin, tungsten, bismuth, platinum, molybdenum, chromium, nickel, cobalt, phosphates, palladium, osmium, rhodium and iridium, as well as the rest of the minerals associated with the platinum group, the area called Agua Blanca, inscription number 207 (La Monaguera), inscription number 380 (La Monaguera II) and inscription number 272 (La Remonta), included in the provinces of Badajoz, Huelva and Sevilla.

lished strong conditions for the operation to continue²³¹.

The operation has remained closed since 2016. Restoration has been postponed, with an open pit of 40 hectares and a depth of 350 metres in place. Tailings piles expand over an additional 120 hectares with heights of up to 50 metres, in addition to a toxic tailings pond of 93 hectares. Overall, 350 hectares of “dehesa” oakland landscape and agrosilvo-pastoral systems were destroyed by the operation. Continuing risks are associated to the pollution of the ground water, with a potential to affect a huge area, including large cities such as Sevilla.²³²

Minas de Cala (Huelva)

The “Minas de Cala” are in the North of the province of Huelva, close to the border with Badajoz and less than 30 km away from the Aguablanca development. The mine had been in operation for over a century, during which Portuguese, British and Spanish corporations had extracted copper and iron ores. In its last phase of operation, from 1982 to the early 2000s, the mine was state-owned under the *Sociedad Estatal de Participaciones Industriales* (SEPI) conglomerate. The mine started to be dismantled in 2002 when the company and its trade unions agreed that workers would be transferred from Cala to Aguablanca, which had just been taken over by Rio Narcea Recursos S.A.. The last workers finished in 2009 and the mine finally closed in 2010²³³.

In 2014, Valoriza Minería claimed^{234, 235} control over the Cala mines. It is known that Rio Narcea Nickel had considered developing the Cala deposit, aiming not only at the copper and iron (magnetite) reserves that have been estimated at 60 million tonnes, but also at gold, silver, lead and zinc occurrences – but such development never took place. The details of Valoriza’s claim have not been publicly disclosed, with concessions still formally listed as the property of the state-owned COFICAVASA and PRESUR (now extinct) corporations. The future of the Cala deposits remains unclear, bearing the same problems of water pollution and lack of restoration plans as the Aguablanca mine. Both affect the Gergal reservoir, which is one of the most important sources of drinking water for the city of Seville and its surrounding metropolitan areas.

Alconchel (Badajoz) and Further Developments in Ossa-Morena

Valoriza Minería initially acquired a number of prospection permits in the Ossa-Morena zone of Badajoz (called the Olivenza-Monesterio antiform, also encompassing the Aguablanca and Cala areas) through its purchase of the assets of Lundin Mining’s subsidiaries Rio Narcea Recursos and Rio Narcea Nickel. A 2015 pamphlet by the Government of Extremadura then stated that “Valoriza Minería, S.L.U., a Spanish company, in joint venture with Lundin Mining Corporation, is conducting an aggressive exploration programme in the Extremadura region”. The pamphlet claimed that “The most advanced project is Las Herrerías de Alconchel (Badajoz), an iron oxide-copper-gold mineralisation”, but other projects

²³¹ Resolution on July 21, 2017.

²³² <https://www.ecologistasenaccion.org/?p=172>

²³³ <https://www.hoy.es/20100110/regional/minas-cala-cierran-millones-20100110.html>

²³⁴ Desarrollo de un sistema prototipo automatizado de perforación vertical de barrenos para su aplicación en la industria minera, *Valoriza Minería S.L.U.* (2014).

²³⁵ Desarrollo de simuladores de bajo coste modulares con aplicación al sector de maquinaria minera, *Valoriza Minería S.L.U.* (2015).

included the “Guijarro-Chocolatero gold project, located south of Badajoz province, and the La Vicaria (Badajoz) project”, including copper but also cobalt and gold mineralisation²³⁶. The 2017 version of the same pamphlet included the same text.

In total, Valoriza Minería holds 21 exploration permits, spanning over a total area of 1,240 km² across the province of Badajoz, from the Portuguese border in the Olivenza/Olivença area to Aguablanca. These include “San Carlos”, “Loiterón”, “Gato Montés”, “Don Julián”, “Carazo”, “Encina”, “Matamoros”, “Bóveda”, “Jérez”, “Fuente Álamo”, “Enebro”, “Avutarda”, “La Morena”, “La Parra”, “El Encinar”, “Bodonál”, “Guijarro”, “Vera”, “Vicaría”, “Hinchona” and “Real”. Valoriza Minería claims that “this sparsely populated area is well suited to exploration and mining”²³⁷ – seeing rural decline, unemployment and aging populations as clear advantages in terms of “social licensing”. The existing infrastructure of Aguablanca is presented as allowing “immediate entry” into the area, aimed at copper-gold and nickel-copper deposits. Among this group of permits, Valoriza Minería has emphasized the relevance of its Alconchel (or “Gato Montés”) open pit development project²³⁸ as the most advanced project in the Ossa-Morena area, showcasing it at 2017 PDAC (Prospectors & Developers Association of Canada) convention²³⁹.

Mining prospection and drilling was started in Alconchel by Rio Narcea Gold Mines in 2015, then continued by Lundin Mining between 2010-2011 and completed by Valoriza Minería between 2014-2017. The actual mine development project was presented in 2018 as seeking to extract 8.2 million tons of copper and ironstone in a 12-year period within an area of almost 3,000 hectares in the municipalities of Alconchel, Táliga and Olivenza. Ecologistas en Acción legally challenged the proposed project in October 2018²⁴⁰, Portugal also took legal action, considering risks of cross-border environmental impacts and sovereignty issues regarding the status of Olivenza and Táliga²⁴¹. Permits had not been granted at the time this report was issued.

Almería Projects

Failures to activate other developments shifted Valoriza Minería’s focus onto other greenfield projects in the Iberian Pyrite Belt, particularly the Huércal-Overa and Islica projects in Almería, that were claimed to be leading projects by Sacyr during the March 2019 PDAC Convention in Canada. Valoriza Minería obtained a number of prospection permits in Almería in late 2014, including the “Huércal-Overa”, “Palis” and “Llano de Don Antonio” exploration concessions. Sacyr is primarily interested in the copper-cobalt mineralization occurring the Huércal-Overa area in the North of Almería and in La Islica 70 km south, where the “Llano de Don Antonio” and “Palis” prospection permits are held, primarily targeting

²³⁶ Extremadura (Spain), A mining region in Europe, *General Directorate of Industry, Energy and Mines, Regional Government of Extremadura* (2015). Available at: http://sigeo.juntaex.es/portalsigeo/c/document_library/get_file?uuid=bcc769b4-726b-4435-ab25-1c995c280c77&groupId=10137.

²³⁷ http://www.valorizamineria.com/es_en/Exploration-Development/Ossa-Morena-Cu-Au/default.aspx

²³⁸ https://www.youtube.com/watch?v=NLcFE45ZW_A.

²³⁹ *PDAC International Convention, Trade Show & Investors Exchange March 5 – 8, 2017, Registration brochure*, p. 9. Available at: https://www.pdac.ca/docs/default-source/conventions/convention-2017/pdac_2017_registration_brochure.pdf?sfvrsn=d55eb498_2.

²⁴⁰ <https://www.ecologistasenaccion.org/?p=106536>.

²⁴¹ <https://en.wikipedia.org/wiki/Olivenza>.

copper-gold-silver mineralizations²⁴². In 2019, it requested an additional permit, “Cocotas”, in the municipalities of Tíjola and Lúcar, in NW Almería, 100 km away from the other two sites, targeting copper-silver-zinc.

The Palai-Islica deposits are 3 km from the town of Carboneras and both partly within the Cabo de Gata-Níjar Natural Park and Natura 2000 Network. These deposits had been worked on in the late 19th century mainly to extract lead and copper, although the occurrence of gold was also known²⁴³. In the 1980s and 1990s, first Billiton and later on Navan Resources PLC developed explorations aimed at identifying these workable gold deposits. The latter company had estimated gold reserves of 314,817 tonnes in Palai (with 1,94 ppm of gold) and 150,265 (with 2,62 ppm) in Islica. Between 1996 and 2000, Serrata Resources S.L. developed a drilling campaign in the area, identifying gold-copper mineralizations – but no actual developments followed through. In September 2017, Valoriza Minería presented a prospection project for the “Llano de Don Antonio” exploration permit that complemented previous explorations in the “Palis” permit area. The project is headed by Mr. Ismael Solaz, with the participation of the universities of Granada and Huelva, as well as the Universidad Politécnica de Madrid, being formally authorized in December 2018²⁴⁴. Gold appears to be Sacyr’s main interest in the area²⁴⁵.

In the Huércal-Overa area, Valoriza Minería presented its prospection project much earlier (September 2014), and was finally approved by the administration in 2016²⁴⁶. As in Islica, the Huércal-Overa deposits had already been mined by British and Spanish companies in the 19th and 20th centuries (“Mina Cuesta Alta” and “Cerro Minado”), holding known copper-cobalt-nickel mineralizations. Sacyr appears to be primarily interested in copper-cobalt mineralizations, although no results of the prospection works have been made public. Also, as in the previous case, the permits are in the proximities (34 meters from the perimeter) of another Natura 2000 network Site of Community Importance: the Sierra del Alto de Almagro.

The most recent prospection permit, “Cocotas”, in the north of the Tíjola and Lúcar municipalities of NW Almería again follows the steps of old mining developments²⁴⁷. The historical “Las Cocotas” and “Pozo del Lobo” mines were developed mainly for copper from the late 19th century, depleting the principal deposit of ‘Gray’ coppers. Current extractive focus is on copper and zinc secondary deposits, while the notable presence of mercury is concerning in terms of potential surface and groundwater pollution (mercury has been mined in the Tíjola area between 1845 and 1970). The current Cocotas permit is only 1 km away from the Piedra Lobera Natural Monument site.

The Valdeflores Lithium Project in Cáceres

In January 2015, just months after the establishment of Valoriza Minería, a collaboration agreement was signed between Sacyr’s subsidiary and Macquarie Capital, the investment branch of the Australian Macquarie

²⁴² https://www.juntadeandalucia.es/export/drupaljda/tramite_informacion_publica/18/05/04C_P14068900_0024_01%20bis.pdf.

²⁴³ <https://suresteindustrial.wordpress.com/2015/10/08/las-minas-del-palain-el-oro-inadvertido-de-carboneras/>.

²⁴⁴ <https://www.juntadeandalucia.es/boja/2019/43/71.html>.

²⁴⁵ <https://www.lavozdealmeria.com/noticia/20/economia/168176/sacyr-busca-oro-en-el-antiguo-coto-del-llano-de-don-antonio-en-carboneras>.

²⁴⁶ <https://www.juntadeandalucia.es/boja/2016/46/42>.

²⁴⁷ <https://www.juntadeandalucia.es/boja/2019/176/24>.

group. The agreement established that the parties would “jointly pursue advanced stage and producing mining projects throughout Spain, collaborating to fund acquisitions and development, through principal investment and introducing third party investors”, focusing particularly on copper, gold and tungsten²⁴⁸, but also on lead, zinc, silver, lithium, nickel and rare earths²⁴⁹. Public pressure on Macquarie, including by Members of the European Parliament, regarding its involvement in the San Finx project in Galicia, led to a statement by Macquarie explaining it had turned down Sacyr’s invitation to participate in the controversial tin and tungsten development²⁵⁰. However, it is likely that Sacyr’s first joint mining venture in Cáceres with the Australian corporation Plymouth Minerals Ltd., starting out in 2016, was linked to the agreement with Macquarie. Plymouth Minerals, having later on changed its name to Infinity Lithium Corporations, is listed on the Australian Stock Exchange.

The Valdeflores (also known as “Valdeflórez” or “San José”) mine had been worked on underground mainly for tin and tungsten as well as associated minerals in the mid-20th century. Being a known deposit of amblygonite (a lithium-bearing mineral), Valoriza Minería requested a tender in late 2015 for an expired permit in the Valdeflores area (“Cerro Milano”), presenting an associated prospection project which was approved in early 2016. In October of the same year, the new subsidiary Tecnología Extremeña del Litio, S.L. (TEL) was created, starting a drilling programme together with Plymouth Minerals under the supervision of Mr. Joaquín Eulalio Ruiz Mora, who had been director of the San Finx mine during the 1996–2015 period. TEL later on designated Mr. Ismael Solaz Alpera, also head of the Alconchel prospections, as mining director. The initial Valdeflores exploration permit was expanded in 2017 with a larger concession (“Ampliación a Valdeflórez”) and in the same year a mine development permit was requested.

The presentation of the projects for the mine development permit was a benchmark that led Plymouth Minerals to the acquisition of a 50% interest of the San José project from Valoriza Minería, after having “spent the minimum expenditure commitment of 1.5 million euros by completing the required technical work which supports the mining licence application”²⁵¹. To complete the acquisition of an additional 25% share from Valoriza Minería (and therefore owning a total of 75%), Plymouth Minerals was required to complete a feasibility study after a minimum spending of 2,5 million euros within three years. Claiming to have achieved this target, Plymouth Minerals changed its name in 2018 to Infinity Lithium Corporation Limited, despite no permits had been provided for the mining licence, in the face of very strong social opposition and legal complications regarding urban zoning of the area and non-compliance with public participation procedures during the permitting phase. The development intends to produce 1.3 million tonnes of lithium carbonate over a period of 16 years²⁵², although given figures vary significantly.

As it sought to finance the operation, Plymouth Minerals insistently

²⁴⁸ <https://www.macquarie.com/br/about/newsroom/2015/mining-division-of-sacyr-signs-collaboration-agreement-with-macquarie-capital/>.

²⁴⁹ https://cincodias.elpais.com/cincodias/2015/01/14/empresas/1421258651_502841.html.

²⁵⁰ https://galicia.economiadigital.es/directivos-y-empresas/el-fondo-macquarie-da-la-espaldada-los-proyectos-mineros-de-sacyr-en-galicia_376998_102.html.

²⁵¹ <https://www.proactiveinvestors.co.uk/companies/news/185419/plymouth-minerals-crosses-a-milestone-at-lithium-tin-project-in-spain-185419.html>.

²⁵² <https://www.regiondigital.com/noticias/caceres-y-provincia/289421-tecnologia-extreme-na-del-litio-invertiria-340-millones-en-caceres.html>.

claimed that “this district is a rural area with a strong history and understanding of mining”²⁵³. The city of Cáceres, less than 2 km from the mine, was erased from maps shown to investors, but became a major setback, as thousands in the city mobilized and protested the mine. In fact, Cáceres has a population of approximately 100,000 and is the capital of the province with the same name as well as a UNESCO World Heritage Site. In 2017, the “Salvemos la Montaña” platform brought together dozens of groups and thousands of individual citizens that have previously paralyzed illegal drilling operations and forced local administrators to prevent required changes in zoning regulations²⁵⁴. Opposition arguments include the proximity of the city to the operations, the destruction of natural habitats, the water consumption of the processing facility and the potential pollution of underground waters that are crucial to the supply of the metropolitan area. Social contestation and public concerns over the project have significantly extended the permitting process, that is yet to be finalized²⁵⁵. In any case, Valoriza Minería’s first joint venture has proven a source for generating benefits for the corporation’s mining division, regardless of the final outcome.

Sacyr’s “Proxies” in Castilla-La Mancha

While all the projects listed above, with the exception of Minas de Cala in Huelva, are formally listed and acknowledged by Valoriza Minería as part of its public portfolio, Sacyr is known to participate in other mining projects by means of closely connected “proxies”. The most notorious of these “proxies” are Mining Hill’s S.L and Alcudia Mining, S.L., responsible for a number of tungsten, gold and phosphate developments, all in Castilla-La Mancha.

“El Moto” Tungsten and Gold Development Project in Abenojar (Ciudad Real)

The “El Moto” tungsten-gold project is set in the municipality of Abenojar (Ciudad Real), and while Valoriza Minería does not publicly present it as part of its mining developments, it is connected to Sacyr’s subsidiary. The concessions are formally held by Mining Hill’s S.L., which is part of a complex network that converges with Valoriza Minería S.A. through Promotora de Minas de Carbón S.A., Inversiones Rio S.L. and European Tungsten Company S.L., among others. Its president, Diego Fidalgo Zarabozo, is also present on the board of several other of Sacyr’s subsidiaries. Two of its executive directors, Rodríguez Alarcón (senior manager of Valoriza Minería) and Vicente Martín Abad were involved in the corruption case of “The papers of Bárcenas” and the National Park of Guadarrama, along with other senior managers of Sacyr²⁵⁶.

Mining Hill purchased the mining rights from Pedro Aránguez, professor of the Technical University of Madrid (UPM). Aránguez obtained the mining rights to Abenojar in 2009 when he was General Director of Industry and Mines in Castilla-La Mancha, before the affected area was put to public tender by the regional government. In addition, Aránguez

²⁵³ <http://web.archive.org/web/20170915223716/http://www.plymouthminerals.com/i/projects/lithium/san-jose>.

²⁵⁴ https://www.elperiodicoextremadura.com/noticias/caceres/tecnicos-ayuntamiento-caceres-no-aprueban-mina-valdeflores_1082947.html

²⁵⁵ https://www.elperiodicoextremadura.com/noticias/caceres/empresa-mina-entrega-informacion-pedida-junta_1131920.html.

²⁵⁶ <https://www.ecologistasenaccion.org/?p=25811>.

and the current General Director of Industry and Mines of Castilla-La Mancha, José Luis Cabezas, are both executive directors of Gas Natural de Castilla-La Mancha. Cabezas, together with the Minister of Economy and Employment of Castilla-La Mancha, Patricia Franco Jiménez, is also on the board of a number of companies such as GEACAM (Public Company of Environmental Management of Castilla-La Mancha), which has contracts with Sacyr.

This tungsten and gold exploitation project is in advanced stages, the expropriation proceedings of the agricultural lands affected being well under way²⁵⁷. Ecologistas en Acción has opposed the project and is an interested party to the administrative file. Despite repeated formal requests, however, no full access to the administrative file (held by la Junta de Castilla-La Mancha) has been granted, in breach of the Aarhus Convention and the Spanish law on Transparency, illustrating a trend common to mining administrations across Spain.

The authorisation for the project was granted without an integral hydrogeological study, necessary to ensure that there are no risks to public health; nor a restoration plan that partially reverses the impacts on biodiversity and the landscape. Such reports, legally required for the project to go ahead, have not so far been filed by the mining company.

Fontanarejos Phosphates Project

The Junta de Castilla-La Mancha granted environmental authorisation on October 2018 to the Fontanarejo project for the exploitation of phosphates, despite the project lacking a restoration plan, hydrogeological and waste studies, a financial guarantee of environmental responsibility and any kind of corrective measures for atmospheric pollution. The project is located in a breeding and feeding area of several protected species living in the National Park of Cabaneros. This development intends to produce P₂O₅ (concentrated phosphorus oxide) for manufacturing of fertilizers and other chemical products. Phosphate rocks are a source of contamination due to their content of cadmium, one of the most dangerous heavy metals along with mercury and lead. The use of phosphates as animal feed and fertilizers is also one of the main sources of pollution.

The mining company involved, Alcudia Mining, S.L., is connected to Sacyr, sharing the same operating director as Mining Hill's S.L. "El Moto" project, Pedro Aránguez Ruiz (see above). Like with El Moto, the investigation permit was initially granted to Metales Hispania S.L. in 2006. Its director, José Manuel Fidalgo Alonso, professor of the Technical University of Madrid (UPM), acquired the rights to the project in 2009, selling them to Alcudia Mining S.L. in 2012²⁵⁸, a company owned by his son, Diego Fidalgo Zarabozo.

Together with José Manuel Fidalgo Alonso, the other director of Metales Hispania S.L. was Pedro Aránguez Ruiz²⁵⁹. Both left their positions in the company in 2009, which was dissolved shortly after in 2010. They have both maintained close professional ties with Alcudia Mining S.L. and Mining Hill's S.L. Both Diego Fidalgo Zarabozo and Pedro Aránguez have acted as representatives of the two companies before the Junta de

²⁵⁷ <http://www.latribunadeciudadreal.es/noticia/ZB149DBF8-AE42-E52D-93E5A8E0691B-B4F4/20160429/junta/inicia/expropiacion/terrenos/mina/wolframio>.

²⁵⁸ See p. 11 of the environment impact assessment (EIA).

²⁵⁹ For Aránguez background see El Moto entry above.

Ecologistas en Acción has opposed the project and is involved in the administrative procedure. Despite repeated formal requests, Ecologistas en Acción has not been granted full access to the administrative file, held by la Junta de Castilla-La Mancha, once again in breach of the Aarhus Convention and the Spanish Law on Transparency. The documents to which Ecologistas en Acción has had access, however, show that José Manuel Fidalgo Alonso has received a favourable treatment, evidenced by the repeated extensions of the mining rights granted, the granting of corrections of errors and faults of the file and the admission of documentation outside of the legal deadline.

In 2018, Ecologistas en Acción handed in 100,000 signatures against the project addressed to the president of the regional government, Emiliano García-Page Sánchez, collected in just two months on the online platform Change.org. A leading social concern includes the medium-to-high levels of radioactivity that have been documented in the area²⁶¹, a fact that does not appear in any of the documents of the administrative file on the public project procedure. Radiation risks have not been assessed and no measures have been contemplated. The environmental authorisation granted in 2018 claims an absence of cadmium and radioactive elements. This conclusion is only supported by the data contained in the geological study carried out by MAYASA between 1984 and 1993, and not in new, independent assessments.

Arroba de los Montes Project

This open pit project, very close to Fontanarejo project, consists of the production of titanium and rare earth elements. The metals will be extracted and processed near the municipalities of Arroba de los Montes (at 1.5 km distance) and Puebla de Don Rodrigo (6.5 km), both in Ciudad Real.

Although the operations involve the extraction and processing of rutile and zirconium, there are no details in the file as to how they are going to be processed or disposed of, despite the latter, for instance, containing radioactive elements such as hafnium oxide, thorium oxide and uranium oxide.

The project has been rejected twice by the environmental authorities, particularly because of the great impact on large public hills, close to the national park of Cabanero, a Special Bird Protection Zone and a proposed Site of Community Importance "Rivers of the Guadiana Middle Basin and slopes". The current project still affects the same public area, one of great ecological value. In addition, the headwaters of the stream of Valdecristo which supplies Arroba de los Montes has been seriously affected.

The companies involved in the first two projects were Du Pont Iberica and Explotaciones Mineras de Titanio S.L, the latter having acquired the rights from Valentín Fernández Tubau. The third project was applied for in 2013 by the School of Mines of Almadén. José María Iraizoz Fernández, the Director of Mines of the University of Castilla-La Mancha, appears in the

²⁶⁰ <http://www.castillalamancha.es/actualidad/notasdeprensa/patricia-franco-se-in-teresa-por-el-proyecto-de-explotaci%C3%B3n-minera-de-wolframio-promovi-da-en-aben%C3%B3jar>

²⁶¹ On the official map the potential exposure to radon, a gas generated by thorium decomposition, is at medium-high levels (300-400 Bq/m³). See: <https://www.csn.es/mapa-del-potencial-de-radon-en-espana>.

documentation as the Director of the Technical Project. Juan Caballero de la Calle, who appears as the Director of the Environmental Matters in the project, was councillor in the city of Ciudad Real in 2010, his wife also holding political responsibility in regional government. Currently, Caballero is the Director of Mines of the University of Castilla-La Mancha.

According to the national press²⁶², the French Ministry of Defence has placed a special interest in supporting and promoting the mining project 'Explotaciones Mineras de Titanio S.L.', as a technological and economic partner.

✓ Summary

In order to attack the prevalent extractivism in Spain, new mining projects have to be scrutinized in conjunction with their environmental, social and economic impact.

Fundamental legislative changes that reflect and consider environmental impacts on a par with economic and social issues are necessary.

Un- / Sustainability of Mining

The purpose of traditional mining enterprises is the industrial extraction of non-renewable materials from natural deposits. Mining necessarily results in directly adverse and permanent environmental effects. Mining companies are well aware that these operations always require both a political and a social license. In recent years, the prevalent argument to claim support for mining has become the decarbonisation of the economy for which some mines supply raw materials.

Rather than asking how mining can reduce its impact, the argumentative tactic is to relativize extractive destruction by re-framing it as part of a sustainable economy. This trick does not only aim to green-wash extraction, but specifically to conceal the long-term ecological impact thereof.

Under current legislation, the procedure to counter severe environmental effects is to “off-set” the impact. This means that the destruction of one place can be justified if another is adequately restored. Following an economic calculus, this only accounts for a limited set of environmental factors that can be readily measured and anticipated. Still, the restoration presupposes the destruction of another environment. To use decarbonisation as an argument for extractivism is to reduce sustainability to absurdity.

Status Quo

Most policy makers see the mining industry as accountable for the reduction of its impact, but often do not act accordingly. Some suggest that the re-starting of a defunct and polluting mine offers an opportunity to restore land with parts of the profits generated.²⁶³ This, however, is only possible if the new extraction does not exacerbate the pollution – for which there is historically very little evidence. Another argument centres around the modernisation of existing operations that theoretically could lead to more efficient and less environmentally damaging mining and refinement processes.²⁶⁴

Yet in Spain we currently see the opposite happening. In order to make a profitable business case, junior mining companies often propose the cheapest possible extraction and processing practices, such as open

²⁶³ Olías & Nieto, Background conditions and mining pollution throughout history in the Río Tinto (SW Spain), *Environments* 2, 295–316, p. 312 (2015).

²⁶⁴ Ibid. p. 1 – 12.

cast mining and heap leaching. This runs contrary to the intention of reducing the impact of extraction, especially when there are over 2000 new mining permits being processed.²⁶⁵ This boom poses a real danger to both ecological and socio-economic structures.

Reforming Legislation

First and foremost, it is crucial to update the current mining laws so that there is an adequate regulation of the mining activity in Spain, one that takes into account essential environmental, social and territorial aspects that up till now have hardly been considered.

Ecologistas en Acción has put forward to the national parliament and relevant organisations a substantial amended version of the Mining Law of 21st of July 1973 which:

1. Values the public domain as a common good, not to be used for the private benefit of speculators or multinationals;
2. Protects diversity and geological resources as non-renewable resources;
3. Prevents extraction from producing territorial, urban and environmental impacts;
4. Proposes higher royalties than in other public domain uses, given the non-renewable nature of the natural resources extracted; and
5. Is regulated by the competent administration in charge of environmental matters.

To effectively tackle the boom of junior mining companies, legislative changes are required. A business model that respects natural spaces and local communities cannot be based on extremely low concentrations of minerals that aim to cut costs on all corners. The long-term social and environmental costs have to be priced into the production. Environmental off-setting has to consider long-term effects and cannot justify the destruction of habitats.

Low-cost mining projects often generate hidden liabilities that are burdened upon future generations, compromising the health, safety and existence of affected communities, particularly as the State has repeatedly shown its inability to take on restoration responsibilities in failed or abandoned mining operations. There is no “Superfund” programme in Spain to address clean-up responsibilities while the “polluter pays” principle seems alien to the administration.

Lastly, there needs to be change of direction on a European level. The European Commission partly considers environmental issues in conjunction with social and economic questions on the highest level, but this attitude is not mirrored in all initiatives, programs and studies that are carried out. Environmental questions have to be legislatively enforced, and therefore effectively implemented on all levels, developed not against but with socio-economic challenges.

Mining in Natura 2000 Reserves

The discourse of sustainability is far reaching. The conflict of interest between mining and ecology escalates with the occurrence of extraction within natural reserves. Here, different European programs and interests directly collide, so-called mining regions overlapping with Natura 2000 networks protecting natural reserves.

The protection of the Natura 2000 network is a public programme, with the purpose “to guarantee biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States”²⁶⁶. The initiative aims to establish a legal regime that limits and prohibits human activities with adverse impacts on the environment within the reserve.

There is a clear contradiction of purpose between mining and the legal regime that protects the Natura 2000 network, and other sites and habitats of natural importance.

Mining, as well as other related activities, is not explicitly mentioned in the legal regime of Natura 2000, but it is included amongst general activities that “without having a direct relationship with the management of the place or without being necessary for it may appreciably affect the aforementioned places”²⁶⁷.

Mining, like any other activity that may appreciably affect the sites of the Natura 2000 network, may be authorized when the requirements established by the legal regime of the Natura 2000 network are met.

Accordingly, it can be affirmed that, as a rule, there is an incompatibility between mining and the Natura 2000 framework, and the exception to this rule should only account for those cases in which the established conditions are fully met.

Outlook

In order not to succumb to a bleak outlook, we must engage with the idea of not only preserving the statu quo but also to propose and make better alternatives. This has been translated into concrete proposals in Spain. For example – a dozen mountain villages in Avila which are threatened by several feldspar projects have put forward to the municipal council a number of alternative economic activities.²⁶⁸ A great number of synergies of civil resistance have emerged in the last years in response to indiscriminate mining projects in Spain.²⁶⁹

The rights of local communities to say no to mining by building on basic rights of public participation and Informed Consent must be considered. An example for this are the first so called “No-go areas”²⁷⁰ for mining

²⁶⁶ Article 1 of Directive 92/43 / EEC

²⁶⁷ Article 6.4 of Directive 92/43 / EEC

²⁶⁸ <http://avilaaldia.com/cillan-se-alza-primer-premio-la-sostenibilidad-los-premios-fuentes-claras/>

²⁶⁹ Asociación de Afectados por Metales Pesados (Cartagena), Coordinadora No a la Mina de Uranio (Salamanca), La Raya sin Minas (Valencia de Alcántara, Cáceres), No a la Mina en el Valle del Corneja (Ávila), No a la Mina en la Sierra de Ávila (Ávila), No a la Mina en la Sierra de Yemas (Ávila), No en mi Tierra (Zamora), Oro No (Asturias), Plataforma Ciudadana Sierra de Morón (Sevilla), Plataforma Sierra de Gata Viva (Cáceres), Salvemos la Montaña (Cáceres), Salvemos las Villuercas (Cáceres), Dehesa sin Uranio (Cáceres), Salvemos Extremadura, Minas a Cielo Abierto No (Extremadura), Si a la Tierra Viva (Ciudad Real), Stop Uranio (Salamanca), Salvem Salau (Tarragona), No a la Mina de Fontanarejo (Ciudad Real), MinaTouroPinoNon (A Coruña)

²⁷⁰ See WILD10 Resolution (No.12) that calls for “Building a Global Alliance to assert ‘No-Go Areas’ for Mining and other Extractive Industries and destructive activities threatening World Heritage

Conclusion

declared by local communities at the Froxán (Lousame) and Vilar (Triacastela) Indigenous and Community Conserved Areas (ICCA) in Galicia. The population is becoming increasingly empowered and conscientious in the way they resist threading mining in the context of a legal and administrative framework that does little to protect their rights.

By bringing together alliances for sustainable land use between environmentalist NGOs, civil platforms of affected communities and owners of land (both small and big, as well as community held common lands), we may see, in a not very distant future, a real transformation towards a more environmentally engaging Spanish civil society.

