

METALS FOR SUSTAINIABLE VALUE CREATION

GRI REPORT 2017

INTRODUCTION

GRI report 2017

Content

Introduction
GRI Content Index
General Disclosures
Management Approach 10
Economic Performance (200) 14
Environmental Performance (300) 20
Social Performance (400) 33



Read more at www.boliden.com

About this report

This report is prepared in accordance with the GRI Standards: Core Option. We have additionally included disclosures from the GRI G4 Mining and Metal Sector Supplement. The 2017 reporting is composed of two units: one that is integrated into the 2017 Annual Report and which discloses the Group's value creation, operations, and risk assessment including the sustainability perspective, and this supplementary GRI Report that constitutes a more extensive declaration of our impact, with full

references to the GRI Content Index.

The GRI report has been reviewed by means of an external limited assurance engagement in accordance with RevR 6 Assurance of Sustainability Reports issued by FAR. The auditor's limited assurance report is included in this report.

Boliden's 2017 Annual Report (pdf), Boliden's web-based 2017 GRI Report, and a printable 2017 GRI Report (pdf), are all available on Boliden's website.

Categories

Learn more about job creation, economic impact and ethical behaviour in the Economic Performance section

GRI 200 page

Learn more about energy, climate, material efficiency and other environmental topics in the Environmental Performance section

GRI 300 page

Read about working conditions, human rights, and community relations in the Social Performance section

GRI 400 page 33

Boliden's open-pit mine Kevitsa in northern Finland was acquired by Boliden in June 2016. The operation, which comprises a mine and a concentrator, went into operation in 2012. The ore concentrates are supplied to our smelter in Harjavalta and to external customers. The Kevitsa deposit - first discovered in 1987 is one of the largest ever mineral discoveries in Finland. The picture shows the tailings pond at Kevitsa



INTRODUCTION

About Boliden

About Boliden

Boliden is a metals company with a focus on sustainable development. Our roots are Nordic, but our business is global. The company's core competence is within the fields of exploration, mining, smelting, and metals recycling. Boliden operates six mining units and five smelters in Sweden, Finland, Norway, and Ireland. Its shares are listed on NASDAQ Stockholm, segment Large Cap.

Boliden is assessed periodically by a number of responsible investment organisations and analysts on environmental, social, and governance criteria. As at the end of 2017 Boliden is part of the FTSE4 Good Ethical Index, the STOXX ESG Leaders Index, and the MSCI ESG indices.

Key performance data

GRI- Series	Group KPI	2017	2016
200	Return on capital employed, %	21	15
200	Net debt/equity ratio, %	11	32
200	Dividend per share, SEK	8.25	5.25
300	Metals to water, tonnes Me-eq	9.1	13
300	Metals to air, tonnes Me-eq	109	100
300	Carbon dioxide intensity, tonne/tonne	0.69	0.73
300	Sulphur dioxide emissions, ktonnes	7.4	7.1
300	Serious environmental incidents, per month	0.1	0.2
400	Accidents, LTI frequency	6.3	7.9
400	Sick leave, %	4.5	4.4
400	Female employees, FTE %	17.6	17.8



GRI CONTENT INDEX

GRI Content Index

Boliden's complete 2017 GRI index is prepared in accordance with the GRI Standards: Core Option. It enables a navigation of the disclosure of organisational profiles and governance, strategies, report parameters, material topics, performance indicators, and the Mining & Metals sector supplement indicators (MM). It includes references to Boliden's environmental, social, and economic goals and results. In cases where Boliden reports partially (with omissions) on a material topic and the reasons for the omissions are provided either directly in the Index or in connection with the disclosure of the topic in this GRI Report.

GRI = GRI Report 2017 = Annual Report 2017 = Partially reported

GRI Stan	dard Disclosures	Omissions	Reference
GRI 101	l : Foundation		
General [Disclosures		
GRI 102	2: General Disclosures		
Organisa	tional profile		
102-1	Name of the organisation		Boliden AB (publ)
102-2	Activities, brands, products, and services		AR 12-13, 19-23
102-3	Location of headquarters		GRI back cover
102-4	Location of operations		AR 27
102-5	Ownership and legal form		AR 55
102-6	Markets served		AR 14-16
102-7	Scale of the organisation		AR 27, 72 82-83, GRI 7
102-8	Information on employees and other workers		GRI 7
102-9	Supply chain		AR 42-43, 45
102-10	Significant changes to the organisation and its supply chain		GRI 9
102-11	Precautionary Principle or approach		AR 56-58
102-12	External initiatives		AR 53, GRI 9
102-13	Membership of associations		GRI 8
Strategy			
102-14	CEO statement (Statement from senior decisionmaker)		AR 2-3
Ethics an	d integrity		
102-16	Values, principles, standards, and norms of behaviour		AR 44, GRI 8
Governar	nce		
102-18	Governance structure		AR 60-65
Stakehol	der engagement		
102-40	List of stakeholder groups		AR 41, GRI 8
102-41	Collective bargaining agreements		GRI 8
102-42	Identifying and selecting stakeholders		GRI 8
102-43	Approach to stakeholder engagement		GRI 9
102-44	Key topics and concerns raised		GRI 9

GRI CONTENT INDEX

GRI Stand	dard Disclosures	Omissions	Reference
Reporting	practice		
102-45	Entities included in the consolidated financial statements		AR 90
102-46	Defining report content and topic boundaries		GRI 9
102-47	List of material topics		AR 41, GRI 11-12
102-48	Restatement of information		No
102-49	Changes in reporting		No
102-50	Reporting period		Calendar year
102-51	Date of most recent report		March 2017
102-52	Reporting cycle		Annually
102-53	Contact point for questions regarding the report		GRI back cover
102-54	Claims of reporting in accordance with the GRI Standards		GRI 4
102-55	GRI content index		GRI 4-6
102-56	External Assurance		GRI 9, 44
GRI 103	: Management Approach		
103-1	Explanation of the material topic and its boundary		GRI 10-11
103-2	The management approach and its components		GRI 12-13
103-3	Evaluation of the management approach		GRI 12-13
Material	· ·		
GRI 200	: Economic standard series		
	performance		
201-1	Direct economic value generated and distributed		GRI 17
201-2	Financial implications and other risks and opportunities for the organisation's activities due to climate change		GRI 17-18
Market p	resence		
202-2	Proportion of senior management hired from the local community		AR, GRI 18
Indirect e	conomic impacts		
203-2	Significant indirect economic impacts, including the extent of impacts	Θ	GRI 18
Anti-corr	<u> </u>		
205-1	Operations assessed for risks related to corruption		GRI 19
205-2	Communication and training on anti-corruption policies and procedures		GRI 19
205-3	Confirmed incidents of corruption and actions taken		GRI 19
Anti-com	petetive behaviour		
206-1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practicies		GRI 19
GRI 300	: Environmental standard series		
Materials			
301-1	Materials used by weight or volume		GRI 24
301-2	Recycled input materials used		GRI 24
	Stewardship		OD: 5.1
MM11	Programmes and progress relating to material stewardship		GRI 24
Energy 302-1	Energy consumption within the organisation		GRI 25
302-1			GRI 25
302-3 302-4	Energy intensity		GRI 25 GRI 25
	Reduction of energy consumption		uni zu
Water 303-1	Total water withdrawal by source		GRI 26
303-1	Water recycled and reused		GRI 26
	•		_
Biodivers 304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas		GRI 26
	ai eas oi riigri biouivei sity vaide outside protected areas		
304-3	Habitats protected or restored		GRI 27

GRI CONTENT INDEX

GRI Stan	dard Disclosures	Omissions	Reference
Emission	S		
305-1	Direct (Scope 1) GHG emissions		GRI 28
305-2	Energy indirect (Scope 2) GHG emissions		GRI 28
305-4	GHG emissions intensity		GRI 28
305-5	Reduction of GHG emissions		GRI 28
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions		GRI 29
ffluents	and waste		
306-1	Total water discharge by quality and destination		GRI 30
306-2	Waste by type and disposal method		GRI 30
306-3	Significant spills		GRI 30
306-4	Transport of hazardous waste		GRI 31
MM3	Total amount of overburden, rock, tailings, etc		GRI 31
	nental Compliance		
307-1	Non-compliance with environmental laws and regulations		GRI 31
Supplier 308-1	Environmental Assessment New suppliers that were concerned using applicamental exitoria		GRI 31
	New suppliers that were screened using environmental criteria Social standards		ו ט וחט ו
GRI 400 Employm			
401-1	New employee hires and employee turnover		GRI 36
101-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees		GRI 36
лМ4	Strikes and lock-outs exceeding one week		GRI 37
Occupati	onal Health and Safety		
103-1	Workers representation in formal joint management–worker health and safety committees		GRI 37
103-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities		GRI 38
403-3	Workers with high incidence or high risk of diseases related to their occupation		GRI 38
	and Education		
404-1	Average hours of training per year per employee		GRI 39
404-3	Percentage of employees receiving regular performance and career development reviews		GRI 39
Diversity	and Equal Opportunity		
105-1	Diversity of governance bodies and employees		GRI 40
	rimination		
406-1	Incidents of discrimination and corrective actions taken		GRI 41
	Indigenous Peoples		
ИМ 5	Operation in or adjacent to indigenous peoples' territories		GRI 41
MM6	Number and description of significant disputes relating to land use, customary rights of local communities, and indigenous peoples		GRI 41
MM7	The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities, and indigenous peoples		GRI 41
_ocal Co	mmunities		
413-1	Operations with local community engagement, impact assessments, and development programmes		GRI 42
Resettle	ment and Closure Planning		
MM9	Sites where resettlements took place		GRI 43
MM10	Number and percentage of operations with closure plans		GRI 43
Supplier	Social Assessment		
414-1	New suppliers that were screened using social criteria		GRI 42
	nomic Compliance		OD: 40
419-1	In the social and economic area		GRI 43

GENERAL STANDARD DISCLOSURES

General disclosures and reporting principles

Boliden produces metal that makes modern society work. Our operations are characterised by concern for people, the environment, and society. Boliden's sustainability work is based on our own norms and values, as well as international guidelines and targets such as the UN's Global Compact and the UN Sustainable development goals. Dialogues with internal and external stakeholders are used to ensure that different perspectives are taken into account.

General disclosures

102-8 Information on employees and other workers Unless stated otherwise, all information in this GRI report concerning the number of employees refers to data from actual number of employees on 31 December for each year (2015–2017), while in the Annual Report the corresponding figures are calculated and reported as Full Time Employees (FTE). There are no

significant variations in the numbers reported due to seasonal variations in production in our operations. The data has been generated through the local HR IT systems at our operations. The data has been quality assured by responsible HR Managers and compiled and summarised by Group HR.

102-8a Total number of employees by employment contract (permanent and temporary) by gender

		2015		2016			2017		
	Number	%	Female, %	Number	%	Female, %	Number	%	Female, %
Permanent	4,916	95.6	17.4	5,458	95.4	17.0	5597	94.5	17.9
Temporary	226	4.4	38.9	261	4.6	35.6	324	5.5	30.2
Total in Group	5,142	100.0	18.4	5,719	100.0	17.8	5,921	100.0	18.5

102-8b Total number of employees by employment contract (permanent and temporary) by region

	2015	2015 2016		3	2017	1
Region	Permanent	Temporary	Permanent	Temporary	Permanent	Temporary
Sweden	3,023	122	3,098	120	3,213	134
Norway	292	29	291	17	290	35
Finland	1,010	60	1,499	89	1,504	125
Ireland	578	15	557	35	577	30
Other	13	0	13	0	13	0
Total in Group	4,916	226	5,458	261	5,597	324

102-8c Total number of permanent employees by employment type (full-time and part-time), by gender

	2015			2016			2017		
Employment type	Number	%	Female, %	Number	%	Female, %	Number	%	Female, %
Full-time	4,814	97.9	17.0	5,360	98.2	16.6	5,492	98.1	17.6
Part-time	102	2.1	37.3	98	1.8	36.7	105	1.9	32.4
Total in Group	4,916	100.0	17.4	5,458	100.0	17.0	5,597	100.0	17.9

GENERAL STANDARD DISCLOSURES

102-13 Membership of associations

Boliden participates in industry organisations that can play an important role in the sustainability dialogue. These organisations include: the Association of Finnish Steel and Metal, the International Zinc Association (IZA), the International Copper Association (ICA), the European Copper Institute (ECI), the Scandinavian Copper Development Association, the International Lead Association (ILA), SveMin, FinMin, Euromines and Eurometaux.

102-16 Values, principles, standards, and norms of hehaviour

We expect our employees to promote our core values by acting responsibly towards colleagues, business associates, and society at large, and to keep in mind that they may be regarded as Boliden employees even during their leisure time. The Code of Conduct provides a framework for what Boliden considers to be responsible conduct – it is not exhaustive. Our employees should always strive to exercise good judgement, care, and consideration in their work for Boliden.

Boliden, and its employees, shall base their behaviour on mutual respect. Boliden does not accept any form of harassment, discrimination, or other behaviour that colleagues or business associates may regard as threatening or humanly degrading. We shall also ensure that none of the operations controlled by the company lead to the exploitation of children. We never, either directly or indirectly, collaborate with suppliers or customers where we have reason to believe that child labour is used. Employees and Board Members shall not seek to obtain advantages for themselves (or any related persons) that are improper or may harm Boliden's interests in any other way. Information beyond general business knowledge acquired in their work for Boliden should be regarded confidential and treated as such.

The company shall communicate its financial results and other information affecting the share price in an appropriate and timely manner and shall, in so doing, comply with relevant legislation, stock market contracts, and other regulations.

Gifts or other favours to business associates shall comply with locally accepted good business practice. Gifts and other favours may only be given or granted provided that they are modest, both with respect to value and frequency, and provided the time and place are appropriate.

Employees and Board Members shall comply with all applicable laws and regulations, including the antitrust and competition laws, when conducting business on behalf of Boliden.

The Code of Conduct applies to all Boliden employees, including temporary personnel, worldwide, as well as to members of the Board of Directors of Boliden AB and its subsidiaries. Line managers are responsible for making the guidelines known and

for promoting and monitoring compliance. Violation of the Code of Conduct will not be tolerated and may lead to internal disciplinary action, dismissal, or even criminal prosecution. Should an improper practice or incident occur within Boliden, the company is committed to making the necessary corrections and will take remedial action to prevent recurrence.

102-40 List of stakeholder groups

The stakeholder groups identified as priority groups for engagement on sustainability issues are:

- Employees
- Future employees
- Neighbours
- Owners
- Capital market
- Business partners
- Authorities
- Media

In a wider context also:

- Land owners
- Politicians
- Sami villages
- Consumers
- Competitors
- Universities/research
- Those influencing public opinion

102-41 Collective bargaining agreements

The total number of employees at Boliden covered by collective bargaining agreements on 31 December, 2017 was 5,798 (5,554), representing 97.9 % (97.1%) of the total workforce.

102-42 Identifying and selecting stakeholders

Boliden's operations affect many people in a variety of ways, and similarly, these stakeholders have different views and expectations of Boliden. If it is to carry out relevant sustainability work, Boliden must identify and address prioritised issues. By conducting stakeholder dialogues, Boliden meets demands for increased transparency and learns about stakeholders' demands and expectations in greater detail. In 2016, Boliden conducted stakeholder dialogues based on the new sustainability development goals. The Boliden approach to stakeholders is based on a combination of theoretical models and evaluation of the mutual levels of cause, legitimacy, and power between Boliden and the stakeholder group.

GENERAL STANDARD DISCLOSURES

102-43 Approach to stakeholder engagement

Boliden's framework of stakeholders that raise expectations, influence the perception of our company, and are relevant with regard to sustainability performance is, however, wider than that defined by the above stakeholder groups. Dialogue is conducted in different ways with different groups, i.e. bi-annual employee surveys, open-house meetings with employees and the neighbouring community, formal and informal meetings with authorities, and capital market days and the annual general meeting.

102-44 Key topics and concerns raised

In 2016, Boliden conducted stakeholder dialogues based on the new sustainability development goals formulated by the United Nations, which came into force at the beginning of the year. The response from internal stakeholders (employees) confirms that health and safety is the most important issue, followed by the ability to create value by maximising the metal yield and driving technological developments. External stakeholders (business partners, authorities, future employees) expect to a high degree that Boliden focuses on increased energy efficiency, its carbon footprint, and reduced environmental impact. The common denominator for all stakeholders is an expectation that Boliden's innovation and technological development capabilities will benefit both the company and society at large. Sustainability within Boliden means to evaluate environmental impact, take social consideration, and secure strong economic results. The stakeholder engagement during 2017 has been part of the Corporate Responsibility strategic process, and has not been undertaken specifically as part of the reporting preparation process.

102-46 Defining report content and topic boundaries

The information contained in this report, with the exception of environmental performance data, covers facts and figures from Boliden's eleven business units, from the Group's head office and various staff functions, and from its sales offices. Environmental performance data are limited to Boliden's eleven operational business units (as they represent Boliden's significant environmental impact). The Kevitsa mine, located in Finland, which Boliden acquired in June 2016, is from 2017 fully integrated in the GRI reporting. During the reporting period, there have been no significant changes in the mining and smelting operations, in the supply chain, or in the capital structure and capital formation.

Defining the report content

Boliden's sustainability work is based on its own norms and values and on the UN Global Compact and the UN Sustainable development goals. For several years, dialogues have been completed with internal and external stakeholders to ensure that different perspectives are taken into account. Within Boliden, a 'material topic' is a question that reflects our company's significant economic, environmental, and social impacts on our environment, as well as the issues that can significantly affect assessments and decisions made by our stakeholders.

In 2017, a reconciliation of Boliden's material topics was made against the newest GRI standards which resulted in an updated list of 24 material topics that was verified by the group management. Because Boliden's business affects many people in a variety of ways, stakeholders have different views and expectations for Boliden. Important inputs in the process have therefore been how Boliden's activities relate to the global goals, to other trends and expectations in society, as well as the views expressed in dialogues internally within the company and in contacts with representatives of other stakeholders. The content in terms of material topics and boundaries is further explained in disclosure 103-1.

Reporting Principles

The financial data is drawn from Boliden's audited annual accounts. The Boliden Group reports in Swedish kronor (SEK). According to Swedish legislation, sustainability reporting is included in the Group Annual Report, as well as in a separate report prepared according to GRI standards. Environmental data, including energy-related data, is collected on a monthly, quarterly, or annual basis and consolidated at Group level. Calculation methods for direct CO₂ emissions are stipulated by national legislation, and in connection with the EU emissions trading scheme. All other emissions have been measured, and/or calculated on the basis of periodic measurements. More detailed measurement techniques, calculation methods, and assumptions are reported in connection with relevant indicators. Social data has been generated through the local HR IT systems at our operations. The data has been quality assured by responsible HR Managers as well as Group HR.

102-56 External Assurance

Boliden's policy is to use external assurance to ensure a high quality and creditability of the information published in the Boliden GRI-report.

Management Approach

Sustainability issues are an important part of Boliden's operations and work is conducted based on the most material topics for the business. Our Board of Directors is responsible for the stewardship of our company and ensures that an appropriate corporate governance structure and system are in place. Sustainability issues are taken up at each Board and Group Management meeting, as well as in local management meetings. One person in the Group Management is dedicated to Corporate Social Responsibility. The daily responsibility is, however, decentralised to each business unit.

103-1 Explanation of the material topic and its boundary

This analysis describes and discloses Boliden's materiality aspects and its performance in relation to these aspects, which are considered to be material with reference to Boliden's ability to maintain sustainable and stable processes, to achieve its vision of being 'a world-class metals company', and to fulfil the strategic direction and objectives. Boliden shall be among our industry's leading companies in terms of customer satisfaction, efficiency, and responsibility. This entails an understanding, readiness, and progressiveness with regard to aspects deemed to be material.

The net list of material aspects has been identified and prioritised in a process that involved external and internal stakeholders. The process is described below and is based on Boliden's past need to identify areas of sustainability priorities and goals to 2018, and on the Global Reporting Initiative's principles for determining the content of a sustainability report.

In 2013, an internal programme of work designed to renew Boliden's sustainability priorities and objectives for the period of 2014-2018 was carried out. That work included cross-disciplinary discussions, impact analysis, and importance in terms of Boliden's overall results. Multiple internal experts participated and the areas and objectives were anchored across the organisation and adopted by Group management and the Board of Directors.

Boliden regularly consults selected stakeholder groups on its sustainability performance from a broader perspective. These stakeholders were asked to comment on Boliden's strategic focus and to put forward potential additional key sustainability issues, opportunities for improvement, and the strengths and weaknesses of existing work. The consultation provided ideas on possible improvements to both the sustainability work and its reporting. Examples include: enhanced local stakeholder dialogue, clearly defined responsibility in the value chain, and better embracing of the customer perspective in Boliden's sustainability priorities. Follow-up interviews and questionnaires conducted in 2015 and 2016 confirmed that safety and the environment are common priorities among stakeholder groups.

As of 2017 Boliden has laid out the structure and content of its GRI Report on the basis of the new GRI Standard. A reconciliation of Boliden's material topics resulted in an updated list of 24 material topics that was verified by the Group management.

Boliden has, furthermore, determined boundaries for its materiality aspects. Boliden has a responsibility to promote and manage sustainability issues across the value chain. The self-acknowledged responsibility is reflected in the identification of the aspects that are material to Boliden. Part of fulfilling the GRI principle on Boundary entails determining the extent and boundaries of each aspect, based on its impact and priority. Boliden's considerations are disclosed by means of symbols shown in connection with each material aspect – see the list below for details.

Boliden's material aspects are presented below. Two major categories have been defined: aspects that are at the core of sustainable and stable processes, with a direct impact on Boliden's overall results, and aspects that relate to the impact on external stakeholders, their perception of Boliden and our ability to grow the business (licence to operate). All together, these aspects impact Boliden's ability to become a world-class metals company and the first sustainable link in the metal's value chain.

Boliden will update the materiality analysis on a regular basis in response to changing business requirements, changing stakeholder expectations, implementation of the global goals for sustainable development, and technological and scientific progress, etc.

Material topic	Where the impact occurs	Bolidens involvement
Economic		
Economic performance	Economic value generated and distributed from all Boliden sites.	Boliden contributes to the welfare in the society through generation and distribution of economic value e.g. by paying wages, taxes, interest rates, and dividends.
Market presence	In connection with Boliden's mines and smelters.	Most of Boliden's employees live in the vicinity of the workplace and the company has a considerable impact on local employment levels, trade and industry by generating purchasing power and providing a critical base for social services.
Indirect economic impact	Economic value generated and distributed from all Boliden sites, leading to effects in the society.	Boliden contributes to the creation of more than 30,000 jobs either directly, indirectly, or induced, through its subcontractors, suppliers, or the effect of its employees' expenditure.
Anti-corruption	All Boliden sites, in business relationships	Boliden's line managers are responsible for making the Code of Conduct and the Anti-Corruption policy known, promoting and monitoring compliance within their respective organisations.
Anti-competitive behaviour	All Boliden sites, in business relationships.	Employees shall refrain from sharing, discussing, or disclosing information which may be sensitive from a competition perspective.
Environment		
Materials	At Boliden's mines and smelters, and in the supply chain, both primary and secondary materials are handled.	Boliden's core business is mining and smelting. Recycling of e-scrap and automotive batteries, and the processing of intermediate and waste products are important elements of the circular economy, to maximise the metal recovery from the available raw materials.
Vaterial Stewardship In the value chain. Sector aspect)		Boliden extracts minerals and produces high-quality metals, which are mainly sold to industrial customers in Europe. Care and consideration for people, society, and the environment is evident in all our activities – from exploration to customer deliveries.
Energy	At Boliden's mines and smelters, in business relationships, and in exchange of energy with adjacent industries and societies.	Metal production is energy intensive, both in the mining and refining processes. Boliden's energy use is a major cost item; therefore the energy policy states that all business units shall implement and maintain energy management systems. All Boliden smelters sell excess heat to other industries and local communities.
Water	At Boliden's mines and smelters, withdrawal of water might disturb the environment.	Boliden's operations are located in areas where there is no scarcity of water. Boliden aims, nonetheless, to reduce both its consumption of fresh water and the discharge of used water.
Biodiversity	At Boliden's mines and smelters, and in exploration, access to land is essential, and might affect restrained habitats.	When new mines are opened in previously undisturbed areas, the areas' natural and cultural values are inventoried. The Environmental Impact Assessment measures the effects on the flora and fauna before, during, and after any operation. This inventory, or baseline, can also be used as a reference when planning and utilising the remediation actions.
Emissions	At Boliden's mines and smelters, air emissions might disturb the environment as well as human wellbeing.	Boliden's most significant emissions to air are stack emissions of dust, CO_2 and sulphur dioxide. Diffuse emissions arise from open materials handling. Boliden tracks emissions of metals to air particularly closely and aims to reduce them over time. Boliden's carbon dioxide intensity shall be reduced through improved process efficiency and increased electrification. Sulphur dioxide contributes to acidification and reducing these emissions is an important goal.
Effluents and waste	At Boliden's mines and smelters, effluents and waste might disturb the environment and the landscape.	Mines and smelters generate waste consisting of waste rock, tailings sand, slag, sludge, and dust. Mine waste is normally handled within the producing unit, while smelter waste is either sent to internal or external landfills or for recycling. Boliden's discharges to water include, among other things, metals and nitrogen.
Environmental Compliance	At Boliden's mines and smelters, subject to legal conditions.	Environmental sustainability is a precondition for successful mining and smelting operations. Legal requirements shall always be met.
Supplier Environmental Assessment	In the supply chain.	Environmental criteria are a vital part of Boliden's Business Partner Code of Conduct, and therefore a crucial part of the evaluation of business partners. Boliden requires business partners to identify and document their significant environmental aspects, and to be aware of and comply with environmental legislation and common practices.

Material topic	Where the impact occurs	Bolidens involvement		
Social				
Employment	At Boliden's mines and smelters, head and sales offices.	Boliden considers the ability to recruit, develop and retain competent employees as a prerequisite for its success.		
Occupational Health and Safety At Boliden's mines and smelters, head and sales offices. Also business partners working at Boliden sites.		Occupational health & safety is Boliden's most important issue as it involves the safety and, ultimately, the life of Boliden's employees and contractors, and the materiality is obvious in a work environment with inherent risks.		
Training and Education	At Boliden's mines and smelters, head office and sales offices.	Boliden has a number of internal programmes for career and skill development.		
Diversity and Equal Opportunity	At Boliden's mines and smelters, head office and sales offices.	Diversity leads to dynamism, creativity and, ultimately, to greater profitability. Boliden take action to ensure its workforce is made up of people with different backgrounds, ages, and experiences.		
Non-discrimination	At Boliden's mines and smelters, head office and sales offices.	Boliden and its employees shall refrain from all forms of discrim nation and harassment on the basis of gender, ethnicity, age, di bility, religion, sexual orientation, or any other factor.		
Local Communities	At Boliden's mines and smelters, and the surrounding community.	Good community relations are as important for our business as the effective management of our operations.		
Supplier Social Assessment	In the supply chain.	Labour standards and human rights are a vital part of Boliden's Business Partner Code of Conduct, and therefore a crucial part of the evaluation of business partners and supplier assessment.		
Socio-economic Compliance	At Boliden's mines and smelters, head office and sales offices, and in business relations.	Socio-economic compliance is a precondition for successful mining and smelting operations. Legal requirements shall always be met.		
Resettlement and Closure planning (Sector aspect)	At Boliden's mining operations, and its surroundings.	Boliden's operations involve land use for mining, industrial areas, and ponds for use as sand and clarification ponds. Conservation and reclamation of mining areas which reach the end of their production lifespan are, therefore, part of Boliden's operations and responsibilities.		
Rights of Indigenous Peoples (Sector aspect)	Operations in northern Sweden and northern Finland are in the reindeer- herding areas.	Boliden promotes open dialogue and long-term cooperation with Sami communities in order to mitigate the negative impacts of its mining activities on local people and the environment.		

103-2&3 Evaluation of the management approach and the management approach and its components

The general aspects of 103-2 and 103-3 are covered in this part of the report, whereas the more topic-specific management aspects are covered in association to the disclosure of 200/300/400 topics.

Management Approach

Sustainability is an integral part of Boliden's strategy and operations. The basis for the sustainability work is that all operations are conducted in accordance with legislative provisions and permits in the countries in which the Group operates. Boliden's ambitions are, however, significantly higher than this and the Group works pro-actively by formulating goals and guidelines that are fundamental to its operations from a sustainability point of view. In order to systematically control and develop Boliden's operations, management systems have been implemented to ensure that significant sustainability aspects of the operations are covered, making it possible to minimise the risks associated with mining and metal production. Boliden's way of working also facilitates adaptation to market conditions and preferences, and ensures compliance with future legislation. Boliden became a signatory to the UN Global Compact in 2012, and we continually enhance our efforts to protect and respect its principles and promote its spirit. The identification and prioritising of the Group's sustainability efforts are based on the overall strategy and vision, the impact of the operations and the company's goal of being the first sustainable link in the metals' value chain and achieving operational efficiency. Boliden prioritises sustainability issues that:

- Directly impact Boliden's success
- Directly impact Boliden's stakeholders
- Are fundamental to Boliden's ability to operate
- Boliden is able to control

This approach enables Boliden to set relevant goals, and to track and improve performance. Boliden has recently modified the list of material topics and is in the process of reviewing performance indicators and targets for each topic.

Sustainability Targets 2014 - 2018

Identifying and prioritising the most important and relevant issues within the context of Boliden's sustainability work is an ongoing process. Sustainability comes with a long-term perspective and is a long-term commitment. Boliden's approach has been to define five-year target periods that provide a direction over a period of time. Performance disclosure information and comments are presented in the Economic, Environmental and Social chapters of the GRI report, as well as in the Annual Report. New targets beyond 2018 have been developed and are expressed as targets for 2018, 2020, and 2027.

As a complement to these numerical targets communicated publicly, Boliden also works with several internal activities related to the identified material topics.

Policies and Management Systems

Boliden has a governance model comprising Group-wide and local policies, instructions and guidelines, tools, and local management systems that correspond to the challenges the

company faces. The overall steering documents are collected in the Management Manual, which is available to every employee via Boliden's intranet.

Boliden's operations have adopted environment and occupational health and safety management systems certified (not yet at Kevitsa and Kylylahti) in accordance with ISO 14001 and OHSAS 18001 respectively. The Group's smelters are also certified in accordance with the ISO 9001 quality management system. An updated energy management system, in accordance with ISO 50001, is being implemented and has replaced the former systems based on EN 16001. By working with certified management systems, Boliden ensures that its operations review significant issues, set targets, measure performance, follow up on progress and continuously work to improve their performance. The certification schemes also demand documented delegation of responsibilities on each site and that relevant competences are upheld.

Boliden's Business Partner Code of Conduct

During 2017 Boliden updated the Business Partner Code of Conduct. These are guidelines for business partners with whom Boliden enters into an agreement. They are publicly available on Boliden's corporate website.

The Code has been developed from the principles laid down in the UN Global Compact, and issued by the ILO (labour standards), as well as from those contained in applicable ISO standards and the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

The Code addresses:

Human Rights and Labour Rights:

- Fundamental human rights
- The effective abolition of child labour
- Upholding the elimination of all forms of forced or compulsory labour
- Non-discriminatory practices
- Protecting and respecting freedom of association and collective bargaining
- · Working hours
- · Living wages
- · Health and safety

The Environment:

- A precautionary approach to environmental challenges
- Implementation of environmental management systems
- Minimised operations impact related to energy, greenhouse gas emission, waste, and water consumption

Anti-Corruption:

- Zero tolerance of bribery or any form of corruption
- Zero acceptance of direct or indirect involvement in prohibited
- Compliance with trade sanctions and prevention of fraud, extortion, money laundering
- · Legal compliance on taxation, fees and royalties, and transparency in disclosure of the same

Boliden's Corporate Responsibility work towards suppliers is developed and improved continuously from new knowledge and new conditions, such as amended legislation and principles set forth under the Extractive Industry Transparency Initiative (EITI). The CR evaluation of business partners' process for existing suppliers and customers is repeated at minimum with three- to five-year intervals. The extent of the process depends on assessed sustainability risk and strategic importance of the business partner. All of Boliden's business partners have been checked through sanction controls during the reporting year.

Responsibility and Monitoring of Progress

Boliden's Group management has the ultimate responsibility for the Group's sustainability work. Prioritising sustainability issues, and identifying and selecting the most relevant sustainability issues is an ongoing process involving all units within the Boliden Group. The Group management includes the Senior Vice President – Corporate Responsibility, who ensures that sustainability issues are addressed continuously.

The work is largely carried out through Group-wide networks in order to facilitate the dissemination of Boliden's goals and strategies as well as the exchange of expertise and experience between the Business Areas and between production units. There are networks for health and safety, the environment, human resources, and communications. The managers of these networks report to the Group management. Boliden's Board of Directors reviews the Group's sustainability performance data annually.

Environmental performance, sick leave, and accident rates are reported on a monthly basis. They are also presented at every Group management meeting and at every Board meeting. Supplier assessments of environmental and labour practices are reported on a quarterly basis. Boliden also presents sustainability performance in its quarterly interim reports.

Introduction GRI Content Index

General Disclosures

Management Approach

Economic Performance Environmental Performance

Social Performance

ECONOMIC PERFORMANCE

Economic standard disclosures (GRI 200)

The locations of Boliden's operations are determined by the localisation of mineral resources and the ability to explore and expand operations in connection with them. Good community relations and mutual understanding are a prerequisite for Boliden's business success and to enable the business to grow. Boliden also contributes to long-term economic growth by providing metals that are important for society's industrialisation and development.

Financial targets

Return on investments	The return on investments shall be a minimum of 10% (NPV)
Net debt/equity ratio	The net debt/equity ratio in an economic upturn shall be no higher than 20%
Dividend	The dividend shall correspond to one third of the net profit

(Base year 2012)

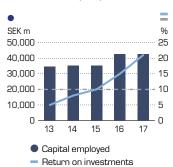
Introduction GRI Content Index General Management Economic Environmental Social Disclosures Approach Performance Performance Performance

ECONOMIC PERFORMANCE

Financial Performance 2017

Return on investments

The return on investments shall be a minimum of 10% (NPV)



Results 2017

The return on capital employed totalled 21% (15). The average per annum during the period from 2013 to 2017 has been 12%. Any investments made shall demonstrate a high return and shall be made in line with both Boliden's strategy and available resources. The projects' internal interest rates shall be higher than Boliden's weighted capital cost (WACC), adjusted for a risk premium.

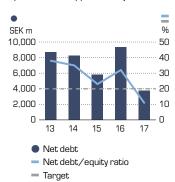
Comments

The WACC before tax is nominally set at 12%, which corresponds to 10% in real terms. Calculations for major and long-term projects are normally conducted in real terms. They are based on forecast interest rates, metal prices, exchange rates, inflation and other relevant assumptions drawn from internal analyses and external assessments.

Net debt/equity ratio

Target

The net debt/equity ratio in an economic upturn shall be approximately 20%



Results 2017

The net debt/equity ratio at the end of 2017 was 11% (32). The decrease since 2016 was due to loan amortisation during the period that was enabled by the profit and cash flow for the year.

Comments

The net debt/equity ratio in an economic upturn shall be no higher than 20 per cent. The aim is to maintain a reasonable financial ability to act in a recession.

Dividend

The dividend shall correspond to one third of the net profit



Dividend

Dividend share

Target

Results 2017

The proposed ordinary dividend is SEK 8.25 (5.25) per share, corresponding to 32.9% (33.9) of the net profit for the year. In addition, an extra payment of SEK 5.75 per share, in the form of an automatic share redemption procedure, has been proposed. The ordinary dividend share during the period from 2013 to 2017 was 33.4% of the aggregate net profit for the period.

Comments

Boliden's dividend policy states that the dividend shall correspond to approximately one third of the net profit.

201–103 Management Approach – Economic

The economic topics identified as material to Boliden are economic performance, market presence, indirect economic impact, anticorruption, and anti-competitive behaviour. All of these topics are closely linked to Boliden's overall performance. They are both the result of, and a precondition for trust from the local communities where Boliden operates. By taking these topics into account and performing well in respect of them, Boliden maintains its licence to operate and the ability to develop the business.

Economic performance

Economic performance is material, because Boliden contributes to the welfare in the society through generation and distribution of economic value e.g. by paying wages, taxes, interest rates, and dividends. These impacts occur in the whole extent of Boliden's value chain, and affect several stakeholder groups, and all Boliden

Boliden's contribution to the community is multi-faceted and includes investing in education and engaging with students, nurturing competence, and enabling conversion from one occupation to another to make people employable; sponsoring local organisations; making investments that benefit the company and the community, etc. These are matters that support job creation and strengthen rural communities' contribution to national economic stability. Looking back, one of the Group's focus areas has been to generate a positive economic impact on the local community.

Several of Boliden's most important locations and locations where major investments have been made are regions where growth injections are needed. Boliden is aware of the company's role and significance as what is often the biggest employer in the community and a generator of positive trickle-down effects, such as tax income to finance public services, and as a foundation for a private service sector. This brings both privileges and responsibilities.

Salaries are an important part of the economic compensation to the community. In general, the entry-level wages for employees are set higher than the minimum wage, and average salaries and wages are often higher than the national industrial average. For blue-collar employees, there is an entry-level wage stated within the local salary agreements that is used for new employees. For white-collar employees hired directly out of universities, Boliden applies entry-level wages, depending on the level of education needed for different jobs.

Social impact assessments are conducted in order to assess the consequences for the local community, both in connection with expansions of and other significant changes to operations, and in conjunction with the closure of operations.

Please see the Annual Report to learn more about the ways in which Boliden manages, follows up on, and monitors its performance in relation to these aspects.

Market presence

Market presence is material, because the majority of Boliden's employees live in the vicinity of the workplace and the company has a considerable impact on local employment levels, trade, and industry by generating purchasing power and providing a critical base for social services. This effect is most apparent in connection with mines and smelters, our major operational sites.

Indirect economic impact

Boliden's operations affect and touch the lives of many people – sometimes entire communities. Value creation depends on the ability to show consideration for people, society, and the environment throughout the value chain. Boliden aims to make a positive contribution to the development of communities, regions, and countries in which they operate.

Boliden currently operates in countries where the infrastructure is well developed and the need for Boliden to contribute to society by directly investing in and developing infrastructure and social services is limited.

Boliden is, however, often one of the bigger companies in the local area, paying taxes in the areas in which Boliden operates, and its contribution can, therefore, be considered significant.

Anti-corruption

Boliden's Code of Conduct provides a non-exhaustive framework for what Boliden considers to be responsible conduct.

Our employees should always strive to exercise good judgement, care, and due consideration in their work for Boliden.

The Code of Conduct applies to all employees in all countries and subsidiaries throughout the Group and to the members of the Board of Directors of Boliden AB.

Anti-competitive behaviour

Employees and Board members shall comply with applicable anti-trust and competition laws, Boliden's Code of Conduct, and Boliden's competition policy and guidelines sharing, discussing or disclosing information which may be sensitive from competition aspects is prohibited.

Material Topic: Economic Performance

201-1 Direct economic value generated and distributed

Net sales in 2017 totalled SEK 49,531 million (40,316). Boliden has developed the description of the company's value creation and has therefore redefined some of the economic indicators compared to previous GRI reports. All of the indicators are reported with two comparative years. Boliden also reports revenues and operating profit per Business Unit and country-by-country tax payments in the Annual Report.

Component, SEK m	Where the impact occurs	2015	2016	2017	Comment	
Direct economic value gene	erated					
a) Revenues	From customers	40,242	40,316	49,531	Net sales plus revenues from financial investments and sales of assets.	
Economic value distributed						
b) Purchasing	To suppliers	-33,304	-30,340	-36,644	Payments for materials, energy, machines, other components, and services purchased.	
c) Employee wages and benefits	To employees	-3,480	-3,925	-4,532	Total payroll and benefits incl. employee taxes and funds on behalf of employees.	
d) Payments to providers of capital	To shareholders, banks, and institutions	-1,127	-1,747	-4,111	Dividends to shareholders and interest payed to providers of loans.	
e) Payment to government	To society	-715	-1,135	-1,881	Gross taxes.	
Economic value retained						
f) Retained earnings	Shareholders	1,677	1,688	-3,480	Reinvestments or reserves.	

201–2 Financial implications and other risks and opportunities in the organisation's activities due to climate change

Boliden is impacted by the effects of climate change, and the effects are both physical and financial. The stress that heavy rain puts on Boliden's water management systems is one example of a physical implication. Over the past years, heavy rains have led to capacity investments by Boliden in order to comply with the limits stipulated in relevant permits and to achieve the Group target of reducing discharges to water.

Metals production is a very energy-intensive process that generates both direct and indirect carbon dioxide emissions. Boliden's direct carbon dioxide emissions primarily arise from the metallurgical processes, transportation, and heating requirements. The indirect carbon dioxide emissions derive from purchased electricity. To address the climate change issue, Boliden takes part in development projects focusing on, for example, improving heat recovery, the further electrification of transports, and trials involving replacing fossil fuels with biofuels in process applications.

All of Boliden's smelter operations (Odda, Bergsöe, Rönnskär, Kokkola and Harjavalta) have been fully exposed to ETS, the European Emission Trading Scheme, since 2013. The ETS is a strong strategic challenge for Boliden, entailing not only calculating the costs that may be entailed in future purchases of emission allowances, but also working on opportunities to reduce emissions, given the production levels and available technology. The allocated emissions allowances for Boliden's smelters for the period 2013-2020 total 3.9 Mtonnes, which is in line with the direct emissions forecast. The rules for emissions trading, and the financial implications for Boliden after 2020, are uncertain.

In 2013, the Group management formulated new targets for the stabilisation of Boliden's carbon dioxide emissions until 2018. This target, expressed as intensity (tonne CO₂/tonne metal), is together with internal carbon budget pricing, a basis for evaluating investments and mitigation opportunities.

Material Topic: Market Presence

202-2 Proportion of senior management hired from the local community

Boliden reports this indicator for each Business Unit which corresponds to significant locations of operation. Senior managers

are defined as managers involved in the local management team. Managers are deemed to be hired from the local community if they are permanently resident in the geographical vicinity of their place of work (i.e. not commuting from other regions).

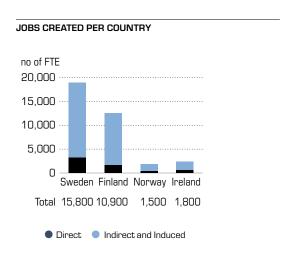
2015			201	2016		2017	
Operation	Senior Managers on site	Hired from local community %	Senior Managers on site	Hired from local community %	Senior Managers on site	Hired from local community %	
Aitik	10	90	11	100	9	100	
Boliden Area	10	100	7	100	8	100	
Garpenberg	5	100	5	100	5	100	
Tara	7	86	7	86	7	100	
Kylylahti	8	75	8	88	7	100	
Kevitsa	_	_	10	100	8	88	
Rönnskär	7	86	7	86	7	100	
Bergsöe	6	100	6	100	6	100	
Odda	5	100	5	100	5	100	
Kokkola	6	100	6	100	7	100	
Harjavalta	6	100	6	100	8	100	
Total in Group	70	92,9	78	96,2	77	98,6	

Material Topic: Indirect Economic Impacts

203-2 Significant indirect economic impact, including the extent of impacts

Boliden's mining and smelting operations are often of considerable importance in terms of employment in the local community, making Boliden an important local stakeholder. The Group's operations have not only a substantial impact on job opportunities but also affect suppliers' purchasing power elsewhere in the local business sector, which, in the long term, impacts the development of the communities' service sectors.

In 2017, Boliden commissioned EY to review its economic contributions to the economy in the four countries with mining and



smelting operations. The analysis is based on Boliden's financial data, purchasing pattern and publicly available statistics. The acquired Kevitsa operation has been included in the assessment. The results show that Boliden's activities support the creation of 30,000 jobs, in Sweden (15,800), Finland (10,900), Norway (1,500), and Ireland (1,800). These are direct jobs (5,650), those indirectly supported through subcontractors and suppliers (10,735), or those supported through the induced effect of the employees' expenditure (11,400). The average amount of jobs created per Boliden employee is 4.3 and as a consequence, Boliden also contributes to the public finances both through direct taxes and through the taxes paid by suppliers and customers. In our most recent calculation, based on the preliminary 2017 financial results, Boliden's total contribution to public finances through taxes in Sweden, Finland, Norway, and Ireland is estimated at SEK 14,000 million.

Compared to earlier assessments based on the 2016 results, job creation has increased from 25,300 jobs to 30,000 jobs in 2017. The job creation variations between the units can to some extent be explained by the ongoing investment programmes.

Boliden participates in the development of education for future engineers within the mining and metals industry.

The Group's operations not only impact the local communities at large: employees, shareholders, customers, and suppliers all depend on Boliden's profitability by improving this aspect of the operations even further, Boliden will be able to continue making a positive economic and social contribution to the development of these communities and their society.

= Partially reported

Material Topic: Anti-Corruption

205-1 Operations assessed for risks related to corruption

Business ethics are covered in Boliden's Code of Conduct. In addition hereto, corruption and conflicts of interests are addressed in Boliden's anti-corruption policy and guidelines. These governing documents set out appropriate measures to prevent corruptive behaviour and improper influencing. The documents are based on Group wide risk assessment surveys in order to be appropriate for business carried out, in paticular within procurement, and to address and mitigate any risk factors.

205–2 Communication and training in anti-corruption policies and procedures

Boliden's line managers are responsible for making the Code of Conduct, the Anti Corruption, and competition policy known, promoting and monitoring compliance within their respective organizations and to their respective counterparties. All managers and other employees, whose work involves more regular external contacts with business partners, in particular with competitors, suppliers, customers, or agents, are subject to anti-corruption and competition training appropriate for their area of responsibility, starting with the Management Development Programme - a training programme for Boliden's top 130 managers, including

top management. All white-collar employees must carry out mandatory e-learning training sessions from time to time in the fields of anti-corruption and anti-bribery. The learning courses are normally offered in Swedish, Norwegian, Finnish, and English, depending on where the participants are based. During 2017, Boliden has updated its anti corruption policy and guidelines in order to make them even more user friendly. The launch of the new policy which is subject to board approval, is planned to the beginning of 2018, with renewed training sessions and e-learning to follow.

Boliden has a whistle-blower function which can be used to anonymously report suspected cases of economic crime in order to discover potential misconduct.

205-3 Confirmed incidents of corruption and actions taken

During 2017 an investigation was initiated based on allegations received through Boliden's whistle-blower reporting channel the investigation was conducted with external assistance in addition to internal resource. There was no evidence of misconduct, nevertheless it was resolved to introduce additional enhanced routines for purchasing and procurement.

Material Topic: Anti-competitive behaviour

206-1 Legal actions for anti-competitive behaviour, anti-trust, and monopoly practicies

Boliden has zero tolerance for corruption and unfair competition. In accordance herewith, Boliden has adopted an anti-competition policy and guidelines and has held several face-to-face and e-learning training sessions, together with external suppliers of these services. A three-year, three-part e-learning session has been two-thirds completed, with the last remaining session to be conducted during the first quarter of 2018. These trainings are targeted to a selected group of employees, normally dealing with or having contact with potential competitors. Boliden

conducts extensive domestic and international operations and is occasionally involved in disputes and legal proceedings arising in the course of its activities. There are no initiated or ongoing legal actions with respect to anti-competitive behaviour or compliance. There are no fines or non-monetary actions, related to anti-competitive behaviour, initiated or pending against Boliden. Both anti-corruption and compliance with competition laws and regulations is vital for Boliden. In line herewith, Boliden strives to incorporate requirements in its contractual agreements with its counterparties that require these counterparties to comply with applicable laws and regulations also within these relevant areas.

Environmental standard disclosures (GRI 300)

Environmental sustainability is a precondition for successful mining and smelting operations. Boliden's environmental strategy is based on three component parts: Environmental Impact, Resource Efficiency, and Credibility. These elements address the most important areas for Boliden's licence to operate and our long-term competitiveness.

Environmental Targets, 2014–2018

Discharges of metals to water shall decrease by 25%	
Emissions of metals to air shall decrease by 10%	
Emissions of sulphur dioxide to air shall be reduced by 10%	
The carbon dioxide intensity shall not exceed 0.77 tonnes of carbon dioxide per tonne of metal produced	
Boliden's target is to have zero serious environmental incidents every month	

(Base year 2012)

Group Direction beyond 2018

Carbon Dioxide Emissions	CO₂ intensity (tonnes of CO₂ per tonne of metal produced) shall dercrease by 3% per annum
Metal discharges to water	Dischages of metals to water shall decrease by 1% per annum (Me-eq. per tonne metal produced)
Metal emissions to air	Emissions of metals to air shall decrease by 1% per annum (Me- eq. per tonne metal produced)
Environmental Incidents	Boliden's vision is to have zero serious environmental incidents each month

(Base year 2016)

Environmental Performance 2017

Metal Discharges To Water

Discharges of metals to water shall decrease by 25% between 2012 and 2018



Results 2017

The environmental impact from discharges of metals to water has declined by 57% since the base year of 2012. Discharges have fallen at the majority of Boliden's units during 2017, with a new water treatment plant at one of the units accounting for a large share of the reduction.

Comments

Since 2015, Boliden has been reporting the impact of metal discharges as metal equivalents, a method, whereby the various elements are allocated a power factor, depending on how toxic they are to the aquatic environment. The method is based on copper equivalent toxicity (as if the toxicity were only caused by Cu). This method has been used retroactively in this report since 2012. Boliden also reports water discharges in accordance with GRI, see indicator 306-1.

Metal Emissions To Air

Emissions of metals to air shall decrease by 10% between 2012 and 2018



Results 2017

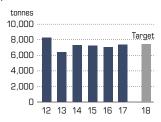
The environmental impact from emissions of metals to air has increased by 19% since the base year of 2012. The copper smelters have, as a result of the recycling of more complex materials, accounted for the majority of this trend. Boliden is currently carrying out investigations in order to improve treatment techniques, amongst others, with a view to turning this trend around. The emissions are within existing environmental permit limits.

Comments

Since 2015, Boliden has been reporting the impact of metal emissions as metal equivalents, a method, whereby the various elements are allocated a power factor, depending on how toxic they are to humans exposed to them. The method is based on copper equivalent toxicity (as if the toxicity were only caused by Cu). This method has been used retroactively in this report since 2012. Boliden also reports emissions in accordance with GRI, see indicator 305-7.

Sulphur Dioxide Emissions

Sulphur dioxide emissions to air shall decrease by 10% between 2012 and 2018



Results 2017

Emissions of sulphur dioxide to air have declined by 11% in comparison with the base year of 2012. A number of investments are being made in order to further reduce these emissions.

Comment

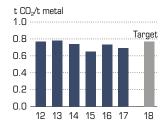
Sulphur dioxide is currently within the internal targets, but performance is uneven due to some installations approaching a point where reinvestment is required. Boliden's investment in a new sulphuric acid plant in Harjavalta is expected to contribute to a further decline in sulphur dioxide emissions in the coming years. See indicator EN21 for more information.

Emissions of sulphur dioxide to air

Target 2018

Carbon Dioxide Emissions¹

The carbon dioxide intensity shall not exceed 0.77 tonnes of CO₂ per tonne of metal produced by 2018



The carbon dioxide intensity has decreased from 0.73 to 0.69. Boliden is working on increasing the electrification of transports in order to reduce the use of fossil fuels. Projects aiming at reducing the carbon dioxide emissions from processes and systematic work to improve energy efficiency are being pursued.

The relative emissions of carbon dioxide shall stabilise to the 2012 level (0.77 t CO₂/t metal), regardless of increased production. To achieve this, Boliden has to work with energy efficiency and technological development. See indicators GRI 305 to learn more about Boliden's work related to carbon dioxide

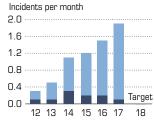
Carbon dioxide intensity

Target 2018

1) The 2016 intensity has been corrected from 0.69 to 0.73 due to incorrect source data for the calculations.

Environmental Incidents

Boliden's target for 2018 is zero serious environmental incidents per month



- Environmental incidents
- Whereof serious environmental incidents
- Target 2018

Results 2017

The number of serious environmental incidents has fallen to 0.1 (0.2) per month. 1 (2) serious incident occurred during the year, involving a contravention of the Swedish Cultural Environment Act.

Comments

22 (17) environmental incidents occurred during the year, one of which was deemed to be serious.

The other 21 comprised 14 discharges to water, 6 instances of prohibited air pollution, and 1 in relation to waste management. None of these incidents are deemed to have caused lasting damage or had a significant environmental impact. Serious environmental incidents are a new key ratio introduced to differentiate environmental incidents deemed to have a more serious impact on the environment from an environmental and/or legislative compliance perspective.

301–103 Management Approach Environment

Environmental material topics

Environmental topics, such as energy, water, emissions, effluents & waste, compliance, and transport, are directly connected to how we run our operations and whether we maintain stable processes that comply with our permits. Several topics are linked and impact Boliden's overall performance and compliance. Other environmental topics, such as materials, biodiversity, closure planning, grievance mechanisms and supplier assessments constitute material topics as they impact external stakeholders, and determine Boliden's licence to operate and ability to develop the business. Also reclamation work is important and by 2018, Boliden aims to have completed the reclamation of at least five prioritised objects out of 10 identified.

Materials

Materials are a fundamental topic. Boliden's core business is mining (production of concentrates) and smelting (transformation of concentrates to base metals). Recycling of e-scrap and automotive batteries, and the recycling of intermediate and waste products to maximise metal recovery are also important constituents of the circular economy.

Materials Stewardship

Boliden extracts minerals and produces high-quality metals, which are mainly sold to industrial customers in Europe. Material stewardship is material, since care and consideration for people, society and the environment is evident in all our activities through the value chain - from exploration to customer deliveries.

Metal production is very energy intensive, both in the mining phase and in the refining processes. Boliden's energy consumption is a major cost item, accounting for approximately 13% (14%) in the breakdown of the Group's total operating costs. Boliden's energy policy states that all business units shall implement and maintain energy management systems. Boliden shall also reduce its dependence on fossil fuels by using renewable and/or recycled energy where possible. In previous years, energy efficiency measures have also been promoted on a broader scale through voluntary commitments within the framework of national programmes, e.g. through the Swedish Energy Agency programmes, the Finnish equivalent (MOTIVA), and collaborations with Enova in Norway and SEAI in Ireland. The main aim of these programmes has been to increase the efficiency with which electricity is used. The changes in the total use of energy use and energy intensity in the reporting year are mainly related to the integration of the Kevitsa mine. This unit has been included from June to December, 2016 and is fully accounted for in the 2017 report.

Energy Management Systems

Boliden's approach is to have energy management systems, in accordance with ISO 50001, at all significant operational locations. This also ensures the company's compliance with the rules and regulations imposed by the Energy Efficiency Directive 202/27/EU.

Water

Boliden's operations are located in areas where there is no scarcity of water, and no water sources are significantly affected by the water withdrawal by Boliden's operations. Boliden aims, nonetheless, to reduce both its consumption of fresh water and the discharge of used water, and water is therefore considered a material topic.

Biodiversity

Access to large areas of land is essential to the majority of Boliden's activities i.e. exploration, mining, and the construction of tailings ponds and dams. Boliden's land holdings include key habitats, habitat protection areas, nature reserves, and voluntary designated areas for nature conservation. Most of the mines are located in rural areas. The exception is Tara Mines, which is located near the community of Navan in Ireland. The smelters are all located in industrial areas adjacent to a community and close to the coast.

The establishment of new mines and the expansion of existing businesses require land to be utilised. The physical impact on surrounding areas of land of the opening of a mining operation, for example, is considerable. A substantial amount of forested land must often be cleared to create space for industrial activities. The aim is to have the minimum possible impact on biodiversity. Once the mine is operational, the impact continues in the form of waste products – such as waste rock and tailings sand – traffic, noise, dust, and other emissions and discharges to air and water.

When new mines are opened in previously undisturbed areas, all of the relevant areas' natural and cultural values are inventoried. This is part of the EIA, (Environmental Impact Assessment) which is a mandatory part of the permit application process for new activities. The EIA makes it possible to measure the effects on the flora and fauna before, during, and after any operation is carried out. This inventory, or baseline, can be used as a reference when planning and utilising the re-mediation actions. EIA's are also carried out and a current baseline established in conjunction with changes to existing operations and the establishment of new operations in already disturbed areas. The majority of Boliden's acreage in northern Scandinavia is adjacent to reindeer grazing land and Boliden prioritises in-depth dialogues with representatives of the reindeer industry to ensure the optimum protection of their interests. This may, for example, entail ensuring that the reindeer herds can roam freely between grazing areas, or that grazing land is, as far as possible, maintained in an undisturbed condition and that the lichen and plants on which the reindeer feed are included in the flora planted when areas are reclaimed. Boliden's forests are FSC certified in order to promote responsible forestry, and Boliden has assigned approximately 10% of its productive forested land for nature conservation. This area is partly protected through the establishment of nature conservation land, key habitats and habitat-protected areas, and partly managed to promote nature-conservation interests. The areas protected by Boliden mainly comprise older forests, wetlands, and areas dominated by deciduous forest. Over time, some of the older forests are becoming more and more primeval. In areas dominated by deciduous forest, forestry is conducted in a way that prioritises

deciduous tree species. On the productive forested land, Boliden manages the forestry from a landscape ecological perspective.

In previous years, the Group's forestry management in these areas has included prescribed felling, which is intended to benefit deciduous wooded pastures, and controlled burning in order to promote certain species and biological diversity. By adapting the forest management in areas used for outdoor recreation, social values are created and maintained. Boliden's ambition is for the wildlife on Boliden's land to be in harmony with the forestry, hunting, and other public interests. Current long-term plans extend for at least ten years and include remediation, planned measures, and allocated funding for a number of abandoned pit mines. Boliden is constantly working to develop new options for restoring impacted ecosystems and to identify opportunities to compensate for impact through offsets.

Emissions

Boliden is working with systematic reviews of the actual energy and CO₂ emission trends, to identify possible improvements and efficiency measures. The primary objective is to stabilise and/or reduce the direct (Scope 1) and energy related indirect (Scope 2) CO₂ emissions. Boliden has evaluated the impact from other indirect (Scope 3) emissions and found that were not significant. Boliden's units continously evaluate their significant aspect during their annual environmental aspects reviews that are following the requirements in the ISO 14001 standard.

The current stabilisation target has led to an increase in the focus on and following up of energy use and CO₂ emissions. The 2014-2015 investments in Garpenberg contributed to more efficient energy use, and hence decreases in CO₂ intensity. The 2016 acquisition of the open pit operation in Kevitsa increased the CO₂ intensity, but Boliden will still work towards achieving the set stabilisation target of 0.77 t CO₂/t metal in 2018.

Using the best available technical solutions, using resources efficiently, and replacing fossil fuels with renewable ones will all be important components of Boliden's efforts to reduce CO₂ emissions. All units are also obliged to work continuously on making improvements to process efficiency.

Local action plans are also being drawn up with the aim of reducing diffuse emissions (ore dust or emissions from open converter plants that are spread on the wind). The aim is not only to reduce emissions, but also to improve both the monitoring and management thereof. Stricter legislation is anticipated in this area.

Effluents and waste

Mines and smelters generate waste consisting of waste rock, tailings sand, slag, sludge, and dust. Boliden's waste is normally handled within the producing unit, some waste requires specific treatment and is sent to another Boliden unit or externally. Boliden's discharges to water includes, among other things, metals and nitrogen. Effluents and waste might disturb the environment and the landscape and are, therefore, considered as material topics for Boliden.

Compliance

Environmental compliance is a material topic, because environmental sustainability is a precondition for successful mining and smelting operations. Legal requirements shall always be met.

Supplier assessments

Environmental criteria are a vital part of Boliden's Business Partner Code of Conduct, and therefore a crucial part of the evaluation of business partners and supplier assessments. Boliden requires all business partners to identify and documents their significant environmental aspects and to be aware of and comply with environmental legislation and common practices. It is expected by business partners to strive to minimize environmental impact.

Grievances about environmental impacts

It is the responsibility of every employee to ensure that operations are conducted properly and in compliance with given instructions. Employees must promptly report any suspected violation relating to accounting, internal controls, and auditing to their immediate superior.

Neighbours and other stakeholders are welcome to contact either the business unit or any of the company functions by a variety of channels, i.e. phone, e-mail, written correspondence.

By Boliden received reports involved, amongst others, noise, vibrations, dust, and other types of disturbances on the surroundings. Complaints are handled in accordance with local procedures.

Material Topic: Materials

301-1 Materials used by weight or volume

Mined rock, milled ore, and concentrate production increased in 2017, while smelting materials are at a similar level as in previous years. Boliden has included tonnage of rock, ore and concentrates in the material used in its reporting. Other materials specified in the table includes waste rock from a mine outside Boliden Group used as back fill in Boliden mines. In 2017 use of external waste rock increased to 236 ktonnes. Some of the concentrate produced in the mines is sold to external parties. The total smelting material feed comprises concentrates both from Boliden's own mines and from external mines, purchased secondary materials, and secondary materials sent from one smelter to another.

Materials are mostly weighed in connection with loading and/ or charging (ore, concentrates, and most smelting materials). The mined rock figure is based on calculations (waste rock and ore). A minor part of input materials is calculated from input and stock.

Materials used by weight, ktonnes	2015	2016	2017
Mined rock	75,317	100,765	110,256
Whereof milled ore	44,000	49,000	55,000
Whereof concentrate produced	1,043	1,249	1,388
Smelting materials ¹⁾	2,696	2,712	2,691
Other materials	670	786	1,174
Whereof non-renewables	133	150	154

¹⁾ Adjusted calculation for 2016.

301-2 Recycled input materials used

Boliden uses its own and other companies' by-products and residues for the extraction and recycling of metals. The Boliden Rönnskär smelter began using a new electronic scrap recycling facility in 2012, making Boliden among the world leaders in e-scrap recycling. Boliden Bergsöe, which recycles 70,000 tonnes of lead acid batteries and 4,000 tonnes other lead scrap per year, is, furthermore, the only secondary lead smelter in the Nordic region.

Metals can be recycled endlessly without any deterioration in their quality. It is important, therefore, that electronic materials and scrap, such as telephone cables, copper roofs and copper pipes, from the demolition or construction of buildings and infrastructure is re-utilised. The Rönnskär smelter produces 38% (43) of the gold, 27% (28) of the copper, 28% (19) of the silver, and 84% (72) of the zinc from secondary raw materials.

The recycling input rate (RIR) shows the fraction of secondary materials in the total input to Boliden Smelters. Recycled materials include secondary materials from external sources and secondary materials sent from one plant to another within the Group. By-products and non-product outputs recirculated internally at the sites and slag sent from smelters to mines are not included.

Percentage of recycled materials	2015	2016	2017
Total secondary feed ¹⁾ , tonnes	302,200	304,200	316,200
Total feed ¹⁾ (primary and secondary), tonnes	2,696,000	2,712,000	2,691,000
Recycling rate	11%	11%	12%

¹⁾ Adjusted calculation for 2016.

Material Topic: Material Stewardship

MM11 Programmes and progress relating to material stewardship

It is of vital importance to Boliden that we develop the by-product business along with the metals business. The largest by-product by volume is sulphuric acid, which is sold for industrial use. Slagbased products, such as 'iron sand' from the Rönnskär processes, are another example of Boliden by-products, and one where the raw material comprises slag from copper production. The slag is purified and granulated into a black coarse-grained glassy material, which is very suitable for use as a filler in road and building construction. The use of iron sand reduces the extraction of gravel and sand from nature. The majority of the iron sand has historically been sold in the surrounding region. Boliden experienced several setbacks in 2014–2015 when local authorities opposed the further use of the sand, for environmental reasons. In november 2017 the local authorities decided to cancel the earlier issued guidelines for iron sand. The municipality now refers to the new instructions published by the County Administrative Board. If a user deems it acceptable in terms of health and the environment iron sand can be laid without restriction. Iron sand is now certi-

fied as aggregate material and has a CE marking according to EU regulations clarifing the status of iron sand as a by-product. This is step in Boliden's efforts to have iron sand classified as a product inline with the ideas of the circular economy. The CE marking means that Boliden has drawn up procedures for assuring the quality of both the production process and product handling, e.g. for storage and shipping.

Boliden has made significant investments in the recycling industry and is now among the largest electronic scrap recyclers in the world.

Boliden owns land and forests and practises responsible forestry, as defined by the Forest Stewardship Council (FSC), by promoting and protecting biodiversity and creating environmental and social values.

Boliden performs CR evaluations of business partner based on a range of sustainability criteria, including their environmental impact management, such as discharges to water and emissions to air management. The contracts with suppliers include specifications of environmental aspects in their delivery, such as levels of substances and waste management methods.

Material Topic: Energy

302-1 Energy consumption within the organisation

Energy consumption in 2017 totalled 19.8 (19.1) million gigajoules (GJ). Electricity accounts for 16.5 (16.1) million GJ of this consumption, which equates to 4.6 (4.5) TWh.

The reported energy usage is based on invoiced incoming and outgoing deliveries, supplemented by internal measurements and stock inventories at the end of the year. Conversions between weight and energy have been performed using energy values specified by the supplier or by using tabled values provided by national bodies.

Coke, coal, oil, and fuel gases are used for the reduction and smelting of copper, lead, and zinc concentrates. Diesel is used for transportation purposes, in mining operations, and for internal transportation. Limited amounts of heating oil and gas are used for heating purposes during the cold season. The use of biofuels in metallurgical processes has been tested and evaluated, but has, up to now, been negligible in the larger context. A boiler based on biomass has been added during the reporting period. Bio-based fuels have also, to a limited extent, been used in road transports. Electricity is the dominant source of indirect energy in the Group. Out of the total indirect energy used, 97% comprises electricity and only 3% is purchased heat.

Direct Energy consumption within the			
organisation (GJ)	2015	2016	2017
Coal & coke	1,757,000	1,743,000	1,844,000
Gas	395,000	446,000	289,000
Oil	1,187,000	1,794,000	2,128,000
Diesel & petrol	1,692,000	1,689,000	1,611,0001)
Other	-	13,000	36 ,000
Total renewable energy	-	29,000	51,000
Total energy	5,031,000	5,686,000	5,908,000
Electricity, purchased	14,635,000	16,080,000	16,524,000
Heat, purchased	381,000	453,000	501,000
Gross energy input	20,047,000	22,218,000	22,934,000
Produced energy, for internal use	2,117,000	2,205,000	2,291,000
Produced energy, sold	3,234,000	3,157,000	3,146,000
Net energy used	16,813,000	19,061,000	19,788,000

¹⁾ Whereof 15,000 GJ disel from renewable sources

302-3 Energy intensity

Boliden's energy intensity was 13.39 (13.17) GJ/t metal, an increase from the previous year. The energy intensity ratio is reported as the product intensity (energy consumed per unit produced). It is calculated as Boliden's net total energy consumption (same as in GRI 302-1 for all Boliden sites divided by the production output in metal tonnes from Boliden production sites. This indicator is affected both by process efficiency and the product mix and raw material properties. The intensity increase in the reporting year is due to the business unit (Kevitsa) being fully integrated in the reporting.

302-4 Reduction of energy consumption

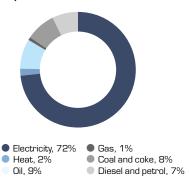
Boliden has implemented routines for purchasing high-consumption electrical equipment and procedures for the evaluation of life-cycle costs in construction and renovation as important parts of its ISO certified energy management systems. Because of the different character of mining and smelting operations, Boliden has chosen to work with local energy targets instead of Group targets.

In its mining operations, Boliden has put a lot of effort into reducing the energy used for ventilation (electric energy) and heating (oil or propane) of its underground mines. In a 'Ventilation on Demand' project at the Kankberg mine in the Boliden area, commissioned in 2016, electrical consumption was reduced by 54% and the propane consumption by 21%. Ventilation on Demand means that the ventilation is real-time adjusted depending on where people and machines are working in the mine. Large energy reductions could be accomplished without impairing the working environment.

In its smelting operations, Boliden strives to take advantage of excess heat from the processes, transforming it either to electric power or supplying it for use in external district heating or steam deliveries. In 2017, 2,291,000 (2,205,000) GJ of heat was used internally, and 3,146,000 (3,157,000) GJ was delivered externally for use in district heating systems.

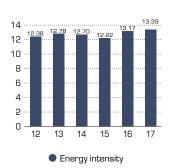
ENERGY INPUT, 2017 PER SOURCE

The gross energy input is 22,934,000 (22,218,000) GJ for the year.



ENERGY INTENSITY

GJ/t metal



Social

Performance

Material Topic: Water

303-1 Total water withdrawal by source

The water volumes are measured and/or calculated for each site by the use of flow meters and/or the monitoring of pump operating

Total water withdrawal			
by source	2015	2016	2017
Surface water (sea)	92	80	81
Surface water (inland)	39	40	44
Ground water	16	17	17
Collected rain water	1	1	1
Municipal water	2	2	2
Total water withdrawal in million m ³	150	140	145

303-3 Water recycled and reused

In mining, water is typically used in mineral processing and slurry transport; while in smelting, it is used for cooling and gas cleaning purposes. Boliden's operations do not re-use water from other organisations, but in Harjavalta and Kokkola, waste water from adjacent operations is ducted into Boliden's waste water treatment plants for treatment before being discharged to recipients. These volumes are not reported to Boliden. All other water volumes are based on data from flow meters.

Water recycled and reused	2015	2016	2017
Recycled volume in million m ³	107	110	106
Percentage of water recycled	72%	78%	73%

Material Topic: Biodiversity

304-1 Operational sites in areas of high biodiversity values Boliden's impacts on biodiversity are above all related to land use in current or abandoned operations. As of December 31, 2017, Boliden owned or controlled 23,000 ha of land in connection with existing operations, in areas adjacent to existing or former operations, or in other areas of interest for exploration. Most operations are located in areas where mining or smelting activities have been carried out for anything between several decades and several hundred years. Some of the older mining areas are from a time when environmental legislation did not exist and knowledge levels were much less developed than is currently the case, and it is consequently not only impossible to determine an original baseline, but difficult to quantify the precise long-term impact of the activities. For every operation there is a permit process, and for time-limited operations, such as mines, Boliden always ensures that the areas can be reclaimed after the mine closing. Strategies are constantly being developed for the definition of proper compensation measures for application when utilising land and thus causing a loss of biodiversity. Closure and remediation plans, including biodiversity aspects, are a mandatory part of the environmental permit issued to operate a mine.

Details of the sites that are located in or adjacent to national or regional protected areas, including Natura 2000 habitats defined by EU Member States, can be found in the table.

Sites	Operation	Country	Size, ha	Protected areas
Aitik	Mine	Sweden	7,158	Yes1)2)3)
Bergsöe	Smelter	Sweden	13	No
Boliden Area	Mine	Sweden	5,425	Yes ²⁾
Garpenberg	Mine	Sweden	1,312	No
Harjavalta	Smelter	Finland	453	No
Kevitsa	Mine	Finland	1,420	Yes1)2)
Kokkola	Smelter	Finland	340	No
Kylylahti	Mine	Finland	654	Yes1)2)
Odda	Smelter	Norway	40	No
Rönnskär	Smelter	Sweden	153	No
Tara	Mine	Ireland	786	Yes ²⁾
Old mining areas and forests	_	Sweden	5,218	Yes ^{1] 2] 3]}

¹⁾ In the area

²¹ Adiacent to

³⁾ Containing portions of area

304-3 Habitats protected and restored

Once reclamation work is completed, the measures must be inspected by the environmental authorities who will either approve them or propose additional measures. Where appropriate, reclamation is done in partnership with affected land owners or Sami villages. Boliden continues to monitor and manage the areas that have been reclaimed for an indeterminate period of time, and this may, if necessary, entail implementing additional measures in already reclaimed areas.

There are various different types of protected area in the vicinity of the majority of Boliden's mining operations, such as wildlife and plant sanctuaries, key biotopes, protected watercourses of national interest, nature reserves, and Natura 2000 areas.

A list of (10) 20 prioritised reclamation objects has been drawn up and is updated on the basis of the results of studies showing changes in the status of the respective objects. An object may be anything from measures designed to improve dam safety, or large-scale ground installation projects, to out-and-out nature conservation in the form of water treatment, planting, or the installation of nesting boxes for birds. Boliden's interventions in older abandoned mining areas are often aimed at complementing the old techniques with new and improved methods.

Habitats restored	Type of activity	Size, ha	Start	End
Stekenjokk	Dam safety measures	_	2014	2017
Gillervattnet	Reclamation work	300	2014	2019-21
Näsliden	Reclamation work	5	2015	2018
Rävlidmyran	Reclamation work	-	2017	2018
Old Forests Aitik	Ecological compensation	837	2017	2022

During the year, ecological compensation has been ongoing in Boliden Aitik. Two areas in all 837 hectares were selected for the compensation work. The goal is to maintain the value and increase natural values in the near vicinity of the Aitik mine. The compensation plan includes both protection of selected areas and a more active measures such as relocation of dead wood and biologically important species such as insects in hibernation and wood mushrooms. Boliden also sees a possibility to improve the opportunities of recreational and adventure tourism.

MM1 Amount of land disturbed or rehabilitated

Mining companies can often own or hold licences over very large areas of land. The extraction sites, infrastructure or other production activities will often disturb a small proportion of that land holding.

Soil conservation and the reclamation of mining areas that have reached the end of their productive lifespan are part of Boliden's operations and responsibility. The reclamation programmes are designed to reduce the impact on surrounding areas of land and the local biological diversity. In 2017, approximately 2 (95) hectares were restored/reclaimed, while 78 (963) hectares were utilised. Boliden has made ongoing provisions of funds for future rehabilitation. At the end of 2017, a total of SEK 3,123 million (2,873 m) had been allocated for future reclamation of mining areas and smelters.

Land management (hectares)	2015	2016	2017
Total land holding	20,900	22,600	23,000
Disturbed and not yet rehabilitated (opening balance)	5,957	5,937	6,805
Disturbed in the reporting period	48	963	78
Rehabilitated in the reporting period	68	95	2
Disturbed and not yet rehabilitated (closing balance)	5,937	6,805	6,881

Material Topic: Emissions

305-1 Direct (Scope 1) GHG emissions

Boliden reports this indicator for the units over which it has operational control. The direct carbon dioxide emissions arise primarily from the use of carbonaceous reducing agents, from fuels in metal extraction processes, and from the use of fuels for mining operations and road transportation within the company.

The direct emissions are calculated in accordance with the procedures laid down in the WBCSD GHG Protocol, together with additional guidelines from the EU and/or national authorities.

Note. Data in this GRI Report were compiled before the EU-mandated ETS reporting to the national authorities. The CO₂ reporting within the framework of ETS is carried out in accordance with separately audited procedures in each country, and although we seek to report the same data, we cannot guarantee that the Group's GRI disclosure will correlate exactly to the CO₂ data reported within ETS.

305-2 Energy indirect (Scope 2) GHG emissions

Boliden reports this indicator for the units over which it has operational control and includes only production-related indirect emissions. Commencing in 2015 Boliden began using location-based emission factors. This was an adaptation to the updated GHG Protocol Guidelines for Scope 2 reporting. The calculation is made by multiplying the energy used with the production mix for the specific region. The production mix should be as current as possible, and Boliden uses emission factors published by International Energy Agency. For the 2017 reporting, the following emission factors were applied: for the operations in Sweden 11 (13), Finland, 147 (175), Norway 8 (8), and Ireland 425 (435) g/kWh.

Carbon dioxide emissions, Scope 1+2, tonnes	2015	2016	2017
Direct emissions, (305-1)	559,000	594,000	605,000
Indirect emissions, (305-2)	330,000	459,0001)	419,000
Total (305-1 + 305-2)	889,000	1,052,0001)	1,024,000

¹⁾ The indirect emissions for 2016 have been corrected to 459.000 from 404,000 t due to an incorrect calculation in the previous GRI report disclosure.

305-4 GHG emission intensity

Boliden's GHG intensity was 0.69 (0.731) t/t metal. The GHG intensity is reported as the product emission intensity (metric tonnes of direct [Scope 1] and indirect [Scope 2] emissions per unit of metal product). Boliden only includes CO2 gas in the GHG intensity.

305-5 Reduction of GHG emissions

The GRI definitions state that this indicator should reflect reductions of CO₂ emissions identified under 305-1 and 2. The reductions result is estimated from reported energy savings and energy efficiency initiatives reported in 305-2.

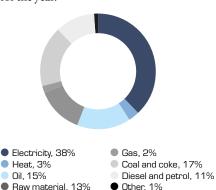
Boliden strives to deliver the excess heat from its processes for use in district heating, whenever possible. The heat supplied by Boliden Bergsöe, Boliden Rönnskär, Boliden Kokkola and Boliden Harjavalta in 2017 corresponds to 270,000 t/a of CO₂ (Scope 1) if the same amount of heat had been produced from a fossil-fuel source.

Boliden is also, over and above these measures, actively initiating attempted reductions in fossil-fuel emission by means of fuel substitution tests, participation in demonstrations of electrified road transports, and improved heat recovery/exchange with the aim of phasing out the use of fossil fuels for heating purposes.

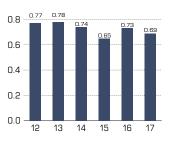
Boliden is a co-owner of a production company for windbased power, VindIn AB, which builds and operates wind farms in Scandinavia. The purpose of VindIn is to take a longer-term approach and to deliver low-cost, renewable electricity. VindIn currently produces about 300 GWh in its three wind farms in Sweden and Finland.

CARBON DIOXIDE EMISSIONS (SCOPE 1 + SCOPE 2), 2016 PER SOURCE

The total reported CO₂ emissions are 1.024 (1.052) Mtonnes for the year.



GREENHOUSE GAS EMISSION INTENSITY t CO₂/t metal



Greenhouse gas emission intensity

305-7 Other significant air emissions

Other significant air emissions deriving from Boliden's operations are nitrogen oxides (NOx), sulphur oxides (SOx), metals, and dust. The most common of the sulphur oxides (SOx/SO₂) is sulphur dioxide, and Boliden generally uses the expression 'sulphur dioxide' to describe this emission. The figures for sulphur dioxide and NOx disclosed in the table are the direct measured emissions from sources at Boliden's smelters. The figures for metals and dust include the direct-measured emissions from smelter stacks but exclude diffuse emissions. Air emissions from mobile equipment and the use of explosives have earlier been estimated by Boliden but are currently being assessed as not material in relation to the direct-measured emissions.

Diffuse emissions are generated at both mines and smelters and the environmental impact is due to dust particles containing metals being dispersed by the wind. All operations are working systematically to reduce particle emissions to air, e.g. by enclosure of dust-generating equipment and by salting and watering roads. The diffuse emissions are monitored but are difficult to quantify in an aggregated manner.

Emission Reduction Efforts

Boliden's efforts to reduce emissions are based on an overall analysis of the environmental impact. The impact and risk assessments are revised on a regular basis, as are the measures to be taken. The work is controlled and conducted by each individual business unit, as local circumstances may differ. Follow-up at the Group level is conducted on a monthly basis.

Sulphur dioxide emissions to air are mainly attributable to gases generated during the smelting processes at the Harjavalta and Rönnskär copper smelters. The amount of sulphur dioxide emitted during the process depends on such factors as process stability and the efficiency of the gas cleaning systems, and, to some extent, on the amount of sulphur in the raw material. One way of reducing emissions is, therefore, to control the smelting process and to allow emission levels to be a factor when deciding which raw material to smelt. The monitoring and control of abatement systems for effective gas cleaning is important work and is carried out continuously.

The ongoing work focuses on process stability and improvement and/or replacement of technology. Emissions to air are mainly based on periodic monitoring in accordance with applicable national standards. Emissions from fuel are calculated using the fuel properties data provided by the supplier. Accredited laboratories, both internal and external, are used for the analyses of samples taken on site.

Emissions to air (tonnes)	2015	2016	2017
NOx	410	380	450
SO ₂	7,210	7,060	7,360
Particulate matter	66	110	193
Metal emissions to air (me-eq)	88	100	109
Metal emissions to air (mass)	18	22	21

Material Topic: Effluents and Waste

306-1 Total water discharge by quality and destination

Discharges to water derive from dams and tailings ponds at the mines, and from water treatment plants and collection of surface water at smelters and mines. Boliden's smelters account for approximately 70% of metal discharges to water while the mines account for the remaining 30%. Boliden mines account for 83% of the Group's nitrogen discharges with the nitrogen generated mainly from the use of explosives and their handling. The remaining 17% comes mainly from wastewater recycling at the Kokkola smelter.

Ensuring efficient and stable operations at water treatment plants and recirculating the process water as much as possible are important parts of reducing discharges to water. Boliden's operations include purifying process water as well as a significant amount of the rainwater that falls within the industrial areas. In recent years, there has been heavy rainfall, underlining the need for increasing the water treatment capacity, and several of Boliden's operations have consequently implemented measures to meet this need.

The discharge of metals and nitrogen to water from Boliden's units continues to decrease due to improved water management and control. One example is the nitrogen treatment plants taken into operation during 2017. The management and monitoring of water consumption has also been improved through the decision that all mine units shall have a Water Management Plan. During 2017, five out of six Mine units have implemented a Water Management Plan.

Once the water-cleaning processes are completed, the smelters discharge their water to the sea while the mines discharge the water into rivers and lakes. The water discharged to recipients is monitored to ensure that levels of pollutants are within the quality standards stipulated in the environmental permit. Accredited laboratories, both internal and external, are used for analyses of samples taken on site.

Water discharge	2015	2016	2017
Metal discharges to water, t (me-eq)	18	13	9
Metal discharges to water, t (mass)	25	22	15
Nitrogen /N-tot/ to water (tonnes)	261	300	236
To wetland (million cubic metres)	_	0	0
To inland surface water (million cubic metres)	60	64	57
To sea surface water (million cubic metres)	64	62	71
To municipal treatment plants (million cubic metres)	0	30	30
Discharged water volume (million cubic metres)	124	126	128

306-2 Waste by type and disposal method

Boliden handles considerable amounts of waste materials. These waste materials mainly comprise various types of dust and slag, tailings, rock, and other mineral formations. Boliden has developed processes to extract as much value as possible out of the material streams at mines and smelters. There are virtually no materials left that can be reused, composted, or incinerated. Boliden chooses, therefore, to report the waste types in a manner that differs from that indicated in the GRI standards. Hazardous waste is sent for disposal or stabilisation, in some cases to landfill and deep repository. The increasing amounts of waste rock in 2017 can be derived from the addition of the Kevitsa mine, a large-scale open pit operation, similar to the Aitik mine.

Waste by type and disposal method (tonnes)	2015	2016	2017
Hazardous waste, total	825,000	826,000	873,000
Whereof to external use, treatment, or recovery	4,900	5,800	7,400
Whereof to external disposal	0	220	400
Non-hazardous waste, total	239,000	252,000	355,000
Whereof to external use, treatment, or recovery	71,900	69,800	75,200
Whereof to external disposal	800	1,500	1,600
Waste rock, total	31,781,000	52,036,00	55,482,000
Waste rock for internal construction	3,372,000	5,417,000	6,187,000
Storage of waste rock for future use	13,845,000	11,134,000	125,000
Sold waste rock	125,000	404,000	342,000
Tailings total	41,946,000	46,919,000	52,957,000
Tailings for internal constitution	2,625,000	2,729,000	2,865,000

MM3 Waste types and disposal methods including overburden, rock, tailings and sludge, and their associated risks

Boliden processes a number of different metals and substances that are both toxic and environmentally harmful. The mining and smelting operations generate residual waste consisting of waste rock, tailings, slag, sludge, and dust. EU waste legislation currently has a strategic approach that views waste as a resource and deposition as the last option (Waste Framework Directive, 2008/98/EC). There is considerable awareness of the importance of waste issues within the Boliden Group: e.g. waste sorting, significant recycling of process residues and scrap, good reporting procedures and ongoing waste projects. The majority of Boliden's process and mining wastes are sent to landfills in accordance with the EU Landfill of Waste Directive (1999/31/EC) and the Mining Waste Directive (2006/21/EC). The remainder is used as construction material or as filler material. Waste rock dumps are covered continuously, wherever possible, in order to prevent weathering or leaching. Boliden's mine waste is generally handled in accordance with applicable environmental permits that specify how and where it may be stored and how it shall be covered and reclaimed.

Extensive monitoring programmes are in place to ensure a high level of dam safety and several measures to increase dam safety have been finalised or are in progress. Boliden is responsible for around 40 dam facilities in Sweden, Norway, Finland, Ireland, and Canada. They are used or have been used to deposit tailings sand or other waste and for water management. This figure includes both operational and decommissioned facilities. Dam

facilities in Sweden are managed according to GruvRIDAS (min-

GRI Content Index

ing industry guidelines for dam safety). Correctly processed waste can be turned into valuable products. What is considered waste for one operation can often constitute a raw material for another. Approximately 45% of the process residues generated are sent to another Boliden site for metals recovery or final deposition. Appropriately handled, the trade in waste and by-products can be of benefit to society by increasing overall resource efficiency. Boliden works continuously to identify internal and external recycling or landfill solutions for any process wastes generated. Boliden receives significant amounts of waste from external parties for recycling, construction purposes or safe deposition in landfills.

The export of waste to landfill or for recycling is extensively regulated. Boliden has also developed procedures for monitoring and following up on the receiving party's processing operations to ensure that their waste processing is acceptable from a health and environmental viewpoint.

The secondary raw materials to Boliden smelters, i.e. electronic scrap and waste batteries, contain plastics that are incinerated in the process. The incineration of the plastics serves as a reducing agent in order to produce the metal. The excess heat from the process is used for district heating.

Volumes are mainly based on loaded weight. Waste rock tonnage is based on calculations of volume and density. Tailings are based on calculations of tonnage of ore minus tonnage of concentrate output.

There are no statistics available for overburden as it is seldom that any overburden exists, and what constitutes a insignificant volume of waste is not defined. Sludge that is not reused in the process accounts for an insignificant percentage of either hazardous waste or non-hazardous waste, depending on its properties.

Some waste is sent for final storage in underground facilities. Tailings are, for example, used as back-fill wherever this is possible, both as reinforcement and to reduce the amount of tailings above ground. Odda stores jarosite and slag in mountain caverns. Rönnskär is in the process of completing underground disposal facilities for arsenic-bearing waste.

Boliden has no organic waste material that is suitable for composting, other than small amounts from canteens, which are sent for municipal treatment.

Boliden does not practise deep well injection or waste incineration.

306-3 Significant spills

A total of 23 (28) larger (more than 150 litres) oil and/or diesel spills, were reported from Aitik, Boliden Area, Garpenberg, and Kevitsa. All spills occurred within the mining area. All spills were immediately sanitised and any contaminated soil was excavated.

These events have not entailed any significant environmental impact or caused lasting harm to the surroundings. Investigations have been conducted in conjunction with all of the incidents in order to ascertain the causes of the spills and, wherever possible, to institute measures that will prevent any repeats.

306-4 Transport of hazardous waste

Processing of intermediate and waste products is a natural part of Boliden's value chain in order to maximise metal recovery levels. However, in some cases hazardous waste is sent for disposal or stabilisation, and/or to external landfill and deep repository. During 2017, 7,400 (5,800) t were sent to external use, treatment, or recovery and 400 (220) t were sent to external disposal.

Material Topic: Environmental Compliance

307-1 Non compliance with environmental laws and regulations

Boliden has been hit by one corporate environmental fine in 2017 due to failure to inform the authorities before sampling excavation in 2015. The fine was SEK 50,000. No cases have

been brought up via dispute resolution mechanisms during the reporting period.

Material Topic: Supplier Environmental Assessment

308-1 Percentage of new suppliers that were screened using environmental criteria

Boliden has a systematic approach and established system support for supplier screenings. The process is called CR evaluation of Business Partners and applies to all suppliers who Boliden have an established agreement with and suppliers who are in the process of entering an agreement with Boliden. The tool supports Boliden in the assessment of business partners' performance under the requirements set forth in Boliden Business Partner Code of Conduct. The environmental criteria is based on the 10 principles of UN Global Compact, ILO- and ISO standards. These are the minimum requirements Boliden expects from business partners.

Boliden's significant CR risks in the supply chain are identified in our raw materials and concentrates supply. 100% of our new suppliers managed by our Raw material department have been evaluated during 2017. When including all purchasing (suppliers for logistics, products and services), 59% of all new business partners have been screened during 2017.

Social-standard disclosures (GRI 400)

Boliden generates value by having top-quality operations, processes and products. Employees who are skilled, committed, and who accept personal responsibility are crucial. Boliden must, in turn, offer its employees a safe and inspiring working environment. Material stewardship is also of growing importance, since effective use of resources in terms of the reuse and recycling of metals in society is vital for Boliden's business. By acting responsibly towards neighbours, business partners, and other stakeholders, Boliden can maintain a good reputation as a metals company and employer.

Boliden's social targets 2014-2018

Accidents	Boliden's target is to have zero accidents resulting in absence from work every month by 2018
Sick Leave	The sick leave rate shall not exceed 3.0% by 2018
Gender Equality	Women shall comprise at least 20% of the workforce by 2018

Group Direction beyond 2018

Gender Equality	Women shall be at least 25% of new recruitments
Health and Safety	Boliden's target is to reduce LTIF with at least 30% each year.

Introduction GRI Content Index General Management Economic Disclosures Approach Performance

SOCIAL PERFORMANCE

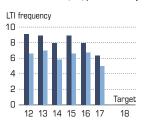
Performance

Social

Social Performance 2017

Accidents

Boliden shall have zero accidents resulting in absence from work (LTI) per month by 2018



- LTI frequency including contractors
- LTI frequency for Boliden's own personnel
- Target 2018

Results 2017

The number of accidents leading to absence from work (LTI) decreased by 20% in 2017 from 7.9 to 6.3 per one million hours worked. Efforts to strengthen the safety culture continue unabated and a number of standards were introduced in late 2017 with the aim of both creating safer work environments and boosting risk awareness.

Comments

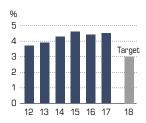
Environmental

Performance

The main reason behind the improvements is the continued focus on leadership commitment, proactive risk management and better employee involvement. Other important activities which have contributed to the positive results are increased knowledge in how to handle organizational and social work- environment challenges such as stress, unhealthy workloads and the need for balance in life between work and private life

Sick leave

The sick leave rate shall not exceed 3.0% by 2018



- Sick leave
- Target 2018

Results 2017

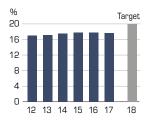
The sick leave rate increased in 2017 from 4.4%to 4.5%. Boliden is continuing its efforts to prevent and rehabilitate in conjunction with both physical and mental ill health and training managers in the latter area formed an important component of this work in 2017.

Comments

Boliden's target is to reach 3.0% by the end of 2018. Boliden works actively with rehabilitation and alternative work in order to reduce both shortand long-term absence. See indicator 403-2 for disclosure per country.

Gender equality

Women shall comprise at least 20% of the workforce by 2018



- Percentage of female employees
- Target 2018

Results 2017

The number of women working at Boliden, calculated as FTE, was 1,001 (976), resulting in a virtually unchanged share of 17.6% (17.8) of the workforce. 116 of the total of 449 new recruits to the company in 2017 were women, or 26% (17) of the total.

Comments

When the goal of 20% women in Boliden by year 2018 was set, a calculation was made that every third (33%) of all new employees should be a woman. In the GRI report, when using the method of headcount by 31 December 2017, women accounted for 18.5% (17.8) of the total workforce.

401–103 Management Approach Social

Employment

Boliden considers the ability to recruit, develop, and retain competent employees as a prerequisite for its success. It is important to achieve a balance between the company's capabilities and commitments. This means having the right skills in the right place, at the right time.

The company's talent pool, and the skills and knowledge possessed by Boliden's employees are vital if Boliden is to achieve its strategic and operational objectives. The employees are the best ambassadors when it comes to attracting new employees to join the company. In the 2017 My Opinion employee survey, 70% (72) of the total number of respondents stated that they would recommend Boliden as an employer to a friend. The survey that was conducted in 2017 was a follow up on the 2016 My Opinion survey. The responsrate was high (84,3% of all employees) and the result showed positive developments in the areas of leadersip. safety work as well as motivation among the employees, compared to the last survey.

In 2017 the work continued with implementing activities based on the Boliden Group employer branding strategy which was introduced in 2015. The purpose with that strategy is to further enhance Boliden's efforts to attract, retain, and develop our employees.

Health and Safety

Occupational health & safety is Boliden's most important issue as it involves the safety and, ultimately, the life of Boliden's employees and contractors, and the materiality is obvious in a work environment with inherent risks. Employment, Labour/Management Relations, Training & Education, Diversity & Equal Opportunity, and Equal Remuneration are material topics as they impact Boliden's ability to attract, retain, and develop people.

Boliden faces major retirements, competes for a scarce supply of relevant competences, and is located in rural areas - the ability to offer a work environment dominated by foresight, development, and employee care is crucial to the business. Supplier assessment for sound and safe labour practices is material to Boliden's ambition to be the first sustainable link in the metal's value chain. The number of lost time injuries decreased by 20% compared to 2016. For BA Smelters a 40% decrease, which is a significant improvement, compared with earlier years. This is due to the continued focus on leadership commitment, preventive risk management, and better employee involvement in health&safety-related activities. Other important activities which have contributed to the positive results are increased knowledge in how to handle organisational and social work-environment challenges such as stress, unhealthy workloads, and the need for balance in life between work and private life.

The sick leave rate is stable 2017. The focus has been on increasing managers' involvement in the prevention and rehabilitation of ill health during the year. Boliden is reviewing both its rehabilitation work and the potential for finding alternative work that can be performed by employees who are partly injured or have temporarily impaired health. Short- and long-term absence has been monitored, as of 2015, in order to identify the reasons for variations in sick leave between operations. Every operation has an activity programme designed to promote employees' health. Boliden's systematic health and wellness work is based on preven-

tion as well as rehabilitation. A large number of the preventative activities managed by the units focus on identifying lifestyle and environmental factors that may have a negative impact on the level of diseases for some employees. Employees are encouraged to keep fit and to participate in various sporting activities. Anti-smoking and healthy-eating campaigns are carried out on an ongoing basis.

Training and education

Keeping all employees updated with regard to technological, functional, and leadership skills is essential to Boliden's performance. Every employee should be able to influence his or her own development and Boliden should provide resources and opportunities to make sure that employees have the right skills to perform their job tasks in a safe and efficient way at all times. Boliden considers training and education as material topics and has a number of internal programmes for career and skill development.

In 2017 the work started with implementing a Learning Management System to include all Boliden's operations. The new system aims to improve the work when it comes to planning, managing, and follow up on Boliden's training and education activities. The new Learning Management System will be fully implemented in 2018.

Diversity and equal opportunity

Diversity leads to dynamism, creativity, and, ultimately, to greater profitability. Boliden takes action to ensure its workforce is made up of people with different backgrounds, ages, and experiences.

Non-discrimination

Boliden and its employees shall refrain from all forms of discrimination and harassment on the basis of gender, ethnicity, age, disability, religion, sexual orientation, or any other factor.

Human rights

Boliden's own operations are located in countries where the risks of human rights violations are generally low. There are, however, material topics to consider, such as non-discrimination, indigenous rights, and assessment. The majority of Boliden's human-rights risks are related to the supply chain. Additional focus areas, depending on the nature and geography of the supplier, include the freedom of association & collective bargaining, child labour, and forced and compulsory labour. These issues are covered by Boliden's Supplier Human Rights Assessment.

Rights of indigenous peoples

Operations in northern Sweden and northern Finland are in the reindeer-herding areas. Boliden promotes open dialogue and long-term cooperation with Sami communities in order to mitigate the negative impacts of its mining activities on local people and the environment.

Resettlement and closure planning

Boliden's operations involve land use for mining, industrial areas, and ponds for use as sand and clarification ponds. Conservation and reclamation of mining areas which reach the end of their production lifespan is, therefore, part of Boliden's operations and responsibilities.

Economic Performance

Environmental Performance

Social Performance

SOCIAL PERFORMANCE

Supplier social assessment

An effective way to develop and promote sustainability management within the supply chain of the metals and mining industry is through cooperation with business partners.

All of Boliden's new agreements with business partners include communication and acceptance of Boliden Business Partner Code of Conduct. The Code clearly stipulates the minimum requirement Boliden expects from business partners including social standards in regards to labour and human rights. Boliden Business Partners Code of Conduct is primarily based on the 10 principles of the UN Global Compact, but also ILO- and ISO standards.

Boliden's systematic approach to business partners screening is called CR evaluation of Business Partners which is based on Boliden Business Partner Code of Conduct. All purchasing and sales functions within Boliden follow this process with slightly different approaches depending of the nature of risk and magnitude. The CR Evaluation of Business Partners includes an online selfassessment questionnaire (SAQ) which is sent out to all business partners. The SAQ is subsequently followed up and evaluated according to the Boliden Business Partner Code of Conduct. All new business partners for raw materials and sales are evaluated before a partnership is entered and existing business partners are evaluated within a set interval. Business partners that have been assessed as higher risk, in regards to potential breach to the standards in Boliden Business Partner Code of Conduct including social criteria, are monitored more frequently. Follow-up actions could be audits conducted at sites that are complemented with corrective action plans. Working with improvements together with our business partners is a precondition for a continued partnership. If a business partner does not comply with the corrective action plans and Boliden Business Partner Code of Conduct, the agreement is terminated. Boliden Business Partner Code of Conduct is available on Boliden's website.

Society

The majority of topics deemed to be material with regard to society concern Boliden's relationship with external stakeholders, and is at the core of Boliden's ambition both to promote sustainability in the industry and to be the first sustainable link in the metal's

value chain. They may also have a significant impact of the perceptions of Boliden and determine Boliden's licence to operate and ability to develop its business. These topics are local communities, anti-corruption, anti-competitive behaviour, compliance, and resettlement. Industrial Operations change the landscape and closure planning is, therefore, an additional important factor for consideration during the licensing process.

Good community relations are as important for our business as the effective management of our operations. The operational sites host a range of regular and ongoing activities, such as 'Open House' events, where the public is invited to visit the plant and to get information in an informal way, and 'Public Consultations' (Samrådsmöten), where the public is invited to discuss special issues under more formal circumstances. There is always an open channel for individuals within the community to present concerns and complaints to the company. Specially assigned employees have regular contact with neighbours and sometimes even visit people in their homes to discuss matters of concern.

Social Grievance Mechanisms

Effective grievance mechanisms play an important role in remediating impacts for labour practices. All Boliden employees can file grievances via managers, HR functions or union representatives. Anonymous grievances can also be filed via Boliden's whistle blower function, which can be accessed by all employees via the intranet, ensuring that they are protected against any form of reprisals. Any grievances filed via these channels are to be dealt with swiftly and according to standardised procedures.

At the end of 2017, 12 formal grievances about labour-practice grievances related to Boliden employees were filed. 4 of them were reported via the whistle blower function. All 12 grievances were addressed and 5 cases were resolved during the reporting period.

Boliden's social responsibility includes protection of human rights. If human rights are violated in connection with Boliden's business, any stakeholder is welcome to contact either the local managers or any of the company functions by a variety of channels; e.g. phone, e-mail, and written correspondence.

No formal grievances were filed relating to human rights impacts on Boliden's own employees in 2017. No grievances relating to human rights were reported via the whistle blower function.

Material Topic: Employment

401-1 New employee hires and employee turnover

Boliden aims to have a diverse workforce in all of its operations. Boliden has instituted a policy, with the aim of reaching its goal

of female employees constituting 20% of the total workforce by 2018, stating that at least one third of all new employees should be female.

Total number and rate of new permanent employee hires by age group, gender and region

	2015		2016		2017	
	Number	%	Number	%	Number	%
Group Total	281	6	515	9	449	8
<30 years	115	41	202	39	163	36
30-50 years	146	52	237	46	238	53
>50 years	20	7	76	15	48	11
Men	219	78	429	83	333	74
Women	62	22	86	17	116	26
Sweden	241	86	270	52	312	69
Norway	9	3	24	5	13	3
Finland	31	11	213	41	113	25
Ireland	0	0	7	1	10	2
Other countries	0	0	1	0.2	1	0.2

Total number and rate of employee turnover by age group, gender and region

	2015		2016		2017	
	Number	%	Number	%	Number	%
Group Total	210	4	324	6	323	6
<30 years	10	5	64	20	39	12
30–50 years	51	24	93	29	119	37
>50 years	149	71	167	52	165	51
Men	177	84	273	84	268	83
Women	33	16	51	16	55	17
Sweden	131	4	147	5	185	6
Norway	8	3	26	8	14	5
Finland	45	5	126	8	108	7
Ireland	26	5	24	4	15	3
Other countries	0	0	1	8	1	8

401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees

Boliden offers a comprehensive and competitive package of market-rate salaries, benefits, and bonuses.

Profit-sharing programme

The profit-sharing programme for all employees, was introduced in 2007. Small changes in the programme were made in 2015, which means that, from now on, a profit share is payable when the return on capital employed reaches 8% (10). The maximum profit share of SEK 30,000/full-time employee (25,000) is payable when the return on capital employed reaches 18%(20). In 2017, the return on capital employed was 10% (15) and the amount the programme will receive for 2017 is yet to be decided.

Significant locations of operations

While the benefits offered by Boliden are similar at all Boliden operations, they are not identical due to legislative differences between the different countries. Some examples of these differences are parental leave, parental pay, and opportunities for working shorter hours during the early childhood years. In Sweden, Ireland, and Norway, for example, Boliden provides compensation for employees on parental leave as a complement to the compensation from the social security systems in these countries. In Finland, all compensation for employees on parental leave is paid exclusively by the social security system.

Below is a description of the benefits offered to our employees by significant locations of operations, defined as the countries where we have our production facilities.

Finland

Boliden's employees in Finland have valid contracts of employment regulating their salaries and other general working conditions. Furthermore, all employees, including temporary workers and those working part time, receive benefits in addition to those included in the collective agreements and individual employment contracts. The benefits are health care, employers' liability insurance (statutory), travel insurance (only for working trips), leisure time accident insurance, sports insurance (in special cases), insurance against treatment injury (statutory), group life assurance (statutory), employment pension insurance (statutory), workmen's compensation insurance, maternity/paternity leave.

All employees benefit from the various leisure and healthcare activities provided by the company.

Ireland

Boliden's employees in Ireland are paid salaries, allowances as well as shift premiums as outlined in collective agreements and/or individual employment contracts. Employees are, furthermore, entitled to the following benefits: life assurance, health insurance (subsidised or fully paid), access to company healthcare, disability coverage (white-collar employees only), pension, bonuses, retirement provision, maternity/paternity leave, annual leave and public holidays, and the reimbursement of travel and other work-related expenses.

These benefits are provided to all full-time and part-time employees (sometimes proportionately) as well as to employees who are on a fixed-term contract. Summer students and temporary employees on very short-term contracts, however, are not entitled to all of the above benefits.

Norway

Boliden's employees in Norway have valid contracts of employment regulating their salaries and other general working conditions. Employees are, furthermore, entitled to the following benefits: life assurance, travel insurance (official company journeys), health insurance (fully paid), disability coverage, defined contribution of five or eight per cent from base salary, and a defined benefit of 70% (incl. state pension) of salary between 62 and 67 years of age, optional loans for consumer goods (max. NOK 30,000), maternity/paternity leave (10% paid by company), annual leave and public holidays, and reimbursement of travel and other related expenses.

The benefits do not differ between full-time and part-time employees. Temporary workers, however, are not entitled to consumer-goods loans or to company pensions. Temporary workers on short-term contracts (e.g. summer students) are only entitled to life assurance, travel insurance (official company journeys), and disability coverage.

Sweden

Boliden's employees in Sweden have valid contracts of employment regulating their salaries and other general working conditions.

All employees, including temporary workers and part-time workers, also have benefits in addition to those included in the collective agreements and individual employment contracts. All permanent employees in Sweden (including part-time workers) are entitled to the following benefits: life assurance, health insurance and disability/invalidity coverage, healthcare fund, dental care, parental-leave agreements, retirement provision, company profit-sharing scheme, and company bonus schemes. All employees are, furthermore, included in the various leisure and healthcare activities arranged at the different units.

Temporary workers receive the following benefits: life insurance, health insurance, and disability/invalidity coverage. The level of all these benefits is higher than that stipulated in national legislation.

In addition, Boliden offers one free counselling session before retirement to all white-collar employees in Sweden.

Number of strikes and lockouts exceeding one week's duration, by country

During 2017 Boliden did not experience any strikes or lockouts exceeding one week's duration. Boliden enjoys good relations with the different unions and there is, from Boliden's perspective, a mutual trust. Boliden supports active cooperation between employers and employees and their respective representatives in every area of shared interest. For a number of years now, the Group has had an agreement with trade union organisations with regard to union-related cooperation at all levels within the Group.

The employees have three representatives on Boliden's Board of Directors. Boliden also has a Works Council comprising employee representatives from all of the countries in which Boliden operates. At a local level, employee representatives/union representatives sit on a number of different councils relating to employee management, production planning, and health and safety, etc.

The frequency of dialogue ensures a constant flow of relevant information, enabling the unions to understand how Boliden is performing and promoting a two-way dialogue on strategic

Material Topic: Occupational Health and Safety

403-1 Workers representation in formal joint management-worker health and safety committees

Boliden has health and safety committees at all workplaces where more than fifty employees are working on a regular basis. More than 95% of the workforce is represented by the health and safety

The health and safety committees identify potential hazards, evaluate these potential hazards, recommend corrective actions, and follow up on implemented recommendations. The health and safety committees hold regular meetings and carry out workplace inspections.

The committee members are also available to receive worker concerns and recommendations, to discuss problems, and to provide input into existing and proposed health and safety programmes.

All units have procedures for risk assessments, incident reporting, and safety inspections. Boliden also promotes initiatives designed to involve employees on a more informal basis by encouraging them to submit suggestions for health and safety improvements.

403-2 Types of injuy and rates of injuries, occupational diseases, lost days, and absenteeism, and work-related fatalities

Boliden has a zero-harm philosophy with regards to accidents at work. The goal for each unit is zero accidents every month. Low absentee rates and low injury rates can generally be linked to positive trends in staff morale and productivity.

Boliden has a responsibility to create structures, procedures, and other conditions for a safe working environment. Equipment, instructions, risk assessments, incident reporting, safety audits, and inspections all help safeguard the individual's safety. Boliden continuously invests in safer machinery and equipment. All operations also regularly provide safety training for all employees (the term employee also includes, here, any form of supervised worker who is not a contractor) according to a fixed schedule, with a view to improving knowledge and awareness and to providing constant reminders of the importance of working safely.

Whatever the efforts that are put into systems and techniques, however, they will not be sufficient without decisive action on the part of each individual in the form of his or her own behaviour. Every individual must take responsibility and devote time to considering and following the routines essential to accident avoidance. The principle of 'safety first at all times' must be clearly established in every employee's mind.

In 2017, 47 (61) accidents resulting in absence from work were reported at Boliden's units by Boliden employees. The number of accidents resulting in absence from work, including contractors, was 94 (106). The number of work days (number of calendar days prior to 2016) of absence due to accidents among Boliden's employees was 1,268 (1,557).

The number of reported occupational diseases or data on absenteeism connected to occupational diseases is not included in our reporting since it can take several years before a reported occupational disease is finally accepted or not accepted as an occupational disease by the authorities. The absence is, however, included in the ordinary sick leave percentage.

LTI Frequency¹⁾ Boliden employees

	2015	2016	2017
Sweden	8.0	7.3	3.5
Norway	2.0	5.4	2.0
Finland	4.4	8.1	8.5
Ireland	5.7	1.9	4.8
Group	6.6	6.7	5.0

LTI Frequency¹⁾ Boliden contractors

-			
	2015	2016	2017
Sweden	14.8	11.3	9.0
Norway	5.3	8.1	0.0
Finland	16.0	11.7	10.9
Ireland	11.3	0.0	2.4
Group	14.4	10.3	8.7

LTI Frequency¹⁾ employees and contractors

	2015	2016	2017
Sweden	10.1	8.5	5.5
Norway	2.9	6.3	1.3
Finland	8.6	9.5	9.5
Ireland	6.8	1.4	4.1
Group	8.9	7.9	6.3

Lost day rate 1) Boliden employees

Lost days due to injury per 1,000,000 working hours

Work days	2015	2016	2017
Sweden	140	99	51
Norway	22	118	253
Finland	27	184	237
Ireland	422	525	226
Group	144	172	135

Sick leave rate 13 Boliden employees

Percentage	2015	2016	2017
Sweden	4.4	4.5	4.5
Norway	6.8	4.7	7.5
Finland	4.4	4.5	4.6
Ireland	4.3	3.4	3.5
Group	4.6	4.4	4.5

1) The LTI frequency is calculated per one million working hours and includes all injuries that have caused one day's absence or more from work after the day of the injury. To calculate the injury rate (IR) an lost day rate according to GRI, divide the frequency/rate stated above by five. The lost day rate is reported as calander days in 2015. The number of days' absence for contractors is not reported as there are no reliable data available. The sick leave rate is the total number of hours' absence due to injury or disease divided by the total number of scheduled working hours. Boliden currently lacks the ability to monitor sick leave for contractors working for several clients (other than Boliden)

Work-related fatalities are very rare within Boliden.

Work-related fatalities employees and contractors

Percentage	2015	2016	2017
Employees	0	0	0
Contractors	0	1	0
Total	0	1	0

403-3 Workers with high incidence or high risk of diseases related to their occupation

Some parts of Boliden's workplaces involve a risk of exposure to lead. Occupational exposure can cause lead poisoning, and long term exposure at lower concentrations can also cause damage to the human body. Chronic poisoning usually presents itself with different types of symptoms, such as anaemia, and neurological and kidney damage. Illness is preventable by avoiding exposure to lead.

Workplaces are regularly checked with regard to exposure, ergonomics, air quality, noise, and vibrations as part of Boliden's occupational hygiene monitoring programmes. The results are analysed, actions taken when called for, and reported to the authorities.

Employees are screened regularly via the occupational health services provided at the workplace to ensure that each individual is fit to perform his or her assigned duties. Any sign of illness that could be associated with work is documented and reported.

Material Topic: Training and Education

404-1 Average hours of training per employee

Boliden's approach is to facilitate skill development during regular working hours. The responsibility for the organisation of and following up on the 'on-the-job' training lies with the line management. Boliden has not set the average number of hours of training targets for different job categories - it is the individual needs that determine the methods and quantity of the training activities.

Average hours of training per employee by gender and by employer category

Category	2015	2016	2017
Men	15.1	16.5	17.8
Women	16.3	15.5	16.9
White-collar	22.4	20.1	23.2
Blue -collar	11.8	14.4	14.8
Total	15.3	16.3	17.7

profiles, ranking applicants by qualification, documenting interviews, compiling assessments, and ensuring that every new employee is given a good introduction.

As of 2017, the system is used for performance reviews for all white-collar employees in the Boliden Group, a total of approximately 1,900 users. The system is not used for the Performance reviews carried out for blue-collar employees.

Percentage of employees receiving regular performance and career development reviews by gender and employee category

	2015	2016	2017
Group Total	79	77	82
Men	76	76	81
Women	92	83	87
White-collar	96	76	87
Blue -collar	71	72	75

404-3 Percentage of employees receiving a regular performance and career development reviews

Boliden's target is for 100% of its employees to receive an annual performance appraisal and career-development review.

Boliden has a competence and personnel-planning tool in order to attract new qualified personnel, to develop and integrate new personnel, and to develop and retain those currently employed. The tool is used across the Group to improve the development of performance management, competence planning, and succession planning. One of the purposes of the tool is to improve the quality of follow-up work on the development reviews and to expand the potential for such work, as the tool enables managers and employees to document development reviews and to follow up on goals and development plans, and it also highlights their competence and expresses their desire to advance.

In 2014, a recruitment module was introduced in the tool. It provides managers with support for compiling recruitment

New Identity an Access Management system

In 2016, a project started with the aim of introducing an Identity and Access Management System for the Boliden Group. The project addresses the problem of the lack of a common global HR data system. People and organisational data are currently managed in four separate and national pay-roll systems. The work continued in 2017 with the aim of fully implementing the new system in 2018. The benefits of an Identity and Access Management System should enable a common way of working with the maintenance of HR master data to ensure information availability and quality, as well as to simplify the administration of HR-related data.

Material Topic: Diversity and Equal Opportunity

405-1 Diversity of governance bodies and employees

Percentage of individuals within the organisation's governance bodies in the diversity categories gender and age group

	2015		2016			2017			
	Board of Directors	Group Manage- ment	Super- visors	Board of Directors	Group Manage- ment	Super- visors	Board of Directors	Group Manage- ment	Super- visors
Total number	11	5	491	11	5	503	11	5	588
Women, %	36	20	15	36	20	16	36	20	15
Men, %	64	80	85	64	80	84	64	80	85
<30 years, %	0	0	3	0	0	5	0	0	4
30–50 years, %	9	40	55	9	40	58	9	40	59
>50 years, %	91	60	42	91	60	37	31	60	37

Percentage of total number of employees per employee category and diversity categories gender and age

Employees	2015	2016	2017
Total number	5,142	5,719	5,921
Blue-collar, %	67	67	66
White-collar, %	33	33	34
Women, %	18	18	18
Men, %	82	82	82
<30 years, %	15	15	16
30–50 years, %	49	51	51
>50 years, %	36	34	33

Diversity contributes to dynamism, creativity, and ultimately better results. Boliden strives to have employees with different backgrounds, ages, and experiences. Boliden does have employees who come from minority groups, but does not register this out of concern for individual privacy.

Material Topic: Non-Discrimination

406-1 Incidents of discrimination and corrective actions taken

Boliden's commitment to diversity is clearly stated in Boliden's Diversity Policy, which is a part of Boliden's Management Manual. Boliden and its employees shall:

- Refrain from all forms of discrimination and harassment on the basis of gender, ethnicity, age, disability, religion, sexual orientation, or any other factor.
- Always focus on the person's competence, and disregard topics such as gender, ethnicity, age, disability, sexual orientation, or other circumstances.
- Strive to ensure that Boliden is perceived as an equal opportunity employer in every respect described above
- Support employees in their ambition to achieve a healthy balance between working life and private life
- Forcefully act against and counter any incidences of discrimination or harassment.

The Diversity Policy states that if an incident of discrimination or harassment should occur, the employee affected shall initially raise the matter with his or her manager and secondarily, with the company's human resources function, or through the whistle blower function (accessible via the intranet and Boliden's external

4 incidents of discrimination were reported to Boliden during 2017 through the formal grievance mechanisms or the whistle blower function all incidents were addressed and closed during the reporting period.

Material Topic: Rights of Indigenous People

MM5 Operation in or adjacent to indigenous peoples' territories

Three of Boliden's sites (27%) are affected (the Boliden Area, the Aitik mine, and the Kevitsa mine). Consultation is ongoing with the affected Sami villages and agreements on compensation issues and cooperation are generally in place between Boliden and the Sami villages.

MM6 Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous Peoples

An exploitation-concession application for the development project in Laver was been processed by the Mining Inspectorate of Sweden during the reporting period. In December 2016, The Chief Mining Inspector decided to reject Boliden's application for a mining concession for the deposit in Laver (potential mine site in northern Sweden). The grounds for this decision are that a Natura 2000 permit for extracting the deposit has to be obtained before the concession can be granted. The Norrbotten County Council earlier (2015) opposed Boliden's application with reference to the area's environmental interest and its importance to the reindeer industry. The area around Laver is designated as an area of national interest for the Semisjaur-Njarg Sami village and an impact assessment of any mining operations in the area has been conducted in cooperation with the relevant Sami village. The matter is now handled by the government, to which Boliden has appealed the Chief Mining Inspector's decision.

MM7 The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities, and indigenous peoples

Boliden has routines for informing and involving nearby and local residents. When the company applies for new exploration permissions or to expand the operation, there are mechanisms such as open-house events and post-exploration forums that enable nearby and local residents and businesses to state their opinion. Some parts of these processes are also required by law.

Material Topic: Local Communities

413-1 Operations with local community engagement, impact assessments, and development programmes

Boliden is a mature company and local community-involvement activities exist at all main locations. Boliden's business operations are often of considerable importance in terms of employment, making Boliden an important local stakeholder. This means that community engagement is already implemented and that the need for further impact assessments is limited to the occasions where it is necessary to drastically change the scope or focus of Boliden's operations. Social-impact assessments can be made in conjunction with closure of an operation, in order to assess any consequences to the community and in an effort to mitigate, as far as possible, any negative effects.

The Group's operations not only have a substantial impact on job opportunities but also affect suppliers' purchasing power elsewhere in the local business sector, which, in the long term, impacts the development of the communities' service sectors. Boliden estimates that for each Boliden employee, another three to five local job opportunities are, on average, created.

Local involvement in the form of support for and partnerships with voluntary organisations and associations are other ways in which Boliden can make a positive contribution to the areas in which the company operates. Boliden's support focuses primarily on local sporting and cultural events, schools, and hospitals, often linked to children and young people. In 2016, Boliden's

units sponsored local activities to the tune of approximately SEK 7 million (SEK 6 m).

Dialogue is ongoing with the numerous stakeholders impacted. It is primarily conducted through discussion and cooperation but also involves social-impact assessments to meet some specific

Measurements are carried out on a continual basis to monitor any impact on the local community in relation to the environment in the form of, for example, dust, noise, vibrations, and, shock waves from blasting. Methods have also been put in place for assessing impact, e.g. through changes to traffic, the landscape, water access, and land access.

When analysing complaints about vibration from blasting, for example, the blasting schedule was changed so that most people would still be at work, rather than relaxing at home. This resulted in a significant decrease in the number of complaints.

Keeping the interests of the local community high on the agenda when planning and executing mining and smelting operations is vital to maintaining good relations with the employees, their families, and their neighbours, and is an essential part of being a responsible corporate citizen. Failing to maintain these good relations would be a threat to the operation, as it would hamper the ability to attract a competent workforce and would jeopardise any potential expansion.

Material Topic: Supplier Social Assessment

414-1 New suppliers that were screened using social criteria

Boliden has a systematic approach and established system support for supplier screenings. The process is called CR evaluation of Business Partners and applies to all suppliers who Boliden have an established agreement with and suppliers who are in the process of entering an agreement with Boliden. The tool supports Boliden in the assessment of business partners' performance under the

requirements set forth in Boliden Business Partner Code of Conduct. The social criteria is based on the 10 principles of UN Global Compact, ILO- and ISO standards. These are the minimum requirements Boliden expects from business partners.

Boliden's significant CR risks in the supply chain are identified in our raw materials and concentrates supply. 100% of our new suppliers managed by our Raw material department have been evaluated during 2017. When including all purchasing (suppliers for logistics, products and services), 59% of all new business partners have been screened during 2017.

Material Topic: Resettlement and closure planning

MM9 Sites where resettlements took place

There have been no resettlements of whole villages in Boliden's corporate history. The latest significant case of resettlement was when the Hötjärn tailings pond in the Boliden Area was being planned, agreement regarding compensation and practical solutions was reached in 2010. In 2017 dialogues have started with neigbours living close to the Aitik mine and residents living closed to the planned mine in Liikavaara.

As a rule, Boliden buys properties within the vicinity of the operations as they are put up for sale, and thus few residents are affected once the mine expands in that direction. In cases where a resident feels disturbed by a nearby operation, Boliden offers to buy the property and to compensate for any inconvenience. The aim is always to reach a solution that suits the individual's needs and makes the residents feel fully compensated.

MM10 Number and percentage of operations with closure plans

Boliden's operations involves land use for mining, industrial areas, and ponds for use as sand and clarification ponds. Conservation and reclamation of mining areas which reach the end of their production lifespan is, therefore, part of Boliden's operations and responsibilities. The goal is to use the best available technology, complemented by continuous monitoring of the work that has

been carried out. All of Boliden's present operations, both mines and smelters, have environmental closure plans which have been approved by the authorities. In 2016, Boliden worked actively on the reclamation of four former mine sites. At the end of 2016, a total of SEK 2,873 million (1,943) had been set aside for the remediation of mining areas and smelters. Additions to existing provisions during the reporting year are primarily attributable to the new environmental permit at Aitik, and the effects of the application of the EU Water directive for the Boliden units in Finland.

Emergency Preparedness - Sector-specific disclosure

Communities adjacent to mining operations will be concerned about the hazards and risks that the operations generate. For Boliden, effective emergency management is essential to protect people, the environment, and the operations. Every business unit has its own local emergency management plan, including routines for crisis management, which is reviewed and practised regularly. During the reporting period, fires occurred at the Garpenberg mine and at the Kristineberg mine in the Boliden area. Several environmental incidents involving spillages and the leakage of chemicals also occurred. Boliden's emergency preparedness procedures have worked satisfactorily and led to the minimisation of damage to people, property, and the environment.

Material Topic: Socio-economic compliance

419-1 In the social and economic area

Socio-economic compliance is a precondition for successful mining and smelting operations. Legal requirements shall always be met.

No significant fines or non-monetary sanctions regarding social performance have come to Boliden's attention during 2016. Legislative compliance is important for Boliden since it ensures our business legitimacy.

For monetary value of significant fines for non-compliance with environmental laws and regulations, see 307-1.

Auditor's Limited Assurance Report on Boliden's Sustainability Report

This is the translation of the auditor's report in Swedish

To Boliden AB

Introduction

We have been engaged by the Board of Directors of the Boliden AB to undertake a limited assurance engagement of the Boliden AB's Sustainability Report for the year 2017. The Company has defined the scope of the Sustainability Report on page 4-7 in Boliden's GRI report.

Responsibilities of the Board of Directors and the Executive Management for the Sustainability Report

The Board of Directors and the Executive Management are responsible for the preparation of the Sustainability Report in accordance with the applicable criteria, as explained on page 10 in the Sustainability Report, and are the parts of the Sustainability Reporting Guidelines (published by The Global Reporting Initiative (GRI)) which are applicable to the Sustainability Report, as well as the accounting and calculation principles that the Company has developed. This responsibility also includes the internal control relevant to the preparation of a Sustainability Report that is free from material misstatements, whether due to fraud or error.

Responsibilities of the auditor

Our responsibility is to express a conclusion on the Sustainability Report based on the limited assurance procedures we have performed.

We conducted our limited assurance engagement in accordance with ISAE 3000 Assurance Engagements Other than Audits or Reviews of Historical Financial Information. A limited assurance engagement consists of making inquiries, primarily of persons responsible for the preparation of the Sustainability Report, and applying analytical and other limited assurance procedures. The

procedures performed in a limited assurance engagement vary in nature from, and are less in extent than for, a reasonable assurance engagement conducted in accordance with IAASB's Standards on Auditing and other generally accepted auditing standards in

The firm applies ISQC 1 (International Standard on Quality Control) and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We are independent of Boliden AB in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

The procedures performed consequently do not enable us to obtain assurance that we would become aware of all significant matters that might be identified in a reasonable assurance engagement. Accordingly, the conclusion of the procedures performed do not express a reasonable assurance conclusion.

Our procedures are based on the criteria defined by the Board of Directors and the Executive Management as described above. We consider these criteria suitable for the preparation of the Sustainability Report.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion below.

Conclusion

Based on the limited assurance procedures we have performed, nothing has come to our attention that causes us to believe that the Sustainability Report, is not prepared, in all material respects, in accordance with the criteria defined by the Board of Directors and Executive Management.

Stockholm, 4th February 2018

Deloitte AB

Jan Berntsson Authorised Public Accountant

Didrik Roos Authorised Public Accountant

