Review of the applicable regulatory and policy conditions in the MIREU regions

D 3.1 Deliverable

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Tiess G.[1], Akhouri U.[1], Murguia D. [1]

Contributors: MIREU regions

[1] *MinPol, Agency of International Mineral Policy*

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Author(s)	Günter Tiess, Utkarsh Akhouri, Diego Murguia; MinPol			
Description of the related task and the deliverable. Extract from DoA	**Task 3.1 – Review of the applicable regulatory and policy conditions in the MIREU regions M1-M9** Based on the information the insights from the Min-Lex study, the MINATURA2020 results, and specific inputs from the MIREU regions, a comprehensive map of the prevailing regulatory and policy regime will be developed, covering the whole mine life-cycle and metallurgical value chain. Collaboration with the new project under call "SC5-15-2016-2017 (d) Linking land use planning policies to national mineral policies" will also be sought. Input from the MIREU-regions will be solicited by a detailed questionnaire that will be developed based on the Min-Lex and MINATURA2020 experience. The topics to be covered will include the regulatory and permitting processes at various administrative levels pertaining to mining/metallurgy, how they are implemented and by whom; applicable laws, bylaws, and regulations; land-use and zoning regulations; mineral raw materials, economic and other regional development policies; environmental policies, etc. The emerging picture will be critically reviewed with respect to factors that are likely to contribute positively or negatively to the prospect of developing a mining and metallurgical industry in the respective MIREU regions. This critical review will feed into the SWOT-analyses to be performed under Task 4.3			
Participants	MinPol (Leader), AGH/AGH-UST, NTUA, GTK, LTU, TUKE and participating regions			
Comments				

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About MIREU

The project MIREU aims to establish a network of mining and metallurgy regions across Europe with a view to ensure the sustained and sustainable supply of mineral raw materials to the EU. The network will help the regions to share knowledge and experiences when facing the challenge to establish and maintain an extractive industry. MIREU will facilitate an exchange between all interested stakeholders in the regions, namely regulatory authorities, political and administrative bodies, development agencies, mining companies, non-government organisations, as well as the general public. The project will develop a shared knowledge base, taking into account the region-specific geographic and economic features, cultural, societal and language diversity, and their historical developments. The network will also learn from experience in other regions of the World. This knowledge base will allow to understand what has been conducive and what hampering to the development of extractive and metallurgical industries. It will also provide the context for a bottom-up integration of these activities into their respective socio-economic and socio-cultural context. Development is about people and, therefore, bringing people into the decision-finding procedure in order to achieve a 'social license to operate' will be a key aspect of the project. Guidelines and recommendations for actions to be taken to foster a sustained and sustainable development of the extractive industries will be developed in close co-operation with a range of selected regions from the European Union. These regions will form a nucleus and multipliers for a more extensive network beyond the life-time of the project.

Partners

Acronyms and abbreviations

NMPF	National Mineral Policy Framework
EIA	Environment Impact Assessment
SIA	Social Impact Assessment
AT, CZ, DE, ES, FI, FR, GR, IE, PL, PT, RO, SE, SK, UK	Austria, Czech Republic, Germany Estonia, Finland, France Greece, Ireland, Poland Portugal, Romania, Sweden, Slovakia, United Kingdom
LUP	Land Use Planning
SLO	Social License to Operate
EPA	Environment Protection Authority
AUTMINPLAN	Austrian Mineral Resource Plan
YPEN	Ministry of Environment and Energy in Greece

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1. EXECUTIVE SUMMARY

This report is a part of MIREU's work package (WP) three titled "Framework Conditions for Mineral Raw Materials Exploitation" which deals with determining the framework conditions that are either conducive or hampering mining or metallurgical development in the MIREU regions.

The prepared report "Review of the applicable regulatory and policy conditions in the MIREU regions" has been developed with the objective of providing an insight into the existing regulatory and policy conditions in the MIREU regions relevant to the mining and metallurgy sector and focused on understanding the role and involvement of the community in the permitting process of mining and metallurgy operations.

Methodology applied for mapping the policy and regulatory conditions

Input from the MIREU-regions was solicited by a detailed questionnaire taking into account MINLEX and MINATURA2020 experience. The response based on the questionnaire has been critically reviewed and discussed in the report with respect to factors that are likely to contribute positively or negatively to the prospect of developing a mining and metallurgical industry in the respective MIREU regions.

The summary of the response is presented in a tabular format in chapter three and four of the report. Further a summarised review of the tabular information with the objective of highlighting factors influencing the policy and regulatory aspects is provided in chapter five, specifically in section 5.2 and 5.4. The summary review has then been followed up by a final discussion in section 5.5, clearly highlighting the positive and negative driving factors. This critical review is further expected to provide input into the SWOT-analyses to be performed in other deliverable of the work package.

Apart from the questionnaire based review of policy and regulatory conditions, the report also provides a general discussion for countries/regions listened: AT, CZ, DE, ES, FI, FR, GR, IE, PL, PT, RO, SE, SK, UK under section 5.1 and 5.3 in chapter five of the report. The annexure section of the report provides detailed information on policy conditions of the MIREU regions in chapter seven and applicable regulatory conditions in chapter eight. Finally, chapter ten gives information on the nature of questionnaire and displays the detailed questionnaire.

Review of the applicable policy conditions

To review the applicable policy conditions in the MIREU region, the questionnaire targeted response on topics related to National Mineral Policy Framework (NMPF), its vision and its role in regional development. It also includes response related to role of regional stakeholders in developing the NMPF and specifying the type of regional stakeholders involved with a note on their perspective in the planning process. Another important query raised in the questionnaire is whether the role and influence of regional stakeholders voluntary or mandatory (legal). Land use planning and integration of potential mining areas in such plans are also part of the policy discussion.

It was analysed that almost all the surveyed regions have a defined National Mineral Policy Framework as a foundational basis for all policy actions. It is, in most cases, a written document except for very limited cases where a Policy Framework exists but it is not a written document. One of the most important driver of Mineral Policy in all the regions was found to be the goal of regional development based on promotion of mining and metallurgical activities. In many cases specific goals may not be set, but the overall focus and drive is to promote regional development. In few cases the directive focuses not only on development but sustainable development. Role of Regional Stakeholders in developing and shaping the National Mineral

Policy Framework is also another important aspect as observed from the questionnaire response. Regional Stakeholders in such discussions included Regional Administration members, Local Authorities, Local Community members, NGOs and Social Agents as Industry and Trade Union Members.

For most of the countries surveyed, the regional stakeholders are definitely included in the initial stages. In most countries, stakeholder conferences have been conducted or established stakeholder networks exist to participate and provide input to the policy discussions. Regional Stakeholder involvement is strong in policy framework development, but their role in regional land use planning is limited. Also, although regional stakeholder involvement in policy development is quite prevalent in the MIREU Regions the implementation of NMPF at regional scale is very limited. Lastly, another notable driver of National Strategy is the vision for future of mining/metallurgy industry in the country as supportive to economic growth.

Review of the applicable legal and regulatory conditions

To understand and analyse the factors influencing legal and regulatory conditions in the MIREU Region, the questionnaire based approach was applied similar to the previous section. In this case, the response focused on permitting process for mining activities. An important information asked was to determine what the role of regional government and autonomous regions was in the permitting process and whether they could develop their own mining legislations. Focus of the queries raised was to determine the role of existing legislations in analysis and mitigation of social impacts and if the legislations promote integration of feedbacks from public consultations during the decision making process. Understanding the transparency in the legislation process and level of trust the local community has on the existing formal participation process is also part of the questionnaire response. A major area of response from the survey is targeted at determining participation rights of community and whether social acceptance practice of mining company and operations is considered in the legal and political framework of the state.

As part of the survey response for legal procedural framework, it was observed that the permits and approvals at different stages or for different areas are given by separate authorities. Important aspect to observe is that in most countries there is a clear defined role of both the authorities in granting approvals in their respective areas and the functioning is expected to complementary and co-operative. There are also defined appellate measures against the decisions of the authorities. For Approval process, Environment Impact Assessment (EIA) is a mandatory requirement in all the surveyed countries of MIREU network. According to all the experts questioned in the survey, EIA is a definite requirement to be submitted in the application for licensing.

Although EIA is a common requirement, Social Impact Assessment (SIA) as a separate independent pre-requisite for the permitting and approval process was rarely observed. In few countries it was observed that SIA is included as a part of EIA process and local communities/other relevant third party stakeholders are given the right to appeal.

Transparency in the legal framework for approval and permitting in general was found to be low for all the MIREU region countries surveyed. Only Germany and Czech Republic were two countries that had implemented structural changes in legal framework to improve transparency. Transparency in terms of companies making public the influence of opinion of local community in project design is also low and is evident in very less countries. Challenging or Appealing against EIA reports or permits for mining projects in the surveyed countries is a fairly common phenomenon. Lastly, almost all the surveyed countries have existing participation right mechanism for local communities in the permitting process. In most cases such rights are included during the EIA approval process.

Concluding remarks summarising the positive and negative aspect of policy and regulatory conditions

Based on the information collected via questionnaire and input from MINLEX and MINATURA2020 experience, a summary of positive and negative of the policy and regulatory conditions of the MIREU region was developed.

For almost all the surveyed regions, there is a definite national mineral policy framework which promotes development of the mining industry as driver for regional growth and economic development. It was also observed that regional stakeholders are included in the development and shaping of National Mineral Policy Framework.

It was also observed that there is a strong precedence of legislative mechanism for participation of local community in decision making. In most cases such participation rights are part of the EIA process. Similarly, it was also observed that for most of the regions there is clear indication of procedure for integration of public feedback as part of the consultative process.

Another important positive aspect is the rigorous environmental protection laws as part of the regulatory regime of almost all the surveyed regions. Environment Impact Assessment (EIA) is a mandatory requirement in the permitting process. It is a definite requirement to be submitted in the application for licensing. Finally, in general terms, success rate for obtaining license and permit is high indicating towards a satisfactory administrative structure and mechanism

In terms of areas of concern for the policy conditions in the MIREU regions, it seems that for the surveyed region focus on economic benefit is higher than on environment and social impact. It was observed that economic growth as an objective for the mining industry is more stressed upon as opposed to environmental and social concerns.

Also the permit obtaining process is costly, complex & time consuming. In some cases the decisions of authorities are relatively frequently challenged leading to prolongation and delay of final approval. Sometimes the complexity maybe due to presence of multiple authorities for different permits. A related issue is the lack of skilled manpower in the administration to deal with regulatory process. Growing lack of skilled and experienced staff in mineral planning authorities and the reduction of planning staff under the present programme of austerity in public expenditure is causing delays in permitting process.

Another notable issue is the lack of inclusion of social acceptance practices of companies in the formal mining policy framework. Related to this issue is the absence of the term ‘Social License to Operate’ or anything equivalent in the permitting process. Lack of Trust among Local community regarding compliance of rules by companies is also an area of concern. In some regions there is a general lack of trust in the actual compliance of prevailing rules by companies. Another related aspect is the lack of transparency in terms of companies making public the influence of opinion of local community in project design and operation plan.

2. INTRODUCTION

2.1 General

Task 3.1 is related to "Review of the applicable regulatory and policy conditions in the MIREU regions" (M1-M9). Leader is MinPol, participants are AGH/AGH-UST, NTUA, GTK, LTU, TUKE, the regions.

Input from the MIREU-regions will be solicited by a detailed questionnaire taking into account MINLEX and MINATURA2020 experience. The emerging picture will be critically reviewed with respect to factors that are likely to contribute positively or negatively to the prospect of developing a mining and metallurgical industry in the respective MIREU regions. This critical review will feed into the SWOT-analyses to be performed under Task 4.3.

The **mapping of the regional level depends on input of the MIREU regions** AT, CZ, DE, ES, FI, FR, GR, IE, PL, PT, RO, SE, SK, UK. Contribution will be provided from MIREU partners. According to the Grant Agreement, the following countries/regions are listened: AT, CZ, DE, ES, FI, FR, GR, IE, PL, PT, RO, SE, SK, UK

2.2 Methodology

2.2.1 Report structure

The report has been structured in the form of the following mentioned chapters. Chapter one deals with General Introduction and explains the Methodology for preparation of the report. It gives an insight into the mapping approach used for understanding and summarising the National Mineral Policy framework for all the countries/regions which are part of the study.

Chapter three provides information on the detailed review of the applicable policy conditions of MIREU regions and outcome from the information received via the input from the MIREU Regions based on the detailed questionnaire taking into account MINLEX and MINATURA2020 experience. Chapter four, in a similar fashion, gives a review of the applicable regulatory conditions of MIREU regions. Chapter five, based on the results from chapter two and three identifies factors contributing positively and/or negatively to the development of mining / metallurgical industry in MIREU regions. Finally, Chapter six summarises all the findings in form a concluding write-up.

2.2.2 Mapping approach

In 2011, the European Commission published the "Communication tackling the challenges in commodity markets and on raw materials" (DG Enterprise and Industry, 2011). **The Commission considers that the following practices are particularly important in promoting investment in extractive industries[1]:**

a) Defining a National Minerals Policy, to ensure that mineral resources are exploited in an economically viable way, harmonised with other national policies, based on sustainable development principles and including a commitment to provide an appropriate legal and information framework ;

b) Setting up a land use planning policy for minerals that comprises a digital geological knowledge base, a transparent methodology for identifying mineral resources, long term estimates for regional and local demand and identifying and safeguarding mineral resources

[1] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52011DC0025

(taking into account other land uses) including their protection from the effects of natural disasters;

c) Putting in place a process to authorise minerals exploration and extraction which is clear, understandable, provides certainty and helps to streamline the administrative process (e.g. the introduction of one-stop-shop, permit applications in parallel)

In best case scenario, a national minerals policy must be prepared taking into account practices mentioned in the above points (i.e. a, b and c). Finally, the establishment of a national minerals strategy should be envisaged based on the output of the minerals policy framework. A national minerals strategy then determines the different priorities and different state actions.

Land use management (as mentioned in point b) particularly is a responsibility of the respective land use planning ministry and it has to be included in the national minerals policy frame work. This is vital because minerals planning policy is part of the national minerals policy framework i.e. protection of mineral deposits, which is in turn based on land use planning management.

Understanding from the point of an operator, access to mineral resources has to be secured for the operator in a long-term, mid-term and short-time perspective based on land use management. Operators need to have investment security as they have to plan their activities on the long-term. From the point of communities: The purpose is to identify mineral areas and to protect after conflict resolution with nature and environment protection, and other entitled claims of land use planning. Potential conflicts should be balanced in order to enable a streamlined, rational authorisation procedure (exploration/exploitation).

As indicated above in point c, national minerals policy shall put a process in place to authorize minerals exploration and extraction which is clear, understandable, provides certainty. Permitting procedures shall be linked to minerals land use plans, to use all existing information (e.g. mineral zones) and to streamline the permitting process[2].

The mapping process of MIREU countries will primarily consider the following practices (DG Enterprise and Industry, 2011):

a) National Minerals Policy, which ensures that mineral resources are exploited in an economically viable way, harmonised with other national policies, and including a commitment to provide an appropriate legal and information framework ;

b) Land use planning policy for minerals;

c) Putting in place a process to authorise minerals exploration and extraction which is clear, understandable, provides certainty and helps to streamline the administrative process.

Under the mapping process described above, a) and b) will be mapped in one. Where it is expected that point b) will be part of a), i.e. mapping of policy framework conditions. Harmonisation (mineral with other policies) aspect will be taken into account via LUP policy (balancing of different utilization claims, core matter if LUP). Besides, resources efficiency, environmental and social matters will be taken into account while planning.

Point c) will be mapped separately i.e. mapping of the legal framework conditions. The mapping process will take into account streamlined procedures via one-stop-shop (or similar) approach which enable advantages (better overview etc.) for both operator and affected parties like local communities.

Besides the one stop shop approach it will also be important to take into account especially **SLO aspects** as follows: ownership rights, participation rights of local communities in EIA,

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LUP procedures and rehabilitation. Finally, the competent mining authority (playing a relevant role in the SLO discussion) at regional level will also be identified.
Information for a), b), c) will be taken from the MINLEX study, the MINATURA2020 results, collaboration with the MINLAND and specific inputs from the MIREU regions. A comprehensive map of the prevailing regulatory and policy regime will be developed.

3. REVIEW OF THE APPLICABLE POLICY CONDITIONS OF MIREU REGIONS

For thoroughly studying and analysing the present policy conditions of the MIREU regions we conducted a detailed survey involving relevant regional experts and collected their response. The survey was implemented in a questionnaire format and the questions were designed to cover the important aspects of the policy environment in the region relevant to the objectives of the report and goals of the MIREU study.

The detailed list of questions used in the questionnaire has been provided in chapter ten of the report. A summary of the response provided by the regional experts in the survey can be accessed by clicking on the questions provided below.

3.1 Questions related to National Mineral Policy Framework and its working

In your country, is there a National Minerals Policy Framework (NMPF)? If yes, what is its name?
In such Policy Framework, are included goals to promote mining and metallurgical activities as drivers of regional economic development?
How is the NMPF implemented at regional scale?
What is the vision for its future and also the future of the mining/metallurgy industry?
Which Ministry or state-office is in charge of developing such National Policy?
When developing a national mining policy framework are regional stakeholders included?
If yes, who are the regional stakeholders and what are their perspectives? (Companies, government authorities, NGOs, the media, etc.). Please describe the main ones involved with relevance for mining projects.
Are there representatives that credibly speak for these different stakeholder groups?

Are there stakeholders who are marginalized?

Are there stakeholders who cannot be appeased? What happens with those stakeholders?

3.2 Questions related to regional mineral policy and planning

From your regional point of view, do you believe such National policy has been effective in achieving its goals? Why yes? Why no and what needs improvement? (drivers, barriers, etc.)

In the region you are based, is there a Regional Policy to promote mining and metallurgical activities as drivers of regional economic development?

What is the vision for its future and also the future of the mining/metallurgy industry?

Are there representatives that credibly speak for these different stakeholder groups?

Are there stakeholders who are marginalized?

Are there stakeholders who cannot be appeased? What happens with those stakeholders?

Are there regional policies that facilitate and encourage responsible product design, use, re-use, recycling and disposal?

4. REVIEW OF THE APPLICABLE REGULATORY CONDITIONS OF MIREU REGIONS

For thoroughly studying and analysing the present regulatory and legislative conditions of the MIREU regions we conducted a detailed survey involving relevant regional experts and collected their response. The survey was implemented in a questionnaire format and the questions were designed to cover the important aspects of the regulatory environment in the region relevant to the objectives of the report and goals of the MIREU study.

The detailed list of questions used in the questionnaire has been provided in chapter ten of the report. A summary of the response provided by the regional experts in the survey can be accessed by clicking on the questions provided below.

4.1 Questions related to legal and regulatory framework

Which are the main (regional) laws and regulations applicable to the mining and metallurgical industry? (covering exploration, extraction, beneficiation, closure and reclamation)
How they are administered (nationally, regionally and locally) and by which institution
Do you believe the legal framework is updated and adapted to the challenges currently faced by the mining/metallurgical industry in your region? Why yes? Why not, and how do you suggest improvement?
Does the regulatory framework encourage companies to implement good practices or obstructs them?

4.2 Questions related to Land Use Planning

Are areas of potential mining protected and designated as such on land use plans (legally binding, non-binding)?
Are relevant stakeholders involved in the regional land use planning process? (legal vs voluntary)

4.3 Questions related to Social Acceptance of Mining/Metallurgy

How strong does the regional government's political framework consider the social acceptance practices of a company?
Is the term 'social license to operate' considered? If not, is there an equivalent concept?
Are environmental impact assessments or permits for mining/metallurgy projects contested?

Are there participation rights for communities?

4.4 Questions related to Permitting Procedure

What is the role of the (national/federal/local) state versus the region in the approval process of an exploration and/or a mining or metallurgy project?
Does the region have autonomy to create its own mining legislation and adopt its own guidance materials or is mining mostly regulated by the (national/federal) state?
What are the project level requirements for mineral developers (e.g. permits; submissions like EIAs); duration of the process
Is there legislation that regulates the analysis and mitigation of social impacts?
Are Social Impact Assessments required during permitting approval procedures participation rights for communities?
Has the regional mining authority implemented structural changes in their permitting legal frameworks to increase their transparency, predictability and efficiency?
Should legislation (permitting and licensing processes) be changed to include SLO practices (assuming whatever practices are chosen are tailored to the region)?
Do residents trust existing formal participation mechanisms or have decisions been made by local referendum or other means?
During phases of public consultation for permitting advanced mining/metallurgy projects, how is the feedback given by the public integrated/considered during the decision-making process (before permits are issued)?
Do companies make it public (report) how the opinions and concerns of local/regional communities were considered and influenced the project design?
Ownership rights of minerals?
How is reclamation considered? (Process for which mining operator is responsible)?

5. IDENTIFYING OF FACTORS CONTRIBUTING POSITIVELY AND NEGATIVELY IN MIREU REGIONS

5.1 Status – policy concepts (national level)

IDENTIFYING OF THE FACTORS that are likely to contribute positively and negatively to the prospect of developing a mining and metallurgical industry in MIREU regions. We are focussing on AGH/AGH-UST, NTUA, GTK, LTU, TUKE MIREU regions.

At national level all MIREU countries except Spain (regional level) are having/discussing dedicated mining policies:

1. Austria mineral strategy (2012)
2. Czech new Raw Materials Policy (2017)
3. Finland – Minerals strategy VISION 2050 and Action Plan (2010)
4. France – Strategic metals plan (2010)
5. Germany – Raw materials strategy (2010)
6. Greece – The National Policy for the Strategic Planning and Exploitation of Mineral Resources (2012)
7. Ireland – Minerals Exploration and Mining Policy (2015)
8. Poland – National Minerals Policy (draft)
9. Portugal – National Strategy for Mineral Resources (2012)
10. Romania – Strategy of Mining Industry (2012)
11. Slovakia – Raw Materials Policy (2004, no updating)
12. Sweden – National mineral strategy (2013)
13. United Kingdom – Resource Security Action Plan (2012)

Alentejo mining strategy considers a holistic view of the whole Value Chain and relevance of circular Economy. Saxon RM strategy (2012)/2017 Integration of mining into broader regional development approach. Closing value chain in valorisation of Tin, Lithium and Fluorspar deposits with existing and future downstream industry. Relationships between mining, broader industry, community & regulator.

5.2 Factors influencing policy aspects in MIREU regions

Based on the information collected in chapter 3 and further analysing its content, a plausible and conclusive list of drivers and non – drivers of mineral policy environment of MIREU regions have been identified and elaborated below.

Majority of the surveyed regions have a defined National Mineral Policy Framework as a foundational basis for all policy actions. It is in most cases a written document except for the case of Ireland where a Policy Framework exists but it is not a written document.

One of the most important driver of Mineral Policy in all the regions is the goal of regional development based on promotion of mining and metallurgical activities. In many cases specific goals may not be set, but the overall focus and drive is to promote regional development. For instance, in case of Poland, the objectives include identification of strategic, key and critical resources for the Polish economy and determination of the flow of resources is considered strategic for the Polish economy.

In few cases the directive focuses not only on development but sustainable development. For e.g. in Ireland, the policy framework is designed to provide a regulatory context which is facilitating exploration and mining in a sustainable manner, although there are no specific goals set.

Role of Regional Stakeholders in developing and shaping the National Mineral Policy Framework is also another important aspect as observed in the survey analysis. Regional Stakeholders in such discussions included Regional Administration members, Local Authorities, Local Community members, NGOs and Social Agents as Industry and Trade Union Members.

For most of the countries surveyed, the regional stakeholders are included in the initial stages. In most countries, stakeholder conferences have been conducted or established stakeholder networks exist to participate and provide input to the policy discussions. E.g. The Finnish Mineral Strategy was drawn up over a six-month period during 2010, based on contributions from a team of more than 20 experts drawn from across the entire minerals sector. In case of Austria, Austrian raw materials alliance (Österreichische Rohstoffallianz) was founded in 2012 as a stakeholder network to provide input to the strategy.

Regional Stakeholder involvement is strong in policy framework development, but their role in regional land use planning is limited. In Germany & Austria, regional stakeholders are involved in legal aspects of the land use policy development. In other regions such as Czech Republic their involvement is limited to voluntary suggestions. For Serbia, there is a certain harmonization of activities between the Ministry of Mining and Energy and local governments. The local governments give an opinion on the impact of future investment activities on the environmental protection. In case of Ireland, the involvement of regional stakeholders exist to some extent with local authority consulted in land use development plans.

Although regional stakeholder involvement in policy development is evident in the MIREU Regions the implementation of NMPF at regional scale is very limited. This is because most of the surveyed countries have policy objectives in form of guidelines for regional implementation and are not having strict defined implementation structure. E.g. in Slovakia since NMPF is a strategy proposal lacking specific methodological approach it lacks strong regional implementation. In case of Austria the strategy is a national policy and only has guiding character for the federal states/ regions. In Serbia, the NMPF is implemented through regional spatial plan.

Another notable driver of National Strategy is the vision for future of mining/metallurgy industry in the country. In Andalucia, the policy objective is supportive of new opportunities for the regional development through the mining and processing industry. They are keen on implementing new information digital platforms to make easier the access to data and geological information for investors and researcher. Similarly in case of Slovakia (Kosice) new innovative mining and processing methods (slim mining), are being considered.

For countries like Sweden & Finland, growth of the mining/metallurgy sector in the future is considered very bright and are expected to key driver for their respective national economies. Finland aims to be global leader in the sustainable utilisation of mineral resources and the minerals sector to be one of the key foundations of the Finnish national economy in the future. Also, in case of Serbia, presently the share of the mining sector in GDP is 2.5%, it is planned to increase to 5% in the next five years. Similarly for Czech Republic, a 15 year development plan for mining industry exists with supposed actualization for every 5 year interval.

It was also observed that regional government's inclusion of social acceptance practices of a mining or metallurgy company in their formal policy framework is not common in the surveyed regions.

For Portugal, Spain, Slovakia, Finland and Germany social acceptance practice of a company is an important factor to be considered in the regional mining policy framework. For all the above mentioned states the social acceptance aspect is well considered. Regional governments try to help companies to work towards general consensus of mining.

In case of Ireland, this is not a part of regional policy framework but local authorities take into account the company's social acceptance through planning process and local government compliant processes.

For the remaining surveyed regions this aspect is neglected in the formal policy framework. For e.g. in case of Austria, their strategy does consider social acceptance, but there is no formal obligations or guidance for companies on Social License to Operate. Also for Serbia, regional administration can have an influence through giving opinions on whether the objects of cultural significance are threatened or assessing the impact of investments at the local level, but social acceptance is not a part of the policy framework.

Lastly, the term 'Social License to Operate' is, for most of the surveyed regions, not formally a part of policy framework. Although the concept of social consensus may exist in some other form.

In Alentejo (Portugal), Northern Karelia (Finland) and Vasterbotten (Sweden) this terminology and concept exists. In Northern Karelia, regional government negotiates between stakeholders to find understanding.

In Ireland, Social acceptance is considered through the planning process which is fully open to third parties and local community participation. But it is not an actual 'license'. A licence is a legal document which requires a legal authority to issue and administer it. SLO is a concept but with no legal standing. Similarly in Saxony, the term SLO is not mentioned but acceptance of Mining is one of the main focus of the Saxon Strategy. The Austrian strategy does consider social acceptance, but there is no formal obligations or guidance for companies on SLO. In some cases, for e.g. Serbia, the term SLO does not exist nor is there any equivalent concept.

5.3 Status – regulatory conditions (national level)

Austria

There is a success rate of up to 80 % for first-time applications, if the site is included in the designated plans of raw material priority areas of the Austrian Mineral Resources Plan (AUTMINPLAN) and no other disturbances (e.g. local community campaigns, disagreements between communities) occur. The remaining 20% are approved on appeal. There may be additional requirements and difficulties, but rejections are uncommon, and the success rate, including appeals, is therefore almost 100%. The success rate of applications for exploration and extraction permits is relatively high because the operator has a legal claim only for zones dedicated to the AUTMINPLAN. Outside these zones, the success rate is zero. Hence, in Austria operators have investment security and legal certainty.

The Austrian Mineral Resources Plan itself has no legally binding character. According to the land use planning laws of individual countries ("provinces") raw material priority zones have to be included in the land use plans (based on the results of the Austrian Mineral Resources Plan). Only in the case of the surface extraction of landowner minerals, the land use planning (specifically the local land use plan) play a role (mining prohibition zones according to § 82 MinroG). Apart from these aspects, procedures are also complex and costly. One notable problem is that the number of selected priority raw material areas is relatively low and the land purchase prices are determined by the landowners, with inflated purchase prices sometimes being paid.

Finland

In Finland, there is a strong belief in the legitimacy of regulation and regulatory authorities, and a national level survey in Finland showed that trust in authorities and national legislation is related to the acceptance of mining and plays a role in the development of SLO (Litmanen et al. 2016, Jartti et al. 2014). One interesting note is that prior research (interview with Leena Suopajarvi) shows that when local people are evaluating the SLO for one mining project, they simultaneously evaluate the legitimacy of the entire chain of actors involved in the project, including the authorities involved in the decision-making (as was the case of Talvivaara). In the criticism that came out of Talvivaara, one of the main themes was the perception that both industry and the Finnish authorities considered the economic benefits to be more important than the local environment.

The main problem getting an exploration / extraction permit is the delay caused by hearing-opinions-decision-appeals-responses-courts-rehandling-opinions-responses-decision-appeals ----courts-decision. The permitting procedure in Finland is under consideration to be revised. The aim is to streamline the permitting procedure by combining the different permitting authorities, especially for permitting in the environmental sector. This should quicken the permitting procedure. The plan is to unify regional permitting authorities (AVI) to one national authority, maybe even mining authority is unified to this. Some of the supervising authority´s (ELY) duties are moved to the national permitting authority and some duties to the new county organizations that will be formed. Outside the nature conservation areas and outside the reindeer herding area, in general, the permitting procedure is fluent.

The appeals mostly are the following:

- Sami Parliament makes appeals against mechanical gold panning.
- The Finnish Association for Nature Conservation makes appeals against exploration in Natura 2000 areas. These appeals succeed better when authorities of nature conservation like ELY Centres also make appeals in the same case.
- Appeals against mining permits are made by private parties concerned, nature conservation organizations etc.
- Appeals against reservations are made to express the opposing opinion against any mining related operations.

The Mining Act (621/2011) which came into effect in September 2011 has some serious shortcomings. For example, the landowner can still be left uninformed about mining operations in the neighbourhood, because the legislation does not obligate the operator to ensure that all the landowners have received the information. All the details of mining operations must be made public to the scrutiny and commentary of citizens and non-governmental organizations[3].

The environmental permit procedures are not plausible, if the undertaking is able to start its operations due to exceptional permits before all appellate procedures have ended. It is misleading of the people to present a nominal possibility to participate in the permit procedure, but in spite of their opinions and arguments the mining operations can still be initiated based on the exceptional permit. Rushing around does not lead into good and sustainable mining.

There are many closed and abandoned mines that are still leaking harmful substances to waterways and groundwater. The issue of environmental liability must be defined in such a manner that the aftercare and the restoration of an exploited area will never fall upon the tax payer to compensate. Collateral securities and funds must be sized so that an undertaking after closing down a mine is able to prevent all possible environmental damage. Especially in the case of radioactive waste the aftercare must be engineered to cover up to a thousand year time period.

[3] https://www.sll.fi/mita-me-teemme/kaivostoiminta/our-mining-objectives

Noise, dust and reek can significantly weaken the welfare of nearby residents of mines. This must be avoided at all times. In addition, neighbouring commercial activities and recreational activities must be taken into consideration while operating the mine. Jeopardizing the operational preconditions of environmentally respectful activities such as eco-tourism and organic farming must especially be strictly avoided.

Germany

The question whether a mining project can be built and operated is very complex regarding the legal framework. The reason for this is that various interests which are reflected in various legal matters need to be reconciled. The German legal system has made every effort to make these legal matters sustainably.

Environmental aspects are guaranteed by a rigorous Environmental Laws and precisely configured procedures. Social aspects are also ensured through "neighbours-rights" which provide judicial protection for third parties against projects. The same aspect is reflected in the standards which regulate the liability for damages caused by mining.

Greece

The legal framework that regulates the licensing system comprises a vast number of legal texts and consequently makes it difficult even to identify the effective provisions for each sector. In addition, the lack of codification or/and systematic simplification of the legal framework has also a negative impact.

Nevertheless, the legal changes passed in recent years (such as L.3982/2011 and L.4014/2011) are moving in the right direction, despite identified delays in issuing the necessary implementation acts, cases of inconsistency with previous relevant provisions etc.

The Greek Extractive Industry feels that the existing framework for land use planning does not safeguard/cover the Sector's activities/interests adequately. For this reason, they have proposed the issuance of a Spatial Plan specific to Mining which has not been realized so far. The absence of such a Spatial Plan specific to Mining, may generate conflicts with other land uses during the sitting and permitting procedures of the extractive activities. However, it should be noted that regarding quarrying for primary aggregates' production, land use planning is clearly regulated in Greece, since operation of the aggregates' quarries is accomplished in Quarrying Areas (QAs). QAs are specified by the Heads of Regional Governments (Regions), after the consultation of an eight (8) member's committee where participate, among others, a mining engineer from the Ministry of Environment & Energy (YPEN) (the coordinator) and officers serving in the Forest Office, the Ministry of Civilization and Athletics, IGME, and the Directorate of Environment of YPEN. Sometimes land use planning for aggregates' production comes into conflict with other land uses. For example, reforestation activities decided afterwards a QA has been specified.

It is highlighted that within the Environmental Permitting of a mining project, the potential conflicts arising are examined, and measures are proposed from the competent authorities to prevent or mitigate potential adverse impacts.

In the case that a mining project is considered to have significant adverse impacts on the preservation objectives, and the integrity of a NATURA site, then this project is not permitted to be developed, unless, as stated in Art. 6.4 of the NATURA Directive, if, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of NATURA 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Where the site concerned, hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial

consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest or "imperative reasons of overriding public interest". Similarly, permit for a mining project may not be granted in case of significant adverse impacts on cultural heritage, public health etc.

Another potential conflict in the development of a mining project is related to the often expressed "lack of trust" of the local communities, ecological organisations and other stakeholders regarding the actual compliance of the mining industry with prevailing environmental rules and regulations. The non-issuance of a "social license" is often the cause for the significant delays in the development or even the annulment of new mining projects in Greece. The constraints encountered in permitting of new mining projects in Greece during the last decades are in contradiction with the recently published National Strategy for the Development of Mineral Resources (2012) that fully supports the Sustainable Development of Mineral Resources.

The consultation process is characterised by low effectiveness, as the most significant factor of insecurity for enterprises is the possibility of an appeal at a later stage. The general spirit of disbelief among society-state-enterprises contributes further towards this mentality.

In addition to the conflicts encountered during the Environmental Permitting of a project, even after the issuance of a permit the opposing stakeholders can submit a petition for annulment to the Hellenic Council of State claiming that the project is significantly impacting the Natural Environment, as opposed to Art. 24 of the Greek Constitution.

Also, although the competent Departments of the ministry have very able and experienced scientific personnel they are not enough to handle all the cases concerning exploration and extraction permitting. The existing economic crisis in the country does not allow for the time being to increase substantially the personnel available for this.

The Industry feels that the major constraint in Greece is the involvement of many different authorities in the permitting procedure, resulting in big delays. To eliminate all these delays and transfer files, it would be helpful the establishment of a multidisciplinary team inside the Ministry of Environment & Energy for the evaluation of the file, i.e. of a one-stop shop for the environmental permitting.

Another major constraint in Greece is the right of any person to appeal i.e. to the Supreme Court (Council of the State) for the same permit at no cost. That means that the people that are opposite to the project are divided to various groups and submit different appeals with the same arguments. Moreover, they have the right to appeal not only in the stage of the EIS but also in all other subsequent technical permits of the same project. Every appeal is a different court case that takes time to be judged, up to 2-4 years. As a result, the project remains always in hostage, with major cost.

Other major constraints involve:

- The absence of electronic permitting processes does not facilitate the permitting procedure
- Timeframes for the implementation, evaluation and approval of EIA studies are clearly defined by national/regional law but they are often exceeded making the procedure lengthy, especially during the evaluation of extraction permits
- Lack of guidance (e.g. guidance notes, manuals) in the permitting chain: the investors do not understand what the legal rules (regulatory requirements to obtain a permit/license) are and how they are applied
- During appeal instances, decisions by Courts at all levels take too long

Other problems in the extraction permitting process have to do with any potential conflicts in land uses, the project compatibility or its potential adverse impacts on the protection status of the area under development or the wider area (and areas protected for different purposes)

The Greek Extractive Industry feels that the existing framework for land use planning does not safeguard/cover the Sector's activities/interests adequately. For this reason, they have proposed the issuance of a Spatial Plan specific to Mining which has not been realized so far. The absence of such a Spatial Plan specific to Mining may generate conflicts with other land uses during the permitting procedures of the extractive activities. The electronic protocol allowing the investors to track the progress of the permitting process is not yet issued, five years after the publication of L. 4014/2011.

Ireland

Main problems or major modifications related to exploration permitting

The permitting system for the issue and monitoring of Prospecting Licences has operated satisfactorily for many years. The systems have worked satisfactorily from the operators, public and regulatory points of view. The views of the industry are reflected by the high scores the system achieves in the annual Fraser Institute survey of mine and exploration managers.

The main reasons for the satisfactory operation of exploration in Ireland are:

1. Exploration is not an intrusive activity.

2. Exploration does not have or cause any significant environmental impact.

3. The system affords third parties the right to make representations to the Minister.

4. The Minister operates a "one-stop-shop" in the application of the regulations relating to exploration activities, i.e. obtaining permission to carry out certain activities (e.g. drilling) or to carry out activities within restricted areas (e.g. near gas pipelines).

5. The Minister carries out his duties in a speedy and efficient manner.

6. All the information collected as a result of exploration activities is made publically available either after six years or upon surrender of the licence – whichever is the sooner. This means that the data collected by exploration activities is available for the benefit of all and not just to the minerals industry.

Poland

Main problems or major modifications related to exploration permitting are as follow:

1. Fragmented ownership of land with mineral deposits.

2. Areas of special nature value under legal protection, which do not allow or limit minerals extraction (national parks, natural reserves, Natura 2000, etc.).

3. Lack of social acceptance for geological and mining activity.

4. Dispersed and rapidly changing laws and regulations.

5. Time-consuming procedure of getting the license.

6. Favouritism of activities concerning hydrocarbons – exemption from the requirement of getting the opinion of the competent head of the municipality, town mayor or city president competent place of the intended activity for the plan of the mining plant operation and facilitation in the deposit development plan preparation.

9. Requirements of obtaining many decisions issued by different administrative authorities to undertake license activity.

Main problems or major modifications related to extraction permitting

Main problems are:

1. Existing or planned land use (spatial documents), precluding extraction of mineral deposits.
2. Fragmented ownership of land with mineral deposits.
3. The problem with the purchase of land including mineral deposits in case ground-owned minerals (expropriation is possible only in case of state-owned minerals.
4. Areas of special nature value under legal protection, which do not allow or limit minerals extraction (national parks, natural reserves, Natura 2000, etc.).
5. Lack of social acceptance for mining activity.
6. Dispersed and rapidly changing laws and regulations.
7. No geologists in many county offices, while the district head is a licensing authority, which causes irregularities.
8. Time-consuming procedure of getting the license.
9. Requirements of obtaining many decisions issued by different administrative authorities to undertake licensed activity.
10. Suspension of acquisition of real estate of the Agricultural Property of the Treasury.
11. Limitation of acquisition of real estate by foreigners.

In Poland and in relation to the Natura2000 areas, the literature shows that, apparently, the increase in the number of protected areas has become a hotbed of numerous conflicts. In spite of the generally favourable attitudes to nature which Polish people generally have, Natura 2000 is perceived as an unnecessary additional conservation tool. Both local authorities and communities residing in the Natura areas think that the programme is a hindrance, rather than a help in the economic development of municipalities or regions, as was initially supposed. This lack of acceptance results from many factors, mainly social, historic and economic (Grodzinska-Jurczak and Cent, 2011).

Portugal

Main problems or major modifications related to exploration permitting

In Portugal, the exploration permit is dealt by the Ministry of Economy through DGEG, the mining authority. However, some exploration activities such as drilling may need other permits depending on their location within the area and in these cases the applicants must obtain them (e.g. exploration areas that include classification zones of cultural heritage). If the environmental and social stakeholders don't have a negative position about the exploration application when they are consulted, the license can be granted (ideally) in 4 months. Nevertheless, the reduction of skilled staff in the Portuguese public administration, namely in the mining authority, can provoke additional delays in the permitting process.

Main problems or major modifications related to extraction permitting

In Portugal extraction permits are dealt by the Ministry of Economy through DGEG, the national mining authority. If the environmental authority doesn't have a negative position about the EIA study (extraction phase), the license can be granted in 7-8 months. Nevertheless, the reduction of skilled staff in the Portuguese public administration, namely in the mining authority, can provoke additional delays in the permitting process. Also, the public consultation process can provoke some political pressure, especially by NGOs, delaying or even affecting the decision in a negative way. The general permitting system in Portugal can be improved if the mining law allows a unique mining title and for a long period, from exploration to closure, but with all the commitments defined and updated when necessary.

Slovakia

Main problems or major modifications related to exploration permitting

According to our Slovak expert: "The permitting chain concerning the decision-making process of authorities from the Ministry of Environment of the SR is effective. The main obstacle in obtaining exploration permits is the veto right, being frequently applied by the local self-governing subjects – the authorities of the village/town and district offices in case of radioactive minerals. It seems that the authorities of these offices meet the requests of their previous/future voters. As a principal problem, there occurs extended EIA approval process, which in real practice is very prolonged and of extensive cost. In Slovakia, there is known a case of more than 6 years lasting approval process, reaching only in the first stage of the EIA evaluation the total cost of 300,000 EUR. The positive decisions of authorities, leading to assignment of the Exploration area, are relatively frequently appealed by opponents through the courts.

Due to negative public opinion also the principal laws (Geological Law and Mining Law) were amended in 2014, encompassing additional demands and limitations in the approval process (e.g. in each approval step the standpoint of the public plays a decisive role). The Ministry of Environment of the SR must reject the assignment of Exploration area, if the local administration authority does not agree with its assignment due to the protection of public interests of a village / town / self-governing region in case of radioactive minerals (e.g. due to intended different land use of the territory in question).

The permitting process of assignment of exploration areas would be more effective by cancelling the veto right and restricting the power of the public for the time only in the beginning phases of the permitting process. Higher phases of the permitting process should involve only competent experts from the ministries, exploration/mining organizations, environmentalists and other relevant stakeholders".

Main problems or major modifications related to extraction permitting

According to our Slovak expert: "Slovak legislation related to exploration and mining is well harmonized, so no conflict-generated items are known. The only problem which has occurred during last years and hampers an effort of investors (after the amendments of Mining Lay No. 44/1988 Coll. especially by the laws No. 314/2014 Coll. and 374/2014 Coll.) is an *excessive power put on decisions of citizens and local authorities of the self-government mainly on municipalities level*. Recently, by this way there can be stopped or not allowed any exploration and mining. Another problem of the approval process for exploration and mining is that there is no time- and cost-limitation for EIA evaluations, and any final judgement can be challenged and forwarded to the court afterwards, which produces further exhaustive process lasting many years, which final judgement is either negative, or even duration of this exhaustive procedure demotivates any investor in the field of exploration and mining.

The prolongation of the approval procedures for exploration and mining are primarily caused by negative public opinion. This negative standpoint is reflected to decisions of local authorities (level of municipalities), arguing that the land use of the property concerned is intended by other way and it is the public interest of supreme priority. EIA and standpoints of environmentalists are often used for extreme prolongation of approval process and the final rejection of exploration and mining activities. *So, the most important conflict-generating phenomenon are not the national and regional authorities, but the people (citizens) as a whole*".

Issue: investment security versus EIA

Veto rights to EIA procedures as well as lodging claims to granted permits are mechanisms than can effectively translate oppositional views from the local community to a certain project into formal legal complaints/outcomes that may suspend or halt an operation.

In the case of Slovakia it was found that veto rights can be exerted by the authorities of towns and district offices which may prolong the EIA approval process. The Slovak consultant argued investors are concerned on how local authorities use this power to halt operations:

"The permitting chain concerning the decision-making process of authorities from the Ministry of Environment of the SR is effective. The main obstacle in obtaining exploration permits is the veto right, being frequently applied by the local self-governing subjects – the authorities of the village/town and district offices in case of radioactive minerals. It seems that the authorities of these offices meet the requests of their previous/future voters. As a principal problem, there occurs extended EIA approval process, which in real practice is very prolonged and of extensive cost. In Slovakia, there is known a case of more than 6 years lasting approval process, reaching only in the first stage of the EIA evaluation the total cost of 300,000 EUR. The positive decisions of authorities, leading to assignment of the Exploration area, are relatively frequently appealed by opponents through the courts/".

That means that, veto rights and lodging appeals to (first-instance) permits are a risk for investors, and are mechanisms used by local communities to translate their disapproval of a project into formal decisions.

Spain

Main problems or major modifications related to exploration and exploitation permits

In Spain, the main problem to obtain a mining permit is the environmental process, which is dependent on the environmental authorities of the different Autonomic Communities, the ample zones of the country with some degree of environmental protection, the complex way that the mining activities affect the environment and the public consultation process and how this is managed by the Environmental Administrations and how this is linked to the social licensing process. Although the law establishes clear deadlines for the environmental procedure, the authorities never seem to meet those deadlines, with no administrative consequences.

Cobre Las Cruces (Seville) is a good example of good permitting practice, although the project as a whole took a long time. In 1990 Riomin Exploraciones S.A. (later known as Cobre Las Cruces S.A.), of the Riotinto, Group requests a mining permit (Faralaes II) to explore the area, which is granted in 1992. The deposit is found in 1994. In 1999 the Project is handled by MK Gold Company (now MK Resources Company) part of Leucadia National Corporation. In 2001 the mining concession Las Cruces derived from the investigation permit is requested. The concession is granted in 2003. In august 2005 Inmet Mining Corporation acquires 70% of the shares of MK Resources. Since November 2010 the Company is fully owned by Inmet Mining Corporation until March 2013 the Canadian Company First Quantum buys 85% of Inmet. Production started in 2009.

The company has already deposited more than 23 M€ in environmental financial guarantees, which will rise to € 43 M in the final phase of the project.

In recent times, several new Mining Legislation drafts have been presented by the successive Governments to try and solve the main problems detected in the application in the current legal framework, but none has been successful. The detected problems can be categorized as follows:

1. Banning of mining operations by Autonomic Governments and Municipalities

Some Autonomic Governments and Municipalities have used the land planning under their direct control and without clear limits (this competence is constitutionally in their hands) to ban mining from their regions. The Supreme Court established in its sentence of 3 November 2010 that a restrictive planning would violate the Mining Law, but such doctrine has yet to be confirmed by the legislator to provide juridical security to mining rights and to the access to mineral resources.

2. Road and public works extraction operations

Art 37.3 of the current Mining Bylaws exempted from mining procedures (and thus mining and environmental authorities' authorisations) the aggregates extraction for public works in a normal moderate use. This article has been abusively used by public works contractors to compete disloyally with mining companies. This must be properly regulated to avoid abuses and environmental damages.

3. Definition of occasional extraction

Art 3.2. of the Mining Law excludes from the application of the Law all occasional extractions and of scarce importance of minerals resources, notwithstanding its classification, carried out by the land owners for its exclusive use and without the use of any mining technique. Abuses have been detected in this type of extractions using the concept of "improvement in farms".

4. Definition of processing plant

A processing plant associated to a mining operation must be clearly defined because if it is really associated practically and geographically related to a mining operation, then the Mining Law and its Bylaws are of application as well as the legislation on mining waste (RD975/2009) and the legislation of mining safety (RGNBSM) thus the mining authority would be in charge of the work inspection instead of the Work Inspectorate. The current legal definition does not clarify if cement plants or dimensional stone cutting plants are or not included.

5. The environmental impact assessment

Mining operations must fulfil the environmental requirements, but once this are fulfilled, the criteria to reject a mining proposal should be based exclusively in standard or objective reasons, distinguishable, predetermined and public, which should respect the equilibrium between the mining right and the public environmental interests. Thus mining extraction permissions should only be rejected in case of irreversible environmental impacts (critical impact according to the legislation) or in cases when the public environmental interest is particularly important and thus should prevail above the right to access to mineral resources (protected species, waters, public woods, etc. covered by environmental protection legal instruments).

6. The need of an integrated authorisation system

It has been clearly demonstrated that the current multi-authorisation system is not very operative and delays are derived from the fact that the mining, environment, culture, land planning, etc. permissions are requested to different administrations with various timeframes and schedules. The best solution proposed is the creation of a single procedure depending on the mining authorities that in turn would be responsible of dispatching the reports to the other intervening authorities and collecting in due time the results of the enquires. A favourable report from all other authorities would be then considered as an authorisation. Conflicts among administrations would be resolved internally by the corresponding superior authorities (Autonomous Community or Council of Ministries). A maximum of six months should be established for the whole procedure.

7. The need of improving the administrative processing with information technologies

Although already many regional governments have implemented on-line processing of mining plans, there is clearly a need to increase the staffing and resources of the provincial offices that handle to permitting process.

Sweden

Main problems or major modifications related to exploration permitting

In August 2014, an amendment to the Minerals Act entered into force. The statutory amendment clarifies and to some extent also widens the obligations of exploration permit holders to provide

information about their exploration works. The changes are mainly aiming to achieve a more transparent process, but they can clearly cause some more administrative work for the permit holder compared to before. For instance, the holders of interests affected by the exploration work may in some cases order the prospector to translate the proposed work plan to one of three officially recognized minority languages in Sweden.

A difficulty that sometimes occurs is the permit holder's obligation to serve the plan of operations to holder of rights that are affected by the planned exploration work. To start the exploration work, the plan of operation must be "valid". The plan becomes valid if no objections have been made within three weeks from the day it was given to the affected party (land owner or holder of rights). Thus, serving of the proposed plan of operation is crucial for the possibility to start the exploration work.

Main problems or major modifications related to extraction permitting

Long referral times, often the result of individual respondents requesting repeated deferrals, supplemental inquiries in several rounds and multiple appeals, have all been identified as the main causes of waiting times being sometimes years-long until the final decision is made.

UK

Because non-energy mineral extraction in the UK is exempt from the requirement to obtain planning permission there are normally no significant problems for mineral operators or planning authorities in relation to the permitting authorities. The main potential issue is direct action by objectors to the possibility of minerals development, protesting adjacent to the site and sometimes on it. This may be particularly acute in or near designated areas of special landscape value or valuable habitat and historic sites. The possibility of protests by direct action raises issues of public order for the police and trespass for landowners. However, major direct action and the potential for civil disobedience is now rare in the case of exploration for non-energy minerals, unlike onshore hydrocarbons exploration (for oil and gas by conventional drilling or the hydraulic fracturing of shale) where protest camps are becoming common.

In the past, notably the 1980s, there was some direct action and civil disobedience against exploration (and initial development) at major aggregates sites. But determined efforts by the aggregates industry to engage constrictively with local host communities, and a marked fall in the overall level of primary aggregate extraction (aided by greater efficiency of use and a large increase in the use of recycled material as aggregate) have almost completely removed this. Community and environmental activist opposition to mineral development had shifted decisively to hydrocarbons.

Main problems or major modifications related to extraction permitting

The permitting of mineral extraction in the UK generally appears to be working well, if judged by an overall success rate in the initial planning permissions of around 90% if not higher.

The main areas of criticism of the present system are:

The length of time taken to grant permits. Closely linked to this are the growing lack of skilled and experienced staff in mineral planning authorities and the reduction of planning staff under the present programme of austerity in public expenditure. (A concern of mineral operators);

The cost and complexity of the information required to support applications, especially Environmental Statements, and associated investigations such as habitats assessments. This also raises barriers to the entry of new operators, and favours larger operators which can afford the extensive professional expertise needed to prepare applications (Another concern of operators);

According to the UK expert: "proposed response: try to streamline the information requirements to make sure they are no greater than is absolute necessary. But there are limits to what can be done, in view of the need to demonstrate compliance with EU habitats, water, mineral waste and environmental assessment Directives. (These have been transposed into UK law and it is not realistic

to expect they would be removed, or even significantly reduced, after the UK leaves the EU. Good environmental protection from the adverse effects of mineral working is now a widespread public expectation, and therefore part of the price the minerals industry had to pay to earn public acceptance of new or extended operations). The government policy units in each of the 4 UK territories should take further their existing work with the local mineral planning authorities and their own regulatory agencies to harmonise procedures and information requirements – for example to use only one set of information in support of applications".

The separation of the permitting process into land-use planning and environmental permitting: Unlike many EU Member states, the UK does not have a "one-stop-shop" for permitting minerals extraction. This reflects the historically central place of property law in UK law, and the evolution of land-use planning as a major area of applied property law, with grants of permission by elected local authorities that can only be reviewed by the Government (administratively) or the courts (judicially) in cases of appeal. There is therefore an awkward relationship with the increasing scope of technical regulation of environmental matters; mineral waste management is now regulated by the territories' environmental agencies, and at some sites, depending on the processes involved, they also regulate processes under IPPC, non-mineral waste management and water abstraction. Which should come first – a decision to permit the use of land for mineral extraction by the elected local authority after taking account of all the relevant economic, social and environmental considerations, or the detailed consenting of the processes to be carried out, and the mineral waste to be created, at the site that had been permitted? This dual system contributes to the concerns of the minerals industries about the costs and delays of the permitting process.

According to the UK expert: "proposed response: it is not realistic to consider ending the local democratic controls over planning decisions. This could not be done for minerals development in isolation from other forms of development, unless it was characterised as Major Infrastructure. (The UK Government created a system of central decisions on major infrastructure projects in 2010, since early 2016 run by the Infrastructure and Projects Authority. But its remit does not cover minerals development. Major project status is reserved for the largest projects of central importance to the UK and its economy and national integrity). It would not be politically acceptable or practicable to take mineral decisions as a class away from elected local government. The numbers of minerals cases is far larger than that of the major national projects, and removal of decisions on permitting from local government would signal the imposition of control by central government over an area matter of close interest and concern to local communities and the voluntary environmental and conservation bodies. Nor would it be acceptable to end local democratic control and hand all minerals consenting to the environmental permitting agencies in each territory. These are technical bodies with expertise in the relatively narrow areas of pollution, waste management, flood and water management, hydrology etc. They do not at present have expertise in the wider judgments and local political sensitivity required in the land-use planning process. And if minerals planning were to be removed from local authority control it would raise the wider question of how the rest of land-use planning should be organised. Given the historic separation of democratic local decisions on planning, and the technocratic decisions on detailed environmental regulation, the only feasible solution is to promote the closest possible joint working and the use of common information. This is noted above, in the proposed response to the previous concern about the cost and complexity of the process".

The lack of a third party right of appeal against grants of permission (a concern of some environmental non-governmental organisations (NGOs). At present only applicants can appeal against refusals. According to the UK expert: "This is wholly unrealistic. The present planning process is slow enough already. If any third party that could establish some interest in the outcome could challenge every grant of permission, the system would come to a complete stop, and would be prohibitively expensive for applicants and the public authorities".

5.4 Factors influencing regulatory conditions in MIREU regions

Based on the information collected in chapter 4 and further analysing its content, a plausible and conclusive list of drivers and non – drivers of regulatory environment of MIREU regions have been identified and elaborated below.

First important aspect which impacts the regulatory environment in the surveyed regions is the comparison between the role of National Government and the role of State/Local Authorities in granting permits and approval throughout the various stages of the Mining/Metallurgy Projects.

In most cases it has been observed that the permits and approvals at different stages or for different areas are given by separate authorities. These maybe National, Regional or local authorities depending upon existing legislations. Important aspect to observe is that in most countries there is a clear defined role of both the authorities in granting approvals in their respective areas and the functioning is expected to complementary and co-operative. There are also defined appellate measures against the decisions of the authorities.

For e.g. in case of Ireland all exploration approvals and licencing is carried out at a National level. For mining or metallurgy projects three permits are usually required; planning permissions granted by the local authorities; Integrated Pollution Control licence issued by the national EPA; and for mines the national government issues a State Mining Licence or lease. Thus it is a complementary set up with clearly defined roles.

For Austria, (similar to other surveyed regions) it depends on the type of raw material. For metals and industrial minerals, the national or regional mining authority is mainly responsible and for aggregates, the regional and local authorities are responsible for permits and approvals. In case of Czech Republic, exploration projects are approved on national level by the Ministry of Environmental Protection, exploitation projects are approved by regional offices of Czech Mining Authority.

In few cases, a single authority may also be responsible for the complete permitting and approval procedure. It could be either the National Authority or the State Authorities**.** As in case of Sweden it is handled at the national level. Environmental permits are given by the county administrative board but can be appealed. But in case of Germany (Saxony) responsible authority for concession, permitting, approval, inspection of mining activities is the Mining Authority of the State (Saxony).

It was also observed that for all the surveyed regions there is no regional or local government autonomy to create its own mining legislation and adopt its own guidance material.

In Ireland, mining is regulated by the National Government but the Local Authorities have responsibility for the planning permission and can impose specific conditions within the planning terms and conditions. For Lower Silesia also mining is regulated by the state through a legal system (laws, regulations). The region has no autonomy to create its own mining legislation. Similarly, in Northern Karelia, all laws operate at the national level, and no regional laws or regulations exist.

For Approval process, Environment Impact Assessment (EIA) is a mandatory requirement in all the surveyed countries of MIREU network. According to all the experts questioned in the survey, EIA is a definite requirement to be submitted in the application for licensing.

Although EIA is a common requirement, Social Impact Assessment (SIA) as a separate independent pre-requisite for the permitting and approval process was rarely observed.

For Spain (Andulacia), SIA is taken up as an indirect work that companies usually take up to make easy the local acceptance of the project. In case of Poland (Lower Silesia), Social impact assessments are not legally required. Only in the case of procedure for assessing the environmental impact of the planned project, the report is supposed to characterize possible social conflicts and address the possibility of their elimination. For Germany, SIA is not conducted in the structured manner as EIA.

In many countries like Austria, Finland, Slovakia, Portugal SIA is included as a part of EIA process and local communities/other relevant third party stakeholders are given the right to appeal**.**

Transparency in the legal framework for approval and permitting in general was found to be low for all the MIREU region countries surveyed. Only Germany and Czech Republic were two countries that had implemented structural changes in legal framework to improve transparency. For Czech Republic it is revised every year.

During the public consultation phase, integration or consideration of public feedback in the decision making process of granting permits is followed in most of the surveyed regions. In case of Ireland, application by a company for a mining permit to the local authorities is made public. Any third party person or group can make a submission on the application, including the EIA. All submissions must be taken into account by the local authorities.

For Lower Silesia region (Poland), public consultations are held as part of the procedure of environmental impact of planned project. The administrative body conducting the given procedure is responsible for the circulation of information to each party involved in the proceedings. Any doubt must be clarified by the entity seeking a specific decision. The feedback evaluating body is the same as the one conducting the proceedings / issuing the decision.

Similarly for Northern Karelia, in addition to the actual review of the permit application during the application process, many parties (such as the local municipality, the owners of real estates and the reindeer owners, if the project is within a reindeer management area) are heard and they have right to appeal on any discrepancy in permit application.

But at the same time there is lack of transparency when it comes to companies making it public how the opinion of community influenced the project design. E.g. In case of Finland & Slovakia, such reports highlighting community participation and influence are not prepared by individual companies rather it is prepared mainly by mining guilds and associations present.

If at all such reports are made public it is for the improvements in EIA process and that too by authorities, not mining companies. For instance, in case of Lower Silesia (Poland) in the case of the environmental impact assessment procedure, the report is made public by the authority conducting the proceedings.

Absence of the term 'Social License to Operate' or anything equivalent to it in the Permitting process can also be considered a drawback of the regulatory process for multiple MIREU countries surveyed. E.g. in case of Spain, SLO as a concept is now being brought in discussions, up till now the main focus has been on Corporate Social Responsibility (CSR) and it is not something equivalent to SLO. In case of Germany (Saxon), acceptance of Mining is a main focus of the Saxon Strategy. For Austria their strategy does consider social acceptance, but there is no formal obligations or guidance for companies on SLO. However, there are certain requirements, e.g. Environmental Impact Assessment which is obligatory for larger projects and sort of equivalent to social license to operate.

However in case of Portugal, Finland, Sweden SLO is included in the application process. Specifically in Finland Regional government negotiates between stakeholders to negotiate and come to an understanding. In Czech Republic it is a part of the EIA process itself.

Challenging or Appealing against EIA reports or permits for mining projects in the surveyed countries is a fairly common phenomenon. For E.g. in Slovakia it can be challenged under EIA Law No 24/2006, also NATURA 2000. For most of the other countries like Austria, Finland, Sweden, Germany etc. it is fairly common to challenge the permits by various stakeholders and there is an identified legal mechanism available for it as well.

Lastly, almost all the surveyed countries have existing participation right mechanism for local communities in the permitting process. In most cases such rights are included during the EIA approval process. In case of Sweden (Vasterbotten) there are public consultations and meetings with local communities before a permit to further investigate a finding is issued. For Finland, the mining law requires the permitting authority to request statements from any relevant local and regional stakeholders such as the municipality in the territory of which the activities are intended to take place.

5.5 Discussion on Positive & Negative Factors influencing overall Policy & Regulatory Environment in MIREU Region

Positive Aspects of Policy & Regulatory Status in the MIREU Network Regions

Some of the positive aspects of the Policy & Regulatory process have been discussed below:

1. **Existence of a well-defined National Mineral Policy Framework with focus on regional development:** In many cases specific goals may not be set, but the overall focus and drive is to promote regional development. For instance in case of Poland the objectives include identification of strategic, key and critical resources for the Polish economy, determination of the flow of resources key and strategic for the Polish economy[4]. In few cases the directive focuses on not only development but also sustainable development. A good case in point could be Ireland where the policy framework is designed to provide a regulatory context which is facilitating exploration and mining in a sustainable manner.

2. **Involvement of Regional Stakeholders in development of National Mineral Policy Framework:** For most of the countries surveyed, the regional stakeholders such as Regional Administration members, Local Authorities, Local Community members, NGOs and Social Agents (Industry and Trade Union Members) are included in the initial stages. In most countries, stakeholder conferences have been conducted or established stakeholder networks exist to participate and provide input to the policy discussions. The Finnish Mineral Strategy, for instance, was drawn up over a six-month period based on contributions from a team of more than 20 experts representing the entire minerals sector. In case of Austria, Austrian raw materials alliance (Österreichische Rohstoffallianz) was founded in 2012 as a stakeholder network to provide input to the raw material strategy.

3. **High Success Rate of Applications:** In case of Austria, there is a success rate of up to 80 % for first-time applications, if the site is included in the designated plans of raw material priority areas of the Austrian Mineral Resources Plan (AUTMINPLAN). Further, the success rate of applications for exploration and extraction permits is relatively high because the operator has a legal claim only for zones dedicated to the AUTMINPLAN. Similarly in Ireland the success rate for permit is high, permitting system for the issue and monitoring of Prospecting Licences has operated satisfactorily for many years. Views of the industry are reflected by the high scores the system achieves in the annual Fraser Institute survey of mine.

[4] In 2019 work on National Mineral Policy was stopped.

4. **Existence of participation right mechanism for local communities in the permitting process:** In most cases such rights are included during the EIA approval process. In case of Sweden (Vasterbotten) there are public consultations and meetings with local communities before a permit to further investigate a finding is issued. For Finland, the mining law requires the permitting authority to request statements from any relevant local and regional stakeholders such as the municipality in the territory of which the activities are intended to take place.

5. **Integration of public feedback in the decision making process of granting permits:** During the public consultation phase, integration or consideration of public feedback in the decision making process of granting permits is followed in most of the surveyed regions. For instance in Ireland, In case of Ireland, application by a company for a mining permit to the local authorities is made public. Any third party person or group can make a submission on the application, including the EIA. All submissions must be taken into account by the local authorities.

6. **Rigorous Environment Laws and Focus on Social Aspects:** For the approval process, Environment Impact Assessment (EIA) is a mandatory requirement in all the surveyed regions of MIREU network. According to all the experts questioned in the survey, EIA is a definite requirement to be submitted in the application for licensing. Especially for the case of Germany, Environmental aspects are guaranteed by a rigorous Environmental Laws and precisely configured procedures. Social aspects are also ensured through "neighbours-rights" which provide judicial protection for third parties against projects.

Negative Aspects or Areas of Concern for Policy & Regulatory Status in the MIREU Network Regions

Some of the areas which need to be improved for the betterment of Policy & Regulatory Environment of MIREU Regions

1. **Costly, Complex & Time Consuming Application Process:** The complete process of obtaining permit and beginning operations is in most cases quite complex, expensive and time-consuming. As noted in case of Finland the main problem getting an exploration / extraction permit is the delay caused by the complete"hearing-opinions-decision-appeals-responses-courts-rehandling-opinions-responses-decision-appeals-courts-decision" process. In case of Slovakia, there occurs extended EIA approval process, which in real practice is very prolonged and of extensive cost. Also the decisions of authorities are relatively frequently challenged leading to prolongation and delay of final approval. Sometimes the complexity maybe due to presence of multiple authorities for different permits. In Spain, the main problem to obtain a mining permit is the environmental process, which is dependent on the environmental authorities of the different Autonomic Communities.

2. **Land ownership & Pricing Issues:** Fragmented ownership of Land may cause delay and limitations in acquisition of Land. In case of Austria, land purchase prices are determined by the landowners, leading to inflated purchase prices being paid sometimes.

3. **Limited role of Regional Stakeholders in Land use Planning:** For most of the regions, role and involvement of regional stakeholders specifically in land use planning was quite limited. Although in Germany & Austria, regional stakeholders are involved in legal aspects of the land use policy development. In other regions such as Czech Republic their involvement is limited to voluntary suggestions. For Serbia, there is a certain limited harmonization of activities between the Ministry of Mining and Energy and local governments.

4. **Focus on Economic benefit over Environment:** In some cases, the environmental permit procedures are not plausible. E.g. in case of Finland in spite of the opinions and arguments of the local community, the mining operations can still be initiated based on the exceptional permit. There are evidences of many closed and abandoned mines that are still leaking harmful substances to waterways and groundwater.

5. **Lack of inclusion of social acceptance practices of companies in the formal mining policy framework:** For majority of the surveyed regions this aspect is neglected in the formal policy framework. For e.g. in case of Austria, their strategy does consider social acceptance, but there is no formal obligations or guidance for companies on Social License to Operate. Also for Serbia, regional administration can have an influence through giving opinions on whether the objects of cultural significance are threatened but social acceptance is not a part of the policy framework.

6. **Absence of the term 'Social License to Operate' or anything equivalent in the permitting process:** For most regions Social Acceptance is considered via the planning process which is fully open to community and social stakeholder participation. SLO may exist as a concept but it does not have a legal standing. There is generally no formal obligations or guidance for companies on SLO.

7. **Lack of Trust among Local community regarding compliance of rules by companies**: In some regions there is a general lack of trust in the actual compliance of prevailing rules by companies. In Greece, the non-issuance of a "social license" is often the cause for the significant delays in the development or even the annulment of new mining projects. In case of Slovakia, for instance, the main obstacle in obtaining exploration permits is the presence of veto right being frequently applied by the local self-governing subjects in case of radioactive minerals. Its frequent usage depicts the lack of trust within community in the administrative process for permit and clearance.

8. **Lack of Skilled Manpower in the Administration to deal with Regulatory Process:** Lack of skilled manpower to support in the application process decision making in Government is also a cause of delay. E.g. reduction of skilled staff in the Portuguese public administration, namely in the mining authority, has led to additional delays in the permitting process. Similarly in case of United Kingdom, the growing lack of skilled and experienced staff in mineral planning authorities and the reduction of planning staff under the present programme of austerity in public expenditure is causing delays in permitting process.

6. CONCLUSIONS

This deliverable is designed to provide a detailed review of the applicable regulatory and policy conditions in the MIREU regions and highlight the positive and negative aspects of the same. The information summarised in this report will be further used as a critical input in the SWOT analysis to be performed under Task 4.3 under Work Package Four (SLO) of MIREU study.

Our review based on the survey and analysis conducted within the scope of this report provide the following results about the policy and regulatory conditions of the surveyed regions.

Enabling aspects of the present policy and regulatory conditions

- For almost all the surveyed regions, there is a definite national mineral policy framework which promotes development of the mining industry as driver for regional growth and economic development. The policy objective is supportive of new opportunities for the regional development through the mining and processing industry. Also in most cases, the regional stakeholders are included in the development and shaping of National Mineral Policy Framework.

- In the permitting process, it has been observed that there is a strong precedence of legislative mechanism for participation of local community in decision making. In most cases such participation rights are part of the EIA process. Similarly, it was also observed that for most of the regions there is clear indication of procedure for integration of public feedback as part of the consultative process.

- Another important positive aspect is the rigorous environmental protection laws as part of the regulatory regime of almost all the surveyed regions. Environment Impact Assessment (EIA) is a mandatory requirement in the permitting process. It is a definite requirement to be submitted in the application for licensing. In some cases Social aspects are also ensured through "neighbours-rights" which provide judicial protection for third parties against projects.

- It was also observed that in general, success rate for obtaining license and permit is high indicating towards a satisfactory administrative structure and mechanism. In case of Austria, there is a success rate of up to 80 % for first-time applications, if the site is included in the designated plans of raw material priority areas. Similarly in Ireland the success rate for permit is high, permitting system for the issue and monitoring of exploration licences has operated satisfactorily for many years.

Drawbacks of the present policy and regulatory conditions

- One of the areas of concern for the policy conditions in the MIREU regions is focus on economic benefit over environment. It is observed that economic growth as an objective is more stressed upon as opposed to environmental and social concerns. In some cases, the environmental permit procedures are not plausible. For instance, in Finland in spite of the opinions and arguments of the local community, the mining operations can still be initiated based on the exceptional permit.

- Another issue with the regulatory condition is that the permit obtaining process is costly, complex & time consuming. In some cases the decisions of authorities are relatively frequently challenged leading to prolongation and delay of final approval. Sometimes the

complexity maybe due to presence of multiple authorities for different permits. A related issue is the lack of skilled manpower in the administration to deal with regulatory process. This lack of skilled manpower to support in the application process decision making is also a cause of delay. Growing lack of skilled and experienced staff in mineral planning authorities and the reduction of planning staff under the present programme of austerity in public expenditure is causing delays in permitting process.

- There is also lack of inclusion of social acceptance practices of companies in the formal mining policy framework. Related to this issue is the absence of the term 'Social License to Operate' or anything equivalent in the permitting process. For most regions Social Acceptance is considered via the planning process which is fully open to community and social stakeholder participation. SLO may exist as a concept but it does not have a legal standing. There is generally no formal obligations or guidance for companies on SLO.

- Lack of Trust among Local community regarding compliance of rules by companies is also an area of concern. In some regions there is a general lack of trust in the actual compliance of prevailing rules by companies. Another related aspect is the lack of transparency in terms of companies making public the influence of opinion of local community in project design. Such transparent practices are evident in very less countries.

7. ANNEX - POLICY CONDITIONS OF MIREU REGIONS

7.1 Austria

7.1.1 National level

Minerals policy is based on the Austrian mineral strategy. Austria published its mineral strategy in 2012 (based on the 3 pillars of RMI).

Mineral policy strategy

Minerals policy is based on the Austrian mineral strategy[5]. Austria published its mineral strategy in 2012 (based on the 3 pillars of RMI). Similar to the Raw Materials Initiative of the European Commission the Austrian raw materials strategy is based on three pillars:

- Pillar 1: Securing minerals supply from domestic resources (realisation of the Austrian Mineral Resources Plan);
- Pillar 2: Securing minerals supply from Non-EU countries (raw materials partnerships);
- Pillar 3: Promoting resources efficiency (substitution, recycling, development of new methods with reduced minerals input).

Land use planning policy

The Austrian Mineral Resources Plan (published in 2012) is a core element of the Austrian minerals policy and the minerals strategy (Pillar 1). It is the main purpose of the Austrian Mineral Resources Plan to identify mineral occurrences using innovative, objective and systemic analytical methods (WEBER ed. 2012). As in many cases areas containing mineral occurrences are in contradiction with land use planning a first approach was made to identify conflict free areas. Those mineral occurrences, proved as worth to be protected because of quality, quantity and not coinciding with "no go" or conflict zones in land-use had been handed over to the competent authorities of the provinces to declare them as raw material safeguarding areas in land use planning[6]. In Austria, there is a legal requirement to survey mineral resources, but not to quantify either mineral resources or reserves. However, there is a national code (ÖNORM G 1050, 1989) to be used when assessing mineral deposits. Although originally based on the UNFC, the ÖNORM G 1050 national system of reporting is no longer aligned with international standard codes (Parker et al., 2015).

Resources efficiency policy

The Resources efficiency plan (REAP) was published in 2012 (Federal Ministry of Science, Research and Economics, 2017).

7.1.2 Regional Level

For MIREU region Styria, Please see detailed policy framework report of Styria (T4.3)

[5] https://www.bmnt.gv.at/english/Energy---Mining/Mining/The-Austrian-Minerals-Strategy.html; Federal Ministry of Science, Research and Economy founded in 2012 the Austrian Raw Material Alliance, which is acting as a discussion platform of stakeholders interested in improvements of raw material supply. The overarching objective of this platform is the reduction of import dependency and increasing the supply security of raw material important for the Austrian economy. An initial focus has been placed on identifying strategies to increase recovery of critical raw materials (critical for the Austrian economy) out of waste. In three rounds of talks so far, a package was put to practical recommendations for the achievement of objectives. These recommendations for action to improve the framework conditions of R & D and regulatory framework should be subsequently implemented. Implementation of resource-related issues in a research program called "Production of the Future" is already fixed. The "Austrian Raw Material Alliance" is acting as a mirror committee of the European Innovation Partnership on Raw Materials.

[6] More than 245 occurrences of metallic ores and industrial minerals have been qualified to be safeguarded. However, of outmost importance was the identification of conflict free occurrences of construction materials (sand, gravel, crushed stone). By respecting safeguarding methods in land use planning it was possible to hold sand and gravel available for > 50 years, crushed stone for > 100 years for most supply regions (safeguarding by demand).

7.2 Czech Republic

7.2.1 National level

Minerals policy strategy

The 'New Raw Material Policy for Minerals and Their Resources' was published in 2017 (MPO, 2017), is an updated version of the former raw materials policy of 1999, to develop a coherent strategy for the next 15 years[7].

Main Motto of RM Policy is the Effective and sustainable assurance and usage of ore, non-ore, energetic, construction, even untraditional and high - tech raw materials for the welfare of population and competitive national economy of the Czech Republic. Outcomes of RM Policy are reinforcement of interconnection between RM Policy and Land Use Planning Simplification and authorization process in prospection and mining – particularly EIA.

Land use planning policy

In the Czech Republic there is a centralized data collection. The Czech classification system is reasonably well aligned with internationally recognised standard codes (modified Soviet code) (Parker et al., 2015).

Resources efficiency policy

Resource efficiency is highlighted within the National Strategy for Sustainable Development, the Ten-Year Programme for Sustainable Consumption and Production, the State Environmental Policy, the Secondary Raw Materials Policy (2014), the Waste Management Plan and the Waste Prevention Programme. In the Secondary Raw Materials Policy, particular priority materials are listed including metals, paper, plastic, glass, construction materials, (end-of-life) vehicles, electrical and electronic equipment (EEE). Results from the Secondary Raw Materials Policy are elaborated in the Action Plan on Self-Sufficiency in the Czech Republic. It highlights the substitution of raw materials by secondary raw materials (European Environment Agency, 2016 – Czech Republic).

7.2.2 Regional level

Northern Bohemia region[89]

A preliminary mining permit was issued 2017 and work to complete the definitive feasibility study is ongoing[10].

The Czech government had cancelled a deal that could have given an Australian company the right to mine a huge deposit of lithium, a key component in electric batteries. Trade and Industry Minister told that he had informed the European Metals Holdings company he considered the deal invalid. EMH has had an exclusive license to explore for lithium and was seeking permission to open a mine in Cinovec, on the German border[11].

[7] https://www.interregeurope.eu/fileadmin/user_upload/tx_tevprojects/library/file_1509003198.pdf

[8] http://stradeproject.eu/fileadmin/user_upload/pdf/STRADE_PB_Li_Co_EMobility.pdf

[9] https://www.ft.com/content/11174a40-62f7-11e7-8814-0ac7eb84e5f1

[10] https://www.mpo.cz/assets/cz/rozcestnik/pro-media/tiskove zpravy/2017/10/AJ_verze_podepsana.pdf

[11] https://www.foxnews.com/world/czech-republic-cancels-lithium-deal-with-australian-firm

The town is close to the German frontier and on the other side of the border is the larger Zinnwald. The entire area has a strong mining tradition, that is, however in trouble since the 90s when the tin mines were closed. A great number of drilling operations have been made in the recent months in the area and it generally seems that the subsoil investigation activities are increasing. Its inhabitants are mostly in favor of the mining but their enthusiasm is limited. "We will never accept a mining activity that would have an unacceptable impact on the life of our area", says the mayor of Dubí, Petr Pípal, under whose authority falls as well the city of Cínovec. He also recalls that no citizen opposed in the previous administrative procedures[12].

Lithium extraction is set to take place in former ore mines Northern Bohemia after the issuing of a permit to a Czech company. The process will be technically complex but current high prices could make it a lucrative enterprise[13].

"We will steadfastly defend the state's interests in the extraction of mineral deposits in the Czech Republic via the state enterprise DIAMO. We will thoroughly investigate the circumstances, method and subject-matter of the memorandum on the mining of lithium in the Czech Republic. We will earnestly defend the state's ownership, economic and environmental interests in the use of mineral deposits in the Czech Republic, especially strategic resources. We will explore the possibility of mining and processing lithium through the state enterprise DIAMO[14]"

It is an important objective that the outputs from the extraction of all mineral resources to remain in the hands of the state as much as possible. In this respect, the Raw Materials Strategy of the Czech Republic was to be revised shortly. Followed by review of the relevant legislation, especially the Mining Act and the Geology Act. This will include a hike in charges for the mining of certain types of minerals so that they reflect the changing market conditions and provide the state with maximum benefit. It is also expected to make arrangement for a higher share of the mining charges to be channelled into those regions ravaged by mining operations.

7.3 Finland

7.3.1 National level

Minerals policy strategy

In 2010, the Finnish government adopted a national mining strategy with the aim to improve conditions and competitiveness of the sector. The strategy contained twelve action proposals focused on strengthening the country's minerals policy, securing the supply of raw materials, reducing the environmental impact of the minerals sector, increasing its productivity, and strengthening R&D capabilities and expertise.

Finland published a Minerals Strategy VISION 2050 and Action Plan. Finland's Mineral Strategy presents information on global scenarios of future demand (Tiess & Murguía, 2016).

[12] http://www.progetto.cz/febbre-del-litio-in-repubblica-ceca/?lang=en

[13] http://www.czech.cz/en/Business/Lithium-extraction-planned-in-Northern-Bohemia

[14] https://www.vlada.cz/en/jednani-vlady/policy-statement-of-the-government-of-the-czech-republic-163299/

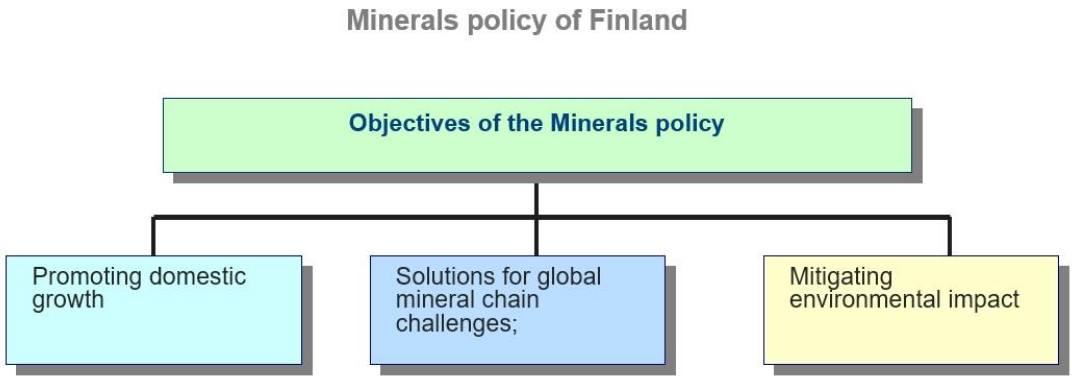

Figure 1: Objectives of Mineral Policy of Finland.

Source: (DG Growth 2017, https://ec.europa.eu/growth/sectors/raw-materials/policy-strategy/sustainable-supply-eu_en)

Since 2010, however, other challenges have become more apparent. These include securing labour supply to the minerals sector, facilitating investments, improving the processing of permit applications and, notably, handling conflicts of interest and improving dialogue between stakeholders. A number of roundtable discussions were therefore arranged between October 2012 and April 2013, which involved representatives from over 60 different parties such as non-governmental organisations (NGOs), companies and public agencies. This led to the development of a new action plan with 35 measures aimed at "making Finland a leader in the sustainable extractive industry". The Greenlandic, Norwegian and Swedish minerals strategies, adopted in 2014 and 2013, also reflect much of the shift in discussions on mining as is apparent in the new Finnish action plan. (Hojem, 2015)

Land use planning policy

Minerals Strategy covers LUP matters.

Local municipalities allocate areas in their local plans to secure the future supply of, for instance aggregates, to satisfy local needs (Tiess & Murguía, 2016).

Exploration and mining companies are required to report data to an international standard code, but the mining law does not specify which code (Parker et al., 2015).

Resources efficiency policy

Finland does have a dedicated resource efficiency strategy based on MFA, in the form of the 2013 National Material Efficiency Programme. According to the Material Efficiency Programme, material efficiency in production means the sparing use of natural resources, the effective management of secondary flows and wastes, a reduction in the volume of waste and the recycling of materials at different phases of a product's life cycle (European Environment Agency, 2016 – Finland).

7.3.2 Regional level

For Understanding the Cultural Impacts and Issues of Lapland Mining, following research project could provide important insights – "A Long-Term Perspective on Sustainable Mining Policies in the North[15]". The Project duration for this was 1.9.2014 to 31.8.2018.

[15] http://www.oulu.fi/archaeology/node/48198 /

7.4 France

7.4.1 National level

Minerals policy strategy

The Strategic metals plan (2010) is a general policy for metals whose basic aim is to secure the raw materials supply thereby contributing to promote the competitiveness of the French industry. It considers metals as commodity of specific national importance. It is covering supply, competitiveness, and substitution. The Committee for Strategic Metals (COMES) (2011) is the Committee for bringing together all the stakeholders in France (European Environment Agency, 2011a).

The minerals policies were inspired by the German policies and strategies. France has also its national raw materials strategy, defining goals for industrial, construction and metallic minerals. A "Strategic Metals Plan" was implemented in 2010, highlighting the fields of resource scarcity and its effects in the French economy. As a consequence, the "Committee for Strategic Metals" ("COMES") was created by the French ministry of industry.

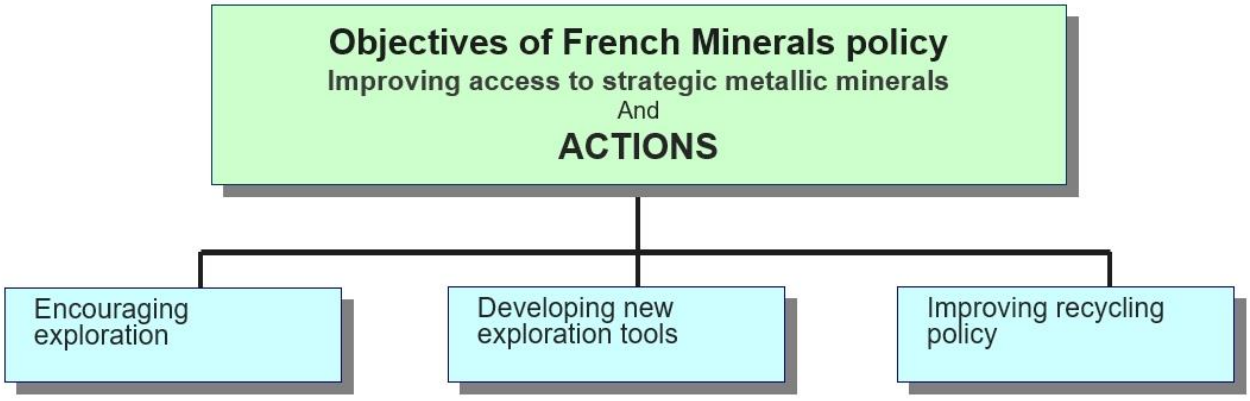

Figure 2: France – Objectives and actions of French metallic policy
(Source: DG Growth 2017, https://ec.europa.eu/growth/sectors/raw-materials/policy-strategy/sustainable-supply-eu_en)

France has currently no well-defined mining strategy. A situation that is denounced by economic operators from France and abroad (Chevrel, 2018). France today has no more active mines over its metropolitan territory and imports all of its minerals, despite a favourable context for deposits. And there are very few chances, if any that a mine opens or reopens in metropolitan France within the short to medium term. Despite a very active mining history in the last century, the metropolitan mining sector is only very poorly valued for several decades - apart from salt mines extracted from underground deposits that represent about twenty concessions operating in metropolitan France - and its potential remains poorly known in light of new technologies for exploration of the subsoil and exploitation for small deep deposits. There is renewed interest from operators attracted by institutional stability, the quality of infrastructure, a quality workforce and the proximity of processing industries (Chevrel, 2018).

In order for France to become a mining country again, the policy implemented by the Ministry of the Economy, Industry and IT aims in particular to revisit and make accessible all the geological information held by the BRGM.

Land use planning policy

France has two spatial planning instruments which support mineral development projects (of quarrying substances, i.e. aggregates). The departmental quarry scheme, launched in 1992, which is an instrument which serves to define the areas and optimal scope of extraction operations (only industrial minerals and aggregates) as well as to anticipate the development of operations in order to determine the future of the sites once operations have been completed. Schemes allow the identification of areas in which the establishment of quarries is incompatible with a strong environmental protection. Decisions for building a quarry must meet a series of environmental criteria. It provides efficient localisation for the building of quarries: some areas require environmental compensation and others are called 'white areas' where building re-quires no environmental compensation (European Environment Agency, 2016 – France). In 2017, 16 special zones were identified (see www.mineralinfo.fr) with quarry substances as follows: gravels and sand, diatomite, cement rock, brick-clays, and alousite, kaolin and metamorphic minerals (Tiess & Murguía, 2016).

It is not a legal requirement to collect data on mineral resources in France. Thus, there is no centralized data collation on mineral resources and reserves nor harmonization of reporting codes is done (Horváth et al., 2016).

Resources efficiency policy

The French National Sustainability Strategy 2010-2013 treats resource efficiency as a central topic. The aim of the strategy is to strengthen France position in the field of the "Green Economy". However, to date, France does not have a dedicated resource efficiency plan or strategy but has undertaken several initiatives related to resource efficiency with the aim of integrating this topic in all relevant sector policies (more in Country Report – FRANCE: European Union, 2017).

7.4.2 Regional level

Information about the regional level policy development can be taken from the 'Couflens Project[16]'

There are Only 2 projects outside of China with a capacity greater than 3000 tpa tungsten concentrate with one of them being the Couflens Project. Located in the Pyrenees region of southern France, the project includes the historical Salau mine that was one of the world's highest-grade tungsten mines.

Apollo Minerals has secured approval from the French Ministry of Economy and Finance for the acquisition of the remaining 20% interest in the Couflens tungsten-copper-gold project in southern France. With the approval, which follows the acquisition of an 80% stake in the project last year, the company will now have a 100% interest in the project.

The Couflens Project in located in the Pyrenees region of southern France and comprises a 42km2 license area, within which lies the high grade historical Salau tungsten mine. The mine was one of the world's highest-grade tungsten mines, producing approximately 930,000 tonnes at 1.5% WO3 for around 11,500 tonnes of WO3 in concentrate during its 15 years of operation. The mine closed in 1986 and remains open at depth with gold upside. The continuation of the mineralised system has been confirmed by drilling below the base of the existing underground development.

[16] https://apollominerals.com/projects/couflens-project-france/

Mining renaissance in France[17]

In terms of improvement there has been observed a strong government support for mining sector reactivation, well defined mining laws, excellent infrastructure, skilled local workforce, excellent geological prospective, limited application of modern exploration technologies.

Initially, Apollo Minerals had secured approval from the French Ministry of Economy and Finance for the acquisition of the remaining 20% interest in the Couflens tungsten-copper-gold project in southern France[18]. Exploration activities at the project confirmed the presence of tungsten (up to 8.25% WO3) and high-grade gold (up to 24.5g/t), according to Apollo. Later, Apollo Minerals Limited received approval from the French Ministry of Economy and Finance to gain 100% ownership of the Couflens tungsten-copper-gold project in the Pyrenees[19][20].

Exploration Licence

The Couflens Project comprises the recently granted Couflens PER which covers an area of 42km2 centred on the Salau mine. The Couflens PER was applied for, and granted to, Variscan Mines SAS ("Variscan France"), a wholly owned subsidiary of Variscan Mines Limited (ASX: VAR). The PER has been granted for an initial period of five (5) years commencing 11 February 2017, with a minimum financial commitment of €25 million based on the 5 year work plan submitted by Variscan France in the PER application. In accordance with the French Mining Code, the PER may be extended for two additional periods of a maximum of 5 years each.

The Project is located in the Region of Midi-Pyrenees, France and as such, the operations of the Company will be exposed to related risks and uncertainties associated with the country, regional and local jurisdictions. As part of the regulatory framework in France for exploration and mining activities, the Company will be required to engage with the local community. Opposition to the Project, or changes in local community support for the Project, along with any changes in mining or investment policies or in political attitude in France and, in particular to the mining, processing or use of tungsten, may adversely affect the operations, delay or impact the approval process or conditions imposed, increase exploration and development costs, or reduce profitability of the Company.

The Company's exploration and any future mining activities are dependent upon the grant, maintenance and/or renewal from time to time of the appropriate title interests, licences, concessions, leases, claims, permits and regulatory consents which may be withdrawn or made subject to new limitations. Transferring title interests, maintaining title interests or obtaining renewals of or getting the grant of title interests often depends on the Company being successful in obtaining and maintaining required statutory approvals for its proposed activities (including a licence for mining operations) and that the title interests, licences, concessions leases, claims, permits or regulatory consents it holds will be maintained and when required renewed. There is no assurance that such title interests, licences, concessions, leases, claims, permits or regulatory consents will be granted, or even if granted, not be revoked, significantly altered or granted on terms or with conditions not acceptable to the Company, or not renewed to the detriment of the Company or that the renewals thereof will be successful.

[17] Apollo Minerals Limited (2017). Developing the Couflens project in France

[18] https://www.mining-technology.com/news/apollo-minerals-approved-to-hold-100-in-couflens-project/

[19] https://www.proactiveinvestors.co.uk/companies/news/199586/apollo-minerals-receives-french-government-approval-to-obtain-100-ownership-of-couflens-project-199586.html

[20] Apollo Minerals Limited (2017) Acquisition of High Grade Tungsten-Copper-Gold project in southern France. Asx release

People do not want the reopening of the Salau tungsten mine[21]

For ten days, activists opposing the reopening of the Salau tungsten mine in the Ariège, descend the Ariège and the Garonne by canoe stopping for multiple stages protesters. This Saturday, they arrived in Toulouse. This Saturday was the last stage of the citizens' march of the opponents to the possible reopening of the Salau mine. They want to raise public awareness about environmental risks and arrived in Toulouse by sailing on the Garonne.

The canoe of militants carries a barrel containing polluted soil collected on the floor of the old mine. The can will be deposited, solemnly, Monday before the Regional Council.

The object of concern in this protest is the exploration license granted by the state to the Variscan Company, a little over a month ago. A first step before a possible exploitation of the rich tungsten mine, closed in 1986.

The question that whether Salau mine represent an economic future or a danger for the Pyrenean valley raises a controversy in Ariège. Supporters and opponents of this project to reopen the tungsten mine have been clashing by petitions interposed.

A French company with Australian capital, further wanted to exploit this deposit. The company's management thinks to find "the first or second world deposit" with "at least 30 years of operation", and plans to invest 25 million euros in research. In the valley, doubts are being raised about the number of jobs promised and there is a fear of *significant pollution*.

7.5 Germany

7.5.1 National level

Minerals policy strategy

A Raw Materials Strategy of Germany was published in 2010 by the Federal Ministry of Economics and Technology. The key goal of this is to secure a sustainable supply of non-energetic mineral raw materials for the German economy.

Land use planning policy

The Federal land use legislation enables the designation of priority and reservation areas which are designated at by the federal states (the Länder). The prioritisation is based on the assessment of different uses. As the result, the non-prioritised uses are excluded in the area because they are judged to be incompatible. If an area is determined as a "Vorranggebiet" for mining, this effectively means that mining is permitted. It consequently means that area is safeguarded against contradictory uses. This equates to the definition of extraction being allowed in principle. The designation as a reservation area (Vorbehaltsgebiet) does not in itself determine the land uses allowed in this area. It is still necessary to carry out a planning procedure to define the aims and preferred land uses in the area concerned.

This equates to an area where extraction will be allowed subject to certain conditions (Tiess & Murguía, 2016). The public authorities oversee the execution of the Federal Mining Act as part of the administration structure of the federal states. The regional authorities have comprehensive administrative instruments for efficient supervision (European Union, 2016 - Germany). As informed in the report of the Ad Hoc Working Group (2010), it is relatively common practice to quantify the need for construction materials. Some evidence has been found of research institutes and universities analysing the global and German situation of present and

[21] https://france3-regions.francetvinfo.fr/occitanie/ils-ne-veulent-pas-reouverture-mine-salau-ils-pagayent-1356867.html

future supply and demand of some minerals of relevance for the German economy (mainly metals) (Tiess & Murguía, 2016).

Collection of data on mineral resources and reserves is legally not required in Germany, thus, no centralized data collation and harmonization is used in inventory analysis at federal level (Horváth et al., 2016). Information on resources is classified using each federal state individual regional codes (e.g. Baden-Württemberg, Saxony-Anhalt). These codes do not correlate with any of the international resource classification systems. International codes are not being used in any case. Overall mineral resources and reserves are classified according to the Federal Mining Law (Parker et al., 2015).

Resources efficiency policy

The resource productivity (GDP/DMC) as well as the recycling rate have been continuously increasing in the period considered (2000-2014). Germany has a dedicated strategy for material resource efficiency. In February 2012 the German government adopted the German Resource Efficiency Programme (ProgRess) as a result of the government's decision in its Raw Materials Strategy of October 2010. The term resource efficiency is not defined explicitly in ProgRess. Its current overarching aim is the double decoupling of raw material use. Through reduced and efficient use of raw materials, it should be decoupled from economic growth and from environmental impacts. The German government wants to develop waste and closed-cycle management into a sustainable resource-efficient materials flow management over the coming years. By strictly separating wastes through pre-treatment, recycling and the recovery of energy, Germany aims to make full use of substances and materials bound in wastes and therefore make landfill disposal of wastes superfluous. The renewed Closed Cycle Management Act, adapted in 2012, aims to improve the contribution of waste management to environmental and climate protection as well as to increase resource efficiency in waste management through strengthening waste prevention and recycling (European Environment Agency, 2016 – Germany).

7.5.2 Regional level

According to the Saxon Raw Material Strategy[22], "What most people don't realise is that everything starts with raw materials, as those resources are mined in other parts of the world and are only processed here. There is an expectation that "raw materials are commodities which always seem to be available, need to be cheap, and usually come from far-flung countries."

The constant availability of raw materials on the global market is no longer a given, and may have significant impacts on production in the industries affected. The damage potential for raw material supply shortages and future technologies is classified as very high, because this can disconnect industry from development and render it uncompetitive, particularly in cases of heavy dependence. More and more alternative materials are being used in order to consistently comply with the new requirements, which has resulted in ore (previously deemed irrecoverable/tipped onto waste dumps) today coming sharply into focus. Whenever there are substitution options to preserve high-quality production, the unavailability of a replaceable raw material is classified as uncritical. Nevertheless, this often falls short in terms of technical feasibility or public acceptance of the substitute materials.

For industry, this means assessing the criticality (availability) of all raw materials used to ensure suitable measures can be taken to combat any actual risk. The German federal government believes the framework conditions for using local resources should be improved without having

[22] Saxon Raw Material Strategy: The raw material economy – An opportunity for the Free State of Saxony. Saxon State Minister for Economic Affairs, Labour and Transport / Department 46, Mining, Environmental Affairs, |2012, amended version 08|2017

to limit environmental regulations. The federal states in particular are being called on to place equal emphasis on securing raw materials as part of their land-use plans.

At the regional level there is the Saxon Raw Material Strategy. The Strategy provides framework conditions for mining local raw material and has the following primary guidelines and objectives:

Guidelines and objectives of Saxon raw material policy
Saxony will continue to be a land of mining. As such, the framework conditions for mining local raw material must ensure it remains profitable over the long term based on following objectives.

- By having land-use plans which protect regions potentially capable of being used to mine mineral resources and lignite,
- By systematically updating existing raw material databases,
- By helping companies finance deposit site exploration, and
- By adapting the legal framework conditions to the needs of the raw material economy.
- Making Saxony as a hub of the raw material economy

The traditional networking between stakeholders of the raw material economy has always been a key foundation and source of scientific and technical progress in Saxon raw material economy.

Implementing the Saxon raw material policy
Below is a list of short-term and medium-term tasks which help ensure the guidelines and objectives are implemented.

- It must be constantly updated.
- The tasks are aimed at all stakeholders in the raw material economy – companies and associations, as well as educational and scientific establishments, policyholders, the administration and citizens.
- The purpose of this list is to name/acquire specific tasks and persons responsible for them.

Although some tasks serve to fulfil a number of guidelines, we have endeavoured to allocate the specific tasks to certain guidelines.

- Local primary raw materials: To establish the framework conditions for extracting raw materials in such a way so as to enable profitable mining over the long term
- Secondary raw materials: To establish Saxony as a hub for the reclamation industry in Germany and Europe
- Hub of the raw material economy: To promote networking between stakeholders in the raw material economy
- International corporations: Building contacts to market know-how in raw materials
- Saxon raw material research: To strengthen, expand and enable closer networking of existing structures in university/non-university fields
- Experts for the raw material economy: To boost the training of local and foreign specialists and managers
- Saxon administration: To maintain and adapt existing administrative structures in accordance with the requirements of the raw material economy
- Awareness of raw materials: To work towards a knowledge-based, ideology-free awareness of raw materials in the community

7.6 Greece

7.6.1 National level

Minerals policy strategy

The National Policy for the Strategic Planning and Exploitation of Mineral Resources was adopted in February 2012 to ensure the supply of minerals to society in a sustainable way and in compliance with national development policies for 2030 (Ministry of Environment, Energy and Climate Change, 2015).

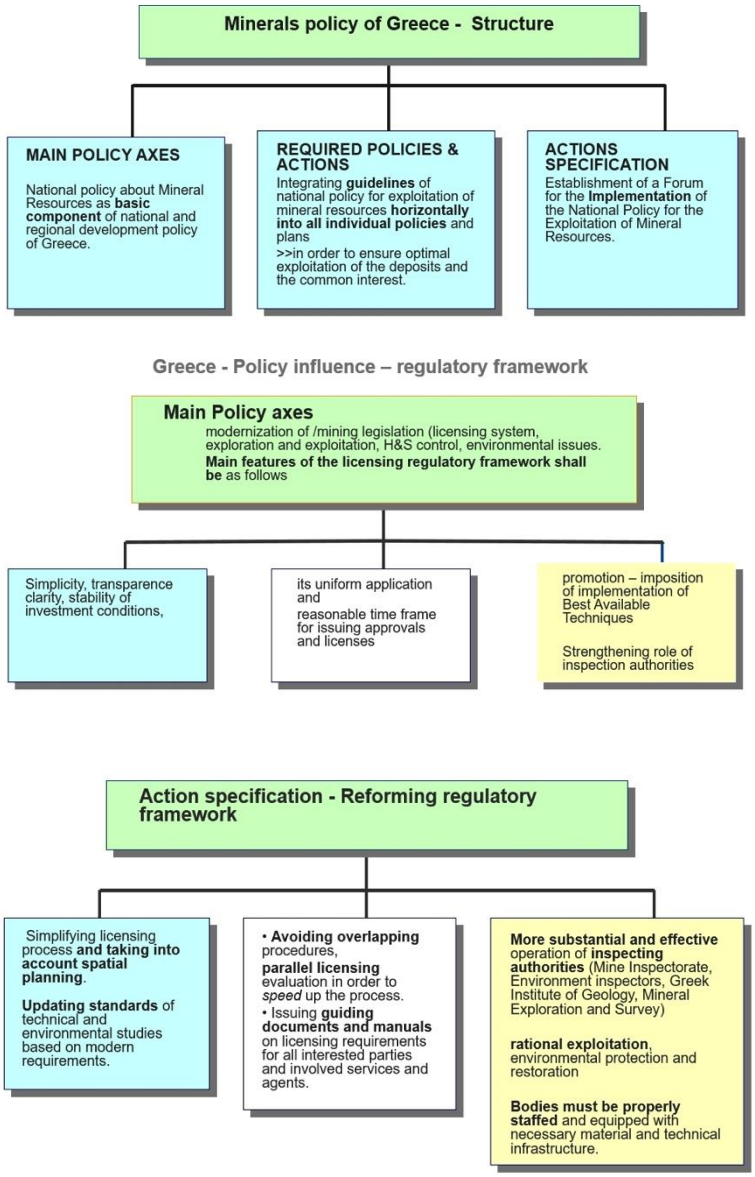

Figure 3: Greece – Structure and policy influence versus regulatory framework
(DG Growth 2017, https://ec.europa.eu/growth/sectors/raw-materials/policy-strategy/sustainable-supply-eu_en)

Land use planning policy

One of the main mineral policy axes is "adequate land-use planning that shall ensure the possibility of access to the mineral raw material deposits and contribute to the resolution of issues related to the competition of different land uses". It refers to striking a balance between various factors, including a sustainable supply of the necessary mineral raw materials. Thus,

demand does play a role though details into forecasting future demand (which minerals, method) are not given (at least not published in English) (Tiess & Murguía, 2016).

Data collection on mineral resources is legally not required in Greece. Standard reporting codes are not required for mineral resources and reserves. No centralized data collation and harmonization processes are applied (Horváth et al., 2016).

Resources efficiency policy

No specific in-formation/ data is available that supports Circular Economy and resource efficiency practices in Greece.

7.7 Ireland

7.7.1 National level

Minerals policy strategy

Ireland has a significant mining and ore processing activity, but there is no direct minerals policy established.

Ireland's Minerals Exploration and Mining Policy (2015) contains general development policy, sustainable development, social development.

Land use planning policy

Mining sites (NEEI minerals) are included in the land use plans but there is no concept of mineral safeguarding included (Tiess & Murguía, 2016).

Government agencies take into account future domestic minerals sup-ply/demand (Tiess & Murguía, 2016).

Resources efficiency policy

Ireland does not have a dedicated national resource efficiency strategy or action plan. Actions in this area are largely guided by the National Waste Prevention Programme – which has been in operation since 2004. The latest phase of the Programme is titled 'Towards a Resource Efficient Ireland' which runs over the period 2014-2020. However, resource efficiency is not explicitly defined in the document (European Environment Agency, 2016 - Ireland). The resource productivity significantly declined in 2008 due to a rapid fall of the non-metallic material consumption after the financial crisis in 2008. The total recycling rate was rounding 35% in 2014 (European Environment Agency, 2016 - Ireland).

7.8 Poland

7.8.1 National level

Minerals policy strategy

Poland's non-energy minerals security issues has been developed by the Ministry of Economy, with participation of the Ministries of Environment, of Infrastructure and Development, of Foreign Affairs, and of Science. Mineral resources management in Poland is currently being discussed in a few government documents, e.g., Strategy for Innovation and Efficiency of the Economy (2013), Strategy on Energy Security and Environment (2014), and National Spatial Development Concept until 2030 (2011) (Galos, n.d).

Currently the Polish government is addressing this topic and the draft National Mineral Policy (Polish abbreviation: PSP) after consultation stage was stopped. The new Mining policy draft was finished in 2017.
The PSP is based on nine main pillars and each of them is the subject of separate meetings and discussions between representatives of the c*entral government, local governments, scientific experts and industry* (up to 500 participants in each meeting). The nine pillars are as follows:

1. Demand of the domestic economy for minerals.
2. Obtaining raw materials from mineral deposits and the heat of the Earth.
3. Obtaining raw materials from waste, their substitutes as well as reclamation and remediation.
4. Obtaining scarce mineral resources through importation and international cooperation.
5. Legal conditions of the State's raw materials policy.
6. Dissemination of knowledge about geology, mining and mineral resources.
7. Institutional framework for the development and implementation of the State's mineral policy.
8. Risk and investment planning.
9. Improving the tax and fee system.

There is no regional mineral policy concept for Lower Silesia. Documents which shape regional development policy include: the Development Strategy of the Lower Silesian Voivodship (adopted in 2013) and the Voivodship Spatial Development Plan (adopted in 2014). Both documents have a 2020 perspective. The Spatial Development Plan is a territorial extension of the Strategy, but it should be noted that in contradiction to local land use plans, which are an act of local law, these documents do not bear legal obligations.
According to law, the boundaries of the documented mineral deposits must be presented on the Voivodship Spatial Development Plan, and local land use plans must comply with it, i.e. also show the boundaries of documented mineral deposits. However, this is not the same as actually prohibiting non-mining related land uses, and hence, it is this 'grey area' that is the source of the greatest conflicts. On the other hand, if someone wants to develop a mineral deposit that is designated for mining within the local land use plan area, the submission of a local land use plan would likely be very welcome.

The Development Strategy for Lower Silesia states that the Voivodeship policy should be directed at creating industrial processing plants, including copper and silver, and counteract the export of non-processed non-renewable natural resources. Work on new documents are underway and it is expected that both the Development Strategy for the Lower Silesia 2030 and Spatial Development Plan 2030 will be adopted later this year (2018).

Land use planning policy
Poland's mineral security action plan is to date under development (min-guide.eu, 2018a).

Important (strategic) mineral deposits should be included in the Voivodship Land Use Plan. According to Geological and Mining Law in order to protect documented mineral deposits their boundaries should be presented in the spatial documents (Study on the Preconditions and Directions for the Spatial Development of the Municipality; Local Land Use Plan; Voivodship Land Use Plan). The presentation of the deposit boundary in spatial documents does not mean its protection, without indicating the mining use of the property with the deposit. Mineral deposits are protected in the local land use plan only where there is confirmed knowledge that the resources are present and the area with the deposit is intended for mining activities . The Geological and Mining Law of Poland treats the protection of mineral deposits only in cases where the deposit is covered by a concession.

Forecasts of mineral demand in Poland are performed on an irregular basis by the Mineral and Energy Economy Research Institute of the Polish Academy of Sciences and some universities (Tiess & Murguía, 2016).

In Poland, data on resources and reserves is provided as a ´national balance of mineral resources´ by the Polish Geological Institute-National Research Institute (PGI-NRI). National mineral re-source classification system applied is based on legal requirements. The Polish classification system can be compared with other ones through UNFC. However, it is not so easy to harmonize it with the JORC Code - CRIRSCO template due to different terminology used and classification purposes. All relevant data (i.e. data on Poland's mineral raw material deposits, resources, output and future potential) are collected in the 'System of Management and Protection of Mineral Resources in Poland' (MIDAS) (http://geoportal.pgi.gov.pl/portal/page/portal/midas).

Resources efficiency policy

With respect to Circular Economy, the Minister for Economic Development established in 2015 a multi-stakeholder group, whose task is to develop a circular economy roadmap (European Union, 2017 – Poland).

The main strategic objective for Poland up to 2020 is to develop a sustainable economy. This principle should be based on the efficient use of resources, respect for the environment and higher competitiveness as important elements.

7.9 Portugal

7.9.1 National level

Minerals policy strategy

The National Strategy for Geological Resources – Mineral Resources (2012) is a general development policy for raw materials. It looks into economic and regional development and aims at promoting a mining sector contributing to the GDP by ensuring raw material supply and generating revenues itself and that is able to promote regional development (minguide.eu, 2018b). No evidence was found on the use of future mineral demand estimates by the authorities (Tiess & Murguía, 2016).

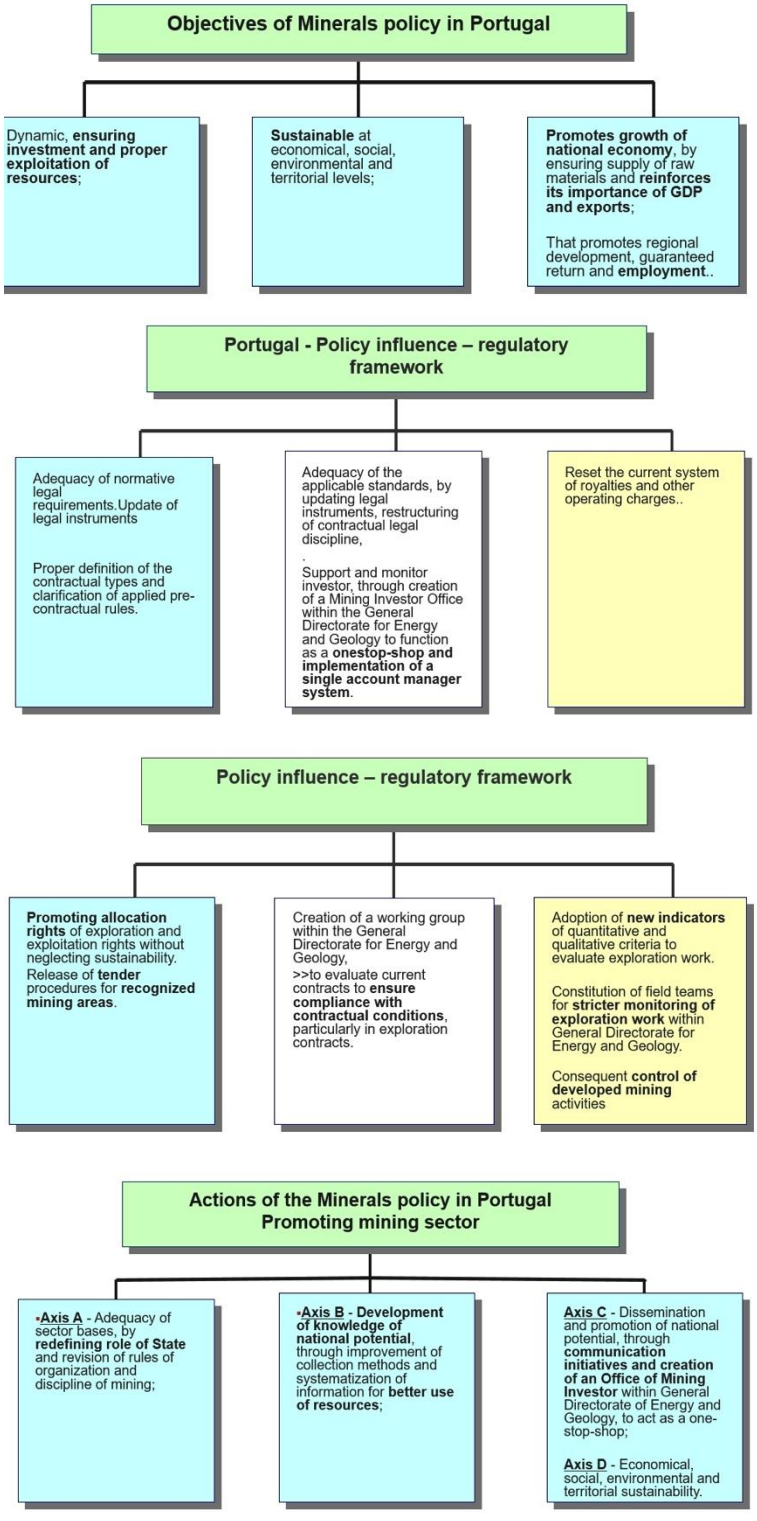

Figure 4: Portugal – Policy influence versus regulatory framework
(DG Growth 2017, https://ec.europa.eu/growth/sectors/raw-materials/policy-strategy/sustainable-supply-eu_en)

Land use planning policy

There are two safeguarding concepts: "Reserve Areas" are defined for the safeguarding of any type of geological resource with high known interest for the local, regional or national economy; and "Captive Areas" are only defined for the safeguarding of mineral masses. Mining sites are included in land use plans at several levels. A new regulatory framework has as its

objective the valorisation of land as a raw material source, specifying that the land use management tools should proceed to the identification, delimitation and regulation of areas assigned to the exploitation of geological resources, i.e. the areas assigned to the exploitation of geological resources must be identified and included in all land use plans. The National Program of Land Use Policy is the code where the main strategic guidelines for the Portuguese territorial development model are established (Tiess & Murguía, 2016).

Data on primary raw materials and its resources is collected for a range of construction, industrial and metallic minerals. The data collection is the responsibility of the Ministry of Economy and Employment (Ministério da Economia e do Emprego). Companies are not obliged to use a standard national code, which means that there is no harmonization of data collected. Usually they use JORC and NI 43-101. The data is spatially referenced and variably INSPIRE compliant (Parker et al., 2015).

Resources efficiency policy

Portugal has no dedicated policy on Circular Economy. However, several initiatives have at its objective topics related to resource efficiency (e.g. decoupling economic growth from material consumption and waste production, increasing integration of waste in the economy; reducing waste production, the amount of waste disposed and emissions of greenhouse gases from the waste sec-tor; preventing waste production; promoting the closure of material cycles) (European Environment Agency, 2016- Portugal).

7.10 Romania

7.10.1 National level

Minerals policy strategy

Its report "The Strategy of the Mining Industry 2012-2035" ("Strategia Industriei Miniere 2012-2035") issued by the Ministry of Economy (2012) is a minerals policy document, describing the situation and objectives concerning the mineral resources in Romania. This document is regularly renewed, since the previous version envisaged the policy for the period 2008-2020. The goal of the strategy is to boost the activity in the mining industry and thereby to increase the production of raw materials and ultimately support employment and economic growth (min-guide.eu, 2018c). No evidence was found for the use of future mineral demand estimates by the authorities.

Land use planning policy

In most cases, the building of a mine requires drafting and approval of new zoning urban plans, which in their turn are subject to a strategic environmental impact assessment procedure. However, mineral deposits are not safeguarded in land use plans (General Land Use Plan, Zonal Land Use Plan, and Detailed Land Use Plan) (Tiess & Murguía, 2016). No evidence was found on the use of future mineral demand estimates by the authorities (Tiess & Murguía, 2016).

Both independent and governmental related agencies are responsible for the collection of data on mineral resources. The country uses centralized data collation processes for mineral inventory, but harmonization procedures are not used. The title holders/administrators of the mining activities have to submit annually a report on the changes in the quantity of the mineral re-sources/reserves, using the UNFC-1998 classification. Data on resources and reserves held by National Agency for Mineral Resources complies with the UNFC classification system. Since 1998, the UNFC classification system has been used in Romania (Parker et al., 2015).

Resources efficiency policy

Romanian resource productivity has a slowly increasing trend but still deeply below the EU average (Figure 24A). It is probably not caused by resource scarcity, but rather by the lack of efficient resources management. Resource efficiency is low, and the Circular Economy remains underdeveloped. First of all, a Waste management remains a key challenge in the country (European Union, 2017 – Romania).

7.11 Spain

7.11.1 National level

Minerals policy strategy

At the moment, no strategy related to raw materials has been implemented by the Spanish Government. As the governance structure in Spain is decentralised, some of the competencies and policy actions are developed at regional level. e.g.: in 2010 the Andalusian Government approved the Mineral Resources Planning of Andalusia 2010–2013 (PORMIAN) in order to "enhance the value of the mining sector and bring forward the existing potential to improve the competitively, the productivity and the employment with sustainability criteria". The PORMIAN is an opportunity to promote the industry of this sector, to make more efficient and competitive the traditional mining operations and to generate processing industry which will provide value added to the industry.

Resources efficiency policy

The National Framework Plan for Waste Management 2016-2022 (PEMAR), approved in November 2015 wants to promote closed-cycle management, the Circular Economy and a more sustainable resource-efficient material flow management. Strategies include separate collection of several domestic wastes such as bio-waste, paper and glass, as well as the different materials that are contained in WEEE and old cars, through improving pre-treatment and recycling conditions to promote the production of high-quality recycles, and the recovery of energy from non-recyclable waste, all the while reducing landfill of resources contained in waste. This is also a legal commitment established, for example, in Law 22/2011 on waste and the new Royal Decree on WEEE (European Union, 2017 – Spain).

7.11.2 Regional level

Andalusia's mining policy is the Regional Government's plan entitled the Andalusian Mineral Strategy 2020 (EMA2020).

The new Mining Strategy 2020 Andalucía[23]

Published in 2016 by General Secretariat of Innovation, Industry and Energy Regional Minister of Employment, Business and Commerce Regional Government of Andalusia

It has to reflect the new situation in our region, which is experiencing a moment of transformation, in which the metal mining industry has an increasing role in the economy of Andalusia, thanks to increase in demand in recent years and, consequently, increased material prices and technological advances that enable older farms become profitable[24].

[23] http://www.juntadeandalucia.es/economiainnovacioncienciayempleo/pam/Pormian.action;jsessionid=BA1BCB94C1FF56CE86C1A732C32D46FE?request_locale=en

[24] http://www.juntadeandalucia.es/economiainnovacionyciencia/pamdoc/_archivos_/pormian/Presentation_strategy_mining_EN.pdf

Andalusia is also currently aiming to revise land use planning policy by: 1) working with the National Administration to enact a new Mining Law (addressing other aspects than those mentioned above) as the region is currently in the midst of defining protected areas to ensure mineral raw materials supply at local, regional, national and European levels; 2) working on the regional level to include in the Regional Mining Policy EMA2020 an action (known as the Zona Minera) for defining protected areas for mineral resource development; and 3) working with the Regional Land Use Planning Administration to be present, as the Regional Mining Authority and as one of the main stakeholders, in any land use planning process that can affect mining activity and mineral supply.

The regional administration of Castilla y León strongly supports the mining/metallurgy industry. As noted previously in the summary of Andalusia, the basic mining legislation is defined at the national level (Mine Act), but competences usually correspond to the regional authorities. Land use planning, via the Law of Urbanism of Castilly y León, is one of the major mechanisms to protect potential mining sites. Rural lands can be classified in 10 categories, one of which is specifically set aside for extractive activities. The Extractive category is only implemented in very specific cases, i.e. in practice limited to ongoing exploitations. A different one (rural common) allows mining, among other activities. The other eight categories do not allow extractive activities, even with an approved Environmental Impact Assessment. So, if a company wants to set up an exploitation on land in one of these categories, they have to apply for an urban rezoning to that of the Rural Common or Extractive categories. The rezoning is a process that can last two years or more, depending on the municipality, and it is not always achieved. Hence, the Law of Urbanism is now viewed more as an obstacle for mining activity. There is also limited contact with stakeholders in this process as only those stakeholders in the area subject to planning are consulted. Royalties from mining activities are not regulated so any possible benefits for local communities have to be negotiated on a case by case basis with mining companies and the local authorities.

7.12 Slovakia

7.12.1 National level

Minerals policy strategy

Slovakia has had a Raw Material Policy Proposal since 2004, created by the Ministry of Economy and Ministry of Environment.

Land use planning policy

Mineral resources are protected by the land use plans (Horváth et al., 2016). The system is basically working similarly to Czech system of mineral deposits preservation, as the Mining law 44/1988 coll. is coming from the time of former Czechoslovakia. Land use planning policies are developed in regional (low detail) and local (high detail) levels. The land use planning includes the mineral deposit polygons - exploration areas, protected deposit areas and mining areas, as well as the basic deposit data in the text/table form – reserves, production, lifetime and environmental impacts. Minerals are treated equally to other land use planning considerations, according to the valid regulations (Tiess & Murguía, 2016).

The Geological survey deals with national mineral resource inventory. The country uses centralized data collation processes for mineral inventory, but harmonization procedures are not used. Exploration and mining companies are under statutory obligation to report reserves of both “re-served minerals” (belong to the state and include minerals for industrial metals production, magnesite, rock salt, potassium, boron, graphite, barites, gemstones, quartz, limestone, among others) mineral deposits and deposits of non-reserved minerals (according to

the Mining Code -the SNR Act No.44/1988 Col. on mineral protection and use). Slovakia´s mineral reserves classification system differs significantly from that used in the Czech Republic and is not aligned with an internationally recognised standard code (Parker et al., 2015).

Resources efficiency policy

Slovakia has, to date, no national policy approaching eco-innovation and the Circular Economy. The Waste Management Plan 2016–2020 was adopted in 2015 (European Union, 2017-Slovakia).

7.12.2 Regional level

Petra Záhumenská, Tomáš Pavlik, Igor Ďuriška (2018), MIREU_WP2 - Košice Region - The main job creator in the Region is U. S. Steel Košice with almost 12 000 employees, thus metallurgy industry. The automotive, mechanical engineering and construction industries provide the main space for the use of metallurgical production products. It is represented in particular by the renowned steel producer U.S Steel Košice, s.r.o., which produces flat rolled steel products (for the automotive and construction industry and packaging), steel pipes and radiators.

HS 2601 Železné rudy a koncentráty / *Iron ores and concentrates*

Rok / Year	2009	2010	2011	2012	2013
Dovoz / Import [kt]	4 498	5 797	5 103	5 403	5 647
Vývoz / Export [kt]	36	40	23	119	122
Dopyt / Demand [kt][1]	4 462	5 757	5 080	5 284	5 525

[1] dopyt (zdanlivá spotreba) = produkcia + import – export / demand (apparent consumption) = Production + Import – Export

HS 7201 Železo surové / *Pig iron*

Rok / Year	2009	2010	2011	2012	2013
Dovoz / Import [kt]	19	27	42	38	35
Vývoz / Export [kt]	30	64	25	29	42

HS 7204 Železný a oceľový odpad a šrot / *Ferrous waste and scrap*

Rok / Year	2009	2010	2011	2012	2013
Dovoz / Import [kt]	165	209	156	343	383
Vývoz / Export [kt]	320	503	656	431	366

Figure 5: Iron ore national import, export and demand rate

Figure 5 provides the data for import, export and demand for Iron ore in Slovakia for the period 2009 – 13. Iron ore is no longer mined in Slovakia since 2009.

Raw materials policy of the Slovak republic is currently in stage of the stagnation due to complex conception and outdated data (not updated from 2003). Nowadays there is an effort of the state to develop a completely new concept of the raw material policy using best available techniques in the given field.

The raw material policy is a policy of how to dispose with raw materials. The strategic view has to be seen in the context of the importance of raw materials for the development of the country and its raw material security. A vital condition for the development of the country is the availability of raw materials that fulfill the complex requirements of the society including economic, environmental and social ones. The use of own resources is both the most

economical and ignore this option would be denying ownership, which is included in the Constitution.

The main content of the raw material policy of the country is the analysis of domestic resources and determination of the rules for the protection and prudent use of mineral resources of the country according to the principles of sustainable development. Because the extraction of raw materials for different branches of industry has a positive effect on the economic growth of the country, the development of a proper raw material policy is of outmost interest of the Slovakia.

Model of the optimal use of the resource base based on the above mentioned facts and selected economic instruments can be divided into three parts:

1. Model for the assessment of the project of geological exploration;
2. Model for the assessment of the project of mining;
3. Model for the assessment of the project of mining on the environment.

Model for the assessment of the project of geological exploration is an important phase of the initiation of the complex mining project. The whole model is a functional process of assessment of deposits while besides the natural - geological conditions it respects the laws of behaviour of the capital, businesses and public authorities, which are regulated by the relevant legislation.

The model makes possibility to assess whether it is possible to assemble a functional unit and thus evaluate the success of the geological project as a prerequisite of exploitability deposits. The role of regions, in this case, is given only by the possibility to approve or not the zoning plan. If there is no appreciation of the deposits, through the extraction and use of effects for the region, the summary of positive and negative effects for the region cannot be estimated. Thus, this model serves as an advance preparation for the evaluation of deposits, so it should have an irreplaceable role in mineral policy making.

Model for the assessment of the project of mining is an essential part of the evaluation of the optimal use of the resource. The assessment involves several parameters including regional policy for raw material utilization. The absence of this policy may cause in improper decisions, which often are in conflict from the perspective of sustainable development impacting other industries and the service sector. The role of the region, in this case, is again given only by the possibility to approve or not the zoning plan for using the deposits. A more effective tool for decision making is the fact that regional territorial plan is then binding for smaller spatial plans. This affects the representatives of the municipalities, which are parties in decision-making and allocation of mining licenses.

Then, managing conflicts of interest with contracts or sale of the land brings a strong regional charge. This task is not only indirect from the effective point of view, but there is already a recovery of the deposit by the extraction and use of effects for the region, which can be positive and negative. Thus, this model is essential for the evaluation of deposits and in the processing of raw materials policy of the region and should have an irreplaceable role. Both models, in combination with regional development policies materialised in the form of land-use decisions, are the basic structure for objective raw materials policy development of the region.

Concept of raw materials policy of Košice region

The concept of raw materials policy of Košice region is a tool for the rational use of mineral resources and for supporting the development of the region while respecting sustainable development with strict respect to the environmental protection. It means to find an optimal way of using, in which the miners are technically able to mine mineral deposits, technologically process material and economically realise all the works up to the location of raw materials in the market.

The concept of the raw material policy is a model that includes:

- Legislative division of raw materials (exclusive and non-exclusive deposits)
- Assessment factors of raw materials - legislative, economic, environmental, technological, social and mine-technological and autonomous skills that represent working group composed of representatives of organisations that have a real impact on the decision-making process for the authorization of exploration or mining activities.
- Outputs of the concept of raw materials policy:

a) The environmental impacts of the resource base of the Košice region,

b) The economic impact of the use of the resource base of the Košice region,

c) Social impacts of the resource base of the Košice region,

d) Development of the Košice region in a wider context.

These outputs are the main arguments for their incorporation in the process of amending and approving the zoning region plan and then to the land use plans of individual towns and villages.

The result of objectification is essentially the division of mineral deposits on the concept of usable and unusable. Usability and non - usability depend on factors that are part of the evaluation of mineral deposits: price, production costs, investment costs, environmental and social requirements and resource availability by size and structure. It follows that this process needs to be updated, for what is the concept of model-making raw materials policy of the region prepared.

7.13 Sweden

7.13.1 National level

Favorable conditions for mining which Sweden offers include political stability, a developed infrastructure, easily accessible information on the national bedrock, a stable system of regulation, a well-trained workforce, and the skills and experience of companies and state bodies in the area of minerals exploitation[25].

Minerals policy strategy

Following the recommendations in the EU Raw Materials Initiative (RMI), the Swedish government launched a national mineral strategy in 2013 (Regeringskansliet, 2013). In the strategy, the government identified five strategic objectives in order to increase the competitiveness of the Swedish mining and minerals industry. The strategy also states that Sweden's mineral assets are to be exploited in a long term sustainable way, with consideration for ecological, social and cultural dimensions.

The Swedish Government has also taken steps to improve Sweden as a destination for mining. In 2013, it presented a minerals strategy. According to the Government, the strategy "will increase the competitiveness of the Swedish mining and minerals industry so that Sweden maintains and strengthens its position as the EU's leading mining nation. Sweden's mineral assets are to be exploited in a long-term sustainable way, with consideration shown for ecological, social and cultural dimensions, so that natural and cultural environments are preserved and developed". In total, the strategy proposes 19 measures which aim, inter alia, to increase resource efficiency, improve dialogue and synergy with other industries, promote regional growth, improve distribution of responsibility, clarify and create a more effective regulatory framework, facilitate investments in infrastructure, promote research and innovation, ensure supply of skills and capital, and increase participation in the international arena.

25 https://www.sgu.se/en/mining-inspectorate/legislation/why-legislation-on-minerals

The Swedish minerals strategy (2013) aims at resource efficiency. The focus of the strategy is on base metals, precious metals and rare earths. National action for metallic materials (2013) is a strategic research and innovation agenda which was created under the lead of the Swedish steel producers' association (The Swedish metals-producing Industry's associations, 2013). Concurrently with the Mineral Strategy, the government also granted extra financing for production of mineral exploration related geological data in northern Sweden, and a national research programme "Strategic Research and Innovation Agenda for the Mining and Metal Producing Industry was launched in 2013, followed by a second round for 2017-2020 launched in 2016 (Lax).

The Government's mining strategy was scheduled to be updated in 2015. The update would have the Government more actively involved in promoting the mineral resources of Sweden. The resources of Sweden are significant, and the Government has indicated that it considers mining to be an important part of the country's economy[26] (Ministry of enterprise, energy and Communications Sweden, 2015).

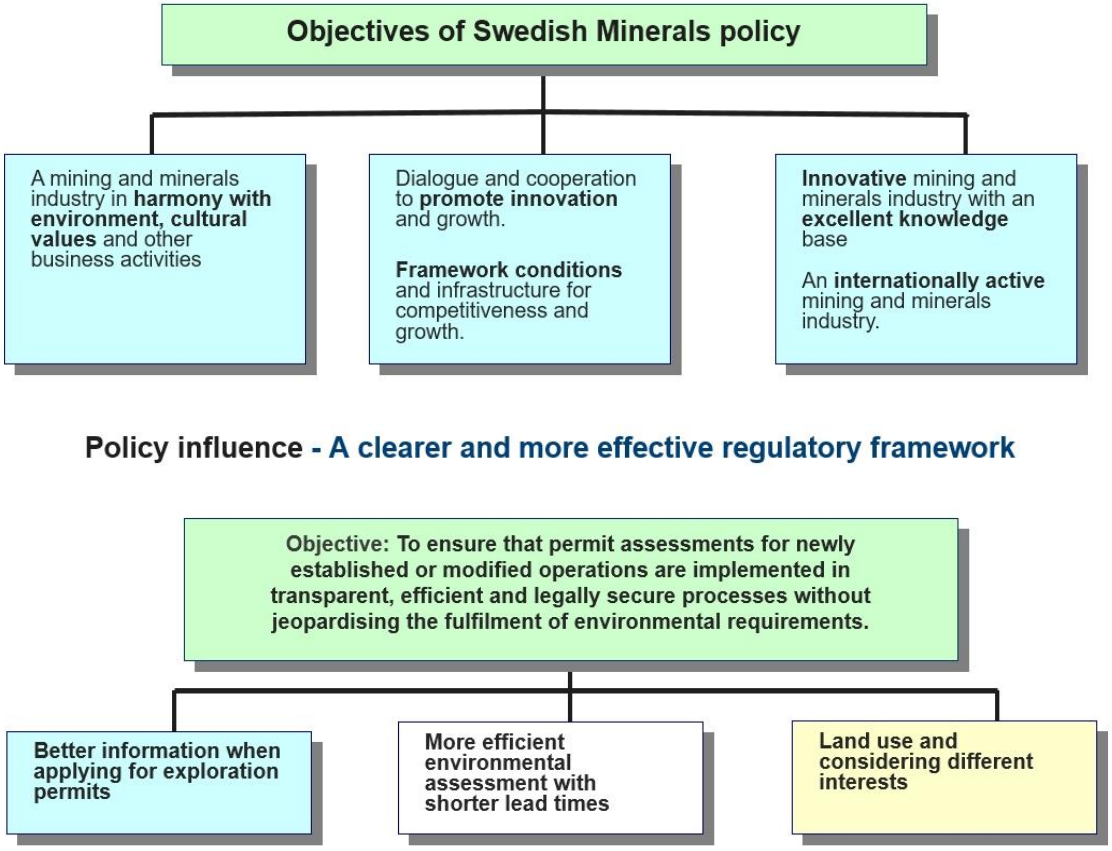

Figure 6: Sweden – Objectives and policy influence versus regulatory framework

Source: DG Growth 2017, https://ec.europa.eu/growth/sectors/raw-materials/policy-strategy/sustainable-supply-eu_en*)*

26https://www.government.se/contentassets/78bb6c6324bf43158d7c153ebf2a4611/swedens-minerals-strategy.-for-sustainable-use-of-swedens-mineral-resources-that-creates-growth-throughout-the-country-complete-version

Land use planning policy

There is no requirement in national legislation or policy for the collection of data on primary raw material resources and reserves or other information. Formerly there was a separate reporting standard in use in Sweden, Norway, and Finland, managed by the Fennoscandian Review Board (FRB). In May 2017, this was formally replaced by PERC, and FRB is now one of the participant organisations within PERC (Tiess et al., 2018).

There is no regularly produced data on mineral demand forecasting in Sweden. However, the Swedish Minerals Strategy acknowledges the essential role of future mineral demand for the strategy to reach its objectives and vision: it posits "The fundamental prerequisite is a continued strong demand for metals and minerals". Some proxies (e.g. future steel demand as a function of GDP per capita) are employed to highlight an expected strong future global/international demand for minerals of interest for Sweden (i.e. metals) as well as to show expected growth in Sweden. However, neither in the Minerals Strategy nor in the "A vision of growth for the Swedish mining industry" document by SveMin there is a Swedish forecast of future national or regional demand of metals and other minerals of importance (Tiess & Murguía, 2016).

Resources efficiency policy

At national level there is no national strategy on resource efficiency. The lifecycle approach is comprised by the Generation goal. Use of recycled raw materials is widely present, especially in larger companies (e.g. Rönnskär smelting company). A transition to a more Circular Economy calls for the involvement of all economic sectors. Sweden welcomes a broad approach of cost-effective measures in the forthcoming proposal, which should be based on a life-cycle perspective, promoting sustainable consumption and non-toxic material cycles, and stimulating innovation and business opportunities. Waste prevention is clearly linked to policy measures such as resource efficiency and sustainable consumption and production (European Environment Agency, 2016 – Sweden).

7.14 UK

7.14.1 National level

Minerals policy strategy

UK has its Government's policy on minerals and planning issues under the Minerals Policy Statement series.

Land use planning policy

The mineral planning policy of the Government in England is exercised through Mineral Planning Guidance Notes and Marine Mineral Guidance Notes. The UK government introduced mineral safeguarding into the land use planning system in 2006 (Horváth et al., 2016). In England, Wales and Scotland, the requirement for mineral safeguarding is addressed through overarching policies set at a national level.

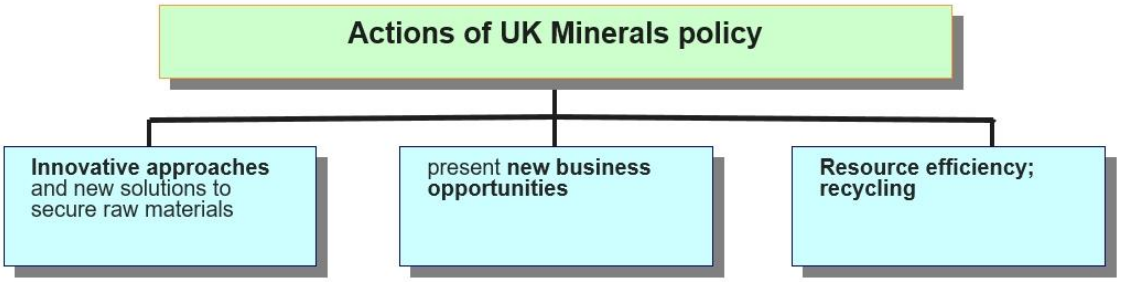

Figure 7: Actions of UK minerals policy

(DG Growth 2017, https://ec.europa.eu/growth/sectors/raw-materials/policy-strategy/sustainable-supply-eu_en

Local mineral safeguarding policies are subsequently formulated and adopted by local planning authorities in their Development Plan. Areas of land where these policies apply are generally referred to as 'Mineral Safeguarding Areas' (MSAs) and the local safe-guarding policies provide detailed instructions about how land use development within such areas is to be managed. There is no presumption that any areas within an MSA will ultimately be environmentally acceptable for mineral extraction. Areas of Search, Preferred Areas, and Specific Sites are designated for that purpose. The purpose of MSAs is not to preclude auto-matically other forms of development, but to make sure that mineral resources are considered in a balanced way in land-use planning decisions (Horváth et al., 2016).

There is no requirement to report to a single international reporting code. Both PERC and JORC are used. There is no national standard code (Parker et al., 2015). Some evidence has been found that the NERC (Natural Environment Research Council) supports demand forecasting to orientate policy-making (Tiess & Murguía, 2016).

Resources efficiency policy

The Resource Security Action Plan: Making the most of valuable materials (2012) is related to 2030.

8. REVIEW OF THE APPLICABLE REGULATORY CONDITIONS OF MIREU REGIONS

8.1 Austria

8.1.1 Legal basics

Mining in Austria is governed by the Mining Law (MinroG Act No. 38/1999, subsequently amended) which regulates the exploration and extraction of all mineral raw materials. Austrian Mining Law includes a dynamic reference (§ 221a. MinroG) in relation to other Federal Laws (i.e. references in the MinroG related to other federal laws are to be seen as "dynamic" but do not automatically determine obligations). Other laws which can be of relevance for permitting procedures are the Commercial Code 1994 (BGBl. Nr. 194), Federal Acts on Environmental Impact Assessment (UVP-G 2000), Water Management (215/1959) and Construction Coordination (BauKG 37/20099), Acts on Nature Protection and Acts on Land Use Planning (each Federal State has its own), the Work Inspection Act 1993 (ArbIG), Forest Law (Forstgesetz 1975) among others.

8.1.2 Competent authority

For prospecting/ exploration and for extraction activities two authorities' issue the corresponding permits: Districts (Bezirkshauptmannschaft) for landowner minerals and the Federal Ministry of Science, Research and Economy (in German Bundesministerium für Wissenschaft, Forschung und Wirtschaft) on behalf of the national mining authority (Montanbehörde) for “free for mining” minerals and state-owned minerals. The responsibility of the district administrative authority concerns only the surface extraction and processing of landowner minerals.

According to Austrian Mining Law, the Federal Ministry of Science, Research and Economy (in German Bundesministerium für Wissenschaft, Forschung und Wirtschaft) on behalf of the national mining authority (Montanbehörde) is responsible for all mineral regulations concerning state-owned minerals, “free for mining minerals” and underground mining projects for all minerals.

All other minerals are landowner minerals (including ornamental stones, sand, gravel, crushed rock, etc.) and relevant mineral permits are issued by the competent county authority (Bezirksbehörde), although not for all aspects (mining, forest, water law) by the same negotiator. In cases with an area above 10 hectares for hard rock and 25 hectares for sand and gravel, an EIA permit is required.

MIREU region Erzberg: Mining authority - Federal Ministry of Science, Research and Economy (BMWFW) - Branch office Montanbehörde Süd 8700 Leoben, Straußg. 1

8.1.3 Ownership on minerals

The Austrian Mining Law (MinroG), BGBl I 38/1999, as last amended by BGBl I 95/2016, distinguishes between “free for mining” raw materials (§ 3), state-owned (§ 4 (1)) and landowner raw materials (§ 5). Free for mining minerals wherever they exist are not owned by anyone (with the exception of minerals listed in § 3 (1) line 4 of the MinroG, which are the property of the landowner). They can be explored and extracted by anyone who meets certain legal requirements. State-owned minerals are the property of the federal government. Landowner minerals are the property of the landowner. The state has the responsibility for issuing mineral rights.

MIREU region – iron ore is a "free for mining" raw material'.

The entitlement of a mining license holder is contrasted with special duties. Thus a mining operator is obliged to make provisions (§ 109 MinroG) for the protection of life, health and safety of people, the environment, the deposit and the surface during the mining activities as well as the protection of surface use after the termination of mining activities. Before making use of the surface and the near-surface area of external properties for mining activities, the mining license holders must adhere to the agreement made with the landowner. Realties and parts thereof within the area covered by the extraction license are lawfully held as mining areas.

8.1.4 Participation rights

Consultation process: MinroG states that, when considering an application for an extraction licence (for free for mining raw materials or for landowner raw materials), the owner of the land must be involved in the process. A land transfer declaration or a lease agreement must have already been completed when applying for an extraction licence. The provincial authority also becomes a (legal/formal) consultee in so far as the application relates to land use planning, protection of nature/environment, tourism or other aspects. One aim of this process is to ensure that the public interest is taken into account. This can also mean consulting other relevant authorities (e.g. in relation to transport, the environment, water). Extraction plans (see above) may only be approved if the proposed measures are sufficient to protect surrounding property, the neighbours, the safety of people, and the environment as addressed in conditions.

Ground owned minerals: Numerous experts are involved as a matter of course in approval procedures issued by the District Administrative Authority. according to the Mining Law, competent for the Water Law, geology, hydrogeology, engineering, electronics, construction, conservation, spatial planning, air quality, noise, forestry, construction technology, environmental lawyers, monument conservator, members of local communities, and finally, the labour inspectorate. In western provinces tourism is also relevant in relation to transport and transportation roads.

EIA

The one-stop-shop model for a mining project is mostly relevant to the EIA procedure: The administrative authority is the environmental authority of the state government, which deals with all relevant specific laws relating to mining, environment, forestry, etc. Once the environmental permit is granted, the specific authorities have to oversee, control and check the development and fulfilment of the project.

An EIA must be conducted when the surface area is greater than 10 hectares for hard rock quarries and 25 hectares for sand and gravel pits. For an area of up to 10 hectares, the authorities may refrain from undertaking an EIA procedure, provided the proposed activity does not conflict with environment protection. The government (cooperation between central and provincial governments) has issued a guideline on how to conduct "EIA procedures relevant for mining" ("Leitfaden UVP für Bergbauvorhaben") in an efficient way, which was updated in 2011.

LUP

The Regional Development Program Obersteiermark Ost Regulation No. 89 of 2016 underlines the (national/local) importance of the Erzberg mine and refers also to aspects of sustainability. According to § 3 (6) Regulation No. 89 of 2016, the mining landscape of the Styrian Erzberg ("Bergbaulandschaften") is unique, and has to be integrated into the economic, cultural and tourist development of the region.

In Styria, the results of the AMRP are integrated into the regional development plan(s). At the regional level, there are designated Raw Material Priority Zones that have been declared as 'mineral protection zones' for land use planning purposes (land use planning is a competency of both the regional and local governments and therefore needs to be coordinated). These provide a methodological approach for the identification and evaluation of mineral occurrences. Special attention is paid to the systematic process to identify conflict reduction zones and the different safeguarding processes used by the land use authorities of the federal provinces. This said, the formal institutions do not appear to have any mechanisms that allow for direct participation in the designation of the priority zones. Interestingly, the national level does not have any enforcement regulations to protect or safeguard the priority zones since spatial planning is not within their scope.

In terms of public participation in the local legislative processes, the local land use planning (LUP) authority is the representative of the 'public' or local stakeholders, but the people themselves do not directly participate. Only in the case of the issuance of a Flächennutzungsplan ("different utilization claims including priority zones") from the local government can citizens then review and comment on the plan. However, they cannot refuse it unless there is a 'strong reason' to do so. Although a land use planning hierarchy exists in Austria, the LUP authority ultimately does not have that much power as they can only refuse a land use plan if there would be no consideration of their interests.

8.1.5 Closure of mining sites

The operator is responsible for carrying out and paying for restoration. The competent authority must ensure that restoration takes place as agreed. Normal practice is that an operator deposits at the bank an amount of money large enough to secure restoration of the site. Other kinds of safeguarding, such as e.g. land register guarantees, insurance, etc. are regulated by § 116 (11) MinroG. The relevant authority ensures that securities have been provided.

8.2 Czech Republic

8.2.1 Legal basics

The primary legal basic of mineral extraction activity is the Mining Law (Mining Act) No. 44 of 1988, as amended by Law No.186 of 2006.

8.2.2 Competent authority

In the field of exploration of minerals deposits the Ministry of Environment is the most important authority, i.e. the Ministry lays down the exploration areas, etc. In the sphere of exploitation, the District Mining Authorities are the most important state bodies. The District Mining Authorities (8 in total) are part of the State Mining Administration (SMA) which is composed also by the Czech Mining Office in Prague (central mining Authority). Besides the Czech Mining Authority in Prague, the bodies of the SMA are the District Mining Authorities for the territories of: 1) Capitol city Prague and Central Bohemia Regions, 2) Pilsen (Plzeň) and South Bohemia Regions, 3) Karlovy Vary Region, 4) Ústí nad Labem Region, 5) Hradec Králové and Pardubice Regions, 6) South Moravia and Zlín Regions, 7) MoraviaSilesia and Olomouc Regions and 8) Liberec and Highland (Jihlava) Regions. The Czech Mining Authority is an appeal instance (as a central authority of state administration).

8.2.3 Ownership on minerals vs. land

Mining legislation in the Czech Republic distinguishes between "reserved" deposits, which are state owned, and "non-reserved" deposits which are owned by the landowner. All minerals with the exception of building stone, gravel and clays are reserved deposits, i.e. state-owned.

8.2.4 Closure of mining sites

The entrepreneur, who has been granted a mining lease, may start mining operations only after obtaining a mining permit from the authorised District Mining Authority. The issue of this permit is subject to an administrative procedure assessing the plans of the opening, the preparation and the mining of the deposit, and the plans for rehabilitation and reclamation after Mineral base of the Czech Republic and its development in 201433 termination of the mining.

8.3 Finland

The main sources of conflict in Lapland is related to competing industries, and hence, competing land uses[27].

According to the Finnish Association for Nature Conservation (FANC) mining undertakings must always be made public[28].

The Mining Act (621/2011) which came into effect in September 2011 has some serious shortcomings. For example, the landowner can still be left uninformed about mining operations in the neighbourhood, because the legislation does not obligate the operator to ensure that all the landowners have received the information. All the details of mining operations must be made public to the scrutiny and commentary of citizens and non-governmental organizations.

The resources, expertise and independence of the authorizing bodies and supervising authorities must be guaranteed

The mining undertakings employ a sizeable amount of state authorities that permit the procedures and monitor them. The resources to do this must be constantly guaranteed. Alongside their primary duties they also guide and give counsel to the mining operators. This expense should come under the undertaking's responsibility in full. Furthermore it must be made sure that the supervising authority does not have any connection to the undertaking through an earlier work assignment or investment, which could lead to underestimation or dismissal of potential hazards of the mining operations. Independency will be secured by establishing a national environmental bureau with regional branches.

The permits must be granted before the mining operations start

The environmental permit procedures are not plausible, if the undertaking is able to start its operations due to exceptional permits before all appellate procedures have ended. It is misleading of the people to present a nominal possibility to participate in the permit procedure, but in spite of their opinions and arguments the mining operations can still be initiated based on the exceptional permit. Rushing around does not lead into good and sustainable mining.

Patience is a virtue in mining industry – the meagre resources should be left alone

As the natural resources of the earth are diminishing, commercial interest is more and more focused on lower quality ores. While the industry quarries increasingly more ore in pursuit of economic gains, a greater danger and harmful impact awaits the environment. This risk is

[27] https://www.sll.fi/site-actions/english

[28] https://www.sll.fi/mita-me-teemme/kaivostoiminta/our-mining-objectives

considerable, especially in countries like Finland where the soil contains uranium almost anywhere you go. Therefore, one must ask whether the exploitation of low quality minerals with modern day technology is really good for our country.

The company is liable for the aftercare of the area

There are many closed and abandoned mines that are still leaking harmful substances to waterways and groundwater. The issue of environmental liability must be defined in such a manner that the aftercare and the restoration of an exploited area will never fall upon the tax payer to compensate. Collateral securities and funds must be sized so that an undertaking after closing down a mine is able to prevent all possible environmental damage. Especially in the case of radioactive waste the aftercare must be engineered to cover up to a thousand year time period.

The mines must respect their neighbours

Noise, dust and reek can significantly weaken the welfare of nearby residents of mines. This must be avoided at all times. In addition, neighbouring commercial activities and recreational activities must be taken into consideration while operating the mine. Jeopardizing the operational preconditions of environmentally respectful activities such as eco-tourism and organic farming must especially be strictly avoided.

8.3.1 Legal basics

D4.1 - There are a number of provisions that give direct or indirect legal protection to members of the indigenous and non-indigenous local communities (mostly as individuals) affected by mining projects. They have participatory rights under both the mining and EIA legislation, including access to justice (right to challenge the permit decisions in the court). The Mining Act gives them legal protection by requiring that the mining permit shall include the necessary provisions for securing public and private interests (see Section 52 of the Mining Act). It also forbids the impacts that "substantially weaken the living conditions and industrial conditions of the locality" (Section 48.2 of the Mining Act).

In Finland, the primary legal basic of mineral extraction activity is the Mining Act 621/ 2011 which covers metallic ores and industrial minerals (termed "mining minerals" or "claimable minerals"). Construction minerals are regulated by the Land Extraction Act No. 555/1981. The Land Extraction Act governs extraction permits of "non-claimable" minerals like dimension stone, aggregates. The Government Decree on mining activities (391/2012) also provides important provisions to the Mining Act. The Finnish Mining Act (621/2011) has the principle that the mineral extraction rights belong to the discoverer. Section 32 of the Mining Act defines: "The party first applying for a permit in accordance with the provisions laid down in section 34 herein shall have priority for an exploration permit, mining permit, or gold panning permit".

A new Mining Act was enacted on 1 July 2011, outlining, among other things, the exploration periods and compensation levels for landowners. This replaced the previous Act from 1965. As a result, the processing of mining licenses was transferred from the Ministry of Employment and the Economy to the Finnish Safety and Chemicals Agency (Tukes).

Northern mining countries

Another important development in Finland was the adoption of a new Mining Act, which came into force on 1 July 2011 thereby replacing the previous Act from 1965. A new Government Decree on mining activities was issued one year later. The purpose of the revision was interalia to enhance possibilities to include environmental and social considerations in the permitting process.20 It aims to reinforce the rights of landowners and residents of affected communities, inter alia through clarifying responsibilities of exploration and mining companies against other

stakeholders; creating possibilities for landowners, local organisations and citizens to submit their opinions during the permitting process, before decisions are taken; and to a larger extent taking into account the views of local municipalities and environment authorities about projects.[29]

Access to the land needed for mining activity should be arranged by voluntary arrangements. If that is not achieved, a redemption permit can be granted by the Government if the mining project is of importance based on public need. Such a permit allows the mining operation to obtain ownership or usufruct rights to the area needed. According to section 49, "[t]he requirement of public need shall be assessed particularly on the basis of the impact of the mining project on the local and regional economy and employment, and the social need for raw material supply".

Prior to granting a redemption permit, the Government must request a statement from the relevant municipality, Regional Council, and the Centre of Economic Development, Transport and the Environment.

Unlike the Swedish Minerals Act, the Finnish Mining Act explicitly refers to the aim of securing the rights of the Sami as an indigenous people. The Finnish Sami population is commonly considered to number around 8,000 persons, which is smaller than in Norway and Sweden. Of this population, just below 40% live in the "Sami homeland", also known as the Sami native region. The country's constitution defines this region as consisting of the municipalities of Enontekiö, Utsjoki and Inari as well as a part of the municipality of Sodankylä. The state is the legal owner of 90% of the land designated as Sami homeland. Notably, Samis do not exercise exclusive rights to reindeer herding outside of the designated native region, unlike in Norway and Sweden. Thus, the Sami native area does not correspond to the reindeer herding area, which covers most of the region of Lapland as well as northern parts of the region of North Ostrobothnia. In addition, Finland is also home to the Skolt people, which is a distinct Sami group. A separate law, the Skolt Act of 1995, includes provisions on their rights of in the Skolt native area, which forms a part of the Sami native area in Inari municipality.

The Finnish Mining Act includes several provisions for mining activities to be conducted in Sami and Skolt native areas or reindeer herding areas. This differs from Sweden where it is Sami reindeer herding rights that have a degree of legal protection, which in turn is not explicitly mentioned in the Minerals Act but rather through related legislation.

The first section of the Finnish Mining Act states that activities referred to shall be adapted in the Sami homeland "so as to secure the rights of the Sami as an indigenous people. This adaptation shall pay due attention to the provisions of the Skolt Act (kolttalaki 253/1995) concerning the promotion of the living conditions of the Skolt population and Skolt area, opportunities for making a living, and the preservation and promotion of the Skolt culture".

Section 38 of the Mining Act specifies the procedure to be applied in the case of exploration, gold panning or mining permit applications in the Sami Homeland, Skolt area and special reindeer herding areas. In the first case, Tukes as permit authority is obliged to establish potential impact of activities on the Samis' rights to maintain and develop their own language and culture prior to approving any permits. This involves cooperating with stakeholders such as the Sami Parliament, local reindeer owners' association and competent local administration. This may also apply for areas outside the Homeland of considerable significance as regards the rights of the Samis as an indigenous people. In the Skolt area, Tukes shall request a statement from a Skolt village meeting concerning assessments of the impacts of planned activities in

[29] Helsinki: Ministry of Employment and the Economy, https://www.tem.fi/en/current_issues/press_releases/press_release_archive/year_2011/new_mining_act_to_enter_into_force_on_1_july.103119.news

their sources of livelihood and living conditions. And in a special reindeer herding areas, Tukes shall in cooperation with the local reindeer owners' association assess potential damage. The Mining Act lists a number of stakeholders which Tukes may invite to a consultation meeting with the applicant in order to clarify matters.

Section 50 of the Mining Act states that, in cases of permit applications in the Sami Homeland, Skolt area and special reindeer herding areas, a permit shall not be granted if it undermines conditions for Sami or Skolt livelihood and culture, or considerably harms reindeer herding.

The Act states that the permit authority shall take into consideration not just the potential effect of the permit applied for, but also of any other corresponding permits or other activities, such as forestry, in the area.

In other words, in those areas, the cumulative effect of permits shall be kept in mind. And furthermore, if relevant, the Sami Parliament, Skolt village meeting or local reindeer owners' association are to participate in the final inspection following mine-closure measures, according to section 146(2).

Again, since so few cases have been tried under the new Mining Act, it is difficult to establish how strongly it protects the rights and interests of Samis, Skolts and reindeer herders in practice. In theory though, it looks strong. In a proposition to the Finnish Parliament, the Government writes that it does not wish to change the current rights of Samis vis-à-vis non-Samis to land ownership or economic activities, but rather to develop the rights of Samis to influence planning and decision making on the management of state-owned land and water in their native area[30]

8.3.2 Competent authority

As established in the Mining Act (621/2011) the Mining Authority responsible for mining permits (exploration: ore prospecting permits) and (extraction: mining permit) is the Finnish Safety and Chemicals Agency (Tukes). Tukes is the competent mining authority for onshore and offshore permitting procedures. The Regional State Administrative Agencies (AVI) are the ones granting the environmental permits whereas the EIA procedure is supervised and controlled by the regional Centres for the Economic Development, Transport and the Environment (ELY Centres), who also act as coordination authorities. The competent authority (the relevant regional centre) must duly arrange official hearings with other public authorities and other stakeholders. The centres also must issue official statements on the EIA programme and on the EIA report and its acceptability.

Finland has several different types of nature protection areas, and most have their own rules that must be abided by during activities in the area. The mining company can apply for exemptions from the rules that govern the nature protection area. In National Parks (kansallispuisto) and in Nature Reserves (luonnonpuisto), both can only be established on government owned land the governing authority usually Metsähallitus, i.e. Metsähallitus can issue exemption permits. First-instance authorities for appeals are the Administrative Courts and the Supreme Administrative Court, the highest court level in the country. The Land Extraction Act of 1981 regulates the issuing of permits for construction minerals. It is administered by the Minister of Environment. Permit applications are made to the municipality in question. Municipalities make permit decisions and supervise land extraction within their borders. For projects to be conducted in the territories of the Sami (Sami homeland) and the reindeer herding area in northern Finland or the Skolt people´s area, the Sami parliament and the Skolt village meeting must be consulted for a final inspection permit.

30 http://oikeusministerio.fi/sv/index/aktuellt/tiedotteet/2014/11/ilosopimuksenratifiointiesityseduskunnalle_0.html

The Mining Authority responsible for onshore and offshore mining permits (exploration: ore prospecting permits, extraction: mining permit) is the Finnish Safety and Chemicals Agency (Tukes).

The main problem getting an exploration permit is the delay caused by the lengthy legal process of "hearing-opinions-decision-appeals-responses-courts-rehandling-opinions-responses-decision-appeals -courts-decision."

Nature conservation areas (especially Natura 2000 and mire conservation areas, which cover > 15 % of the country, mainly in northern Finland) require special attention from the permitting point of view. For permitting procedures multiple stakeholders need to be consulted: different authorities, Ministry of Environment, nature conservation organisations and associations, in northern Finland Sámi People and reindeer herders, municipalities and individuals. The cases many times become complicated and most importantly time consuming. Some cases have been under the administrative process several years.

The permitting procedure in Finland is under consideration to be revised. The aim is to streamline the permitting procedure by combining the different permitting authorities, especially for permitting in the environmental sector. This should quicken the permitting procedure. The plan is to unify regional permitting authorities (AVI) to one national authority, maybe even mining authority is unified to this. Some of the supervising authority´s (ELY) duties are moved to the national permitting authority and some duties to the new county organizations that will be formed. Outside the nature conservation areas and outside the reindeer herding area, in general, the permitting procedure is fluent.

8.3.3 Ownership on minerals vs. land

Metallic and industrial minerals, gemstones, marble and soapstone ("claimable minerals") are state regulated/controlled and the compensation goes to the landowner. "Non-claimable minerals" (e.g. dimension stones such as granite, aggregates) are construction minerals (owned by the landowner).

Compensation to landowners for mining exploration is also specified. (Redemption permits and permits for uranium and thorium extraction are granted by the Finnish government.)

8.3.4 Participation rights

Northern mining countries

EIAs are regulated in a separate Finnish law, as compared to Sweden where this falls under the Environmental Code, and Denmark and Norway where this is mainly regulated through planning and building laws and subsequent ordinances. Main responsible authority for the EIA in Finland is the Centres for Economic Development, Transport and the Environment. The first step of the process is the submission of an assessment programme by the project developer. After this, a hearing is arranged during which a number of stakeholders are involved. The developer then performs required investigations and submits a report to the responsible authority. Outcome from the EIA informs both the mining permit and environmental permit application process. Notably, the double hearing EIA process differs from its Swedish counterpart, where it is usually limited to one instance. And furthermore, the content requirements seem to be more extensive in the Finnish case.

Mote detailed information on environmental regulation, EIA procedures, Natura 2000-assessments and land use planning processes can be found in the publication ".
Sound mining in the North: a guide to environmental regulation and best practices supporting social sustainability.

The present Finnish Mining Act came into force in 2011. Compared to the previous Mining Act (1965) the new act included more of public hearing, increasing possibilities to influence for individuals, land owners, municipalities and other authorities. Also, the environmental issues where taken stronger into account in the new act. The new act also better secured the rights of the Sámi people as an indigenous people and Skolt population living in northern Finland. By the new mining act the number of expressed opinions, lodged complaints and filed appeals increased a lot. It can be estimated that against around 8 % of the decisions by the Mining Authority (Tukes) an appeal is filed.

According to the section 165 of the Mining Act, A decision on an exploration permit, mining permit, or gold panning permit; a decision to extend the validity of the corresponding permit; a decision on its expiry, amendment, or cancellation; or a decision to terminate mining activity may be challenged by way of an appeal by the following:

1) The party concerned;
2) A registered association or foundation whose purpose is to promote protection of the environment or health, nature conservation, or the pleasantness of the living environment, and in whose operating area, in compliance with regulations, the environmental impact in question appears;
3) The municipality in which the activity is located, or another municipality in the area of which detrimental impacts of activities appear;
4) A Centre for Economic Development, Transport and the Environment and another authority on the matter that is charged with protecting the public interest in its field;
5) The Sami Parliament, on the grounds that the activity referred to in the permit undermines the rights of the Sami as an indigenous people to maintain and develop their own language and culture;
6) The Skolt village meeting, on the grounds that the activity referred to in the permit impairs the living conditions of the Skolt population in the Skolt area and the possibilities for making a living there.

To start a mine the following permits and procedures are required (simplified list):

1. Environmental impact assessment EIA; ELY Centre evaluates if EIA is needed, the operator assesses the environmental impacts (including social impacts);
2. Tukes decides on the mining permit; requires EIA and Natura assessment
3. Regional State Administrative Agencies (AVI) decides on the environmental permit; requires EIA and Natura assessment
4. The municipality makes the land use plan and grants the planning permission (building permission)
5. Establishing the mining area by the competent land survey office
6. Tukes grants the mining safety permit
7. Sámi Parliament (if the mine/quarry within their territory)
8. Skolt Village (if the mine/quarry within their territory)
9. Some additional permits by the authorities

The Regional State Administrative Agencies grant the environmental permits whereas the EIA procedure is supervised and controlled by the regional Centres for Economic Development, Transport and the Environment (ELY Centres). A permit is required for mining exploration if exploration work results in material damage, harm or intrusion or cannot be carried out with the landowner's consent.

There are a number of provisions that give direct or indirect legal protection to members of the indigenous and non-indigenous local communities (mostly as individuals) affected by mining projects. They have participatory rights under both the mining and EIA legislation, including

access to justice (right to challenge the permit decisions in the court). The Mining Act gives them legal protection by requiring that the mining permit shall include the necessary provisions for securing public and private interests (see Section 52 of the Mining Act). It also forbids the impacts that "substantially weaken the living conditions and industrial conditions of the locality" (Section 48.2 of the Mining Act).

8.4 France

8.4.1 Legal basics

The mining laws defined by Decree n°2006-648 and Decree n°2006-649 constitute the mining laws applicable in France, although its overseas administrative departments, territories are, in certain instances, governed by other specific legislative and regulatory provisions which may vary or supplement those of the Mining Code and the aforementioned Decrees. The law applicable in the onshore jurisdiction is valid also on the French continental shelf. Quarries with extraction of materials intended to civil engineering and public construction works belong to the Classified Installations for the Environment Protection (ICPE497) section 2510 (Environmental Code).

Exploration and mining operations are governed by the French Mining Code. This text defines the mine nature and the extraction conditions along with repairing or compensating obligations in case of wrongdoing or accident. Any deposit containing mineral or fossil substances is subject either to the mining or to the quarry environmental legal system. The Mining Code (Art. L 111-1) defines a list of mining substances. The concept of "mine" is based solely on the nature of the substance, regardless of whether the operation is done by open pit or underground methods. Those substances which are mined and are therefore called "mined substances" (or "mining substances") include hydrocarbons, precious metals like gold and silver, base metals such as copper, lead, iron or zinc, strategic metals such as tungsten or indium, and some important industrial minerals (salt, potash).

The quarry products (or "quarried-minerals") are those not listed in Art. L. 111-1 of the Mining Code, mainly building materials (limestone, chalk, slate, sand and alluvial gravel, ornamental stones), and some materials of industrial uses such as silica sands (for glass production) or gypsum (for plaster).

8.4.2 Competent authority

For exploration of onshore minerals, the responsible authority is the Prefect of the Department, local representative of the State, under the Ministry of Environment, Energy and the Sea authority. For onshore "mining substances", the main responsible authority for issuing mining permits (ministerial authorisation) is the Ministry of Economy and Finance.

Quarry materials or substances depend on the Ministry of Environment, Energy and Sea. The quarries´ authorisation is regulated by the Environmental Code (Classified installations or ICPE) , under a Prefectoral authorisation before starting field works, in accordance with the Schéma Départemental des Carrières (Quarry Departmental Scheme). For quarrying activities on the near Continental Platform, permits are provided by the Prefectoral Administration, under the Ministry of Environment, Energy and Sea authority.

For offshore minerals, the main authority issuing permits is the Marine Ministerial Committee (in French: Comité Ministériel de la Mer) with the agreement of the Ministry of Economy and Finance. The Marine Ministerial Committee was created in 2002 and comprises the Ministry of Environment, Energy and the Sea along with the Ministry of Economy and Finance, the Ministry of Foreign Affairs, and the Ministry of Overseas have created. The Committee is in

charge of the marine resources extraction on the Continental Platform. For decision making, the Committee relies on the following institutional operators: French Research Institute for the Extraction of the Sea (IFREMER), the National Centre for Scientific Research (CNRS), the French Geological Survey (BRGM) and the Institute of Research of the Development (IRD).

8.4.3 Ownership on minerals vs. land

In France, metallic and some industrial minerals (called “mined substances” or “mining substances”) are state-owned minerals (Art. L111-1 of the Mining Code). These include mineral substances which were considered as strategic and of prime importance for national sovereignty: hydrocarbons (oil, gas, coal), salt, potash and metals and are called "eligible for concession". Quarries with extraction of materials intended to civil engineering and public construction works belong to the Classified Installations for the Environment Protection (ICPE) and are mainly governed by the French Environment Code. Quarries are usually open cast exploited but sometimes works are carried out underground.

8.4.4 Participation rights

The reform of the Mining Code currently underway will improve the legal framework for mining activity, by guaranteeing strengthened public consultation and association, and taking into account all the issues, particularly health, environmental and social issues, security, and better economic benefits for the territories. In any case, the renewal of the mining activity will have to be done through exemplary projects, respecting the best standards of exploitation and insertion in the territories (Chevrel, 2018).

The competent authority to deal with the concession application is the Minister of Mines (nowadays embodied in the Ministry of Economy and Finance and the Ministry of Environment, Energy and Sea). The Prefect deals with the examination of the application. The application for an extraction license requires an EIA and a one-month public enquiry to take place. An effective press release announces the public enquiry. If no exploration license has been issued previously, competition shall also be allowed.

Competent authorities, including the DREAL (Regional Directorate of Environment, Land Development and Housing Environment) and the geographically concerned mayors shall then provide their opinion on the application. The Prefect then submits these opinions, the comments raised during the public hearing as well as his own advice to the Minister. The opening of mining works is subject to authorisation currently conditional on the elaboration of an environmental impact study and a public enquiry provided for under the Environment Code. The grant of a Concession is also subject to a public enquiry, and, since 1st January 2013, a law amending the Environment Code and aiming at ensuring compliance with Art. 7 of the Environmental Charter subjects the grant of a PER to compliance with the provisions ensuring the participation of the public through a public consultation process. There is an alignment of the conditions for the information and participation of the public prior to the possible grant of a mining title or an authorisation for mining works.

For onshore minerals, the main authority responsible for issuing mining permits (ministerial authorisation) for non-energy minerals is the Ministry of Economy and Finance. Quarry materials depend on the Ministry of Environment, Energy and Sea. Quarries are divided into large ones including dump heaps & tips, under a Prefectural authorisation before starting field works and small ones which can be exempt-ed from the whole opening procedure if the small extraction is done to meet the needs of historical buildings. Both are in accordance with the Quarry Departmental / Regional Scheme. For quarrying activities on the near Continental Platform and offshore minerals, permits are provided by the Ministry of Economy and Finances and fieldwork operations authorisations are provided by the Prefect (European Union, 2016a).

8.4.5 Closure of mining sites

The closure and abandonment of mining sites do not result in the complete and definitive eradication of risks for people, activities and goods located in the area of influence of abandoned mines. Some potential occurrence of hazards and disorders on surface may persist at long term in the surroundings of former mining works. ln addition to potential ground instability phenomena (subsidence, sinkholes, etc.), some mining sites may be affected by dangerous gas emissions, flooding events or environmental degradations. These effects can occur as soon as the mining extraction stops but also in certain circumstances, long time after closure.

The mining operator is responsible for the damages that can result from his activity, without any time restriction (even long time after mine closure). So it is his responsibility to compensate victims of mining damages. Nevertheless, it has to be proven that the damages resulting from any another origin cannot be attributed to another origin. One of the major innovations of the "post mining law" results in the guarantee of the State. In order to assure that victims are compensated in case of Concession-Holder disappearance or insolvency, the legislator expected the State to deal, in this specific context, with the victims' compensation. The post mining law also stipulated that, in case of a major mining hazard threatening seriously public safety, the goods exposed to this risk may be expropriated in case the protection and/or prevention measures are more expensive than the expropriation cost. This statutory process is restricted to the cases of major risks and extreme urgency.

The role of the French State concerning post-mining consists in identifying the risky abandoned mining sites and evaluating the corresponding risks in order to determine the suitable preventive measures able to secure, when necessary, population and activities. As described before, these measures can take the form of reinforcement works or constraints applied to town planning (MRPP). Moreover the French State has sometimes to assume exploitation and maintenance of water stations (pumping or physicochemical treatment), installations of firedamp management or devices of monitoring when concession holders no longer exist and public safety is threatened.

8.5 Germany

8.5.1 Legal basics

The primary legal basic of mineral extraction activity is the Federal Mining Act. However, there is no uniform body of law on mineral extraction in Germany, and federal states have their own ordinances and regulations, i.e. "old laws and agreements" prior to the enactment of the Federal Mining Act in 1980 can partly remain in effect according to Sections 149 et seq. BBergG. "Free for mining" minerals (i.e. metallic ores, some industrial minerals) and certain minerals owned by the landowner are covered by the Federal Mining Act, whereas other minerals (i.e. construction minerals) are subject to other laws. The Federal Mining Act distinguishes between the exploration licence, the extraction licence and the mining proprietorship. These can be granted or awarded only to natural and legal persons (Section 6 BBergG). The mining proprietorship provides the same rights as the extraction licence: to search for mineral resources as well as to extract and to appropriate them exhaustively and exclusively. Both authorisations procure stronger rights against third parties than the exploration licence. These tiered authorisations determine the legal status of an extraction approach in relation to the natural resource. Furthermore, the act regulates the conditions and the requirements for the prospecting, the operation and closure in the form of operating plans.

8.5.2 Competent authority

The German federal system is characterised by the fact that the legislative competencies are basically held by the Federation whereas the execution of the laws is regularly conducted by the federal states in their own right (Art. 83 GG). Thus, the public authorities in charge of the execution of the Federal Mining Act are part of the administrative structure of the federal states. The main task of the mining authorities is the supervision of the provisions (regulations and orders) of the Federal Mining Act, inclusive of the approved operational plans. The authorities have comprehensive administrative instruments for an efficient supervision, including the approval of mining decrees (Sections 65 et seq. BBergG), the grant, refusal and withdrawal of mining rights, the approval of operating plans as well as the power to give individual instructions for the prevention of dangerous situations (Sections 71 et seq. BBergG) and the right to be informed by the mining companies (Section 70 BBergG).Legal issues related to nature conservation arising from the Federal Nature Conservation Act, are generally taken into account in the tests of the respective technical authority (e.g. the mining authorities or water authority). This principle is called “backpack-principle”. The permission according to the federal water management act is granted by the mining authority, which is granting the operating plan, Section 19 (2) WHG. The Water Resource Act states that the official responsibility shall be taken by the lower water authorities. The competences for execution of the Federal Pollution Control Act, the Federal Building Code and the Closed Substance Cycle and Waste Management Act are also regulated by the federal states.

The approval confers the exclusive right to explore minerals and to undertake activities associated with the exploration. An application in written form including the operating plans relating to the proposed technical execution of the measures and a time schedule must be submitted to the relevant mining authority of the federal state. The most substantial reason for rejection may be public interest. The concept of public interest allows such authority to restrict or to deny the approval of the operating plan for reasons of public interest outside of the mining act (e.g. interest of area and urban planning, of conservation of nature and the countryside, of protection against air pollution and noise). In this context, it is debated if and to what extent the interests of private surface owners affected by mining projects have to be considered.

Main problems or major modifications related to exploration licencing

Main problems in the mining field are: Pursuant to laws on natural conservation (e.g. Sections 14, 15 BNatschG) any negative impact on the nature shall be avoided. In addition to that there is legal protection of third parties such as expropriation, Section 77 BBergG, or compensation for mining damage, Sections 170 et. seq. BBergG.

Basically the following main approval procedures for mineral extraction can be distinguished between approval procedures under the Federal Mining Act: approval procedures under the Federal Law on Protection from Emissions, approval procedures under the Federal Building Code / Federal Law on the Conservation of Nature and approval procedures under the Federal Water Resources Management Act as

Based in Freiberg, the State Mining Authority of Saxony is the official, executive authority for this Act. It grants mining permits for mineral resources to be explored and mined, and also supervises active and rehabilitative mining.

The State Mining Authority of Saxony is the supervisory authority appointed by the state government.

The Saxon administration considers itself a service provider of the raw material economy. Building on centuries-old (in some cases) experiences, the aim is to constantly gear the existing structures around the needs of the raw material economy:

- By maintaining an independent, efficient Saxon mining administration,
- By having Freiberg as the central hub of resource-related administration,
- Through continuous dialogue between the administration and business,
- By efficiently structuring administrative processes, and
- By raising awareness of the raw material economy's interests at all levels of administration.

8.5.3 Ownership on minerals vs. land

The Federal Mining Act distinguishes between the so-called "freehold" (or landowned) and "freely mineable" or "free for mining" mineral resources, Section 3 BBergG. Natural resources are, except for water, all mineral raw materials in solid or liquid state and gases in natural deposits or accumulations (deposits) which occur in or on the earth, on the seabed, subsoil or in the seawater.

"Freehold" mineral resources are the property of the landowner and include, according to the Federal Mining Act, basalt lava except the columnar basalt; bauxite; bentonite and other clays containing a high proportion of montmorillonite clays; roofing slates; feldspar, kaolin, pegmatite sand; mica; diatomaceous earth; quartz and quartzite, if they are suitable for the production of refractory products or ferrosilicon; soapstone, talc; trass; clay, if it is suitable for the production of refractory, acid-resistant or for ceramic products not considered to be brickwork products or suitable for manufacturing aluminum; all other mineral resources which are not covered by Section 3 (3) or no. 1 BBergG (cf. below), as they are explored or extracted underground.

"Free for mining" minerals belong neither to a natural person nor to a legal person. In other words, there is no owner and they can be explored and exploited by those who hold the permission according to the Federal Mining Act.

8.5.4 Participation rights

8.5.5 Closure of mining sites

In order to close a mining operation, the operator must draw up a closing operations plan. Contents: Exact description of the technical operation and the period of time for which the closure of the operation is planned. Proof of ensuring protection of a third party from dangers to life and health caused by the operation, also after the operation has ceased. Proof of rehabilitation of the surface area affected by the operation. The closing operations plan must be approved by the relevant authority which is the same as the authority responsible for the operation plans. The operator must carry out the approved closing operations plan. The extent of the measures to be taken results from the closing operations plan and its official approval which may incorporate incidental provisions for additional obligations.

The Federal Mining Act (BBergG)[31] is the major mining legislation in Germany and is a one-stop shop system (which usually excludes aggregates), as the mining authority is responsible for the entire permitting procedure. Permitting and administrative procedures, however, are handled by the state government itself. Thus, implementation differs from state to state depending on the political stance. Based in Freiberg, the State Mining Authority of Saxony is

[31] Bundesministerium der Justiz und für Verbraucherschutz, https://www.gesetze-im-internet.de/englisch_bbergg/index.html ; Improving Framework Conditions for Extracting Minerals for the EU, 2010 EC & Planning Policies and Permitting Procedures to Ensure the Sustainable Supply of Aggregates in Europe, 2010 MUL

the official, executive authority for this Act. It grants mining permits for mineral resources to be explored and mined, and also supervises active and rehabilitative mining.

Saxon

Legal framework conditions and competition

It is worth noting that the work associated with extracting secondary raw materials involves intense regulatory controls compared to mining primary resources. This ranges from concrete specifications in the individual usage stages and processes (e. g. extent of draining or dismantling of scrap vehicles or electrical waste), to target usage quotas, to extensive requirements for analyses and sampling, and not least concrete criteria for determining when a product is no longer waste, and mandatory regulations for manufacturing new materials or products (e. g. EU chemical law). The waste framework regulations implemented through the Closed-Loop Waste Management Act have provided initial ideas for obtaining more raw materials from waste, but these need to be intensified. This comparatively tight legal corset limits leeway for flexible solutions and innovative developments. The state government is always focused on ensuring balanced regulations at an EU and national level, which take into account both environmental requirements and raw material targets. Unlike for primary resource mining, the disposal market also traditionally sees private companies pitted against the municipal authorities as waste management utilities. Insofar as waste provision obligations apply, private companies are initially denied access to this waste. These companies are dependent on the collection procedures of public waste management utilities (e. g. electrical waste) or are bound to the additional specifications stipulated by the public waste management utilities as their clients. But waste is becoming less of an environmental hazard and more of a solution for raw material supply shortages. Given that the process of reclaiming resources, particularly metals and rare earths, from waste involves highly complex procedures and investments in high-tech systems, it pushes the limits of municipal capabilities. Regardless of clear framework regulations and controls, this field clearly belongs to the private economy. Reorientating it requires getting all stakeholders onboard, and exhausting legal capacities at a national and EU level. The amended Closed-Loop Waste Management Act does not meet these needs.

8.6 Greece

Greece's main mining legislation is the national-level Mining Code and the Ministry of Environment and Energy is responsible for issuing permits and licenses relevant to the non-energy extractives industry (NEEI) sector. There are also permits issued at the regional/local level, in which case it is the seven De-centralised Administrations and the 13 Administrative Regions who have jurisdiction. Who issues what permit depends on the mineral type, size of the project/activity, any land use peculiarities of the area of intervention (i.e. frontier area, protected area), and/or the land ownership legal status. Mineral raw materials are separated into two broad categories, and these have important consequences for ownership - metallic minerals, (subsurface or underground) and these do not belong to the landowner or to the state, and quarry minerals, which do belong to the landowner. Exploration and/or exploitation rights for all metallic minerals, except the ones exempted by the State such as energy and radioactive minerals, can be conceded to any interested party.

8.6.1 Legal basics

The Greek Mining Legislation is the set of legal rules that regulate the management and exploitation of the Greek mineral resources. Hence, it comprises all the provisions ruling the conditions and terms for mineral exploration and exploitation and minerals' ownership in

relation to the landownership. It regulates also the mining rights of the Greek State, as well as the role and competencies of the Authorities that grant permit or/and exercise control and inspection on the overall mining activities. The Greek Mining Legislation is framed by extensive environmental legislation, the implementation of which is always a pre-requisite for the final permitting of all mining projects and activities (i.e. exploitation permit). Hence, the Mining Code, the capstone of the Greek Mining Legislation, was established as a special law in 1973 (Legislative Decree 210/1973.

The current administrative structure of the country was established with the Law 3852/2010 and has come into force in the beginning of 2011. Following the enforcement of Law 3852/2010 and the re-structuring of the administrative organization of the Country, a significant number of competencies regarding permitting of mining and quarrying activities have been transferred from the Central State (Ministries) to the de-centralised level.

8.6.2 Competent authority

For the granting of permits for the extraction of ores, the public entity involved is the Ministry of Environment and Energy which grants the mining permit. Besides the Ministry, the co-authorities participating and having a voice in the permitting of mine projects both on national and regional level include the: Land Planning Authorities, Forest and Natural Environment Authorities, (if the project is located within or close to a Forest Area or an area of particular ecological importance), Archaeological Authorities, Water Management Authorities, Regional and Municipal Council Authorities. In addition to the mining authorities, the relevant importance of the other co-authorities related to the specific features of the natural and manmade environment as well as cultural heritage, in the area surrounding the examined mining project. For example, in the case that an open–pit bauxite mine is designed to start operation in the Parnassus area close to Delphi (important archaeological site), the competent archaeological authorities might be the most important authorities in permitting, or entirely stopping this project. Forest authorities or natural environment authorities are often the reason for significant delays in permitting a mine project. The opinion of the Regional or Municipal council may also play a pivotal role in permitting, or eventually non-permitting a mining project.

8.6.3 Ownership on minerals vs. land

8.6.4 Participation rights

Greece's main mining legislation is the national-level Mining Code and the Ministry of Environment and Energy is responsible for issuing permits and licenses relevant to the non-energy extractives industry (NEEI) sector. There are also permits issued at the regional/local level, in which case it is the seven De-centralised Administrations and the 13 Administrative Regions who have jurisdiction. Who issues what permit depends on the mineral type, size of the project/activity, any land use peculiarities of the area of intervention (i.e. frontier area, protected area), and/or the land ownership legal status. Mineral raw materials are separated into two broad categories, and these have important consequences for ownership - metallic minerals, (subsurface or underground) and these do not belong to the landowner or to the state, and quarry minerals, which do belong to the landowner. Exploration and/or exploitation rights for all metallic minerals, except the ones exempted by the State such as energy and radioactive minerals, can be conceded to any interested party.

In Greece, the main first-instance authorities responsible for issuing permits and licences relevant to the NEEI sector are, at the national level, the Ministry of Environment and Energy (YPEN) and, at the regional/local level, the 7 de-centralised (Regional) administrations (tiers of ministries) and the 13 Administrative Regions (L.3852/2010). Who issues which permit depends on the mineral type, size of the project/activity, any land use peculiarities of the area

of intervention (i.e. frontier area, protected area), or/and the land ownership legal status (European Union, 2016a).

8.7 Ireland

8.7.1 Legal basics

The primary legislation applying to mineral extraction are the Mineral Development Acts from 1940 to 2006. All mining of "scheduled minerals" requires either a Lease under the Minerals Development Act 1940 for minerals in State ownership, or a License under the Minerals Development Act of 1979 for privately owned minerals, both are issued by the Minister for Communications, Energy and Natural Resources. Another important law for the permitting is the Planning and Development Act 2000 which regulates planning permissions from local authorities. The legislation applies to the exploration and/or development of minerals both onshore and offshore.

8.7.2 Competent authority

In Ireland, the main responsible authority differs for exploration and extraction phases. **For exploration**, the only authority is the Minister for Communications, Energy and Natural Resources, which acts through the Exploration and Mining Division (EMD) of the Department of Communications, Energy and Natural Resources. EMD is responsible for both onshore and offshore mineral licences. There is no appeals procedure. Local Authorities and An Bord Pleanála (the sole appeal instance) have no role in the issue of Prospecting Licences.
For the **extraction phase,** there are three authorities involved, each granting a different permit (the three permits are required for any mining project to develop). First, the mining licence or lease, a licence granted by the Minister for Communications, Energy and natural Resources. The EMD is the body which carries out the regulatory functions of the Minister. To obtain a mining lease, the applicant must submit a detailed operations plan which has to address a range of issues (method of working, transport, landscape, restoration, etc.). Similar information must be submitted to the County Council to obtain the planning permission. Second, the "Environmental permission": this permission is handled by the Irish Environmental Protection Agency (EPA) (both the initial application and any appeals).The EPA prepares and implements its own environmental monitoring programmes. It is important as it is responsible of awarding the Integrated Pollution Control (IPC) licence and also handles the industrial Emissions.

Third, the planning permission: this is where the Local Authorities (County Councils) come in and An Bord Pleanála is the appeals body. County Councils are responsible for any mineral development within their jurisdiction and have extensive powers to enforce the terms of planning permissions, and to take action against any unauthorised developments. Planning permission is required for any development. This is essentially the construction of buildings and structures and other planning issues such as transport matters. Individual Local Authorities are responsible in the first instance for planning applications. Appeals are handled only by An Bord Pleanála. For the award of this triple-step mining permit, the EMD and the EPA, both national agencies, make the process more centralised than decentralised, i.e. a pure centralization is not the case in Ireland.

8.7.3 Ownership on minerals vs land

Minerals are either State owned or privately owned, but any mineral deposit may also have a combination of both ownerships. Approximately 60% of minerals are in State ownership. Private mineral ownership arises mainly when the lands in question have not been dealt with by the Land Commission since 1903. The main Irish Mining Law, the Minerals Development Act, names "scheduled minerals" to a group consisting of mainly metals and industrial minerals

such as gold, silver, copper, lead, tin, sulphur, molybdonite, mercury, barites, chalk, clay, feldspar, gypsum, rock salt, etc. These "scheduled minerals" belong to the state. Non-scheduled bulk minerals such as stone, clay, gravel and sand are not vested in the State and belong to the landowner (are privately owned).

8.7.4 Participation rights

For onshore mineral developments, the Exploration and Mining Division (EMD) of the Department of Communications, Climate Action and Environment, the Irish Environmental Protection Agency (EPA) and the local authorities (County Councils) are the three agencies whose permission is needed before any development can start. The main authorisation, granted by the Minister, is called "State Mining Facility" or "State Mining Lease/Licence" and is subject to the Minerals Development Acts. Such authorisation is normally granted when permits have been obtained from two other agencies. These permits are Planning Permission from the Local Authority and an Integrated Pollution Control licence from the EPA and they are required for any development involving "scheduled minerals" (European Union, 2016a).

8.8 Poland

8.8.1 Legal basics

The principal legislation concerning permitting procedures are: the Geological and Mining Law (unif. text J.L. of 2019, item 868), Act on the Liberty of Economic Activity (unif. text J.L. 2017, item 2168), the Nature Conservation Law (unif. text J.L. 2020, item 55), the Environmental Protection Law (unif. text J.L. 2019, item 1396), the Water Law (unif. text J.L. 2018, item 2268), the Act on Land Use Planning and Space Management (unif. text J.L. 2018, item 1945).

8.8.2 Competent authority

For exploration, in order to receive a prospecting or exploration licence, it is necessary to obtain the environmental permit ("decision on the environmental conditions" as required by Article 72, par. 1, of the Act on Providing Information about Environment and its Protection, Public Participation in the Environmental Protection and Assessments of the Environmental Impact). **The competent authority that grants the environmental permit is the Regional Director for Environmental Protection** (in case of state-owned minerals excluding curative waters, thermal waters and brines and in case of investments located at the maritime areas of the Republic of Poland). **For landowned minerals, the competent authority is the Head of the municipality (*wójt*), mayor or city president**. **The exploration licence is granted by the Ministry of the Environment** and this includes also a contract for mining usufruct of binding undertaking. The total amount of public entities involved in the process reaches: for state-owned minerals 4 (Minister of the Environment, Head of Municipality, the competent geological administration authority approving the geological documentation and the environmental authority) and for land-owned minerals a total of 2 (Marshal and the Head of Municipality). There are no available statistics concerning an average length to get an exploration license.

For **extraction**, authorities, which are responsible for granting the license, as well as co-authorities (agreeing and expressing opinion), vary depending on the properties of minerals, their location as well as extraction method and size. The environmentally competent authorities granting the permit are the same as previously mentioned. **The mining licence is granted by the Minister of the Environment in the case of state-owned minerals and in the case of a mining area located within the boundaries of the maritime areas of the Republic of Poland**, and by the Marshall or District Head (*starosta*) for land-owned minerals.

8.8.3 Ownership on minerals vs land

The State Treasury is the owner of deposits of hydrocarbons, methane occurring as accompanying mineral, hard coal, lignite, metal ores (with the exception of bog iron ores), native metals, ores of radioactive elements, native sulphur, rock salt, potassium salt, potassium-magnesium salt, gypsum and anhydrite as well as gemstones. Deposits of other minerals belong to landowner (Art. §10 GML).

8.8.4 Participation rights

As part of the process to obtain a mining concession, the local community has the right and the opportunity to express their opinions under administrative procedures related to the Study on the Preconditions and Directions for the Spatial Development of the Commune and/or the Local Land Use Plan, as well as the Environmental Decision for investment. However, at none of these stages submitted applications and comments have to be considered, nor are they subject to appeal to the administrative court. Obtaining a concession for the mining of mineral resources from deposits must be agreed with the head of the commune (*wójt*), mayor or city president and the basis of this is the Local Land Use Plan, or in the case of the absence of it, on the basis of the Study on the Preconditions and Directions for the Spatial Development of the Commune. In simplistic terms, if there is a need to buy private land to build a mine, it is purchased at fair market prices; however, this issue is much more complicated in reality. For example, in the case where minerals belong to the State e.g. copper, or lignite, the owner can be expropriated if he does not want to sell the property voluntarily. Usually the owner dictates the price of the land, but in the case of expropriation, the appraiser performs a valuation.

8.9 Portugal

8.9.1 Legal basics

Until recently the primary legal basic of mineral extraction activity had been the Mining Law No. 18,713 of 1930 as amended by Law No. 90/1990, which established the General Regime for the Discovery and Use of Geological Resources, and the Decree-Law No. 88/1990 which regulated with more detail the use of the mineral deposits. However, in June 2015 the Portuguese Mining Code was revised and the Government enacted the **Law nº54/2015**, which revoked the Decree-Law 90/90 and is nowadays the legal framework regime of exploration and use of existing geological resources in the country including those located in the national maritime area. Now the Government is working on the procedural conduct that will regulate the basic law (Law nº54/2015 referred above), i.e. the legislative regulations for the mineral deposits (mines) and for the hydrogeological and geothermal resources, so this law is still (August 2016) not in force. For quarries the guiding principles relating to the exploration and exploitation of mineral masses (private domain, landowners- quarries) is regulated by the Decree-Law No. 270/2001 which has been amended by the Decree-Law No. 340/2007 of 12th October.

8.9.2 Competent authority

The **main responsible authority for licencing of exploration and extraction of state-owned mineral deposits (metallic and industrial minerals) is the DGEG** (Directorate General of Energy and Geology) in the sphere of the Ministry of Economy. The **DGEG is then responsible for issuing permits for mineral deposits of mineral occurrences with high economic interest** due to their scarcity, high specific value or importance for the application in industrial processes. This refers to those deposits existent within national territory and offshore

within the exclusive economic Zone, and includes mineral substances used to obtain metals that contain gold, silver, copper, etc., radioactive substances, coal, talc, kaolin, diatomite, quartz, precious and semiprecious stones, the sands, gravel, and other aggregates that occur on the seabed and or subsoil of the territorial sea and continental platform. In Portugal, the DGEG acts as a "one stop shop" for state-owned minerals. Notwithstanding the above, specific competencies governed by different co-authorities regarding health and safety, nature conservation and cultural heritage may also apply, e.g. the Portuguese Environmental Agency (within the Portuguese Ministry of the Environment, Territory Management and Energy) issues the environmental permit (e.g. the approval of an EIA) during the extraction phase (no environmental permit needed for exploration).

For quarries, the licencing authority depends on the quarry type. For quarries class 1 (with a surface equal or larger than 25 ha) and for quarries class 2 (underground quarries or open pit quarries with less than 25 ha, but which exceed any of class 3 quarries' limits), the licencing authority is the DGEG. For quarries class 3 (quarries with a surface area < 5 ha and a quarry depth < 10 m and a quarry production < 150.000 t/year and quarry Employees < 15 and explosive consumption < 2.000 kg/year) and class 4 (Small quarries which do not exceed any class 3 quarries limits) the licencing authority is the Municipal Chamber (or Municipality – *Cámara Municipal*).

8.9.3 Ownership on minerals vs land

Ownership of metallic and industrial mineral rights (e.g. kaolin, quartz, feldspar, special clays, special sands, halite, gypsum, etc.) belong to the state (Article § 1 ML). Quarries of construction minerals (e.g. marbles, limestones, clays, granites, aggregates, slates) belong to the landowner.

8.9.4 Participation rights

The Portuguese national mining authority for state-owned minerals is the Directorate-General of Energy and Geology (DGEG; under the Ministry of Economy and Employment) which acts as a "one-stop shop" for mining permits in the exploration, extraction, and post-extraction phases. Therefore, DGEG is the sole institution granting exploration rights and mining concessions to applicants. For obtaining exploration rights, no environmental impact assessment is required. The granting of extraction rights for state-owned minerals is carried out by means of a Government issued contract. Extraction (mining) activities are subject to a mandatory EIA to be evaluated by both National Environmental Institutions – the Portuguese Environmental Agency and the Regional Coordination and Development Commissions – and Geological Institutions of DGEG and National Laboratory of Energy and Geology), depending on the location, dimension, and type of resource to be mined (European Union, 2016a).

8.10 Romania

8.10.1 Legal basics

The extractive activities and the management of solid mineral resources are regulated by the Mining Law no. 85/2003, whose provisions are detailed by the Norms of application of the Mining Law and technical instructions on specific problems (e.g. tariffs for the documents issued by NAMR, monitoring of the fulfilment of environmental obligations and of the mode of operating with financial guarantee in case a closure of the mine/quarry is planned or unplanned, the mineral resources treatment facility and the rehabilitation of the land affected by the extractive waste facility, monitoring post- closing, to restore biodiversity and remedying of environmental damage in case of a major accident, issuance of permits for prospecting/exploitation and licenses for exploration/exploitation, rules for the reporting of the

mine production and calculation of royalties, etc.). These regulations are applicable to the entire country, as Romania does not contain autonomous regions. The local authorities are not empowered to issue regulations on extractive activities, though this statement is not valid in the case of issuing the environmental permit/integrated environmental permit.

8.10.2 Competent authority

Exploitation licences are also granted by the NAMR and between 6 and 9 co-authorities may be involved in the process. These include the NEPA, the National Company Romanian Waters, the Ministry of Finance, the Ministry of Economy and the Ministry of Environment (the Minister of Finance, the Minister of Economy and the Minister of Environment, three persons, need to sign the Government Decisions that approve the extraction licences so that they become valid), the Ministry of Culture (responsible for the archaeological discharge, and at times the Minister of Culture's signature is needed too), the Ministry of Justice (sometimes the signature of the Justice Minister is also required to approve the government decision) and the local public administration (in the cases when the transport of the extracted material induces the degradation of the roads and buildings).

8.10.3 Ownership on minerals vs land

In Romania, all mineral resources (also including coal, mineral water, therapeutic muds and geothermal resources) and hydrocarbon resources are public property of the state (Article §1 ML) and are administered by the National Agency for Mineral Resources (NAMR).

8.10.4 Participation rights

Prospecting permits and exploration licences are issued by the National Agency for Mineral Resources (NAMR) and up to 5 co-authorities might be involved in the process: the National Environmental Protection Agency (NEPA) issues the environmental permit (environmental agreement, includes an appropriate assessment if the proposed project is located in protected areas or in their neighbourhood), the National Company Romanian Waters is involved when the mining works are located in the river beds and terraces below the hydrostatic level, the Ministry of Culture is responsible for any archaeological discharge, and the Ministry of Finance is involved in setting the level of taxation (European Union, 2016a).

8.11 Spain

8.11.1 Legal basics

Mining operations in Spain are governed by the Spanish Mining Law 22/1973, of 21 July, and its regulations approved by Royal Decree 2857/1978, of 25 August. These laws are applicable to the whole country. The exploration and production of hydrocarbons are regulated by the Hydrocarbons Law 21/1974. Permits regarding natural oil and gas are governed by specific regulations (mainly Act 34/1998, of 7 October, on hydrocarbons modified by Law 8/2015, of 21st May). However, principles and procedures are similar to the ones under mining laws. As of today, since Act 25/2009, of 22 December, there are no special rules or requirements applicable to foreign applicants for authorisations or concessions governed by mining laws. Each of the seventeen Spanish Autonomous Region may enact additional mining rules provided the basic mining system governed by national provisions is respected. According to Law 22/1973, all mineral deposits and geological resources within Spain are public domain goods. Therefore, mining activity must be preceded by the corresponding permit or concession. The specific permit/concession empowering mining activity depends on the type of mineral commodity (“mineral section”).

8.11.2 Competent authority

The permit/concession allowing mining activity depends on the type of mineral commodity ("mineral section"). The competent authorities governing mineral exploration and extraction are: General Directorate of Energy and Mines Policy (Ministry of Industry, Energy & Tourism), Ministry of Agriculture, Food and Environment, Ministry of Education, Culture and Sports and the Ministry of Public Works, Departments of Industry, Environment, Culture and Public Works of each of the 17 Autonomous Regions.

The region Andalucia is currently in a two-step process of changing the permitting/legal frameworks to increase transparency, predictability and efficiency by working with the national level administration to change the Mine Act, and through the development of a new regulation at the regional level to add the Service Directive Principles to the permitting regulations for mining. In terms of changing the Mine Act, the region is developing a framework consisting of main themes to be considered in a new Mining Act with an accompanying proposal on how to solve them. In a future step, stakeholders will be invited to the process. To accomplish this, there is a working group of national and regional mining Administration representatives that are shifting the focus of the Mining Act as it is currently addressed in the Spanish Constitution in order to alter the competence distribution between autonomic regions, add new environmental and land use planning regulations, new worker safety conditions, etc.

8.11.3 Ownership on minerals vs. land

All minerals including territorial sea and continental shelf are of public domain (state-owned) (Art 2 of the ML). No mineral resource is owned by the landowner, but less valuable resources, in terms of unitary values or which need minor processing (aggregates, construction rocks, clays, etc.) can only be exploited by the land owner (or its lessees) by and administrative permit, instead of by a mine concession.

8.11.4 Participation rights

Andalucía

There are many opportunities during the permitting processes for public participation, but the main grievance mechanisms are through the courts.

Changes are also to be made to the mining permit regulations, i.e. in electronic communication between the Administration and companies in the different administrative processes in order to unify and simplify the process, harmonize the various requirements, better manage and disseminate geological data, regulate the participation of the local administration and local communities in the process, facilitate investment in mining within the region, etc.

Castilly y León

The regional administration of Castilla y León strongly supports the mining/metallurgy industry. As noted previously in the summary of Andalusia, the basic mining legislation is defined at the national level (Mine Act), but competences usually correspond to the regional authorities. Land use planning, via the Law of Urbanism of Castilly y León, is one of the major mechanisms to protect potential mining sites. Rural lands can be classified in 10 categories, one of which is specifically set aside for extractive activities. The Extractive category is only implemented in very specific cases, i.e. in practice limited to ongoing exploitations. A different one (rural common) allows mining, among other activities. The other eight categories do not allow extractive activities, even with an approved Environmental Impact Assessment. So, if a company wants to set up an exploitation on land in one of these categories, they have to apply for an urban rezoning to that of the Rural Common or Extractive categories. The rezoning is a process that can last two years or more, depending on the municipality, and it is not always achieved. Hence, the Law of Urbanism is now viewed more as an obstacle for mining activity.

There is also limited contact with stakeholders in this process as only those stakeholders in the area subject to planning are consulted. Royalties from mining activities are not regulated so any possible benefits for local communities have to be negotiated on a case by case basis with mining companies and the local authorities.

The main mechanism for community participation is during the permitting processes' public consultation periods in the Spanish Mine Act. The Regional Administration does not play a strong role in managing social issues, as they only manage general technical issues in order to make the companies comply with requirements.

There have, however, been efforts to increase transparency recently in legislation, the most recent being in 2017, with the approval of the Regional Strategy of Mineral Resources. Most notably, the system warrants that the mining companies must establish at the beginning of their activity in order to ensure the correct restoration at the end of the mining works has been improved. Mine closure is important and rehabilitation plans are compulsory. The procedure includes public consultation periods, so municipalities have the opportunity to intervene. There are also soft law measures companies have taken to increase transparency. For example, some companies have implemented the System of Sustainable Mining Management (UNE 22470 and 22480) voluntarily.

8.12 Slovakia

8.12.1 Legal basics

The legal framework relevant for permitting procedures comprises mainly the Mining Law (Law No. 44/1988 Coll.635 with amendments) and the Geological Law (Law No. 569/2007 Coll. with amendments). Other important laws are the Law No. 543/2002 Coll. on nature and landscape protection, the Law. No. 24/2006 Coll. on the environmental impact assessment, the Law No. 39/2013 Coll. on integrated prevention and environmental pollution control, and the Water Law (Law No. 364/2004 Coll.).

8.12.2 Competent authority

Competent authorities are the Ministry of Environment of the Slovak Republic, Ministry of Economy of the Slovak Republic, Main Mining Office and the Regional (or District) Mining Offices.

8.12.3 Ownership on minerals vs. land

According to the Mining Law No. 44/1988 Coll. on mineral protection and exploitation as amended by regulations, minerals are divided into "reserved" and "non-reserved". Natural or artificial (anthropogenic) accumulations of minerals form mineral deposits. Deposits of "reserved minerals" (reserved deposits), together with natural rock structures and underground spaces, suitable for gases and liquids storage and the use of geothermal energy represent the state´s mineral wealth. According to the Article 4 of the Slovak Constitution, mineral resources, underground water, natural medicinal springs, and waterways are in the ownership of the Slovak Republic, i.e. are state-owned.

8.12.4 Participation rights

The number of co-authorities involved in the permitting procedure varies widely for the exploration and extraction of "reserved minerals" ranging between 1 and 27. For exploration and extraction the competent authorities are the Ministry of Environment and the Regional (District) Mining Office, respectively. Besides the main authorities, the standpoints of local

authorities must be consulted, encompassing the standpoints of the county and municipality offices (their number changes according to the extent of the territory covered by the exploration or mining area), as well as all subjects of nature protection, the standpoint of the State Geological Institute of Dionýz Štúr (Division of Geofond) and the standpoint of the holder(s) of the exploration area for other purposes (European Union, 2016a).

8.13 Sweden

8.13.1 Legal basics

The primary law concerning the extraction of minerals is the Minerals Act[32] (1991:45) as amended subsequently. The Minerals Act is a merger of the old 1974 Mining Act (staking system) and the 1974 Minerals Act (concession system). It governs mining and exploration for the minerals covered by the Minerals Act (concessions minerals, traditional metals, many industrial minerals, as well as oil, gas, and diamonds), irrespectively of who owns the land to be explored or mined. The Minerals Act was implemented on 1 July 1992. It has subsequently been amended as:

- 1 July 1993, abolition of the rules giving the state a half share in mines (1993:690),
- 1 July 1998, introduction of protection zone rules for mines (1998:165),
- 1 January 1999, adapted to the new Environmental Code (1998:808), which entered into force on the same date (1998:845),
- 1 May 2005, introduction of plan of operations (exploration may only be carried out with a valid plan of operations) and introduction of a minerals fee (2 ‰) to landowners and to the state (2005:161),
- 1 August 2014, more stringent and clearer requirements for a plan of operations, right to translation of the plan of operations into certain national minority languages (2014:782),
- 1 July 2015, exploration and extraction of oil and gas are not allowed at sea (2015:282)

The Minerals Act is applicable in parallel with other legislation to all exploration and extraction works. Among the acts with provisions affecting the activities referred to in the Minerals Act are the following: the Planning and Building Act (2010:900), the Environmental Code (1998:808), the Cultural Heritage Act (1988:950) and the Off-Road Driving Act (1975:1313). The Environmental Code is particularly relevant, e.g. permits for extraction must be granted under both the Minerals Act and the Environmental Code. The Environmental Code can also apply for situations and/or measures taken during the exploration phase, thus requiring certain approvals, permits or dispensation from nature protection rules. Aggregates (construction minerals and industrial minerals) are not covered by the Minerals Act and are consequently mainly governed under the Environmental Code.

8.13.2 Competent authority

The Mining Inspectorate of Sweden, which is a part of the Geological Survey of Sweden (SGU), is the official institution responsible for issuing permits for exploration and mining[33]. The Mining Inspectorate of Sweden takes the position that the mineral sector is crucial for employment in Sweden (particularly in those regions where the mines are located)

[32] https://www.sgu.se/en/mining-inspectorate/legislation/why-legislation-on-minerals

[33] https://minerals.usgs.gov/minerals/pubs/country/2014/myb3-2014-sw.pdf

The **competent authority for mining is the Mining Inspectorate**, headed by the Chief Mining Inspector (a government appointee), **who issues permits for mineral exploration (exploration permits) and extraction (extraction or exploitation concessions) for mineral deposits associated with the Minerals Act**. The Inspectorate is also the regulatory authority for mining and exploration activities, it supervises and carries out inspections of exploration and mines. The Mining Inspectorate is part of the Geological Survey of Sweden (SGU), the competent authority for issues relating to bedrock, soil and groundwater in Sweden. Although the Mining Inspectorate is part of the SGU, it has an independent role in the exercise of authority concerning permitting and supervising in matters of exploration and mining activities. The SGU has a more general role and, among others, provides public information about exploration and mining and regarding mineral legislation. The SGU is under the jurisdiction of the Swedish Ministry of Enterprise and Innovation. The permits required for exploration and extraction of metalliferous minerals are decided step by step and by different authorities.

8.13.3 Ownership on minerals vs. land

The ownership of mineral deposits is not defined in Swedish law. Historically and to date, there has been a breakdown of claims between the state, land owners and the prospector/finder. The right to grant access to "concession minerals" and permits to exploit deposits is reserved to the state (i.e. the Mining Inspectorate). The "concession minerals" are legally defined and listed in the Minerals Act, consisting of metallic ores, a wide range of industrial minerals, coal, oil, gaseous hydrocarbons and diamonds.

Northern mining countries

According to chapter 3 section 5b, landowners or land users may request a translation of the exploration work plan in the minority languages Finnish, Meänkieli or Sami. This right applies to certain areas of Sweden, as designated according to the Act on National Minorities and National Minority Languages of 2009.

8.13.4 Participation rights

The competent authority for mining is the Mining Inspectorate, headed by the Chief Mining Inspector (a government appointee), who issues permits for mineral exploration and extraction (concessions) for mineral deposits associated with the Minerals Act. In the process for exploration permits, the County Administrative Board, the municipality and the Sámi Parliament (the Parliament of the Sámi indigenous peoples) are also involved in the process and are entitled to comment on the application. Regarding the extraction concession procedure, the County Administrative Board takes part in the evaluation of land use issues connected to the location of the extraction area applied for (European Union, 2016a).

AD 'Mining northern countries'

It is mandatory for the Mining Inspectorate to consult with the County Administrative Board on issues of land use and environmental impact, which in turn often consults with municipalities and other government agencies. Other stakeholders are also to be informed and allowed to express their opinion at this point. An EIA has to be conducted, however this is limited in contents and focuses more explicitly on land use, whereas a larger EIA is to be conducted later on as a part of the environmental permitting phase. These EIA processes also differ in consultation requirements, which are more extensive for the latter.

If possible, conditions may be attached to an exploitation permit so to allow for the co-achievement of different land use purposes.

According to the Minerals Act, a permit granted by the Mining Inspectorate may also be appealed to the Government by relevant municipalities and by environmental NGOs that fulfil certain criteria (The main criteria are that NGOs shall be non-profit, must have been active in Sweden for at least three years, and have at least 100 members or broad public support. See Environmental Code, chapter 16, section 13.).

Provisions regarding Samis

Sweden, like Finland and Norway, is also home to the Sami people. The population is estimated to number between 20,000 and 40,000 persons[34], and the Swedish Sami Parliament was inaugurated in 1993. Like in Norway but unlike Finland, Samis in Sweden exercise exclusive right to reindeer herding. The right is reserved to members of a "sameb", an economic association which is entitled to practice reindeer herding in a designated area.

The Minerals Act does not include any explicit references to Sami rights or reindeer herding, unlike its Finnish and Norwegian counterparts.

The Minerals Ordinance specifies that the Sami Parliament shall be informed on applications and decisions on exploration and exploitation permits. However, areas of national interest for reindeer herding are protected through the Environmental Code, and the Sami Parliament is responsible agency for identifying such areas. Notably, these areas may overlap with other national interests, as designated by other agencies, in which case the exploitation permit process is supposed to decide on which land use best contributes to sustainable development. This includes inter alia national defence, energy production (e.g. wind power), nature conservation, but also mineral exploitation.

In order to open a mine, an environmental permit under the Environmental code is needed, which is granted by the Land and Environment Courts. An environmental permit may also be needed if test mining is to be conducted within the framework of an exploration permit. Prior to submitting an application for an environmental permit, affected stakeholders, municipalities and government agencies are to be consulted.

The aim is to clarify issues at an early stage, and to allow for discussions and possible modifications of plans in order to minimise negative impact.

Here as well, an EIA is also to be conducted. It differs from the previous EIA in that the former has a more limited focus on alternative land uses and, unlike the EIA conducted under the Environmental Code, does not require stakeholder consultations (although this is recommended).

There is no legal requirement to establish a Social Impact Assessment, although some companies have done this nonetheless. One study indicates that the reason for the more voluntary SIAs may be influence from international trends.

After receiving the application, a process starts whereby the Land and Environmental Court tries the application. This involves several stages of consultations and negotiations, which ultimately may lead to the approval of the permit and setting of environmental conditions for the subsequent mining activities. This may include e.g. limits to emissions as well as establishment of security for environmental rehabilitation.

Decisions may be appealed to a higher court. Decisions on permitting of uranium mining are tried by the Government, according to the Environmental Code. The Government can however only permit uranium mining if the relevant municipality has given its consent.

[34] https://www.sametinget.se/kortfakta

8.14UK

Minerals within an area of interest may be vested in a number of 'owners', particularly in areas like Cornwall, where mineral ownership can be difficult to trace due to antiquity and a lack of formal cadastral system. Royalties to grant exploration and mining licenses are determined by the mineral owner. These issues can be a significant obstacle to new mineral products. Although there is no specific UK-wide licensing system for exploration and extraction activities in the mining sector, planning permission must be obtained from a mineral planning authority for the extraction of minerals, and a number of environmental consents and safety systems must be in place in order for any specific mining operation to be conducted lawfully. The national government's role is mostly constrained to setting national planning policy whereas the majority of decisions in relation to individual planning applications, and the responsibility for enforcement activity, rest with local planning authorities. Both at a regional level (regional planning policies for mineral extraction) and at a project-specific level (granting permission for specific mining projects), planning authorities play a large role in mining projects.

UK mineral projects need various permissions, at all stages, from different regulatory bodies (or separate departments in the same body). Most of these require some form of external disclosure and opportunity for stakeholder comment within the determination process. Many stakeholders first hear the details of a project via regional authorities at the determination stage, once the applicant has expended time and resources on technical designs and supporting studies. The timing and length of the statutory consultation period, and subsequent consideration of stakeholder concerns, can also create a lag, especially when extra studies are required. Furthermore, where proposed developments straddle the jurisdiction of more than one regulatory authority, two disparate stakeholder disclosure and consultation processes can be initiated. In the UK, there is a disconnect between voluntary stakeholder engagement initiatives by a mineral developer and the statutory public consultation process by regulators for permitting. There is room for a more comprehensive and cohesive process within the regulatory regime, which promotes not only a more coordinated approach between government bodies, applicants, statutory consultees and wider stakeholders, but also a more efficient and cost-effective application process.

8.14.1 Legal basics

There is no single or unified code of mining law in the UK. There are 3 separate components:

- **Ownership of the right to access and extract the mineral** (the UK legal term is "winning and working");

There is no single UK regulatory regime for mining. Mining in the UK is governed by different laws and regulatory authorities depending on the nature and location of the proposed mining activity. Broadly, regulation for mining can be categorized by reference to specific minerals – gold and silver, coal, oil and gas, and all other minerals.

Although there is no specific UK-wide licensing system for exploration and extraction activities in the mining sector, planning permission must be obtained from a mineral planning authority for the extraction of minerals, and a number of environmental consents and safety systems must be in place in order for any specific mining operation to be conducted lawfully.

Schedule 1, Part 1. Section 17 of The Town and Country Planning (General Permitted Development) (England) Order 2015 (Mining and mineral exploration), controls non-oil and gas mineral exploration, with corresponding legislation in the devolved administrations of Scotland, Wales and Northern Ireland. Class J of the order dealing with the "temporary use of land etc. for mineral exploration" permits: - development on any land during a period not exceeding 28 consecutive days consisting of–

(a) The drilling of boreholes;

(b) The carrying out of seismic surveys; or
(c) The making of other excavations, for the purpose of mineral exploration, and the provision or assembly on that land or adjoining land of any structure required in connection with any of those operations.

8.14.2 Competent authority

UK has no specific Mining Authority; the principal consenting powers being devolved to the Mineral Planning Authority.
The planning system is designed to be applied by local government and communities. Many parts of England have three tiers of local government:

- County councils
- District, borough or city councils
- Parish or town councils

Local government administers much of the planning system, preparing Local Plans, determining planning applications and carrying out enforcement against unauthorised development.

District councils are responsible for most planning matters in England, other than transport and minerals and waste planning which are functions of the county council in the "2-tier" or "shire" areas. However, in increasing parts of the country local reorganisations are creating single tier (or "unitary") authorities that have responsibility for all planning matters including minerals. (Unitary authorities have existed for a long time in the major metropolitan areas outside London. In London, the Boroughs are the mineral planning authorities, though the Mayor also has powers to determine certain planning applications of potential strategic importance. However, in practice very little mineral working is now possible or carried out in London. In the national parks, (10 in England, 3 in Wales and 2 in Scotland), planning functions are carried out by the park authority. In Scotland, Wales and Northern Ireland planning functions are carried out by unitary district councils.

The national government's role is mostly constrained to setting national planning policy whereas the majority of decisions in relation to individual planning applications, and the responsibility for enforcement activity, rest with local planning authorities. Both at a regional level (regional planning policies for mineral extraction) and at a project-specific level (granting permission for specific mining projects), planning authorities play a large role in mining projects.[35]

8.14.3 Ownership on minerals vs. land

In general, non-energy minerals in the UK are privately owned. The exceptions are gold and silver (extracted on a very small scale in Northern Ireland) which are owned by the Crown (in effect the UK Government), and minerals extracted in Northern Ireland after the passing of the Mineral Development (Northern Ireland) Act 1999, which are owned by the provincial Government of Northern Ireland (except for gold and silver, as noted above, and "common substances" such as rock, sand and gravel used as construction aggregates). There is no national register of mineral ownership, but the Land Registry may have details of surface ownership and current ownership of mineral rights where this is registered.
A significant variant of the principle of private ownership is that non-energy minerals on almost all the seabed in UK territorial and economic zone waters are owned by the Crown Estate. This is technically not the same as the Government. The Crown Estate, which has its origins in the Norman Conquest of England in the 11th century, is an independent commercial body

[35] https://iclg.com/practice-areas/mining-laws-and-regulations/united-kingdom; website accessed 9 July 2018.

administering and developing historic Crown lands and property. Its revenues help offset the public costs of the UK monarchy.
Other than gold, silver, coal, oil and gas (held by the Crown and/or the State) mineral rights (effectively ownership) can be held by an individual, family or other entity. The mineral owner is often a separate entity to the land owner. Furthermore, the minerals within an area of interest may be vested in a number of 'owners', particularly in areas like Cornwall, where mineral ownership can be difficult to trace due to antiquity and a lack of formal cadastral system. Royalties to grant exploration and mining licenses are determined by the mineral owner. These issues can be a significant obstacle to new mineral products.

8.14.4 Participation rights

UK mineral projects need various permissions, at all stages, from different regulatory bodies (or separate departments in the same body). Most of these require some form of external disclosure and opportunity for stakeholder comment within the determination process. Many stakeholders first hear the details of a project via regional authorities at the determination stage, once the applicant has expended time and resources on technical designs and supporting studies. The timing and length of the statutory consultation period, and subsequent consideration of stakeholder concerns, can also create a lag, especially when extra studies are required. Furthermore, where proposed developments straddle the jurisdiction of more than one regulatory authority, two disparate stakeholder disclosure and consultation processes can be initiated. In the UK, there is a disconnect between voluntary stakeholder engagement initiatives by a mineral developer and the statutory public consultation process by regulators for permitting.

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10. QUESTIONNAIRE/MIREU REGIONS

A version of the detailed questionnaire based on the MINLEX and MINATURA2020 experience to receive inputs from the MIREU regions was prepared.

MIREU – T3.1 Review of the applicable regulatory and policy conditions in the MIREU regions

Grant Agreement requires:

- Development of a comprehensive map of the prevailing regulatory and policy regime covering the whole mine life cycle and metallurgical value chain

According to GA, Questionnaire should cover (minimum):

Policies

- mineral raw materials, economic and other regional development policies
- Environmental policies

Regulations

- Regulatory and permitting processes at various administrative levels
- How such processes are implemented
- By whom they are implemented
- Applicable laws, by-laws and regulations
- Land use and zoning regulations

MIREU – Mining and Metallurgy Regions of EU - DRAFT QUESTIONNAIRE

MIREU in Brief

The Horizon2020-funded project MIREU aims to establish a network of mining and metallurgy regions across Europe with a view to ensure the sustained and sustainable supply of mineral raw materials to the EU. The network will help the participating regions to share knowledge and experiences when facing the challenge to establish and maintain an extractive industry. MIREU will facilitate an exchange between all interested stakeholders in the regions, namely regulatory authorities, political and administrative bodies, development agencies, mining companies, non-government organisations, as well as the general public. The project will develop a shared knowledge base, taking into account the region-specific geographic and economic features, cultural, societal and language diversity, and their historical developments. The network will also learn from experience in other regions of the world. This knowledge base will allow to understand what has been conducive and what hampering to the development of extractive and metallurgical industries. It will also provide the context for a bottom-up integration of these activities into their respective socio-economic and socio-cultural context.

Development is about people and, therefore, bringing people into the decision-finding procedure in order to achieve a 'social license to operate' will be a key aspect of the project. Guidelines and recommendations for actions to be taken to foster a sustained and sustainable development of the extractive industries will be developed in close co-operation with a range of selected regions from the European Union. These regions will form a nucleus and multipliers for a more extensive network beyond the life-time of the project.

Why this questionnaire?

This questionnaire aims to collect information on the policy and regulatory framework of the MIREU partner regions in order to deduct which aspects might be conducive and which aspects are hampering the development of mining activities. Given the importance of the regional and local

(municipal) levels in governing mining activities, we have created this Questionnaire to collect and analyse detailed information on policy and regulatory aspects at regional level governing the mining sector.

How will information be used?

All the collected data and information will be processed within the MIREU project

Personal contact information will not be disclosed to any third party and will not be used for any advertising. All information will be analysed and disclosed without any individual names linked to any statement. Your name and position is requested only to be acknowledged in the report. Your participation is entirely voluntary.

DRAFT QUESTIONNAIRE

- Region/Country
- Name of authority or organization:
- Main mining activities
- Main metallurgical activities

POLICY DIMENSION

National level

1. In your country, is there a National Minerals Policy Framework (NMPF)? If yes, what is its name?
2. In such Policy Framework, are included goals to promote mining and metallurgical activities as drivers of regional economic development?
3. How is the NMPF implemented at regional scale?
4. What is the vision for its future and also the future of the mining/metallurgy industry?
5. Which Ministry or state-office is in charge of developing such National Policy?
6. When developing a national mining policy framework are regional stakeholders included?
7. If yes, who are the regional stakeholders and what are their perspectives? (Companies, government authorities, NGOs, the media, etc.). Please describe the main ones involved with relevance for mining projects.
    a. Are there representatives that credibly speak for these different stakeholder groups?
    b. Are there stakeholders who are marginalized?
    c. Are there stakeholders who cannot be appeased? What happens with those stakeholders?

Regional level

8. From your regional point of view, do you believe such National policy has been effective in achieving its goals? Why yes? Why no and what needs improvement? (drivers, barriers, etc.)
9. In the region you are based, is there a Regional Policy to promote mining and metallurgical activities as drivers of regional economic development?
10. What is the vision for its future and also the future of the mining/metallurgy industry?
11. When developing a regional mining or metallurgical policy framework are stakeholders from different sectors included?
12. If yes, who are the regional stakeholders and what are their perspectives? (Companies, government authorities, NGOs, the media, etc.). Please describe the main ones involved with relevance for mining projects.

a. Are there representatives that credibly speak for these different stakeholder groups?
b. Are there stakeholders who are marginalized?
c. Are there stakeholders who cannot be appeased? What happens with those stakeholders?

13. Are there regional policies that facilitate and encourage responsible product design, use, re-use, recycling and disposal?

LEGAL DIMENSION (regional level)

14. Which are the main (regional) laws and regulations applicable to the mining and metallurgical industry? (covering exploration, extraction, beneficiation, closure and reclamation)
15. How they are administered (nationally, regionally and locally) and by which institution
16. Do you believe the legal framework is updated and adapted to the challenges currently faced by the mining/metallurgical industry in your region? Why yes? Why not, and how do you suggest improvement?
17. Does the regulatory framework encourage companies to implement good practices or obstructs them?

LAND USE PLANNING (regional level)

18. Are areas of potential mining protected and designated as such on land use plans (legally binding, non-binding)?
19. Are relevant stakeholders involved in the regional land use planning process? (legal vs voluntary)

SOCIAL ACCEPTANCE of MINING/METALLURGY (regional level)

20. How strong does the regional government's political framework consider the social acceptance practices of a company?
21. Is the term 'social license to operate' considered? If not, is there an equivalent concept?
22. Are environmental impact assessments or permits for mining/metallurgy projects contested?
23. Are there participation rights for communities?

PERMITTING (regional level)

24. What is the role of the (national/federal/local) state versus the region in the approval process of an exploration and/or a mining or metallurgy project?
25. Does the region have autonomy to create its own mining legislation and adopt its own guidance materials or is mining mostly regulated by the (national/federal) state?
26. What are the project level requirements for mineral developers (e.g. permits; submissions like EIAs); duration of the process
27. Is there legislation that regulates the analysis and mitigation of social impacts?
28. Are Social Impact Assessments required during permitting approval procedures? Participation rights for communities?
29. Has the regional mining authority implemented structural changes in their permitting legal frameworks to increase their transparency, predictability and efficiency?
30. Should legislation (permitting and licensing processes) be changed to include SLO practices (assuming whatever practices are chosen are tailored to the region)?

31. Do residents trust existing formal participation mechanisms or have decisions been made by local referendum or other means?
32. During phases of public consultation for permitting advanced mining/metallurgy projects, how is the feedback given by the public integrated/considered during the decision-making process (before permits are issued)?
33. Do companies make it public (report) how the opinions and concerns of local/regional communities were considered and influenced the project design?
34. Ownership rights of minerals?
35. How is reclamation considered? (Process for which mining operator is responsible)?