



2017

GRI APPENDIX TO THE
ANNUAL AND SUSTAINABILITY REPORT



CONTENTS 2017

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LKAB SUSTAINABILITY REPORT 2017 – GRI APPENDIX

LKAB is a high-tech mining and minerals group that has been mining and processing high-grade iron ore in northern Sweden for the global steel and industrial minerals market since 1890. The Group is a resource-intensive business with a strong local presence and role in society. LKAB is a major employer and contractor and as such, we see sustainability and responsibility as a given. Our ambition is to be one of the most innovative, resource-efficient and responsible companies in the world.

ABOUT LKAB'S REPORTING AND GRI APPENDIX

LKAB's Annual and Sustainability Report provides an overview of the Group's financial statements and administration, and also describes how the company has worked on the most significant sustainability aspects of the business over the past year. Since 2008 LKAB has prepared its sustainability reports in accordance with the framework for sustainability reporting issued by the Global Reporting Initiative. For 2017, GRI G4 is applied. Where the GRI framework demands detailed descriptions of specific aspects, LKAB has decided to

include supplementary information and clarifications concerning the data in the Annual and Sustainability Report in this appendix. Sustainability information in the Annual Report encompasses the page references shown in the GRI index on pages 69–70. The statutory Sustainability Report prepared in accordance with Chapter 6 Section 10 of the Swedish Annual Accounts Act has been integrated into LKAB's administration report, its scope being defined in the Annual Report's table of contents.



STAKEHOLDER DIALOGUE AND MATERIALITY

Stakeholder perspective and materiality are two key concepts in GRI sustainability reporting, and thus also in LKAB's sustainability reporting. Dialogue with stakeholders, both internal and external, forms a basis for identifying the aspects and areas for which LKAB is expected to report on its methods and results. LKAB enjoys active and ongoing dialogue with many different stakeholders so as to

encourage the cooperation required to pursue sustainable mining operations. The business requires a long-term approach and collaboration on many different levels, and LKAB places considerable emphasis on being accessible, responsive and transparent.

LKAB's stakeholders and forms of dialogue are presented below.

	FORM OF DIALOGUE	KEY ISSUES	RESULTS
CUSTOMERS	Continual dialogue via various forums and collaborative projects.	<ul style="list-style-type: none"> • Urban transformation • Resource-efficient use of raw materials • Greenhouse gas emissions and energy use • Economic/financial performance 	Collaborative projects to develop more energy-efficient processes and improve pellet quality.
EMPLOYEES	Informal and formal in the form of workplace meetings, performance reviews, strategy days, health and safety officer meetings, union negotiations and employee surveys.	<ul style="list-style-type: none"> • Recruitment and skills supply • Urban transformation • Occupational health and safety • Ore base and ore yields • Cooperation with trade unions 	Objectives and activities within the LKAB Group for: <ul style="list-style-type: none"> - reducing absence due to sickness and accidents - greater equality - diversity
SUPPLIERS AND CONTRACTORS	Regular meetings and supplier days to achieve consensus on key issues.	<ul style="list-style-type: none"> • Occupational health and safety • Supplier management • Products and solutions that are sustainable long-term 	LKAB's work on sustainability audits has been well received and the stakeholder analysis carried out in 2017 indicates that the social and environmental requirements that LKAB makes of its suppliers are passed on down the value chain.
LOCAL RESIDENTS	A number of different contact and dialogue channels ensure accessibility and a presence – for example, information offices, consultation, publication of magazines and social media.	<ul style="list-style-type: none"> • Urban transformation • Local emissions and impact on air, water and land • Interaction with local communities 	Proactive and easily accessible information about procedures and guidelines for LKAB's work within various areas, including through a new website. Develop assurance that complaints are addressed and that action taken is followed up, for example through external whistleblower system.
INTERESTS OF SAMI DISTRICTS	Dialogue and a number of cooperation agreements with Sami districts that are affected by operations.	<ul style="list-style-type: none"> • Local emissions and impact on air, water and land • Cooperation with indigenous population • Greenhouse gas emissions and energy use 	Collaboration is pursued on the premise that it should be possible for LKAB's mining operations and Sami traditions such as reindeer herding to coexist. Examples of results include compensation principles and an analysis tool for reindeer husbandry based on the principle of Free Prior and Informed Consent (FPIC).
HOSPITALITY INDUSTRY	Individual and public meetings with other significant industries in the region.	<ul style="list-style-type: none"> • Interaction with local communities • Local emissions and impact on air, water and land 	Offering alternatives and promoting the development of recreational areas. Collaboration/agreements with local representatives of the hospitality industry, and mine tours.
TRADE ASSOCIATIONS	Dialogue and consultation with interest groups representing the environment and communities. Sector cooperation via membership of organizations such as Euromines and Svermin.	<ul style="list-style-type: none"> • Human rights • Local emissions and impact on air, water and land 	Dialogue and collaborative projects with various trade associations to minimize the negative impact of our operations.
OWNER	LKAB's owner, the Swedish state, is represented on the Board and at the Annual General Meeting. Continuous dialogue and reporting through Board representation, owner analysis, visits and meetings.	<ul style="list-style-type: none"> • Economic/financial performance • Business ethics/anti-corruption • Human rights • Supplier management 	The owner has high requirements that the state's portfolio of companies will set an example as regards sustainable business. This results in greater focus on sustainability both in the company and further along the value chain.
AUTHORITIES AND LEGISLATORS	Public and private meetings, nationally and internationally, with relevant authorities, county administrative boards and municipalities.	<ul style="list-style-type: none"> • Compliance with laws, regulations and permits • Local emissions and impact on air, water and land • Urban transformation 	Work environment responsibility, internal controls and monitoring of compliance with conditions set by environmental courts and authorities. Consultation, inspections, reporting and improvement work are part of day-to-day operations. Annual reports and sustainability reports in accordance with guidelines.
SCHOOLS, UNIVERSITIES AND COLLEGES	Ongoing dialogue and project-based collaboration with schools and courses in the communities in which we operate, as well as with colleges and universities.	<ul style="list-style-type: none"> • Recruitment and skills supply • Products and solutions that are sustainable long-term 	Collaboration and financing of events/courses to encourage interest in engineering and mining-related research.

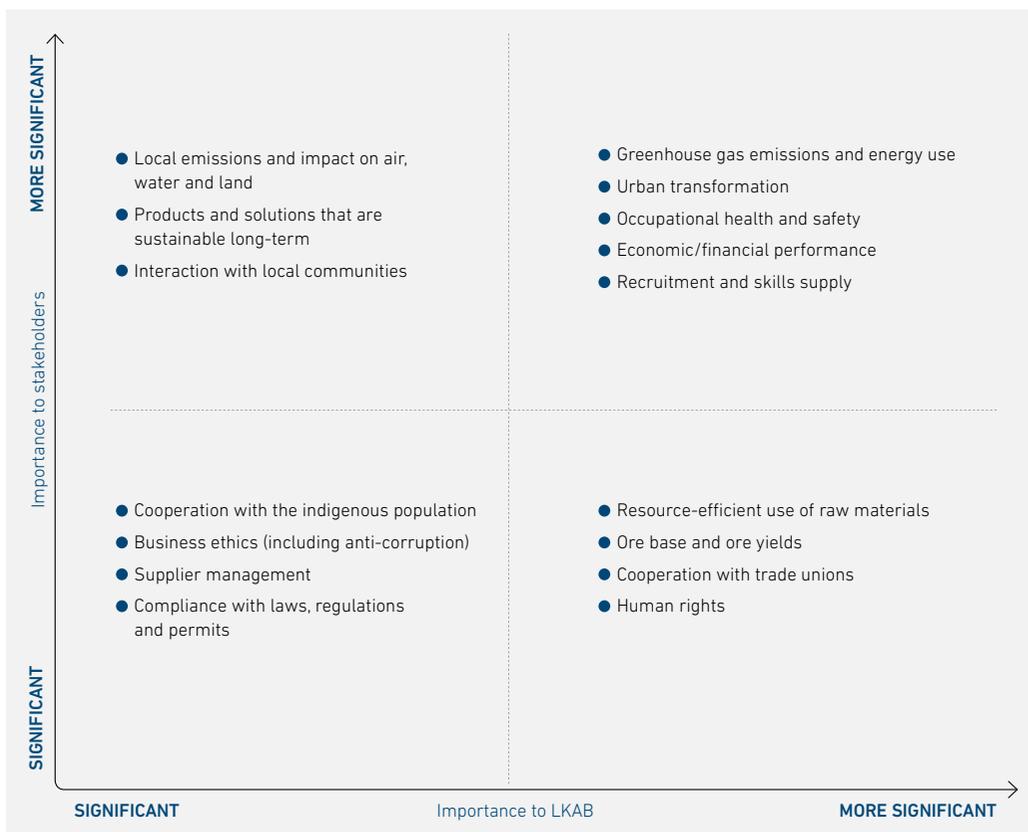
MATERIALITY ANALYSIS

Since LKAB operates in an industry with long cycles, and its core business is concentrated in the same geographic areas of the Swedish orefields, LKAB has decided to conduct a more comprehensive stakeholder and materiality analysis every second year. In 2017 a new stakeholder and materiality analysis was conducted in which various representatives from both outside and within the company were asked about LKAB's work on sustainability, communication and what is important for the company to think about in the face of future challenges. The majority of the respondents were from Sweden, but employees, suppliers and customers from other parts of the world also responded. LKAB has taken into consideration what all the interest groups questioned, including employees, ranked as the five highest priority sustainability aspects for LKAB to work on and report on. The aspects were then ranked based on the number of interest groups that considered them to be important. The highest

ranked aspects were placed in the top right of the graph. LKAB is also working to improve, develop and communicate how the company manages, addresses and follows up on these aspects. LKAB's commitment to work sustainably requires the company to follow international guidelines. This accords with the state's ownership policy, in which human rights is a priority area. In addition, LKAB believes that increased knowledge is needed internally concerning LKAB's impact on human rights in order to ensure that the company takes responsibility and that any business risk is minimized. For this reason LKAB has decided to bring human rights into the matrix, even though the majority of stakeholders do not see this aspect as a priority aspect for LKAB to work further on.

The results of the 2017 materiality analysis are presented in more detail below.

LKAB'S MATERIALITY ANALYSIS 2017



LKAB'S MATERIAL ASPECTS

The material aspects are associated with various parts of LKAB's business. How these affect each other and different parts of LKAB's operations and value chain is clarified below.

Local emissions and impact on air, water and land

LKAB impacts the environment in various ways in its production chain, from mining and upgrading to transport and remediation. Focusing on taking responsibility, work is therefore continually under way in order to minimize impact, comply with current permits and prepare for future environmental requirements. Through investments in technical development and treatment systems, development of remediation work and strategic partnerships, LKAB works proactively to avoid, minimize, restore and in certain cases compensate for negative impacts on natural resources.

Products and solutions that are sustainable long-term

Steel is the world's most recycled material and can be used time and time again. LKAB works continuously to develop and offer products and services that give our customers long-term added value, which enhances our competitiveness.

Interaction with local communities

LKAB's principles for interaction with local communities are based on respect for other business and interests, and on allowing the conditions for these to exist. This interaction takes place both directly and indirectly, for example via partnerships with suppliers, sponsorship, outdoor ventures and educational initiatives. In addition, LKAB strives to address in an open and systematic way the comments and viewpoints received regarding the operations' impact on land use, the environment and the community.

Cooperation with the indigenous population

The ongoing operations affect opportunities for reindeer herding by the Sami districts active in the area. In accordance with international standards and guidelines, LKAB works to cooperate and to start a dialogue at an early stage so as to minimize negative impacts as far as possible and to compensate for the negative impact that does occur in connection with mining operations, to ensure that mining and reindeer herding can take place alongside each other.

Business ethics, including anti-corruption

High levels of business ethics and a businesslike approach create trust in LKAB, which in turn lays the foundations for successful business operations. LKAB's Code of Conduct specifies how we work to ensure high business ethics and how we work to counter corruption in business through preventive work, transparent systems and monitoring.

Supplier management

Reliable suppliers of quality products and services are essential if LKAB's operations are to run smoothly. Responsible purchasing, in which LKAB requires suppliers to have fair labour practices and less environmental and social impact, reduces the risks of disruption in suppliers' production chains and thereby also in LKAB's operations.

Compliance with laws, regulations and permits

Mining is a well-regulated business which requires a permit. Social impact, environmental impact and labour practices must comply with the conditions of the permit. Permits are regularly reviewed and there are frequent legislative changes. These changes need to be monitored to ensure adjustments are made in order to fulfil new requirements.

Greenhouse gas emissions and energy use

Climate impact is a global problem and the consequences of taking no action could be catastrophic. LKAB is working on a number of measures to reduce consumption of energy and fossil fuels, including through more efficient use of energy in our operations and through collaborative projects. LKAB sees a strong business case for further improving the energy efficiency of products and processes.

Urban transformation

The gradual and responsible relocation of communities to enable continued mining is essential for LKAB's survival. Transparency, planning, a willingness to negotiate and an open dialogue with access to information at an early stage are prerequisites for understanding and success.

Occupational health and safety

Ongoing and preventive work to ensure a safe work environment and the health of co-workers is a necessity. It is unacceptable for people to be injured at work and LKAB endeavours to provide workplaces that ensure physical safety and psychosocial security. This is done by means of standards and ground rules that are accepted and complied with by everyone, resulting in sustainable and productive workplaces.

Economic/financial performance

In a volatile, capital-intensive market, being highly competitive provides a basis for ensuring that LKAB is sustainable. LKAB's strategic direction involves cost-effective expansion and growth with long-term and sustainable profitability. The aim is to optimize and streamline existing operations within the framework of LKAB's vision of economic, social and environmental sustainability, and using this as a base, to ensure continued operations in the future.

Recruitment and skills supply

In the longer term, taking responsibility for working conditions that provide good and secure employment as well as opportunities to develop within the company affects recruitment opportunities and the supply of skilled labour. Promoting diversity, ensuring equal opportunities and zero tolerance of discrimination not only broadens the recruitment base, but also leads to healthy workplace cultures and an attractive company.

Resource-efficient use of raw materials

Resource-efficient use of raw materials through high yields of iron ore and minerals as well as the efficient use of inputs such as energy is of the greatest importance, since this enhances competitiveness and is environmentally and socioeconomically sound.

Ore base and ore yields

Good knowledge of the mineral reserve is a basic requirement for making major long-term investment decisions. The size and quality of the mineral reserve are critical to product quality production volumes and costs. Exploration plays a crucial role in LKAB's long-term growth, value creation and competitiveness.

Cooperation with trade unions

Active and constructive dialogue with labour union representatives ensures co-determination and that employees' interests are taken into consideration.

Human rights

The Swedish state is responsible for compliance with human rights in Sweden. This in turn imposes high requirements on state-owned companies to respect and comply with human rights. Among other things, LKAB works continually to train employees and perform risk analysis to identify and manage the direct and indirect risks, both internal and external, of negative impacts and infringements.



GENERAL STANDARD DISCLOSURES

The GRI framework requires information about the company that is both general and specific in nature. The general information, which provides an overall background to the company and its operations, is referred to as “general standard disclosures” in the GRI guidelines.

The following section presents the general standard disclosures that are not included in LKAB’s Annual and Sustainability Report. The disclosures are presented in the order suggested by the GRI guidelines. A list of all disclosures can be found in the GRI index on pages 22–23.

ORGANIZATIONAL PROFILE

G4-10 Description of total workforce, G4-11 Percentage of workforce covered by collective bargaining agreements

General information about LKAB’s employees is available in the Annual and Sustainability Report, pages 38–41. The report is supplemented in the appendix with disclosures concerning the coverage of collective bargaining agreements. LKAB had 4,118 (4,224) employees on average during the year, including part-time and temporary employees. In total, 21.1 percent of the Group’s employees are women. The employees are mainly located in Sweden with 3,939 employees, 880 of whom are women. In Norway there are 176 employees, 21 of whom are women, and in the UK there are 151 employees, 34 of whom are women. All employees in Sweden and Norway are covered by collective bargaining agreements, with the exception of Group management.

G-14 Application of precautionary principle

Compliant with Swedish environmental legislation and as part of LKAB’s environmental management system, and for the purpose of identifying and preventing negative environmental consequences,

CERTIFICATION HELD	ISO 14001	ISO 9001	ISO 50001	OHSAS 18001
LKAB	•	•	•	
LKAB Berg & Betong AB	•	•		
LKAB Mekaniska AB	•	•		
LKAB Kimit AB	•	•		
LKAB Fastigheter AB				
LKAB Nät AB				
LKAB Malmtrafik AB	•	•	•	
LKAB Malmtrafik AS	•	•	•	
LKAB Norge AS	•	•	•	
LKAB Minerals AB	•	•		
LKAB Minerals Ltd	•	•		•
LKAB Minerals Oy	•	•		•
LKAB Minerals BV	•	•		•
LKAB Minerals GmbH	•	•		
LKAB Minerals AP	•	•		
LKAB Minerals Tianjin	•	•		
LKAB Minerals Inc		•		
Likya Minerals	•	•		•
LKAB Wassara				

LKAB performs mandatory risk analyses that take the precautionary principle into account. The environmental management system is certified to environmental management standard ISO 14001. Parts of the company are also certified to ISO 9001, ISO 50001 and OHSAS 18001.

G4-15 External charters, principles and initiatives

In addition to the management systems listed above, LKAB has also undertaken to comply with the following:

United Nations Global Compact – LKAB is not a formal signatory to the Global Compact, but strives to act in accordance with its ten principles. This is expressed, for instance, in the Group's Code of Conduct and Supplier Code of Conduct.

UN Guiding Principles on Business and Human Rights

– LKAB strives to comply with these principles. This is reflected in the Group's Code of Conduct, human rights policy and Supplier Code of Conduct.

GRI (Global Reporting Initiative) – Since reporting year 2008 LKAB has applied the GRI's guidelines on sustainability reporting, in accordance with the government's ownership policy for state-owned enterprises. As of reporting year 2014 LKAB has applied version G4, along with the Mining and Metals Sector Supplement.

GruvRIDAS – LKAB works on dam safety in accordance with Swedish industry association Svemin's guidelines on dam safety, GruvRIDAS. Among other things, the guidelines regulate the scope and regularity of the inspection and control of dams.

OECD Guidelines for Multinational Enterprises – LKAB strives to comply with the international guidelines, and this is expressed in the Group's Code of Conduct and Supplier Code of Conduct.

REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) – LKAB is covered by the EU regulation on chemical substances. The majority of the products LKAB manufactures, those that are chemically modified, were registered before November 2010. Other products that LKAB sells are naturally occurring minerals that are exempt from registration under REACH. Products used by LKAB must be approved by the Chemicals Inspectorate which, among other things, performs a check against REACH. Each department manager at LKAB is responsible for conducting regular checks on legal compliance and ensuring that chemicals legislation is being observed.

UNICEF's Children's Rights and Business Principles – LKAB's commitment to the international principles on children's rights is reflected in the Group's Code of Conduct and Supplier Code of Conduct.

Agenda 2030 – LKAB has mapped its material sustainability issues against the UN Sustainable Development Goals (SDG), also referred to as Agenda 2030.

G4-16 Memberships in associations

Euromines – The European association for the mining industry.

Jernkontoret – The industry association of the Swedish steel sector, where LKAB participates actively in the environmental committee and sustainability network.

Svemin – The industry association of the mining, minerals and metals sector in Sweden. Employer issues are dealt with in the mining employers' association Gruvornas Arbetsgivareförening (GAF).

SNS (Centre for Business and Policy Studies) – Network for sustainable development.

IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES

This section describes at a more detailed level the process of materiality analysis as well as how different materiality aspects are linked to the GRI framework and indicators.

G4-18 Process for defining report content

The materiality analysis from 2017 provides decision support for the sustainable development strategy and sets the boundaries for the content of the sustainability report. The report is in accordance with GRI principles and implementation requirements, version G4, Core option. LKAB has long been working to integrate sustainability issues into its operations and thereby contributes to sustainable development. In 2016 LKAB's Board of Directors approved a new group-wide strategy entitled "LKAB Strategy 2017–2021", which is updated on an ongoing basis. LKAB's main strategic direction is to create long-term sustainability through operational excellence and growth. Leadership and employeeship, expertise and technological development are the cornerstones of this strategic direction. The sustainability objectives are reported in the Annual and Sustainability Report on pages 12–13.

Principles of materiality analysis

Material aspects are defined based on the GRI's principles:

- stakeholder inclusiveness
- sustainability context
- materiality
- completeness

Identification of material aspects

In 2017 LKAB updated the materiality analysis in three steps: business intelligence, stakeholder analysis and internal identification. This method takes into consideration what all the interest groups questioned, including employees, ranked as the priority sustainability aspects for LKAB to work on and report on. LKAB also works continually to improve, develop and communicate how the company manages, addresses and follows up on these aspects. A new materiality analysis is conducted every second year.

Business intelligence – Sustainability issues that are important for stakeholder trust and the company's ability to contribute to sustainable mining are identified through broad and continuous business intelligence. This is based on:

- Identification of best practices for sustainable business in general, and for the industry in particular.
- Benchmarks, including issues identified as material by competitors and industry colleagues, in Sweden and globally.
- Standards based on international initiatives, management systems and the Sustainable Development Goals (SDG).
- Areas and issues raised by the media, related to LKAB and the industry.

Stakeholder dialogue – LKAB maintains continuous dialogue with the Group's stakeholders to identify issues and expectations, as well as to validate the ongoing work and priorities. Every second year a more in-depth analysis is carried out, most recently in 2017, which included questionnaires and customer interviews.

IDENTIFIED MATERIAL ASPECT	ASPECT WITHIN GRI ¹	G4 INDICATOR	DESCRIPTION OF INDICATOR
Supplier management	Supplier environmental assessment	G4-EN33	Environmental impacts in the supply chain
Supplier management	Supplier human rights assessment	G4-HR11	Human rights impacts in the supply chain
Supplier management	Supplier assessment for labour practices	G4-LA15	Impacts for labour practices in the supply chain
Business ethics (incl. anti-corruption)	Anti-corruption	G4-S05	Incidents of corruption
Occupational health and safety	Occupational health and safety	G4-LA6 + MM	Injuries, occupational diseases, lost days, absenteeism and work-related fatalities
Local emissions and impact on air, water and land	Biodiversity	G4-EN12 + MM	Significant impacts of activities, products, and services on biodiversity
Local emissions and impact on air, water and land	Biodiversity	MM2	Sites requiring biodiversity management plan
Economic/financial performance/Ore base and ore yields	Economic performance	G4-EC1 + MM	Direct economic value generated and distributed + compliance with EITI
Economic/financial performance	Economic performance	G4-EC3	The organization's defined benefit plan obligations
Greenhouse gas emissions and energy use	Energy	G4-EN3	Energy consumption within the organization
Greenhouse gas emissions and energy use	Energy	G4-EN5	Energy intensity
Compliance with laws, regulations and permits	Compliance, environment	G4-EN29	Significant fines and other sanctions due to non-compliance with environmental laws and regulations
Interaction with local communities	Environmental grievance mechanisms	G4-EN34	Reported grievances about environmental impacts filed and addressed
Human rights	Human rights grievance mechanisms	G4-HR12	Reported grievances about human rights filed and addressed
Recruitment and skills supply/Human rights/ Cooperation with trade unions	Labour/management relations	G4-LA4	Reported grievances about labour practices filed and addressed
Interaction with local communities/Human rights	Grievance mechanisms for impacts on society	G4-S011	Reported grievances filed and addressed
Compliance with laws, regulations and permits/ Interaction with local communities	Emergency preparedness	MM G4-DMA	Emergency preparedness planning
Recruitment and skills supply	Employment	G4-LA1	Total number of employees and employee turnover
Greenhouse gas emissions and energy use	Emissions	G4-EN15	Direct greenhouse gas emissions
Greenhouse gas emissions and energy use	Emissions	G4-EN16	Indirect greenhouse gas emissions
Local emissions and impact on air, water and land	Emissions	G4-EN21 + MM	NO _x , SO _x , and other significant air emissions
Local emissions and impact on air, water and land	Effluents and waste	G4-EN24 + MM	Total number and volume of significant spills
Local emissions and impact on air, water and land/Ore base and ore yields	Effluents and waste	MM3	Total amounts of overburden, rock, tailings and sludges and their associated risks
Recruitment and skills supply	Non-discrimination	G4-HR3	Incidents of discrimination
Recruitment and skills supply	Diversity and equal opportunity	G4-LA12	Diversity among the Board, Group management and workforce
Human rights	Assessment	G4-HR9	Operations that have been subject to human rights reviews
Local emissions and impact on air, water and land/ Compliance with laws, regulations and permits	Closure plan	MM10	Operations with closure plans
Products and solutions that are sustainable long-term	Products and services	G4-EN27	Mitigation of environmental impacts of products and services
Interaction with local communities	Indirect economic impact	G4-EC8	Description of significant indirect economic impacts
Resource-efficient use of raw materials/Ore base and ore yields	Materials used	G4-EN1	Materials used by weight or volume
Cooperation with the indigenous population	Indigenous rights	G4-HR8	Incidents of violations of indigenous peoples' rights
Cooperation with the indigenous population	Indigenous rights	MM5	Operations in or adjacent to indigenous peoples' territories, and agreements with indigenous peoples
Urban transformation	Local communities	G4-S02	Operations with significant actual or potential negative impacts on local communities
Urban transformation	Resettlement	MM9	Households resettled, and effect on livelihoods
Urban transformation/Cooperation with the indigenous population	Local communities	MM6	Land use disputes with local communities and indigenous peoples

¹ For page references for each aspect see pages 22–23.

Internal identification – To identify material issues or aspects LKAB uses the internal risk management process in the continuous work to evaluate and follow up on targets and corporate strategies. Every second year a more in-depth analysis is carried out, most recently in 2017 in the form of a questionnaire.

Prioritization of material aspects

LKAB applies an external and an internal perspective to prioritize material aspects:

External: This perspective is based on the issues that stakeholders in various dialogue forums highlight as priorities. The dialogues also validate the ongoing work and priorities. This forms a basis for an internal assessment of stakeholder priorities.

Internal: This perspective is based on the issues that constitute LKAB's impact on sustainable development. LKAB also considers how the company can influence the issue and sees this as important in order for the business model to be sustainable and to create value. An aspect that has a major impact on sustainable development may be given a lower materiality classification if LKAB's procedures and governance are adequate.

- The basis for prioritization from the internal perspective is LKAB's customer promise and vision.
- LKAB's corporate strategy governs how resources are distributed, processed and managed – i.e. the mineral resources LKAB depends on, human capital, innovations and capital assets, financial capital and relations with the world around us.

Validation of the materiality analysis

LKAB validates the prioritized aspects every second year with internal and external stakeholders, and checks them against any surveys conducted such as SIFO surveys and employee surveys. Stakeholders can give feedback on the Sustainability Report at any time during the year.

Boundaries

For each material aspect the boundaries of LKAB's responsibilities are described in the appendix under Specific Standard Disclosures, where it is specified whether the aspect is material to the organization within the LKAB Group or at any stage in the value chain.

Results: LKAB's materiality analysis

The results of the materiality analysis are shown in a matrix that includes the aspects that are material for LKAB's sustainable development efforts.

Impact on sustainability reporting

The Annual and Sustainability Report includes the aspects deemed to be material based on dialogue with our stakeholders that has been validated by LKAB.

Update of materiality analysis

The materiality analysis is updated when necessary and work to identify material sustainability issues is seen as a recurring task. Reasons for updates may include external changes, access to new knowledge, a new focus among stakeholders, a new stakeholder analysis, changes in LKAB's business or other changes affecting stakeholders' expectations of LKAB.

Responsibility for the materiality analysis

LKAB's HR and Sustainability unit is responsible for ensuring that there is an up-to-date materiality analysis. A working group on sustainable development participates in the prioritization of aspects and in the validation of the analysis. The working group includes representatives of LKAB and its subsidiaries.

The analysis is decided by the Senior Vice President of HR and Sustainability and is presented to Group management.

G4-19 Material aspects

LKAB reports on the aspects that have been identified as relevant as well as the GRI aspects and indicators chosen for reporting as a result of the analysis. For material aspects, see the matrix and table on pages 6 and 10.

G4-20 Boundaries for material aspects within the organization

The boundaries for material aspects are described in the section Specific Standard Disclosures in this appendix. LKAB's systematic work to manage each aspect is also described – in GRI terminology this is known as the Disclosure on Management Approach (DMA).

G4-21 Boundaries for material aspects outside the organization

The boundaries for material aspects are described in the section Specific Standard Disclosures in this appendix. LKAB's systematic work to manage each aspect is also described – in GRI terminology this is known as the Disclosure on Management Approach (DMA).

G4-22 Explanation of corrections of information provided in previous reports

Huntite: LKAB regularly reports preliminary data for mined huntite. The preliminary figure for 2016 was 16.3 thousand tonnes. The actual figure is reported in the Annual and Sustainability Report for 2017. The confirmed figure for 2016 is 21 thousand tonnes. Read more on page 49 of the Annual and Sustainability Report.

Energy: The 2016 figures for energy outside of EU ETS have been corrected. The figures for Narvik did not include 355.69 m³ E01, the figures for Luleå did not include 554.26 m³ E05 for heating of the cisterns in Uddebo and the figures for Malmberget did not include 24.23 GWh of electricity.

G4-23 Significant changes in the scope, boundaries or measurement methods compared with previous years' reports

In 2017 LKAB was able to also include suppliers in the data for accidents per million hours worked. This statistic provides a truer picture of the accidents that take place in our operations, since a large part of the work in the operations is carried out by contractors. A standard figure was used for hours worked by suppliers. The standard figure is based on a comparison of figures from 2015, 2016 and part of 2017.

Emissions to water

In 2017 a new water balance was produced for the operations in Kiruna in conjunction with a review ahead of planned increases in production. This resulted in relatively large changes in the reported volumes of overflow water since the volumes had previously been underestimated.

The change in the volume of overflow water affects the total level of reported nitrogen and trace metals in the water. Corrections have been made retrospectively for total emissions as well as target values in order to obtain comparable data over the full period for this objective, which is 2015–2021. See pages 14 and 49 of the Annual Report for updated objectives and total emissions.

Adjustment of environmental targets for emissions to air

The target for emissions of nitrogen to air has been adjusted so as to relate only to NO_x from the pelletizing plants, which is the main source of emissions, and to harmonize the target across the production sites.

Change in boundaries for EU ETS – olivine added as a source of emissions

Olivine is now included in CO₂ reporting following changes in the EU ETS rules. The volumes of CO₂ from olivine are so small that no retrospective adjustment is required.

No other significant changes in the scope, boundary or measurement methods have been made compared to previous years' reports.

STAKEHOLDER ENGAGEMENT**G4-24 Stakeholder groups**

The stakeholders listed below were part of the 2017 stakeholder dialogue.

Stakeholder groups surveyed:

- Central government body
- Authority
- Municipalities
- Suppliers
- Customers
- Seats of learning
- Industry bodies
- Trade union representatives and main health and safety officers
- Employees
- Other state-owned companies
- Sami villages
- Environmental, social and human rights interest groups
- Local communities

G4-25 Identification and selection of stakeholders

LKAB defines stakeholders as groups of people that, directly or indirectly, may affect or be affected by the decisions made by LKAB. Priority stakeholders are selected based on the definition and on mutual influence. LKAB's priority stakeholders for dialogue and communication are: customers, employees, authorities and legislators, owners, suppliers and contractors, local residents, interest groups, as well as reindeer husbandry and tourism.

REPORT PROFILE**G4-28 Reporting period****G4-29 Most recent report****G4-30 Reporting cycle**

LKAB reports its sustainability work per calendar year in accordance with the GRI (Global Reporting Initiative) framework for sustainability reporting. This reporting forms part of the Annual and Sustainability Report that is published on 31 March each year in accordance with the state's ownership policy and guidelines for state-owned companies. The last report was published on 31 March 2017.

G4-33 Policy and practice with regard to external assurance

LKAB's Sustainability Report is assured by an external party in accordance with the government's ownership policy for state-owned companies. The table of contents of the Annual and Sustainability Report specifies which pages are subject to external assurance. The auditing firm Deloitte is regarded as independent of LKAB's Board of Directors, which issues and signs the Annual and Sustainability Report in its entirety.

SPECIFIC STANDARD DISCLOSURES

The GRI framework provides support for transparent reporting of how an organization works systematically and monitors material issues. The issues identified as material in LKAB's materiality analysis are matched with the corresponding GRI aspects. Based on these aspects, LKAB has chosen to report on a number of indicators that allow results to be monitored consistently over time. Within the GRI framework this part of the reporting is referred to as the "Specific Standard Disclosures", since they are selected based on the company's specific issues. Initially, this section describes how LKAB's systematic work within the material aspects is conducted. The management of sustainability efforts is referred to within GRI as the Disclosure on Management Approach (DMA).

OVERALL SUSTAINABILITY MANAGEMENT APPROACH

LKAB's sustainability work is managed on the basis of its values "Committed – Innovative – Responsible", as well as the company's strategy and Code of Conduct. The sustainability objectives have been set by the Board of Directors to ensure that LKAB fulfils its owner's requirement that state-owned companies act as role models for sustainable business.

The overall responsibility lies with LKAB's Board of Directors – read more in the Corporate Governance Report section of the Annual and Sustainability Report.

Operational responsibility for the sustainability work lies with the President. Since 2013 a special unit, Sustainable Development,

has been represented on the Group Management team by the Senior Vice President of HR and Sustainability. The unit is responsible for developing LKAB's position as a sustainable company and supporting the Group's sustainability work.

FOLLOW-UP AND EVALUATION

The Board has overall responsibility for ensuring that the sustainability objectives are achieved. Reports are provided to the owner and to the Board of Directors on a quarterly basis.

LKAB reports the results of its sustainability work through the system Credit360, with the exception of HR data which is reported in a specific system. Since LKAB conducts operations requiring a permit, many key performance indicators are followed up continuously to ensure compliance with permits and conditions. Results are sent to the authorities for external monitoring.

In addition to the external assurance of the Sustainability Report, internal quality auditors evaluate data collection and the quality of processes. The Senior Vice President of HR and Sustainability is responsible for strategic HR activities and the operational work is decentralized. Personnel matters are handled by the Remuneration Committee and the Diversity Committee. Work environment and health-related issues are handled by local work environment groups and central work environment, safety and rehabilitation committees. All these groups include representatives of personnel and trade unions.

DISCLOSURE ON MANAGEMENT APPROACH (DMA)

Economic

Economic impact – value creation and impact on employment and infrastructure

LKAB has significant economic impact. By being a profitable business, we create job opportunities for employees, contractors and suppliers. Over the past decade the dividend to our owner, the Swedish state, has been significant – as have taxes paid in Sweden, Norway and other countries. Investments in research and development, infrastructure and sponsorship are additional effects of our economic value creation.

LKAB is governed by financial targets and policies for dividends, currency, credit and finance.

The President and the CFO are responsible for the financial results as reported in the Annual Report and interim reports. The organization's management and the Board's overall responsibilities are described in the Corporate Governance Report.

Boundary: Within LKAB and outside LKAB's operations.

Environmental

General

LKAB's operations give rise to significant environmental impact. The landscape is affected by mining operations. Communities and the environment are also affected by emissions to water and air, noise and vibrations from ore processing and other operations. When we open new mines and claim new land, pristine environments are sometimes affected. Furthermore, pellet production requires large amounts of water and energy.

The environment and energy policy forms the basis for governance of the environmental work. The environmental management system is certified to ISO 14001. One element of this environmental certification is the risk analyses that take into account the precautionary principle, in order to prevent adverse environmental consequences. The sustainability objectives drive the direction and improvement work, which includes energy consumption, emissions to air and climate-smart products. To ensure permit levels are complied with, regular follow-ups are conducted using self-monitoring programmes. LKAB also conducts follow-up in connection with reporting on sustainability objectives to the Board and for the Sustainability Report, as well as in the annual environmental reports compiled for regulatory authorities. LKAB has an incident reporting system where all environmental events are reported.

LKAB has operations that are subject to permits – read more in the section Compliance with the terms of environmental permits and legislation.

The Senior Vice President of HR and Sustainability has overall responsibility for reporting and follow-up of environmental aspects. Operational responsibility for all environmental aspects has been delegated to the heads of the Northern Division and the Southern Division, and from there to the organization's departments and subsidiaries.

Boundary: Within LKAB and outside LKAB's operations.

Resource-efficient use of raw materials

LKAB mines the natural resource of iron ore from deposits in the orefields of northern Sweden, in accordance with environmental permits. The Group also uses feedstock, for example additives such as dolomite and bentonite, for the production of iron ore pellets. Additionally, LKAB mines and sells huntite. The Group also uses various energy sources such as coal, oil and diesel.

For long-term operations, LKAB must secure new mineral reserves and mineral resources. Read more about the value chain from exploration, mining and processing to transportation on pages 8–9 of the Annual and Sustainability Report. See also the report in this appendix under the heading Products with environmental benefits.

Through its Supplier Code of Conduct LKAB ensures that the production and delivery of feedstock fulfils the requirements relating to sustainability aspects and that the origin can be traced. This is also followed up by means of basic requirements for suppliers and supplier audits. Read more under Efficient and sustainable purchasing.

Boundary: Within LKAB and outside LKAB's operations.

Energy use

LKAB is one of Sweden's biggest energy users, since its operations are highly energy-intensive. For this reason it is important to streamline energy use, both to limit costs and to reduce environmental impact.

LKAB has an environment and energy policy and the Group is certified to energy management system ISO 50001. Reducing energy consumption and reducing carbon emissions is a group-wide objective.

Energy in the form of coal, oil and electricity is purchased from external suppliers according to established procedures. The most sustainable and energy-efficient option is to be chosen as far as possible. LKAB does not generate its own energy, but supplies residual heat from production to nearby communities in Kiruna.

Life-cycle cost calculations are required in projects. Generally, energy use is followed up at an increasingly detailed level.

Boundary: Within LKAB.

Biodiversity

LKAB's operations are located in a part of Sweden with a high proportion of protected areas – for example, through National Park status, Natura 2000 or similar. This means that our industrial areas and mining areas are often relatively close to land with a high biological status. Mines, industrial areas and urban transformation require land. This affects biodiversity, since natural land disappears as a result of the expansion of operations and infrastructure. Emissions to air from the refining process and dust from industrial areas can also have marginal local impact on biodiversity. It is mainly emissions of SO₂ and NO_x from the refining process that can have a regional impact on sulphur and nitrogen balances, which may affect biodiversity and our carbon footprint. This in turn has a global impact on biodiversity by contributing to the greenhouse effect and the consequent effects that this implies.

There is also a limited local impact on the operations' recipients, mainly through increased nitrogen levels and occasional cloudiness, and this may have a certain impact on biodiversity.

LKAB's facilities also create natural environments that have a positive impact on biodiversity. Examples include open-cast slopes and tailings ponds that add structures in the landscape that correspond to scree and wetlands. Such structures have a positive impact for certain bird species such as the peregrine falcon. In its work on ecological compensation LKAB collaborates with the supervisory authorities. The efforts are governed more specifically by our guidelines for land use, which are based on the mitigation hierarchy. Our work is also governed by waste management plans, permits and remediation plans. These are followed up in consultation with authorities.

Boundary: Within LKAB and outside LKAB's operations.

Emissions to air and water, waste

LKAB's carbon dioxide emissions, mainly from pellet production and heating of air for mine ventilation, are significant from a domestic perspective, despite being lower than for similar operations internationally. Given the significant impact, LKAB also has a great responsibility to limit emissions and thereby contribute to the achievement of Sweden's national environmental objectives. This work is governed by the environment and energy policy and the sustainability objectives, which provide a framework for LKAB's aims and a tool for follow-up. LKAB is part of the EU Emissions Trading System (EU ETS), the aim of which is to reduce emissions of carbon dioxide and other substances.

LKAB's operations also have impacts through other emissions to air, such as emissions of sulphur dioxide from pellet production and pollution dusting in the form of falling dust in the communities. These are continually monitored and followed up in accordance with permit requirements. In addition, LKAB's operations result in noise and vibrations that are monitored in accordance with permits and are reported to the supervisory authority. See also pages 48–49 of the Annual and Sustainability Report for more information.

The mining operations result in large quantities of waste in the form of barren rock and tailings. The barren rock is stockpiled on industrial sites and is not considered to be associated with major environmental risks. Tailings are stored in ponds, from which excess water is discharged into the recipient watercourses. The impact of the production on the surroundings and on the environment is managed by means of environmental impact assessments and analysis of environmental risk, as well as through systematic efforts to minimize impact. Possible impacts are continuously monitored through self-monitoring programmes within the constraints of the permits and conditions to which LKAB's operations are subject.

Boundary: Within LKAB.

Products with environmental benefits

The development of products with environmental benefits – such as reduced energy requirements in the production process – is important, because it provides competitive advantages and gives customers options that can help mitigate climate change. LKAB's pellets have documented environmental advantages compared to similar products from our competitors. LKAB's ambition is to develop more products with environmental benefits. The responsibility for this lies with the Senior Vice President of Technical and Process Development.

Boundary: Within LKAB and outside LKAB's operations.

Compliance with the terms of environmental permits and legislation

Both the parent company LKAB and the Swedish subsidiaries conduct operations that require permits under the Swedish Environmental Code. Most of these activities take place as part of the production of iron ore products in the Northern Division and Southern Division. Operations cannot be conducted without environmental permits. The most important environmental permits relate to large-scale mining and processing of iron ore products in the Swedish orefields, and to tailings ponds and the stockpiling of waste rock. Permits are also required for gravel and moraine pits, and for port operations.

The permits are followed up continuously via self-monitoring programmes, and the results are reported to and discussed with authorities/representatives of authorities. A summary of the year is provided by the environmental report that is submitted to the supervisory authority by 31 March of the following year.

Boundary: Within LKAB.

Management of viewpoints – environment and society

LKAB's operations affect the surrounding environment and society, so it is important for the company to address people's views and maintain a good dialogue, both regarding daily operations and unforeseen events. Within LKAB, environmental incidents and community-related views and complaints can be reported by email or telephone or via LKAB's incident reporting system Synergi. Incidents are continuously addressed and reported on. Follow-up takes place primarily in the department concerned, for example through the environmental department or the department for urban transformation, but also via management's review of environmental issues that takes place twice a year. Depending on the nature of the events, they are reported to the supervisory authority and followed up through formal information exchange. In the coming years the plan is to develop the system further to make it easier for external stakeholders to report comments and incidents, and for LKAB to follow up on these.

Boundary: Within LKAB.

Social responsibility

General

LKAB has a great responsibility for employees and others who work on our behalf. Our social responsibility also extends to our supply chain and customers. The vast impacts that the operations have locally on the operating locations and that are brought by the urban transformation require LKAB to take additional responsibility. A human rights policy has been developed and approved by LKAB's Board of Directors to support the work on effectively identifying, respecting and managing risks associated with direct or indirect negative impacts on human rights.

The Code of Conduct, the Supplier Code of Conduct, the work environment and personnel policy, and LKAB's strategy and sustainability targets govern operations. The objectives are followed up on a quarterly basis, so that they can be reported to the Board of Directors. In addition, other key performance indicators are monitored to ensure that the work is proceeding according to plans and business objectives.

The President has delegated employer responsibility to the department, section and production managers. The Senior Vice President of HR and Sustainability is responsible for strategic personnel issues, including the supply of skilled labour. Responsibility for cooperation with suppliers and subcontractors lies partly with LKAB's purchasing organization and partly with the respective subsidiary.

The Senior Vice President of Urban Transformation is responsible for the implementation of the action plan for urban transformation.

Employees and employment types

LKAB is a major employer in the region. The responsibility for employees and for the working conditions of contractors is significant. This work is governed by national legislation and regulations on the work environment as well as by LKAB's own Code of Conduct, Supplier Code of Conduct, personnel policy and manual, work environment policy and information policy. Anyone wishing to gain access to our industrial areas – both our own employees and suppliers – must complete interactive safety training.

The President has overall responsibility and delegates it through the line of operations. The Senior Vice President of HR and Sustainability delegates operational responsibility for HR to managers responsible for personnel.

Employees are represented on the Board by union representatives. Personnel matters are handled by the Remuneration Committee and the Diversity Committee. Work environment and health-related issues are handled by local work environment groups and central work environment, safety and rehabilitation committees. All these groups include representatives of personnel and trade unions. Efforts directed at the work environment are monitored by assessing performance against established targets and are reported in the HR department's systems. Contractors are also covered by this work, and statistics include contractor accidents.

In recent years there has been a major focus on ensuring qualified employees for each position in the company. Training of new managers is conducted on an ongoing basis and individual meetings are held with new managers. Employeeship is discussed, and individual development is planned in annual meetings with the employee's immediate supervisor.

Employee surveys are conducted at regular intervals and the departments work on the results on a continual basis. LKAB views internal communication as an important success factor, and sources of information include the intranet and the supplier portal.

Boundary: Within LKAB and outside LKAB's operations.

Occupational health and safety

LKAB's operations are associated with occupational risks for employees and suppliers. We have significant responsibility for occupational health and safety. The work is governed by the Code of Conduct, Supplier Code of Conduct, supplier manual, personnel policy and work environment policy, and an important element is the "Safety first!" programme which aims to strengthen the safety culture and reduce the number of accidents. LKAB's sustainability objectives include reducing accidents and long-term sick leave.

LKAB's occupational health department assesses that LKAB fulfils the requirements set out in Articles 6–14 of ILO Convention 176. This is a result of LKAB's systematic work related to occupational health and safety, based on the work environment policy, work environment targets and on occupational safety and health management systems. Collaboration between employees, health and safety officers, managers, leaders, support organizations, clients and suppliers makes up the foundation that is LKAB's strength when it comes to preventing and eliminating occupational health and safety risks, creating safe mining conditions, and managing work-related injuries and unsafe situations.

Overall responsibility for the work environment ultimately lies with the President. Responsibility is delegated to managers, but a work environment free from accidents can only be achieved through everyone's active participation. In addition to managing risks, LKAB strives to achieve a stimulating and sound psychosocial work environment.

Boundary: Within LKAB and outside LKAB's operations.

Diversity and non-discrimination

Given the gender imbalance within the organization, gender equality and non-discrimination are important issues. This work is governed by the Code of Conduct, the Supplier Code of Conduct, the personnel policy and the diversity plan that was updated in 2016/2017 based on an employee survey in which LKAB employees answered questions on their experience of diversity and equality in the workplace. The organization worked with the results in 2017. The sustainability objectives for diversity in the strategy reflect LKAB's focus on the matter.

The Senior Vice President of HR and Sustainability is responsible for strategic HR activities and the operational work is decentralized. Personnel issues related to diversity are handled by the Remuneration

Committee and the Diversity Committee. Work environment and health-related issues are handled by local work environment groups and by central work environment, safety and rehabilitation committees. All these groups include representatives of personnel and trade unions.

The work is followed up through target fulfilment by managers in the annual performance reviews, in the employee survey, in the salary assessment, as well as through reporting of non-compliance with the Code of Conduct and policies.

Boundary: Within LKAB and outside LKAB's operations.

Efficient and sustainable purchasing

LKAB is a major buyer of goods and services that in certain geographical areas and segments are subject to greater sustainability risks, mainly in terms of environmental impact, labour and human rights. LKAB manages the work through risk-based assessment, requirements in the form of a Supplier Code of Conduct, dialogue, training and monitoring. The work is conducted within the focus area Responsible Operations. Read more about supplier assessments on pages 36–37 of the Annual and Sustainability Report.

LKAB's Supplier Code of Conduct applies to all suppliers and contains a number of basic requirements. Among these are anti-corruption, child labour, forced labour, working conditions and emissions/discharges to soil, water or air. Based on risk assessments, suppliers with a higher risk level are asked to complete a self-declaration relating to the requirements, which is then followed up jointly by LKAB and suppliers.

The Director of Purchasing is responsible for efficient and sustainable purchasing within LKAB. Those subsidiaries that make purchases outside of the Parent Company's Purchasing department work with their own value chains on a continuous basis. LKAB's sustainability department is responsible for developing common guidelines and for following up and supporting the work that is undertaken.

Boundary: Within LKAB and outside LKAB's operations.

Cooperation with the indigenous population

LKAB's operations affect other activities such as reindeer herding. LKAB's principles for collaboration and consent are based on respect for reindeer husbandry and the Sami people's conditions to conduct such activities.

The principles include mutual respect and willingness to negotiate, open dialogue and access to information at an early stage. For certain larger projects, social impact assessments are performed. LKAB's Code of Conduct and guidelines for land use govern this work.

Collaboration agreements with the Sami districts directly affected by the operations are a means of ensuring respect. Under these agreements, measures and development efforts are discussed, planned and implemented, and principles for compensation for disturbances are produced and complied with.

The Senior Vice President of HR and Sustainability is responsible.

Boundary: Within LKAB and outside LKAB's operations.

Urban transformation

The location of LKAB's ore deposits requires communities to be moved to allow continued mining operations. This entails extensive consultation with municipalities, authorities, businesses and local residents.

LKAB has a significant impact on local communities as a major employer and business in the region, both because of the nature of the operations and through initiatives for local community development. Examples of collaboration include shared interests such as infrastructure to create attractive communities. Consultation is

carried out related to the parts of the business that affect the local community.

This work is governed by the sustainability objectives and by LKAB's guidelines for land use and a compensation model for property purchases published in 2015. Read more on pages 44–45 of the Annual and Sustainability Report. See also "Management of viewpoints – environment and society" in this appendix.

Responsible for this are the Senior Vice President of Urban Transformation, the Senior Vice President of HR and Sustainability, the Senior Vice Presidents of the Northern and Southern Divisions, and the Senior Vice President of Sales and Logistics.

Boundary: Within LKAB and outside LKAB's operations.

Business ethics, including anti-corruption

LKAB's risks of corruption and inappropriate conduct are assessed as part of the Group's overall risk management. LKAB's values "Committed – Innovative – Responsible" and Code of Conduct, and its Instructions regarding Entertainment, Gifts and other Benefits, govern desired behaviour within the organization. For suppliers there is a separate Supplier Code of Conduct.

The Code of Conduct is available in Swedish, Norwegian, English, German, Dutch, Chinese and Turkish to meet the needs of the employees. Training in the Code of Conduct takes place continually using interactive materials. The number of employees that have completed the training is followed up on a quarterly basis. The training forms part of the introduction process for new employees. A reporting system for anonymous reporting of Code of Conduct violations was implemented in January 2016 for employees at LKAB, and in 2017 the system was opened up to external parties.

LKAB's Ethics Committee is responsible for ethics and anti-corruption issues. The Committee includes the General Counsel, Director of HR and Sustainability, and the CFO. Cases of corruption and arbitrary conduct are reported in the Annual and Sustainability Report.

Corruption: Cases where an employee has used their position in the company for personal gain.

Arbitrary conduct: Cases where there were consequences for an employee under labour law because of breach of the contract of employment.

Boundary: Within LKAB and outside LKAB's operations.

Emergency preparedness

The nature of the operations means that LKAB has a responsibility to prepare to deal with the unexpected. In particular, this applies to the Parent Company and production facilities. Plans and organization for managing various types of crises are in place, and training activities take place regularly. The Risk Committee and the Chief Risk Officer (CRO) are responsible for structure and for ensuring that training for crisis situations is conducted. Training and events are followed up and improvements are implemented into the procedures.

Each manager is responsible for the local crisis organization, and the organization is responsible for exercises and drills. The Senior Vice Presidents of the Northern Division and Southern Division are responsible for emergency preparedness in production, while the President has the ultimate responsibility for the Group. A special group-wide risk management function has been established with a Chief Risk Officer (CRO).

Boundary: Within LKAB and outside LKAB's operations.

Closure plan

LKAB is a major employer and generates employment outside of its own direct operations. Closure would mean significant change for the local community. Since the operations also affect the surrounding environment, the legislation requires remediation plans to be put in place already in the permit application process. In addition to plans, there is a budget to manage long-term consequences of mine decommissioning.

LKAB's remediation plans are governed by laws and requirements from authorities and aim to remediate the landscape so that it can again function as a nature area. In addition to statutory measures, LKAB strives to implement so-called ecological remediation. The remediation plan is an integral part of operating plans and is communicated to the permit-granting authority. The Senior Vice President of HR and Sustainability is responsible.

Boundary: Within LKAB.

Human rights

LKAB's social responsibility goes beyond what happens internally within LKAB and extends out to our local communities, our supply chain and our customers. In accordance with the owner's requirements of state-owned companies, LKAB works on risk analysis internally as well as for the entire value chain. The risk analysis is used to produce action plans in accordance with the policy on human rights that was adopted in 2016. A brief description of the policy on human rights is also included in the Code of Conduct and in the related interactive training.

Boundary: Within LKAB and outside LKAB's operations.

INDICATORS

The indicators of the GRI framework can be both descriptive and quantitative in nature. As far as possible, all of the material indicators are to be reported in the main document, LKAB's Annual and Sustainability Report 2017. A few indicators are reported in their entirety in the appendix, as indicated in the index, and in several cases additions or clarifications are made in the appendix.

Economic

G4-EC1 Direct economic value generated and distributed + Mining and Metals Sector Supplement

LKAB has no mines in countries included in the EITI (Extractive Industries Transparency Initiative). LKAB has extraction operations only in Sweden and Turkey.

Environmental

G4-EN12 Significant impacts on biodiversity

No new natural areas with known high biodiversity were utilized in 2017 in a way that could involve a risk of certain species being negatively affected either locally or regionally, or in such a way as to threaten the survival of a species. Read more about existing activities in the description of the DMA for Biodiversity.

G4-EN15 Direct carbon dioxide emissions

LKAB reports on the greenhouse gas carbon dioxide. The calculation methods are linked to national legislation and the EU Emissions Trading System.

The emissions are caused by fuels and additives used in pellet production and transport. Transport is not included in the monitoring for EU ETS, but is part of the monitoring of emissions and objectives reported in the Annual and Sustainability Report. The emission factors used for each fuel and additive are regulated through permits for carbon dioxide emissions.

G4-EN16 Indirect greenhouse gas (GHG) emissions

The indirect emissions of carbon dioxide are caused by electricity and are calculated using the electricity suppliers' emission factors. In 2017 electricity purchases in Norway and Sweden consisted of origin-labelled electricity from non-fossil sources.

G4-EN21 NO_x, SO_x and other significant air emissions

Determination of emissions to air and discharges to water is based on samplings regulated in self-monitoring programmes, measured water resources and, where applicable, calculations based on fuel consumed and emission factors or mass balance calculations. Mass balance calculations are completed for emissions from pellet production of SO₂, F and HCl. Both mobile and stationary sources are covered by environmental conditions and are included in the reported data.

More information on data measurement points and measurement techniques is available in LKAB's annual environmental reports and self-monitoring programmes submitted to supervisory authorities.

G4-EN24 Total number and volume of significant spills + Mining and Metals Sector Supplement

LKAB works continuously to identify and address risky situations or facilities where spills may occur through risk and incident reporting and risk analyses. The table below is included in the management and statistics. No spills occurred during the year which qualified for inclusion in the financial statements (defined as penalties or other losses with a significant impact on financial assets, such as a dam failure or similar). See the table below.

2017 G4-EN24 SPILLS	KIRUNA	MALMBERGET	SVAPPAVAARA	NARVIK	LULEÅ
Number of significant spills (reported to authority)	9	9	2	–	1
Volume (m ³)	10.6	1.8	11	–	1.5
Description of spills reported to authority	The spills occurred within the industrial area, remediation was carried out and no negative impact has been found.	The spills are not assessed to have caused any harm to human health or the environment since remediation measures were carried out.	Remediation was carried out for one of the spills. The other, which consisted of milk of lime, ran off into LKAB's tailings pond. Neither of the spills are assessed to have caused any harm to human health or the environment.	–	The leak has been stopped and LKAB is working to produce a plan for dealing with the contamination.



G4-EN29 Significant fines and other sanctions for non-compliance with environmental laws and regulations

LKAB was not subject to any fines or other sanctions in 2017.

G4-EN33 Environmental impacts in the supply chain, LA15 Labour practices in the supply chain, HR11 Human rights impacts in the supply chain

Since combined audits are carried out within LKAB and its subsidiaries, all reported data from the corresponding G4 items EN33, LA15 and HR11 are reported under this item. Audits were performed by the Purchasing and Sustainability departments at the Parent Company and by the subsidiary LKAB Minerals. Audits were performed in accordance with the table below.

2017	LKAB MINERALS	LKAB PARENT COMPANY	TOTAL
Report the number of suppliers audited with regards to:			
G4-LA15 Labour practices	33 (21 initial audits, 12 follow-up)	25 (19 initial audits, 6 follow-up)	58
G4-HR11 Human rights	33 (21 initial audits, 12 follow-up)	22 (16 initial audits, 6 follow-up)	55
G4-EN33 Environment	33 (21 initial audits, 12 follow-up)	23 (17 initial audits, 6 follow-up)	56
Report the number of suppliers identified as having significant actual and potential negative impacts on:			
G4-LA15 Labour practices	32	13	45
G4-HR11 Human rights	29	10	39
G4-EN33 Environment	29	10	39
Describe the significant actual and potential negative impacts identified with respect to:			
G4-LA15 Labour practices	Identified deficiencies in processes/procedures for pay, hours worked, overtime, time reporting. Also low standard of workers' accommodation and other workers' spaces. No active work relating to control of the supply chain.	Identified deficiencies in terms of employment, work environment, health and safety. Applies both to current operations and in particular subcontractors. Identified deficiencies in working hours, pay and documentation.	
G4-HR11 Human rights	Limited process for addressing grievances. Limited procedures for preventing child labour in the suppliers' operations or those of their subcontractors. Inadequate steering documents for business ethics, anti-corruption, discrimination and risk management.	Major deficiencies identified in the supply chain relating to forced and compulsory labour, no preventive work in the area of child labour. Failure to implement policies and procedures in the area of human rights.	
G4-EN33 Environment	Inadequate procedures for environmental management, such as energy saving. Deficiencies in permits from authorities relating to environmental impact. Deficiencies in inspection of dust generation, noise and waste in production facilities. Inadequate implementation of waste management.	Deficiencies in the indoor and outdoor environment. Deficiencies in chemicals handling, contamination of land with hazardous waste. Problems with emissions to air associated with the production process. Found both at supplier and their subcontractors.	
Report the percentage of suppliers identified as having impacts with which improvements were agreed upon as a result of assessment. State % in each area:			
G4-LA15 Labour practices	100%	100%	
G4-HR11 Human rights	100%	100%	
G4-EN33 Environment	100%	100%	
Report the percentage of suppliers identified as having impacts with which relationships were terminated as a result of assessment, and the reasons for this. State information for each area:			
G4-LA15 Labour practices	0	0	
G4-HR11 Human rights	0	0	
G4-EN33 Environment	0	0	

Number of grievances filed about: environmental impact (G4-EN34), human rights (G4-HR12), impacts on society (G4-S011)

No grievances concerning negative impacts on human rights were reported during the year other than as reported from supplier assessments under G4-HR11.

Both internal and external stakeholders were able to submit comments or complaints related to LKAB's operations. The comments may concern the environment, the work environment and labour rights, human rights, or community and supplier relations.

The comments can be submitted by telephone, email or post, through LKAB's whistleblower system SpeakUp, along the line, or via a trade union representative or health and safety officer.

RESULTS FOR LKAB IN 2017 FOR KIRUNA, MALMBERGET, SVAPPAVAARA, NARVIK	
Environmental grievances filed	
Total number of complaints filed concerning environmental impact	57
Number of identified complaints addressed during the period	54
Number of identified complaints resolved during the period	53
Number of previous complaints resolved during the period	0
Grievances filed about social impacts	
Total number of claims filed during the period	12
Number of claims addressed during the period	12
Number of claims accepted during the period	0
Number of claims rejected during the period	4
Number of previous claims accepted during the period	0
Number of previous claims rejected during the period	1
Grievances filed about urban transformation	
Report the total number of complaints relating to communities	9.0
Number of complaints addressed during the period	9.0
Number of complaints accepted during the period	8.0
Number of complaints rejected during the period	0.0

Social responsibility – labour practices and decent work

G4-LA1 Total number of employees and employee turnover

METRICS	RESULT 2017
Number of newly recruited permanent employees	311
Percentage of newly recruited permanent employees who are women	25%
Number of external recruitments in relation to permanent employees as of 31 December previous year	7.69%
Number of external departures in relation to permanent employees as of 31 December previous year	7.10%
Number of permanently employed women who left during the year	55
Number of permanently employed women aged <30 who left during the year in the region Sweden/Norway	8
Number of permanently employed women aged 30–50 who left during the year in the region Sweden/Norway	26
Number of permanently employed women aged >50 who left during the year in the region Sweden/Norway	10
Number of permanently employed men who left during the year	231
Number of permanently employed men aged <30 who left during the year in the region Sweden/Norway	30
Number of permanently employed men aged 30–50 who left during the year in the region Sweden/Norway	70
Number of permanently employed men aged >50 who left during the year in the region Sweden/Norway	100

Labour/management relations

G4-LA4 Minimum notice periods regarding operational changes, including whether these are specified in collective agreements

The notice period in connection with organizational changes in the Group varies, but complies with applicable legislation, working methods and procedures. In the case of organizational changes discussions take place with the trade unions at an early stage and LKAB supports employees by producing a social action plan that is adapted to local conditions. The action plan may include assistance with finding other suitable work within the Group or with looking for new work and/or training. Other tools include severance pay, early retirement and financial incentives to those who find new jobs within the notice period. The support services may take the form of individual careers advice or administrative support.

G4-MM9 RESETTLEMENT, DWELLINGS AND RESIDENTS

Report the number of households resettled	52
Describe the approach (process) and measures taken to prevent negative consequences of resettlement for those affected	LKAB Fastigheter works to inform the tenants with plenty of notice and if possible starts the dialogue five years before resettlement has to take place. The resettlements are managed based on the tenants' own choices and resettlements within existing housing stock. LKAB's compensation rules provide for gradual rent increases over an extended period of eight years, with full rent being paid by the tenant from the ninth year.
Report significant disputes that have arisen in the process and how these were resolved	No particularly significant disputes have been reported. There are procedures that LKAB Fastigheter uses as needed for what are known as special (sensitive) cases which occasionally arise among the individual tenants affected.

G4-LA6 Injuries, occupational diseases, lost days, absenteeism and work-related fatalities

METRICS	RESULT 2017	COMMENTS	BOUNDARY
Reported occupational diseases per 1,000 employees	7.4		Sweden
Number of accidents leading to absence, employees	61		Group-wide
Number of accidents leading to absence, women	11	Gender of injured is only indicated in Sweden and Norway. It is not mandatory to report this for external/hired-in staff.	Sweden/Norway
Number of accidents leading to absence, men	48	Gender of injured is only indicated in Sweden and Norway. It is not mandatory to report this for external/hired-in staff.	Sweden/Norway
Number of accidents leading to absence, Sweden/Norway	59		Sweden/Norway
Number of accidents leading to absence, other countries	2		Other countries
Number of accidents leading to absence, contractors	18		Sweden including LKAB Minerals
Fatalities due to occupational accidents, employees	0		Group-wide
Fatalities due to occupational accidents, contractors	0		Group-wide
Accident rate, calculated as number of accidents leading to absence per million hours worked	6.7	The 2021 target is maximum 3.5 accidents per million hours worked. Result based on monthly reports. Effective from 2017 contractors' accidents are also included in monitoring.	Group-wide
Most common type of injury		Of all accidents, with and without absence, finger injuries are the most common. If only accidents leading to absence are measured, foot/ankle injuries are the most common type.	Group-wide
Number of working days lost due to accidents	946		Group-wide, excluding LKAB Minerals

G4-LA12 Diversity among the Board, Group management and workforce

METRICS	2017	2016
Percentage of women in LKAB's management team	22	22
Percentage of women in LKAB's Board of Directors	27	27
Percentage of women in LKAB's workforce	21	21
Average age, LKAB's management team	53	52
Average age, LKAB's Board of Directors	57	60

INDIVIDUALS BORN ABROAD, 2017, ACCORDING TO DATA FROM STATISTICS SWEDEN

AGE	2017
Percentage with a foreign background, total	7.0
Percentage with a foreign background, women	7.9
Percentage with a foreign background, men	6.8
Percentage with a foreign background, <35 years old	4.0
Percentage with a foreign background, 35–54 years old	8.3
Percentage with a foreign background, >55 years old	9.3
Percentage with a foreign background, white-collar	10.2
Percentage with a foreign background, blue-collar	5.7

Deviation: Individuals born abroad stated only for the whole of the Swedish operations.

PERMANENT EMPLOYEES IN SWEDEN

AGE	2017	2016
<25	175	191
25–29	458	455
30–34	454	428
35–39	388	377
40–44	396	428
45–49	513	561
50–54	590	560
55–59	431	460
>60	187	225

Social responsibility – human rights

G4-HR8 Incidents of violations involving rights of indigenous peoples

No violations of rights of indigenous peoples were reported in 2017.

G4-HR9 Operations that have been subject to human rights reviews or impact assessments

Group-wide training material and documentation for risk analysis in respect of human rights was produced and implemented in 2017. All the Group's management teams have completed training in human rights and seven of the nine management teams have completed a human rights risk analysis for their operations. The material is based on international guidelines and LKAB's policy on human rights, and is intended to shed light on risks internally and externally throughout the value chain.

Additional Sector Disclosures: Mining and Metals

G4-MM2 Biodiversity management plans

LKAB conducts operations at six sites close to protected areas or areas with high biological status. These are the operations in Kiruna, Svappavaara, MalMBERGET, Mertainen and Masugnsbyn, and one site in Turkey. (Gruvberget/Leveäniemi have the same landfill area as Svappavaara, and are therefore considered part of the same site in this context.)

All the sites, apart from that in Turkey, are covered by Swedish environmental legislation. The Swedish sites, which account for 83 percent of LKAB's production, are covered by the Group's guidelines for land use. The guidelines state that what is known as the mitigation hierarchy is to be applied as far as possible. In addition, there are management and compensation plans for Mertainen and parts of Svappavaara (new landfill area Svappavaara). In connection with the future ending of LKAB's mining operations there are currently

remediation plans for the operations and LKAB is in the process of producing guidelines for greener remediation, with the aim of increasing the value of the land more quickly in terms of nature conservation values and value for reindeer husbandry.

There is no separate biodiversity management plan for the LKAB Minerals quarry in Turkey. The site is located on forest land owned by the Turkish government. To receive permits and the necessary licences to operate in this area, LKAB Minerals must compile environmental reports that include a section on flora and fauna. This states which species are in the licence area and that these species are not affected by LKAB Minerals' activities. Once mining has ended the area will be redesigned in a way that allows it to be replanted with trees. The replanting will be carried out by the forestry ministry and LKAB Minerals is responsible for the cost, as part of the original permit for operating in the area.

G4-MM5 Total number of operations taking place in or adjacent to indigenous peoples' territories, and formal agreements with indigenous peoples' communities

LKAB has signed cooperation agreements with the three Sami villages that have reindeer pasture areas bordering LKAB's mining operations based on the principle of Free, Prior and Informed Consent (FPIC).

G4-MM10 Plan for closure

LKAB has six active mining and pit operations with closure/remediation plans in accordance with environmental permits; five in Sweden and one in Turkey. LKAB thus has closure/remediation plans for 100 percent of these operations. LKAB has allocated a total of MSEK 1,276 for remediation for all the sites.

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MM = Mining and Metals Sector Disclosures

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