

Corporate social responsibility within the mining industry: case studies from across Europe and Russia

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ABSTRACT

Responsible mining requires stakeholder engagement throughout all operational stages and after mine closure. By assessing the current and anticipated future socio-economic and environmental impacts, a company can maximise the positive impacts they can have on a community, whilst minimising any negative impacts. Despite the current emphasis on companies maintaining effective stakeholder relations to gain their 'social license' to operate, findings of the present study reveal a wide variation in community expectations, with different degrees of 'acceptability' evident across seven sites in Romania (Roşia Montana), Sweden (Kristineberg), the United Kingdom (Cornwall), Bosnia Herzegovina (Vihovići) and Russia (Karabash, Gay and Mednogorsk). These variations reflect the current status of mining within a community, as well as its socio-economic background and the nature of existing engagement with mining companies already operating in the region.

INTRODUCTION

Corporate Social Responsibility (CSR) and responsible mining

Responsible business practice is defined in this study as taking an anticipatory and proactive approach to ensuring responsible operations, during all phases, that prevent environmental pollution, respect human rights and mitigate and plan for any negative social impacts [30]. It is perhaps easier, however, to look at associations developed through media attention that negative mining projects and related incidents receive, creating clear images to most people/stakeholder groups of what 'irresponsible mining' is. Society concerns often create backlashes within the industry of concern, with undoubted pressure growing for companies to respond to the so-called 'voice of society' [30]. In order to learn sufficiently from incidents in the past, responsible mining needs to adhere to the precautionary principle, where common sense decisions are taken on the understanding of hazards and their associated 'risk' potential when high standards of practice are followed. Whitmore [32] suggests that lobbying against the polluter pays and precautionary principle is in some way an admission that the technology used in mining can sometimes still not be regarded as safe. A counter argument by Jenkins [15] was that because metals are fundamental to our current existence, and are therefore needed to sustain life as we know it, that 'mining' is fundamentally compatible with 'sustainability' [15]. Perhaps, the argument should not be about whether mining can ever be regarded as 'sustainable' as was suggested by Whitmore [32], but should relate to how we can make it 'more' responsible, as the aim of continually striving to

improve practice cannot be questioned. Furthermore, the United Nations Development Programme (UNDP) describes sustainable development as a process for realising human development 'in an inclusive, connected, equitable, prudent and secure manner' [2]. Given our dependence on mining for the foreseeable future, this description emphasises how essential CSR is to mining companies who want to be seen as being responsible.

Key drivers / factors that influence CSR

There are different 'layers / mechanisms' for enforcing responsible / sustainable mining practices. At a national level, legislation and guidelines will be available, and each country will have its own mechanisms for enforcement. A country that is able to enforce tighter controls can use this as a policing mechanism to mitigate against any negative aspects of mining and maximise the benefits. Developing countries, however, often have policies in place but do not have the money or manpower for enforcement, and therefore face greater challenges in mitigating for the potential impacts of mining. There is also an element of the 'voice of public opinion' being greater in developed countries compared to developing countries, with corporations having paid more attention to the concerns of communities in developed countries than developing ones [17]. Apart from legislation within a country, there are also controls from other governing bodies, for example, countries within the European Union (EU) have to comply with EU laws and directives. The mining industry itself also has voluntary codes and guidelines that companies may choose to sign up to as a way of acknowledging their good practice. International organisations, like the World Bank, the UN and NGOs, also provide guidelines that challenge industry practice and performance. In 2009, KPMG carried out a survey of mining companies and regulatory issues came out as the top challenge, followed by cost escalation, access to new properties/projects, scarcity of skilled labour and government involvement in the industry [19]. The issues relating to regulations and government involvement were much lower down the list when the same survey was undertaken in 2008 [19].

Globally, one of the key instigators of responsible business practices has been the introduction of the Equator Principles (EPs). These are standards within the finance industry that require projects being financed by institutions signed up to the EPs on a voluntary basis to assess and review the environmental and social impacts of a project prior to financing decisions being made. These standards were introduced in 2003 and aim to ensure transparency in all aspects of how a business operates. The introduction of codes of practice, like the EPs, are consumer driven initiatives, with many examples showing the pressure that banks are under to stop funding projects that have negative social or environmental impacts. The environmental and social issues associated with mining projects have led Barclays to automatically classify all mining projects as category A, the EPs highest category in environmental and social impacts, which therefore require the highest scrutiny of the details of the project when they are considering finance strategies for [9].

Mining companies work internationally and are continually striving to open new projects. Kapelus [17] suggests that Globalisation is a driving force pushing companies to pay more attention to their CSR in developing countries as NGOs are also working in a wider, more globalised manner. The voice of society is changing and expectations of people to ensure their environment and society is treated responsibly, by themselves and others, is increasing. The combination of increasing awareness and the increase in expectations of different stakeholders (including the media), has placed demands on industries to reassess how they carry out their business interactions relating to all aspects of sustainability.

From within the mining industry itself, there are further voluntary codes and legislation emerging. For example, The International Council on Mining and Metals (ICMM) have their own set of ten principles that mining and metals companies can sign up to relating to stakeholder engagement and communication. In 2008, ICMM company members were committed to following the Global Reporting Initiative (GRI) sustainability reporting framework [10]. The purpose of this is to commit

an organisation to report on their economic, social and environmental performance [21]. The GRI allows organisations to create their own benchmark within the context of their social, environmental and economic performance, from which they can maintain annual comparisons. Examples of other voluntary codes are: the UN Global Compact, the Alliance for Responsible Mining (ARM) with initiatives aimed at small scale mining and the Initiative for Responsible Mining Assurance (IRMA) working across sectors (mining companies, jewellery, NGOs and trade associations) to develop a means by which companies can comply with environmental, human rights and social standards for mining companies [13]. The UN Global Compact, for example, is aimed at businesses that want to align their operations and strategies to ten principles in the areas of labour, environment, human rights and anti-corruption. It now has over 7700 participants who support the ten principles in their businesses or organisations [29]. In 2010, the International Organisation for Standardisation (ISO) brought out a new standard (ISO 26000) relating to social responsibility and sustainable development, encouraging organisations to go beyond legal compliance [14]. ISO 26000 provides guidelines for a company on:

- Concepts, terms and definitions related to social responsibility.
- The background, trends and characteristics of social responsibility.
- Principles and practices relating to social responsibility.
- The core subjects and issues of social responsibility.
- Integrating, implementing and promoting socially responsible behaviour throughout the organization and, through its policies and practices, within its sphere of influence.
- Identifying and engaging with stakeholders; and
- Communicating commitments, performance and other information related to social responsibility [14].

Stakeholder identification

Identifying and defining stakeholders can be a contentious issue in any mining project. Cragg and Greenbaum [7] found that managers of one mining company regarded parties directly affected by the mining project as 'legitimate' stakeholders, with an overall consensus view from this particular company that their responsibilities to stakeholders was a negative obligation. The interviews for the study by Cragg and Greenbaum [7] were carried out in 1995-1996 and it is likely that views and perceptions from all sides of the mining industry have since moved on. Warhurst [30] spoke about a paradigm shift from companies taking an approach of 'doing no harm', to wanting to 'demonstrate positive development benefits' to stakeholders.

METHODS

What work has been done in the current study?

Research has involved 49 interviews across seven sites in five different countries and a combined total of 703 surveys across these sites (Table 1). The work for this study is part of a European Union funded project, ImpactMin, and the sites discussed in this paper were selected as part of the wider ImpactMin study. Partners on the EU funded project included Roşia Montană Gold Corporation (RMGC), but not any of the other mining companies discussed in this paper. The findings presented here are independent. Interviews have been carried out with a wide range of stakeholders (many have involved multiple groups of people) including members of the local community, local and regional government officials, NGOs, people from different industries e.g. mining engineers, geologists, forestry workers, community groups and people who work in different roles for the mining companies.

Country	Study area	Number of surveys completed
Bosnia Herzegovina	Vihovići	124
Romania	Roşia Montană	97
Russia	Gay	41
Russia	Karabash	40
Russia	Mednogorsk	32
Sweden	Kristineberg	66
UK	Cornwall	303

Table 1. Surveys completed across the ImpactMin sites

CASE STUDIES

Bosnia Herzegovina – Vihovici

Vihovici is a former coal mine located on the northern periphery of Mostar, Bosnia Herzegovina. The mine opened in 1881 and between 1919 and 1991 it is estimated that 11 million tonnes of brown coal were extracted [18]. Today, only small scale bauxite mines are still being operated in the region. During the civil war (1992 – 1995), the pit at Vihovici was used as a garbage dump and today Mostar has ongoing social issues as a consequence of the political instability in the region, with unemployment rates estimated at over 37 % [11] and a mean wage below the national average. War in the region had significant consequences on the ethnic diversity of Mostar, and Bosnia Herzegovina and consequently, as recalled by many interviewees, many of Mostar residents are relatively new to the city and have arrived after the closure of Vihovici. The main issues at Vihovici relate to the rehabilitation and onward development of the site. Rehabilitation of the site has been carried out by Fichtner consultants from Germany between 2007 and 2009. There is a lack of information from a local perspective on who has paid for the work:

“Funds from Vihovici have been paid for by the EU and Germany” (Mostar government official).

“Who knows” (geologist who has worked on Vihovici).

To date, work undertaken to rehabilitate the site has extinguished underground fires from the coal seams that were emitting pollutants over Mostar using a slurry mixture of fly ash and water. There are continuing issues, such as problems with the stability of the slopes around the pit and houses that were constructed in close proximity. The issues we wanted to explore in Mostar were firstly whether people thought mining was over and if so, how they want the site to be used in the future and whether they were being consulted about the potential development of the site?

When asked ‘how do you feel about mining?’ No one in Mostar answered ‘negative’, with over 60 % (out of 122 who responded) of people felt either ‘positive’ or ‘neutral’ about mining. When asked to elaborate on why they felt this way about mining? Out of 83 responses, varied reasons were given, for example:

“Positive. Because there is no development in industry without mining”.

“Contributes to employment, but has an adverse effect on environment”.

“I am not interested”.

When questioned if they thought the local community were sufficiently engaged by the government and/or local mining companies regarding the development of existing and new mines, only 2 respondents out of 118 replied ‘yes’ and over 70 % of respondents said they didn’t think the community was sufficiently engaged by the government and / or mining company. When people were asked ‘how does your local mining company consult with you’, most respondents either

selected ‘no consultation’ or ‘not applicable – no local mining’. Whilst this reflects the fact that there are only small scale mines operating in the region, it highlights the lack of connections and interaction that local people have with the mining companies and government about the development of the site and with mining in the region.

People were asked whether they thought there was anything the local mine company could do for their community, with the most common response being ‘I don’t know’ or ‘no/nothing’ which accounted for a combined total of around 40 % of the responses. Relating to the conflict and ongoing divisions that remain in the region, one of the most poignant responses was:

“I don’t know. It is necessary to solve many other more important, more urgent things prior to that!” (Mostar resident).

However, further comments taken from an interview with a government official from Mostar, reflect the political nature of a development project like Vihovici:

“Vihovici is political and the aim of the project has been to integrate both parts of the city (east and west). It has been a confusing time following the war, where projects like this have been harder to implement as people have struggled for their basic existence. If there had been no war I believe the mine would still be working, although I am not sure in what capacity”. However, in the same interview, when asked about community involvement in decision making regarding mining: “Here the local community is in charge more than in some Western European countries, meaning that if the local community does not give its approval, things cannot be done” (geologist who has worked on Vihovici).

In Vihovici, when assessing people’s perceptions of mining in general, only 37.7 % of people felt positive about mining, yet no one had solely negative views of it (Figure 1). 50 % of people at Vihovici felt mining identity/heritage/tradition was important, which was the lowest level across all seven sites (Figure 2) and apart from in Karabash, in Russia, Vihovici had the lowest level of respondents saying they felt sufficiently engaged regarding existing and new mine developments (only 1.7 % of people - Figure 3). This may relate to the fact that there is limited mining ongoing in the area or it could reflect the lack of consultation undertaken in such industries. Compared to all other sites, Vihovici had the lowest percentage of people thinking that the mining industry was improving meeting public expectations (Figure 4).

Romania – Roșia Montană

Roșia Montana commune has a population of approximately 4000 people, with mining in the region certainly back to Roman times [1]. RMGC has been working since 1997 to try to maintain a smooth transition in employment from the state owned gold mines to RMGC. This didn’t happen and in 2006 when the state owned mines closed there were massive dismissals of over 2798 employees [1]. RMGC currently employ around 450 people (Szentesy personal communication, 2010) and is the biggest employer in the area. Unemployment in the area is compounded by the fact that there is limited alternative employment. The project boundary covers 1258 ha [1]. One of the major complications with the project is the ongoing purchase of residential and non-residential properties by RMGC. By 2006, RMGC had purchased 594 residential properties and 1028 non-residential properties [1]. Observations made during the field work undertaken for this study included recognition of the ill-feeling that has been created within the community from the purchases made by RMGC. Reasons given included the alleged ‘elevated’ price people think that certain owners have received for the purchase of their house. However, RMGC guidelines state that the price reflects an average price in the area based on a radius of approximately 250 km thus reflecting a much higher price than the actual value of houses in this rural area. The fundamental issue here, based on observations made in interviews, is that people have been envious about who has received the best deal or relocation package. Those who live just outside the environmental boundary of the

project have not had the option to sell their house and, despite considering themselves to be impacted socially and environmentally by the project, feel they have not received any of the benefits. When interviewees were asked what benefits they thought the community should have from the project, the resounding response from a number of people interviewed was that everyone wanted one benefit. These responses could reflect the underlying influence of living in a previously communist society e.g. “one benefit for everyone affected by the mine”, which could be likened to being a socialist ideology, with cooperation and lack of competition being key features.

There is a vigorous campaign against the project. One of these NGOs has argued for other uses in the area. Interestingly, many local people, however, felt there were, at present, limited opportunities for other sources of employment. For example:

“Most of the people are miners or come from mining backgrounds. It brings jobs in the area. The area is a mining area. It is not suitable for other activities. The land is not good for anything else” (teacher and resident from Roşia Montană commune).

This reflected the opinions of many other residents interviewed, with the general view taken by most people that the project can have benefits providing the environment is carefully considered and the environmental legislation is strictly adhered to:

“As proposed by the project, the mining will be beneficial for the area. We hope this mine will bring something for our children and our children’s children. As long as they don’t destroy the environment, people will support the project” (teacher from Roşia Montană commune).

Overall, in all but one of the interviews undertaken in Roşia Montană, people were supportive of the mine reopening. Assessing how mining companies could have a more positive impact whilst minimising their negative impacts led to insights into issues that did exist despite the high level of support noted:

“We want (RMGC) to improve communication with locals. We want more involvement of local people with activities. The company have not always communicated in the best way possible. This needs improving. We have asked the company to be more open with the school on numerous occasions but this has not happened” (teacher and resident of Roşia Montană)

When asked how communication could be improved, one reply was:

“They (RMGC) should always be open to discuss anything” (resident Roşia Montană).

Observations made during the site visit to Roşia Montană indicate that RMGC are actively involved in community life (and as part of the community) and liaise with the local people on a very frequent basis, with communication and consultation being more frequent than was observed across the other sites discussed in this study. This was indicated in the survey responses where Roşia Montană had by far the highest level of people considering themselves to be sufficiently engaged by the mining company (over 79 % of people felt they were - Figure 3). Roşia Montană also had the highest level of people rating the mining company as improving in how they are meeting public expectations (Figure 4). Additionally, 96 % of respondents felt positive about mining in general (see Figure 1). This in turn may reflect the importance people place on mining to their overall identity/heritage/traditions, with 100 % of people responding and considering this important (Figure 2).

Russia - Gay, Karabash and Mednogorsk

The sites in Russia are located in the Southern Ural Mountains region, with Gay and Mednogorsk located near the border with Kazakhstan, and Karabash being located further north close to Miass. Russia has the lowest minimum wage in Europe which has been exacerbated by a 30 % fall in the value of the ruble against the euro and dollar [22]. The national unemployment rate in Russia is around 8.9 % [12]. Russia has the lowest life expectancy compared to other case studies used in this

study, with a decline seen in life expectancy in men and women in the late 1980s and early 1990s [3]. All three of the sites are relatively small towns, with total populations being: Gay 41,621, Karabash around 15,000 and Mednogorsk 31,389.

Gay has active mines for copper, gold, pyrite and pyrophyllite and is a purpose built town that grew in the 1950s with the expansion of mining in the region. Gay has a low unemployment rate estimated at 0.4 – 2 % compared to the national unemployment rate in Russia estimated at 8.9 %. The below average unemployment rate is reflected in site observations that Gay has a relatively affluent feel compared to the site at Karabash, which has a much higher unemployment rate. Copper from Gay was used to supply Karabash with concentrates for smelting and producing blister copper. Karabash has a higher age population than the other sites (the percentage of people over the age of 65 is estimated at 20.5 % in Karabash compared to the national average of 13.7 %). There are an estimated 1500 people employed at the smelter in Karabash. This created major issues when the smelter closed down in the 1990s for a number of years (1991 to 1997) [33]. During the 1960s, the population of Karabash peaked at around 50,000 people, when people were employed at mines in the area, as well as at the smelter. The copper smelter in Karabash is owned by the Russian Copper Company and in 2008, Ausmelt Limited installed new environmental controls on the atmospheric emissions [35]. Mednogorsk is also a smelter town producing blister copper, although it contrasts starkly with Karabash. The visible extent of the environmental damage is far less than in Karabash, although it is evident from viewing the town from a distance away that the smoke emitted from the smelter sits over the town, which lies in a valley.

One of the main issues with the site at Karabash is the location of the smelter immediately adjacent to the town, with the fall out of atmospheric pollution occurring throughout and beyond the town. The environmental impact of the smelter at Karabash is widespread; with an area around the smelter having limited vegetation growing. The main sources of environmental contamination around Karabash are emissions from the smelter, dust from waste dumps (the mines are inactive now in the area), effluents from the smelter, and leaching of minerals from the large scale waste dumps in the area [27]. Despite the environmental concerns, when the smelter closed in Karabash the economic impact on the local population was profound, with high unemployment rates leading to local people wanting the smelter to reopen (the general view was that they still had the environmental pollution but now they had no jobs either). Karabash has been described as one of the most polluted towns in the world [8]. The waste material from Karabash is high in sulphide minerals creating issues with acid rock / mine drainage that are evident all around Karabash and lakes in the vicinity of the mine are contaminated. Ausmelt Limited, who updated the technology at the smelter in 2007, have since won two national Russian awards for the environmental improvements made to the smelter (in 2005 the Ministry of Natural Resources of the Russian Federation awarded ZAO Karabashmed the honorary title of "Leader of Environment Protection Activity in Russia", and in 2006 the plant General Director and the Chief Engineer were awarded "the Ecological Shield of Russia" for the achievements in environment preservation) [25].

There is less information available on the environmental impact of the smelter at Mednogorsk and, based on observations of the impacts of past mining at Gay, it is probably that environmental impacts are considerably more localised. Findings of the current study reveal that out of the sites used in Russia, more survey respondents in Gay had a positive perception of mining compared to at either Karabash or Mednogorsk (Figure 1). The majority of people across the three sites (between 83.8 - 88.9 %) think mining is an important part of their identity/heritage/tradition (Figure 2). Assessing whether people consider community engagement to be sufficient, there is obvious scope for improvement, with no one in Karabash considering the community to be sufficiently engaged regarding existing and new mine developments by the mining companies or the local government. Furthermore, 90 % of respondents in Karabash thought they weren't sufficiently engaged (Figure 3). The three sites in Russia also showed the highest number of respondents feeling that

there had been a deterioration of the mining company's performance in meeting the expectations of people (Figure 4).

Relating to environmental concerns within Karabash, one government official stated his concerns predominantly related to "Smoke in the city smelter emissions". Despite concern about the environmental issues evident in Karabash, most residents are reluctant to contemplate the idea of the copper smelter plant closing:

"The plant closing is impossible! We need to improve technology" (resident of Karabash).

The interview quotes above summarise the difficulties faced in Karabash where, from an outside perspective, the environmental issues that have built up over the years are vast, but the reality for residents when the smelter closed for a few years was continued environmental damage and the added social and economic issues of high unemployment. One of the issues identified was the reluctance of many people still to speak about environmental and social issues:

"People do not speak" (resident of Karabash).

However, Russia is continuing to undergo rapid change and it is likely that over the next decade the need to engage with local people will rapidly increase as people's expectations rise and the country moves away from any legacy and associations with the influence of communism.

Sweden – Kristineberg

Kristineberg is located in Västerbotten County in Southern Lapland, Sweden. Boliden AB mine zinc, copper, lead, gold and silver across the entire 'Boliden' area and transport the ore elsewhere for processing. Kristineberg grew because of the mining and related industries in the area and now has a population of just over 300. It is located close to Malå, a small town with a population of just over 3000 [23]. Malå, and Sweden as a whole, both have low unemployment rates, although Malå has an ageing population above the Swedish average (23.52 % [23] compared to 17.4 % in Sweden based on the % of the population over the age of 65 years [28]). The high ageing population in Malå reflects the decline in industries, such as mining, and the movement of people of working ages to other areas to seek further employment opportunities. Mining, however, remains an important source of employment, with Boliden employing 390 people across the area [4] and a multiplier effect from mining helping sustain other businesses in the towns. The number of people employed by Boliden has declined in recent years. Kristineberg, therefore, has a declining population with the usual concerns for such a small place. For example, the shop in Kristineberg has closed and due to the general decline in the area and associated low house prices, people have taken to moving their entire house rather than selling it. There are environmental issues in the area. The mine at Kristineberg is close to Hornträsk Lake, which is highly acidic and is allegedly devoid of life. The cause of the environmental damage is tenuous. Rocks in the area are rich in sulphide minerals, creating issues with acid rock / mine drainage in the area. From an aesthetic perspective, there are abandoned pits just outside of Kristineberg that have been used as rubbish tips.

Malå Sami community are active reindeer farmers in Västerbotten County, with a maximum herd size of 6200. The reindeer are moved from the inland summer ground towards the coast in the winter. Mining has the potential to impact reindeer husbandry practices. Rannerud (personal communication, 2010), however, has found that the reindeer themselves are more affected by changes in infrastructure, such as new roads created to install wind turbines in the area, than by active or abandoned mine sites in the area.

Malå Sami community representatives spoke openly about how they are happy with the current dialogue they have with the mining companies:

J: "Yes, we have good relations" (Sami community president).

A: Nowadays it has got better and better, but in the beginning we were not heard. They used to start mines and not consult with us (Sami community member).

Further conversations with people from Malå Sami community revealed that they felt their lives as reindeer herders, and the associated subsequent impacts on the reindeer, were impacted more by changes in forestry practices and by the number of wind turbines that were being erected in the area than by mining. When they were asked whether it was easier to deal with the mining and wind turbine companies, it was evident straight away that they found the mine companies easier to work with as stakeholders. The reasons they gave as to why the Sami community members found the mining companies easier to work with relate to their view that mining activities had much tighter regulations and controls than putting up wind turbines, for example:

“They ask city councils if they can build them (wind turbines) and they get told ok”.

Other local residents were asked what they wanted the mining companies to do for their local community and responses given included:

“Take more responsibility for the local community”.

“Contribute more to the community”.

“Contribute to a better environment”.

Kristineberg, where the mine is located, has social problems that have been created by the decline in mining in the area and the closure of the processing plant and subsequent depopulation of the village. When asked whether Boliden were responsible for the empty houses and social problems in Kristineberg, the response was mixed dependent on the stakeholder asked:

“No, it is not a problem for Boliden but it is a problem for the people who live here because this village looks bad” anon, Boliden employee.

Other stakeholders interviewed had contrasting opinions on the responsibility of Boliden for Kristineberg in general:

“I do not really think anyone is responsible. I do not think that you can blame someone in particular for people moving, because that is just how it is” retired resident of Kristineberg who worked for Boliden in the past.

“Yes of course, but I think it is too late for Kristineberg. I think when the first houses started to move it was too late” resident of Malå near Kristineberg.

“Not really, no” Boliden miner.

“No I don’t feel they have an obligation to it now. Maybe Boliden doesn’t contribute directly financially, but they might help out with services that are otherwise expensive e.g. loaning out a tractor or an electrician so I feel that they are supportive of our community and what we do at the youth centre ” resident and youth worker in Kristineberg.

As can be seen from the range of responses given above, in addition to observations made in other interviews in this region, there is a mixed range of opinions amongst stakeholders interviewed, with many people taking the view that they did not hold Boliden responsible for the problems in Kristineberg or that they should be held responsible for solving them. One resident went on to suggest that, in his opinion, the municipal government had not helped the area deal with problems:

“I am very critical of the municipality of Lycksele who haven’t done much for this area” resident of Malå.

Overall, people had very different views on whether Boliden had contributed to the problems, or should be responsible for helping solve any issues, but there was by no means a consensus view that

the mining company were responsible. Figure 1 shows that nearly 70 % of people questioned (in Malå and Kristineberg) had a positive view of mining in general and no one had a negative view of it. This initial finding may relate to the importance of mining heritage to the identity of the community, as 95 % of people thought mining was an important part of their identity/heritage/tradition (Figure 2). When residents of Malå and Kristineberg were questioned on whether they thought the local community was sufficiently engaged by the local mining companies and government, only 18 % of people replied yes, over 40 % of people said no and nearly 40 % of people answered I don't know (Figure 3). Only 18.5 % of people thought the mining company was improving in meeting public expectations and 15 % of people considered their performance to be deteriorating (Figure 4).

UK – Cornwall

Cornwall is located in the south-west of England and is relatively remote in a physical sense. Its remoteness has impacted on its economic development with the region considered deprived enough to receive Objective One and Convergence Funding from the EU. Cornwall has an expanding population and an above average ageing population (population over the age of 65 is 21.26 % compared to the UK average of 16 %), where most economically active people work in service related industries such as tourism [20]. There has been a decline in jobs in primary industries like mining, agriculture and fisheries, although overall Cornwall has below average unemployment rates for the UK [20].

Mining in Cornwall dates back thousands of years, with evidence of tin being exported to mainland Europe over 4000 years ago [5]. Cornwall was one of the first industrialised regions in Europe with communities growing around the mining industry. Copper and tin prices declined during the 1860s and 1870s and many skilled mine workers emigrated around the world [5]. The last tin mine closed in 1998 at South Crofty. A large-scale emotional response from local people followed, with marches through the nearby towns in protest at the closure of the mine. Western United Mines (WUM) are making attempts to reopen South Crofty (Figure 16) to extract copper, tin and zinc in addition to aggregates that could be used in building industry [34]. The only active mines in Cornwall operate around the St Austell region, where Imerys extract china clay (kaolin). Imerys currently employ around 1000 people in Cornwall and are a large employer in a region of just over half a million people. In 2006, Cornwall and West Devon were granted World Heritage Status (WHS) for their unique mining landscape [6]. Cornwall has capitalised further on its mining heritage and has museum and heritage attractions, such as Geevor Tin Mine and Wheal Martyn China Clay Museum.

Over 97 % of people regarding mining identity/heritage/tradition as being important (Figure 2). Nearly 50 % of people questioned in Cornwall felt positive about mining, with less than 5 % considering mining to be a solely negative activity (Figure 1). Despite the evident attachment people have to mining as part of their identity, only 11.7 % of people thought they were being sufficiently engaged regarding the development of existing and new mines by mining companies and local government and over 56 % of people believed the level of engagement was not sufficient (Figure 3). In addition, the majority of people who responded to the survey either felt they did not know or there was no change in how the mining companies were meeting public expectations, with 18.5 % saying the mining companies were improving in their performance, but only 10 % of people feeling their performance was deteriorating (Figure 4).

When asked to what extent local people are involved in community decision-making regarding mines reopening at South Crofty, a resident of Brea (a village near South Crofty mine) answered:

“No, I can't see local people having much enthusiasm in making these decisions. Back a few years ago, people used to be a community, where people used to communally vote and make decisions. Nowadays, people don't care because they don't have any belief in the system. I know as far as

voting goes, no community votes the same do they? Everyone has their own opinion on it and some people aren't interested or some people might be interested in making decisions" (21 year old resident of Brea).

An older resident had a contrasting opinion, inferring how many residents had attended meetings regarding the reopening of South Crofty mine and how some of them had not been entirely satisfied with the responses they received:

"A lot of them were not satisfied with the answers they were given to the questions they asked. My husband came back and said that most of the people who went to the meetings were not satisfied with their answers" (resident of Brea near South Crofty mine).

These contrasting observations could represent the view points that different generations have on community engagement and whether they want to feel involved in the community decision making process. However, as shown by talking to younger people at other sites such as in Roşia Montană, the younger generation are often actively involved and concerned about their environment and want to ensure that any potential mineral exploitation is carried out in a responsible manner. The opinions of the younger resident discussed above have also been predominantly formed outside of a time period where active hard metal mining has been undertaken in Cornwall and this will have effected their overall perception.

COMPARATIVE RESULTS OF THE SURVEY ACROSS THE SITES

Figure 1 shows that across the seven sites, the highest percentage of people who felt mining was a positive activity came from Roşia Montană (96 %), with the lowest percentage of people who viewed mining as a positive activity coming from Karabash (27.5 %). Karabash also had the highest number of people (15 %), followed by Vihovici, who had negative views on mining. Across all seven of sites only a relatively small % of people felt negative about mining. This may come as quite a surprise given the general consideration that mining and minerals processing, from a social and environmental perspective, is often regarded as one of the most potentially damaging industries [16]. Trebeck [26] cited in Solomon *et al.* [24] discusses the tendency for the literature to portray the mining industry as homogenous, with Solomon *et al.* (2008) suggesting from their own findings that the industry itself is so diverse relating to materials, processes, places and social contexts, that generalisations cannot be made. Thus, when assessing the perceptions of people across sites, it is important to consider that their responses may relate to a range of factors. For example, the reasons why more people have a negative perception of mining at Karabash and Vihovici could be: Karabash has the most visible and widespread environmental impacts across all of the sites, and at Vihovici, the mine has not operated since 1991. Mostar, where Vihovici is located, has also undergone massive population changes since war hit the region, with many residents leaving Mostar and being replaced by people from outside the city. Vihovici also has the lowest level of respondents feeling they are sufficiently engaged regarding mine developments, with only 1.7 % of people claiming that is how they feel. This has potential implications on their perceptions of mining in the region. Mostar has also had much less of a reliance on mining for jobs compared to Karabash, which predominantly grew because of mining and related industries.

Interestingly, in Roşia Montană where they are trying to reopen a mine and where they have very long connections with mining stretching back a few thousand years, most people had a positive view of mining and everyone who responded to the question felt that mining was an important part of their identity/heritage/tradition. This is compared to only 50 % of people in Vihovici. Similar to Roşia Montană, Cornwall also has a long history of mining, and this is reflected by the high number of people who think mining is an important part of their identity/heritage/tradition. This is despite the fact that the mining industry has shrunk in considerably in Cornwall, with hard rock mining

ceasing in 1998 and only china clay mining ongoing. Figure 3 shows that across the seven sites, that apart from in Roşia Montană, the majority of people did not feel sufficiently engaged by their local mining companies and government regarding existing and new mine developments. Roşia Montană, where over 79 % of people felt they were sufficiently engaged, contrasts starkly with Karabash, where no respondents felt they were sufficiently engaged. Both of these sites are located in ex-communist countries. Based on observations of the willingness of people to be interviewed or complete a survey during field visits, Roşia Montană felt much more open, however, this could also reflect a difference in cultural expectations of engagement and effectively the stage of society in Karabash. 90 % of respondents in Karabash felt they were not sufficiently engaged by the mining company / local government, but there are other factors influencing people's perceptions, such as the widespread environmental damage.

It is apparent from results across the seven sites that, although there are discrepancies in how people feel mining companies are meeting public expectations, there is massive potential and need for companies to assess and continually work at meeting people's expectations (Figure 4). An alternative way of viewing the findings is that there is an evident gap between people's expectations of how companies should perform, and reality. The results from this study show that there is actually a high level of support for mining in general and that in the case of Roşia Montană, for example, that attempts by the mining company to engage with the local community are readily acknowledged by local people. Despite findings suggesting that people consider there is a high level of community engagement in Roşia Montană, only just over 26 % of respondents in Roşia Montană felt that RMGC were improving their performance in meeting people's expectations, which suggests that although people most people feel they are being sufficiently engaged by RMGC and the local government, that this does not necessarily equate to the mining company meeting their expectations.

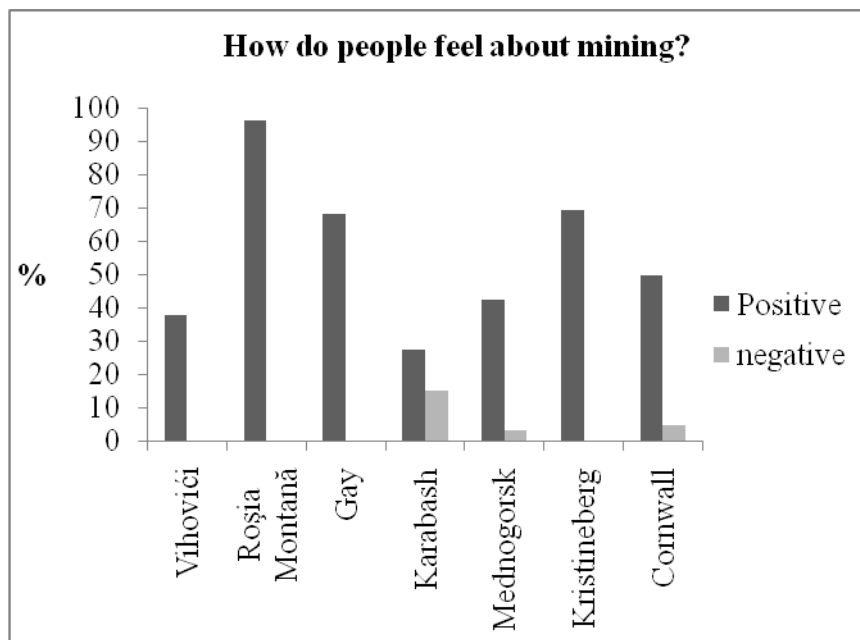


Figure 1: Survey responses showing how people feel about mining. The answers shown are based only on the responses: positive or negative. Other options of neutral, both positive and negative and I don't know are not shown to avoid overcomplicating the figure. Total number of responses: Vihovići 122, Roşia Montană 91, Gay 41, Karabash 40, Mednogorsk 32, Kristineberg 65 and Cornwall 285

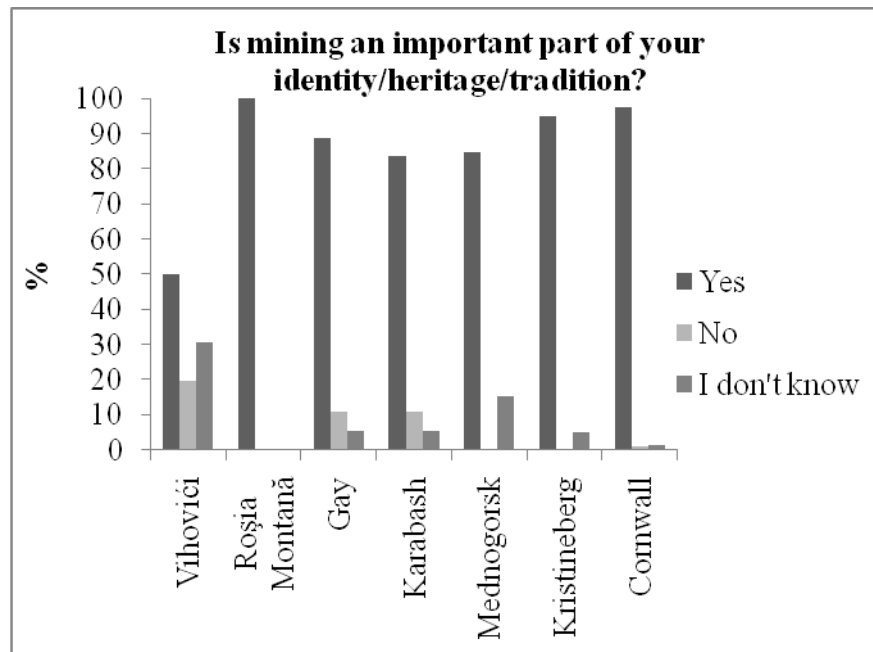


Figure 2: Survey responses showing how people feel about the importance of mining to their identity/heritage/tradition. The answers shown are based on people who said they felt positive or negative, other options of neutral, both positive and negative and I don't know are not shown. Total number of responses: Vihovići 118, Roșia Montană 86, Gay 22, Karabash 37, Mednogorsk 26, Kristineberg 62 and Cornwall 272

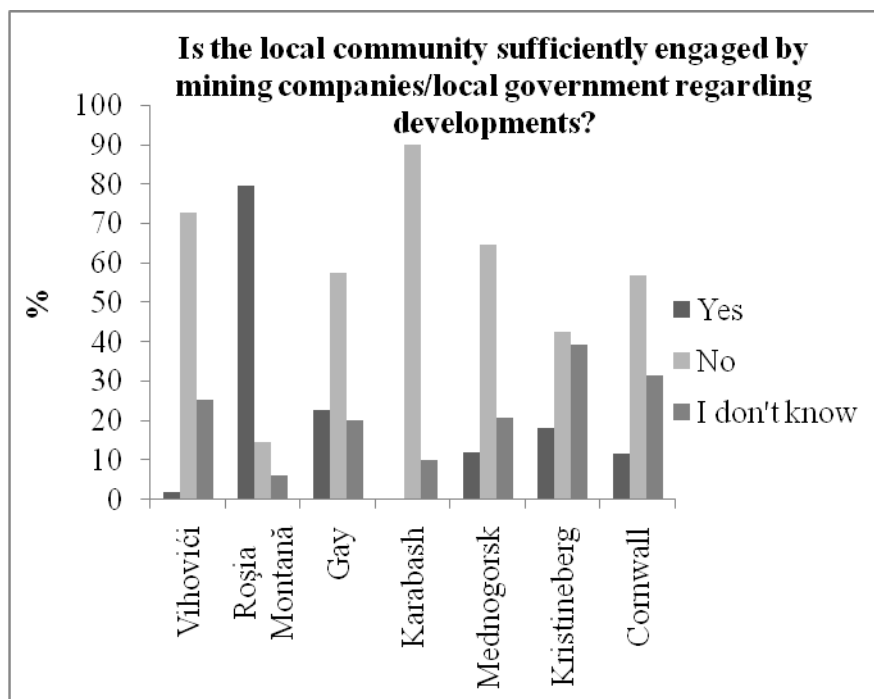


Figure 3: Survey responses showing levels of community engagement by local mining companies/local government. Total number of responses: Vihovići 118, Roșia Montană 83, Gay 40, Karabash 40, Mednogorsk 32, Kristineberg 61 and Cornwall 273

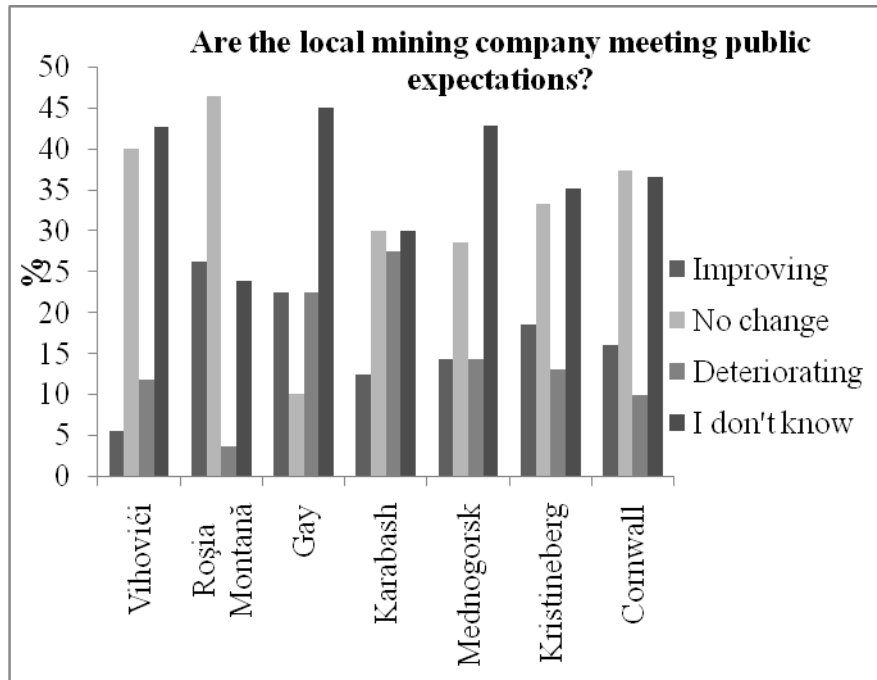


Figure 4: Survey responses showing how people feel their local mining company are performing in meeting public expectations. Total number of responses: Vihovići 110, Roşia Montană 84, Gay 37, Karabash 40, Mednogorsk 21, Kristineberg 54 and Cornwall 243

Most/least useful forms of consultation			
Study area	Most preferred	Second	Least preferred
Vihovići	Public display	Public meeting	Postal survey
Roşia Montană	Public display	Face to face discussions	Postal survey
Gay	Public meeting	Internet survey	Public display
Karabash	Public meeting	Public display	Phone survey
Mednogorsk	Phone survey	Internet survey	Postal survey/public display
Kristineberg	Public meeting	Leaflets	Phone survey/Internet survey
Cornwall	Public meeting	Public display	Phone survey

Table 2: Preferred and least preferred forms of consultation across the 7 sites

Across the seven sites, people were asked how they would like to be consulted by a mining company working / planning any work in the area. Table 2 shows there are variations across sites in terms of what people consider to be the most and least useful forms of consultation. In summary, consultation methods need to be specific to what the local community want. This may reflect cultural and general differences in societal ‘norms’. Across all seven sites, however, the two most frequently identified useful methods of consultation were public meetings and public display boards.

DISCUSSION

Warhurst and Mitchell [31] refer to technological advances that have reduced community employment benefits from a mining project and this inadvertently means that local people have a reduced tolerance of any negative environmental and social impacts from the project. This was also found in the present study, where despite a significant divergence in opinions regarding mining

projects across and even within a community, most people expect that in some way they / the community should benefit from a project. Very few people across the sites think that their local mining companies are meeting their / public expectations. Apart from in Roşia Montană, there are also perceived issues with local mine companies and governments engaging stakeholders adequately. These are all areas where companies can improve. Exactly how a company should engage with stakeholders and try to meet their needs requires careful consideration, as every project is different and what works in one location is not necessarily going to meet the needs of stakeholders at another site. It is often considered that people tend to have a negative perception of industries like mining. The current study has shown that this is not always the case, with the majority of people surveyed in this study feeling positive about mining in general. Despite this finding, there is a definite need for companies to look at the consultation methods they use and to assess how they can help meet community expectations and bring benefits to a community that go beyond the length of a mining project.

CONCLUSIONS FOR OPENING A MINE

It is possible to identify key factors as to how a mining company can ‘gain’ and maintain their ‘social license to operate’, with variations identified across each case study presented here. One of the first things a company needs to look at is whether there is mining in the region/country already or if there has been any in the past. The general socio-economic climate also needs analysing, with work to identify who the stakeholders are, what their expectations and goals are, and importantly how they wish to be consulted. Stakeholders must be consulted from the earliest possible stage in a proposed project, with consultation and participation reflecting stakeholder views on the project. What people expect from a project will be based on their previous experiences. Possible short term benefits of a project to a community need balancing with longer term or post-mining needs. Roşia Montană, Cornwall, Kristineberg and Karabash all provide examples of how job dependency and reliance on one industry can have major social consequences on an area when that industry either closes down or vastly reduces in size. Capacity building programs therefore need to ensure they add value to a community in the long term.

In Roşia Montană, for example, most people interviewed for the purpose of this study wanted the mine to reopen, and although it is evident that not everyone shares this opinion, observations made are that much of the opposition against the mine reopening comes from outside of the community and even outside of Romania. Many people interviewed for this study commented on how the community needed to use the life-span of the proposed mine to formulate longer term plans for a post-mining sustainable community. Initiatives established by mining companies have a proven ability to do this, e.g. Richards Bay Minerals, a Rio Tinto subsidiary in South Africa, where they are using a range of CSR initiatives to meet the needs of the community in the long term such as through education and training opportunities and health care programs [17]. If RMGC reopen the mines they need to use initiatives, like their micro-credit finance scheme, to help the community shape their own future. CSR must drive long term changes to be purposeful. Whilst every community will always have specific issues to deal with, based on their socio-economic circumstances, the company should be accountable for ensuring they add value, where possible, to the community who is impacted by their project. This is not to say that a mining company should be held responsible for alleviating or solving existing socio-economic issues. Their basic responsibilities, based on the findings and fundamentals of what people have suggested in this study, are:

1. Early engagement with the community using appropriate methods of consultation.
2. Respect the community.
3. Honesty and openness about the anticipated social and environmental impacts of the project.

4. Listen to the views of stakeholders and respond to their concerns.
5. Ensure CSR extends beyond the time-frame of the anticipated mining project to be purposeful and add value. CSR is not about buying the support of local people.
6. CSR initiatives need to help educate people within the community to select the long-term gains rather than short-term offerings.

The case studies used in this study have highlighted a number of other potential problems that have occurred and these can provide lessons to future mining projects. For example, mine projects that involve large numbers of people being relocated (like in Roşia Montană) need to carefully consider how they go about purchasing houses and land, with the aim being to standardise prices and create a system that alleviates not creates conflict amongst the community. Furthermore, as was the case at Roşia Montană, the environmental impact boundary for a proposed mine project may be relatively straightforward to define, but the ‘social boundary’ of a project, however, is much more complex. As suggested by Solomon *et al.* [24], ‘social’ is often interpreted to refer to issues relating to just the local communities, although in reality the range of social issues must ensure that the impacts on the wider community are also considered. Kristineberg in Sweden, provides another example of where progress can be made through lessons learned. The longer-term needs of the community were forgotten amongst the shorter-term needs of providing housing for employees of the mine. In the future, the consequences of constructing a purpose-built ‘mining community’ needs considering with a view to the long-term repercussions on a post-mining community.

FINAL CONCLUSIONS

Flexibility is required to take account of the difference in local community expectations. This makes it difficult to set firm guidelines for compliance regarding interactions with the community. The expectations that ‘mining’ communities have of their local mining company vary substantially, relating directly to what the community believes the mine company owes them. This in turn will relate to their culture and experiences in the past with other industries such as what benefits the community received then. We therefore conclude that the notion of CSR in the mining sector in Europe and Russia is fluid and changes according to the differing expectations and goals of stakeholders. Capacity building programs need to look at the socio-economic background and societal ‘norms’ to consider what the situation is and what people expect. What is evident, however, from across the different sites investigated in this project, is that there are complex reasons that contribute to the mindset of a community, with each example shown here exhibiting different levels of stakeholder interactions, differing expectations of those stakeholders concerned and a diverse range of what is regarded as acceptable practice at a community level. This enables us to conclude that communities, when responding to any potential development, need to be consulted at the earliest possible stage to enable an assessment to be made of what the community expects, where its goals lie and to allow a company to consider how it can best work with a community and successfully balance their expectations. Mining companies also need to adequately assess where their likely opposition groups are going to come from and the grounds people will have for opposing a project. “Undertake not what you cannot perform, but be careful to keep your promises” George Washington, 18th century ‘ambassador of CSR’, with the meaning of this quote being pivotal to the success of CSR in general. CSR must be delivered with integrity and with an emphasis on managing community expectations and not making promises that cannot be kept.

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