

Viability performance

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Quick overview

This chapter includes relevant information related to Hydro's approach to environmental and social performance as well as innovation and design thinking.

More quantitative information is included in the Viability performance statements later in this report. It consists of Hydro's environmental and social statements with notes.

We have an integrated approach to our reporting, and our Viability performance should be seen in context with the other parts of Hydro's Annual Report 2019.

Hydro reports in accordance with the GRI Standards' "Core" option. Please see our GRI index at www.hydro.com/gri

Viability - The Hydro Way

The Hydro Way is our approach to business. It's an approach that has lived within Hydro since 1905 and guided our development over the years. The Hydro Way originates from our company's identity – our unique set of characteristics – and constitutes a way of doing things that differentiates us from other companies. As part of the integration of Extruded Solutions following the acquisition of Sapa in 2017, The Hydro Way was updated in 2018 to better reflect the new identity of the company.

The Hydro Way explains how we run our business through:

- Our purpose
- Our values
- Our operating model

These principles help us set priorities and serve as a reference point when questions arise. Our purpose is supported by our values and defines how we conduct our business:

Hydro's purpose is to create a more viable society by developing natural resources into products and solutions in innovative and efficient ways.

In order to ensure a uniform high standard, Hydro's constituting documents and global directives lay down requirements for our operations, see page 123.

All elements of Hydro's viability performance are integrated in Hydro's overall group strategy. In addition, we have specific support strategies e.g. on climate change, environment and people - as described in this section.

Hydro has been listed on the Dow Jones Sustainability Indices (DJSI) each year since the index series started in 1999. We are also listed on the corresponding UK index FTSE4Good, and the UN Global Compact 100 stock index.

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Our reporting approach

We have based our viability reporting on The Hydro Way since 2004. Together with risk analysis and an extensive stakeholder dialogue we have defined the main elements of our reporting:

- Energy and climate change
- Environmental impact management
- Ensuring a culture of compliance and integrity
- Human rights and community impact
- Organization and work environment
- Innovation and design thinking

We use the GRI Standard 101 (2016) in defining which lower-level topics and indicators that are material to report upon. The analysis is also based on our continuous stakeholder dialogue with key stakeholders and collected and evaluated by relevant specialists and leaders. The materiality analysis is updated annually, to reflect internal and external developments, and approved by Hydro's Corporate Management Board.

The most material aspects related to our viability performance are all included in the Board of Directors' report, which gives a high-level overview of Hydro's strategic direction, strengths and challenges. This information is further elaborated in other parts of this annual report and in the GRI index at www.hydro.com/gri

The information has been reviewed by Hydro's Corporate Management Board, which has also approved this annual report. The board of directors has approved the complete Board of Directors' report including the country-by-country report and the UK Modern Slavery Act transparency statement. Read more about our reporting principles and materiality process on page 221.

The Viability performance section should be read in context with the other parts of the annual report, in particular:

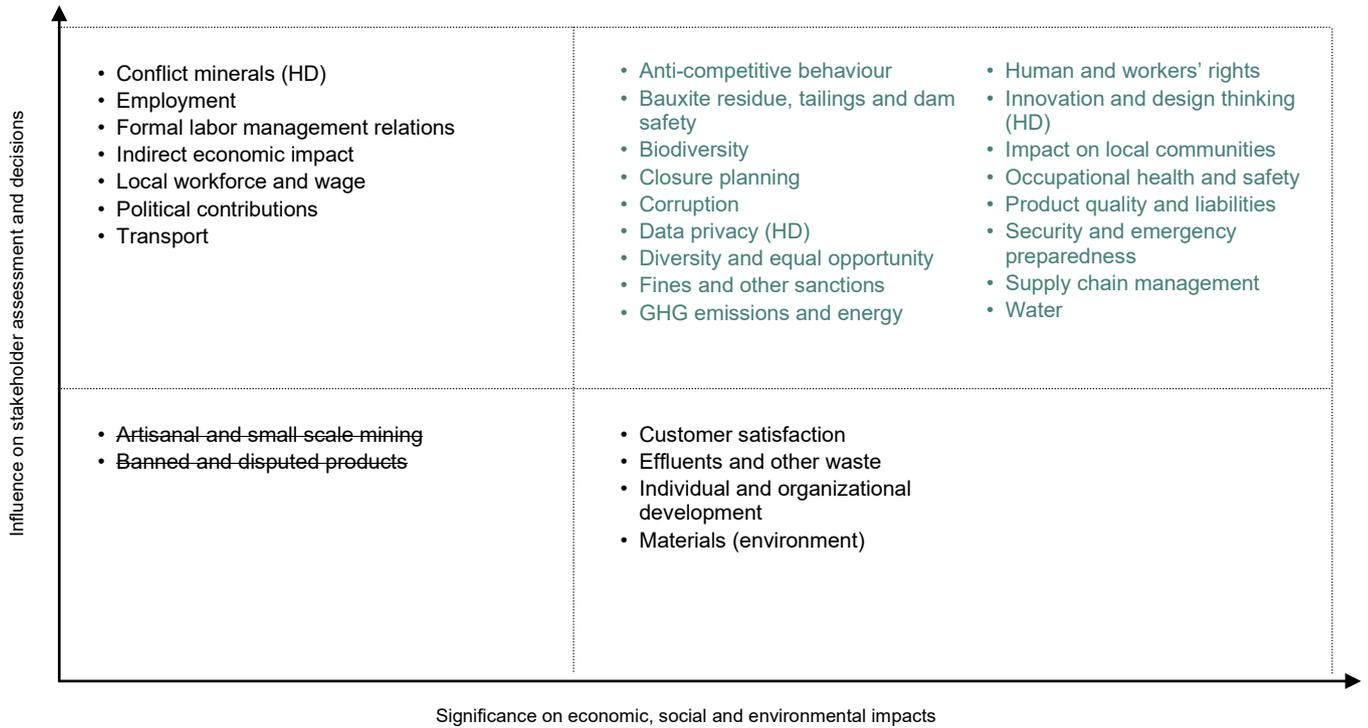
- Letter to shareholders on page 8
- Board of Directors' report on page 12
- Business description on page 35
- Performance and targets on page 69
- Risk review on page 105
- Corporate governance on page 122

In 2019, Hydro launched a new strategic agenda aiming to lift cash flows and returns with extensive improvement and restructuring efforts across its business areas, while highlighting sustainability as a basis for the company's positioning, see more on page 69. This has succeeded the Better, Bigger, Greener program launched in 2016, see page 102 for a status on the mid-term strategic goals linked to this program.

The underlying details in the reporting are based on different reporting frameworks that are important to us, including the UN Global Compact, the GRI Standards, the International Council on Mining and Metals' (ICMM) 10 principles and Position Statements and the Aluminium Stewardship Initiative's (ASI) 11 principles and underlying criteria. The GRI index at www.hydro.com/gri also shows Hydro's adherence to the UN Global Compact, ICMM and how we relate to ASI, UN Sustainable Development Goals and UN Guiding Principles on Business and Human Rights - and shows how the different frameworks connect with each other.

Hydro’s materiality analysis 2019

Topics are prioritized in four quadrants, but not prioritized internally in each quadrant



The matrix is based on the GRI Standard 101 Foundation 2016 and has been approved by Hydro’s Corporate Management Board. The green topics represent those that are most material to Hydro, while topics that are strikethrough, are considered not material. We have chosen to merge and rename certain aspects in the matrix to make the titles more relevant to Hydro and thus also more intuitive to our stakeholders. An overview of these changes can be found on www.hydro.com/gri

The main changes compared to 2018 are:

- The topic “Effluents and waste” has been renamed “Effluents and other waste” and classified as material topic
- “Tailings and dam safety” were added to most material topics, and merged with waste and renamed “Bauxite residue, tailings and dam safety”

Topics marked (HD) are defined by Hydro in addition to the GRI defined topics.

Energy and climate change

Alumina refining and electrolysis of primary aluminium are energy-intensive processes, and constitute the majority of Hydro's greenhouse gas (GHG) emissions. The energy source is a decisive factor on relative as well as total emissions. On the other hand, aluminium can save significant amounts of energy and GHG emissions in the use phase.



Climate change

Hydro launched a new climate strategy towards 2030 in 2019, as our carbon neutral strategy is coming to an end in 2020. Hydro's overarching ambition towards 2030 is to reduce the global climate impact of our value chain through greener sourcing, greener production and greener products. We aim to reduce our own emissions by 30 percent in 2030 and explore different paths towards further significant emissions reductions by 2050. Through greener sourcing and greener production, we also aim to help our customers in reducing their emissions through providing greener products.

Our new strategy puts more emphasis on reducing own emissions. Changes in our production portfolio might influence these targets, but our aim is still to reduce our specific emissions. We have set targets to reduce greenhouse gas emissions by 10 percent by 2025 and 30 percent by 2030, based on a 2018 baseline (2017 for Paragominas, Alunorte and Albras due to the production embargo at Alunorte and curtailment at Albras and Paragominas). The baseline emissions equal 13.3 million tonnes CO₂e and includes direct emissions and indirect emissions from electricity generation (scope 1 and scope 2 emissions).

The timing is dependent on implementation of specific projects and the reduction is thus not anticipated to be linear from year to year. In order to have a greener production, we are looking into projects for significant emissions reductions at Alunorte through a greener energy mix. We are also looking into improvement potentials throughout our organization.

The element greener sourcing in the new climate strategy, refers to Hydro's position as a purchaser of raw materials and energy. Hydro has the opportunity to source less carbon-intensive electricity and cold metal with a lower carbon footprint. We also have the opportunity to increase the use of post-consumer scrap in metal production.

Innovation and technology development are key enablers towards reducing CO₂ emissions. We have initiated a significant R&D program towards 2030 to look into different alternatives to achieve CO₂-free processes. We will explore different paths such as carbon capture and storage, biomass anodes and carbon-free processes. By 2030 we expect to have a clearer view on a path to further significant emission reductions by 2050.

In 2018, Hydro concluded a review of its climate-related risks, including physical, technological, commercial, legal and reputational risk. The review forms the basis for scenario analyses and the updated climate strategy.

Since 2013, Hydro's ambition has been to be carbon neutral in a life cycle perspective. Carbon neutrality can be defined in many ways, and we define it as a balance between the direct and indirect emissions from our own operations, and the savings of applying our metal in the use phase.

Hydro's climate strategy is an integral part of our overall business strategy, aiming at driving improvements and development within the company. Consequences to the climate strategy is also a criterion for all significant investment decisions. The strategy includes reducing the climate impact of our operations as well as taking advantage of business opportunities by enabling our customers to do the same.

The key focus areas of our carbon neutral 2020 strategy have been:

- Increased production of primary aluminium in Norway, based on hydropower
- Increased recycling
- Increased deliveries to the automotive sector

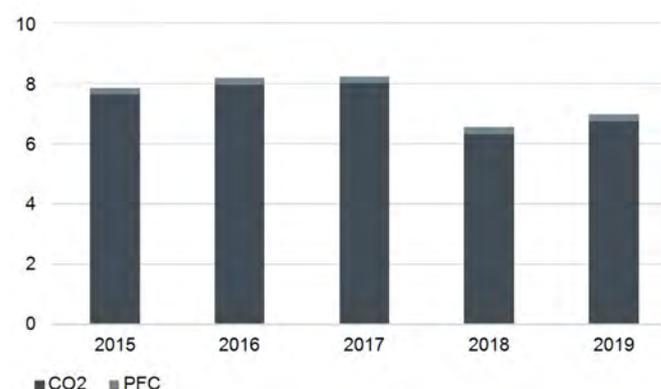
Hydro became carbon neutral in a life cycle perspective in 2019.

For more information about Hydro's climate model, see <https://www.hydro.com/globalassets/04-sustainability/hydroclimatemodel.pdf>

On December 12, 2019, Norsk Hydro ASA signed a USD 1,600 million revolving multi-currency credit facility with the margin linked to Hydro's greenhouse gas emission target. The margin under the facility will be adjusted based on Hydro's progress to meet its target to reduce greenhouse gas emissions by 10 percent by the end of 2025.

Direct greenhouse gas emissions from Hydro's consolidated activities

Million mt CO₂e



Emissions in 2018 decreased due to the embargo at Alunorte, and curtailment at Albras and Paragominas. This is partly reversed in 2019 due to the lifting of the embargo and ramp-up of production.

Hydro is a signatory to the Task Force on Climate-Related Financial Disclosures (TCFD). See page 262 for more information.

Using viable energy sources, reducing emissions and energy consumption

The overall carbon footprint of primary aluminium is highly dependent on the source of energy used to produce the metal. The energy source available is a determinant for localization of Hydro's investments and for the carbon footprint of the metal produced. More than 70 percent of the electricity used in Hydro's production of primary aluminium is based on renewable power.

In order to ensure continued supply of renewable power to Hydro's operations in Norway, Hydro has entered into several long-term power sourcing contracts over the recent years, replacing contracts expiring in 2020. The total contracted volumes (wind and hydropower) amount to approximately 8.5 TWh per year for the period 2021 to 2030, with a majority of contracts coming into effect from 2021. For more information please see Energy in the Business description section in this document.

The Qatalum aluminium plant in Qatar has natural gas as its energy source. The International Panel on Climate Change recognizes natural gas as an important transition fuel that can help reduce global temperature increases. Hydro owns 50 percent of Qatalum. Our share of Qatalum's production represents about 15 percent of our total primary metal production capacity.

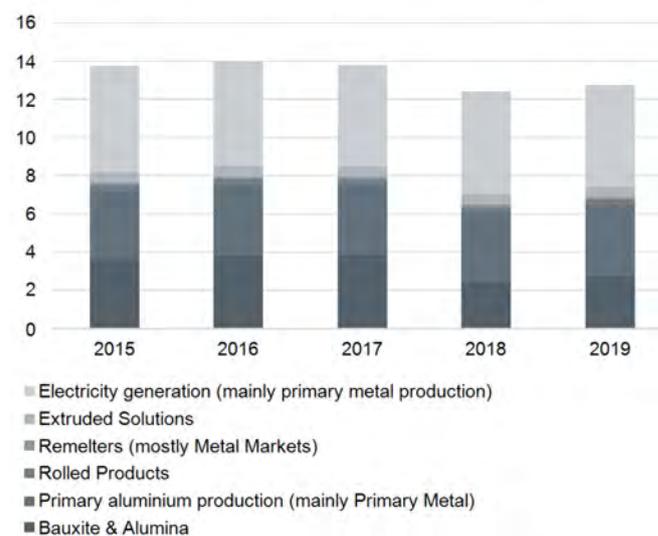
Energy efficiency is an important part of Hydro's ongoing efforts to reduce costs and air emissions. In addition to reducing our greenhouse gas emissions, we have launched a new target to reduce non-greenhouse gas emissions (NO_x, SO_x, and particulates) by 50 percent by 2030.

Our Alunorte alumina refinery in Brazil is among the most energy-efficient refineries in the world. Switching part of our fuel oil consumption at Alunorte to lower-emission and more cost-efficient natural gas is an important enabler to reach our emission reduction targets. Another enabler is an increase in renewable power in our energy mix.

Average electricity consumption at our consolidated smelters was 14.2 kWh per kilogram primary aluminium produced in 2019, impacted by the ramp-up at the aluminium smelter Albras. The global average is about 14 kWh. The Karmøy technology pilot in Norway is currently testing Hydro's next generation smelter technology with potential electricity reductions of 10-14 percent, see section Innovation and design thinking, page 100. The Karmøy technology pilot is testing this technology on an industrial scale.

Greenhouse gas emissions from Hydro's ownership equity

Million metric tons CO₂e



Emissions in 2018 decreased due to the embargo at Alunorte, and curtailment at Albras and Paragominas. This is partly reversed in 2019 due to the lifting of the embargo and ramp-up of production.

Reducing CO₂ emissions through the use of our products

Aluminium has significant carbon footprint benefits in its use phase, especially due to its lightweight properties. As Hydro has limited production of end-consumer goods, the calculation of use-phase benefits can only to some degree be based on product specific data. We therefore use acknowledged, independent LCA (Life Cycle Assessment) studies to calculate the use-phase benefits in combination with product shipment data. Use-phase benefits can best be documented in the automotive sector.

We work closely with customers to develop products that save energy and reduce emissions. Examples include lighter transportation, better packaging to reduce cooling needs and food spoilage, and aluminium façades that lead to lower operating costs and enable buildings to generate as much energy as they use during operation.

In 2019, we launched the two low carbon brands Hydro REDUXA and CIRCAL which comes with a guarantee of low carbon footprint and high recycled content of post-consumer scrap.

Increasing recycling of aluminium

The inherent properties of aluminium make recycling attractive. It can be recycled infinitely without degradation in quality, and recycling requires 95 percent less energy than primary aluminium production.

Hydro is a large remelter and recycler of aluminium. We remelt process scrap from our own production and from other companies, as well as post-consumer scrap from the market.

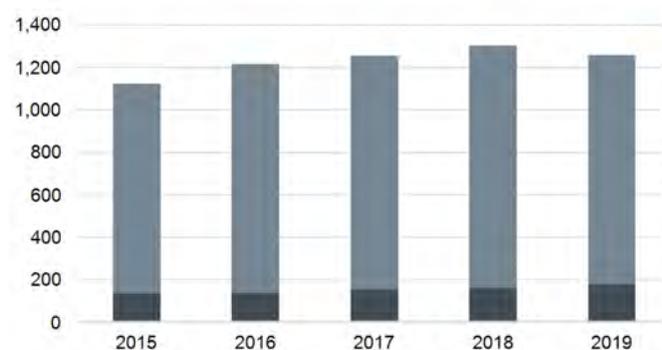
A new recycling line at our Azuqueca plant in Spain will be commissioned and ramped up during 2020. It will be modelled as a next generation of our recycling facility in Clearvaux, Luxembourg. This, in combination with an upgrade at Clearvaux and the remelter Deeside, UK, will add up to 30,000 tonnes of post-consumer scrap recycling capacity, increasing our total capacity from 175,000 tonnes per year at the end of 2019.

We have further improved processes to combine clean scrap with post-consumer scrap recycling. The technology is rolled out to Hydro's remelting and recycling plants. These investments will increase our post-consumer scrap capacity by up to 20 percent at each plant. Hydro's patented technology in scrap shredding and sorting is under further development, making it possible to produce high-quality extrusion and sheet ingot from post-consumer building and automotive scrap. Our Hydro CIRCAL product line offering aluminium with 75 percent post-consumer scrap and has among the lowest carbon footprint in the aluminium industry. For CIRCAL, the capacity utilization was full in 2019, and we expect this to continue in 2020.

To further develop the sorting process of aluminium scrap into alloys, we installed a pilot line in the R&D center in Bonn, Germany, in 2017. To develop a proven business case for further investments across Hydro's business areas, we will install an industrial pilot line at Hydro's scrap sorting facility St. Peter in Germany during first half of 2020.

Recycling

Thousand mt



■ Recycled post-consumer scrap ■ Recycled pre-consumer scrap

Environmental impact management

The goal of our new 2030 environmental strategy is to minimize our impact along the aluminum value chain by addressing the industry's key environmental challenges. We aim to do so by driving rehabilitation at our bauxite mine, developing and implementing sustainable management solutions for our tailings and bauxite residue streams while reducing our waste to landfill from our downstream operations and significantly reducing our non-GHG emissions to air.

Hydro's bauxite mining and alumina refining activities in Pará in Brazil, in the Amazon basin, include open pit mining and the handling of significant amounts of tailings and bauxite residue, the latter also known as red mud. Land and water body conservation and restoration is of particular importance for Hydro's bauxite and alumina operations in Pará state in Northern Brazil and for Hydro's hydropower operations in Norway, please see section Operations – Energy on page 60. Hydro has primary aluminium production in Australia, Brazil, Canada, Germany, Norway, Qatar and Slovakia.



In addition to the existing climate and recycling strategies, we prioritize the following areas:

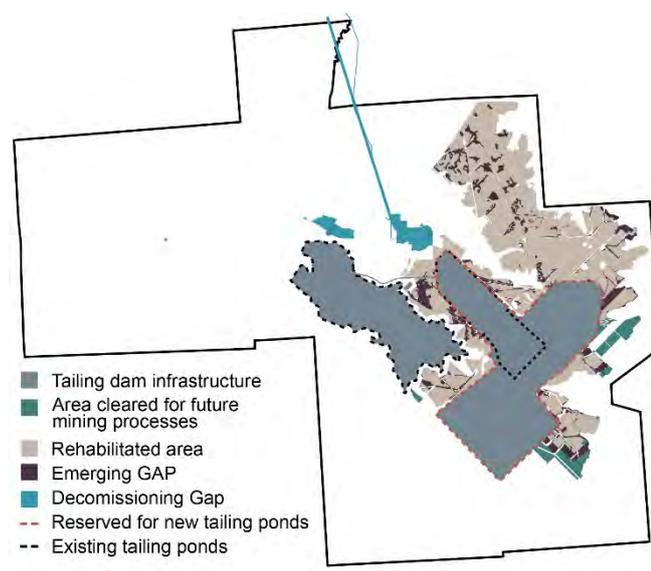
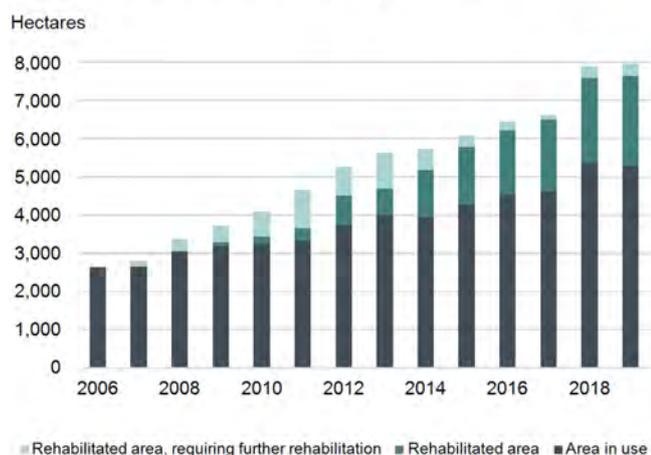
- Ecosystems and biodiversity
- Water stewardship
- Waste and efficient resource use
- Product stewardship

Ecosystems and biodiversity



Hydro's bauxite mine, Paragominas, is located in the state of Pará in Northern-Brazil, in the Amazon Basin. The rehabilitation target in our mining areas provides a driver for rehabilitation. It is a rolling target, aiming for a 1:1 rehabilitation of mined areas available for rehabilitation over two hydrological seasons after release. This definition takes into account the nature of the mining and rehabilitation cycles, and the time lag necessary to ensure quality rehabilitation to restore biodiversity. It also takes into account that land periodically needs to be set aside for temporary infrastructure, e.g. roads, in order to safely operate the mine.

Land use and rehabilitation - Paragominas



When tailings dams are closed, they need to settle for at least five years before they will be available for rehabilitation. We will then get a new rehabilitation gap. This will differ from the rehabilitation gap that Hydro adds to on a daily basis as a result of its mining (due to the specific nature of tailings) and will require a tailor-made rehabilitation strategy.

To increase our knowledge and secure a science-based approach to rehabilitation, the Biodiversity Research Consortium Brazil-Norway (BRC) was established in 2013. Learn more about our partnerships on page 90.

Hydro uses three different methods for rehabilitation in Paragominas, based on different needs:

- Traditional rehabilitation
- Natural vegetation
- Nucleation method

Hydro has used the nucleation method in Paragominas since 2013. Topsoil is unevenly distributed to simulate natural landscape and trap rainwater. Piles of cut wood are distributed, creating shelters for animals and improving growing conditions for some plant species. The ambition is to establish a forest system of the same structure that is

typical of the forest in the area and to secure as much biodiversity as possible. The method has been approved for testing in MRN and Paragominas by the relevant environmental authorities and is showing encouraging results.

All of our hydropower reservoirs are located within or in close proximity to national parks and other protected areas in mountainous regions in southern Norway, including Hardangervidda and Jotunheimen. We strive to minimize the potential environmental impacts associated with Hydro's operations including changes in aquatic and terrestrial habitats along the waterways and impact on recreation and tourism. See section Operations – Energy on page 60 for more information.

When developing new projects, we perform an environmental risk analysis as part of our impact assessment, following internationally recognized guidelines, see more on page 88.

Water

Our main interaction with water bodies comes as a result of discharges to the external environment, primarily in Brazil (to rivers) and Norway (to rivers, lakes and fjords). Where the authorities deem it appropriate, these discharges are regulated by relevant permits. Water withdrawal of groundwater from our own wells and through public water works may in addition have an effect on life below water.



Hydro use the WRI Aqueduct water tool to perform an annual review of water withdrawal from water-stressed areas. The mapping of Hydro's sites in 2019 showed that 2 percent of our overall fresh-water input came from water-stressed areas, with regard to annual renewable water supply (according to the definition used by WRI).

In 2017, Hydro developed a basic water risk analysis tool, covering water use and discharge, to be applied across key operations. Preliminary findings supported the results of the WRI Aqueduct tool - operating in water-stressed areas is not a material risk for Hydro's key operations. Instead, the more material risks are linked to the management of excess water and the quality of the external bodies into which Hydro discharges process water. As a first step towards implementing risk-based water management targets and increased local stakeholder engagement, Hydro is strengthening current water reporting and management practices. We aim to have implemented industry best practice water reporting by 2021.

Qatalum in Qatar relies on public water supply produced by desalination. Seawater is used for wet cooling towers at the power plant as well as for wet scrubbers at the potline fume treatment plants.

Our alumina refinery Alunorte in Brazil obtains an important part of its water supply through the bauxite slurry that is transported from Paragominas by pipeline. Paragominas' and Alunorte's water use is close to their current regulatory limits. To learn more, see note E2.3 to the environmental statements. Based on new hydrological studies of the Parariquara river, Paragominas' water extraction permits were revised in 2018. However, water collection can still be an issue if a new third-party user requests water extraction from the same watershed. If so, a new license will be needed for an additional extraction point.

The Norwegian Environment Agency has required Hydro to clean up historical contamination in the Gunnekleiv Fjord by 2022. The work is progressing according to the plan. We are exploring alternative methods in cooperation with the relevant authorities.

For more information about the impact of our water reservoirs related to hydropower production, please see section Operations – Energy on page 60.

Waste and efficient resource use



Our goal is to minimize the amount of waste produced, and then reuse or recycle it. When this is not possible, we shall deposit it in a secure way to minimize adverse effects to people and the environment.

Tailings and bauxite residue

Tailings from bauxite extraction consist of mineral rejects from the extraction process mixed with water and flocculants. The tailings at Paragominas are stored in dedicated tailings dams, where the particles settle. Run-off water is collected in a separate water pond and reused. The water pond prevents overflow to the river during heavy precipitation. The run-off water is monitored, and the water quality meets the requirements set by the authorities.

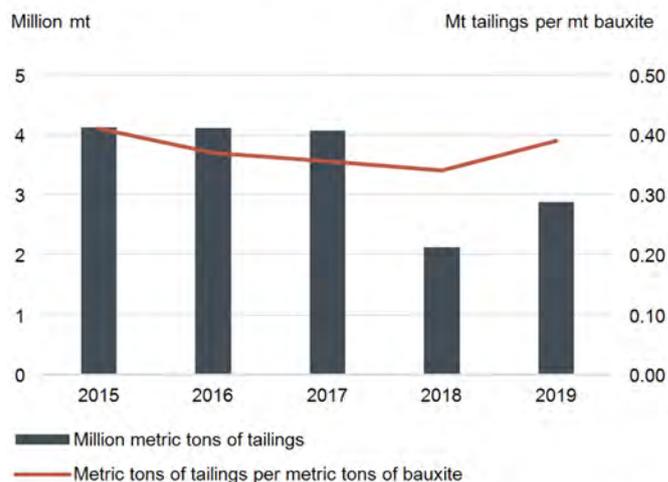
In Paragominas, a new tailings system was completed in 2017. The new tailings dam is situated on a plateau where mining has been finalized. The old tailings system is constructed in a shallow valley. When tailings dams are closed, they need to settle for at least five years before being available for rehabilitation.

Bauxite residue is a waste product of the alumina refining process. Its disposal is challenging due to large volumes and the alkaline nature of the liquid component of the residue. The residue is washed with water to lower the alkalinity and to recover caustic soda for reuse. Hydro uses an enhanced dry stacking technology for disposing of bauxite residue which allows for residue storage at steeper slopes, reducing the disposal area requirements. This reduces the relative environmental footprint. The new bauxite residue deposit area at Alunorte includes more advanced press filters. These are capable of reducing the residue moisture content to 22 percent, down from 36 percent achieved with the previous drum filter technology.

Alunorte will perform a socioeconomic study on possible impacts of the new bauxite residue storage area. If the study indicates a need for compensatory measures, such measures

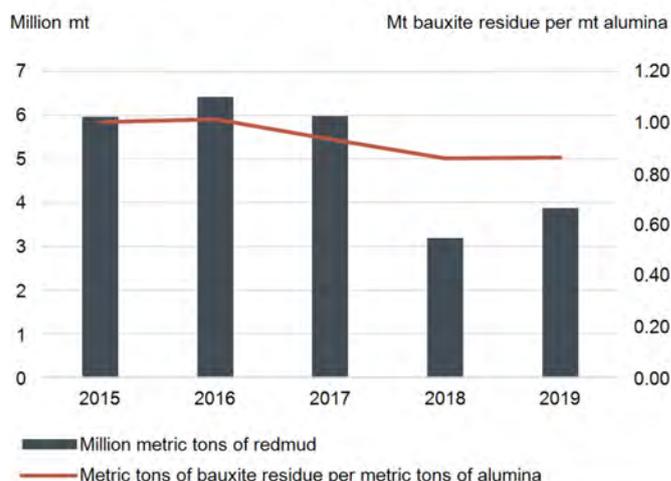
shall aim to contribute to sustainable and long-term improvements in potentially affected communities. Moreover, Alunorte is committed to involve Ministério Público Federal in the potential necessary updates of the environmental license

Tailings from bauxite production



Tailings production decreased significantly in 2018 due to the Paragominas curtailment. This is partly reversed in 2019 due to the lifting of the embargo and ramp-up of production.

Bauxite residue from alumina production



Bauxite residue production decreased significantly in 2018 due to the Alunorte embargo. This is partly reversed in 2019 due to the lifting of the embargo and ramp-up of production.

The dams and deposits are regularly inspected by Hydro and the Brazilian authorities. They have also been reviewed against international standards by external international geomechanical consultants NGI and Geomecanica. The last site visit by NGI and Geomecanica took place in 2016. The resulting actions points were prioritized and are currently in the process of being closed. The majority have been closed successfully, with a smaller number still outstanding.

The tailings storage facilities at Paragominas are raised exclusively using the downstream elevation method, with the exception of one relatively short and low centerline raising at the very top of the dam. The downstream elevation method

provides the greatest level of structural integrity and safety. In addition, the tailings stored in our Tailings Storage Facilities are of a higher solids content (ca 55-60 percent solids content) than that generally found in the iron ore industry (e.g. Samarco and Brumadinho).

Safe operations in compliance with regulatory requirements are crucial for Hydro. The Paragominas dams are stable and regularly monitored and audited by external experts. The dams meet all parameters of current environmental and mining legislation.

Hydro is also a 5 percent shareholder in Mineração Rio do Norte (MRN)¹⁰, where the tailings disposal process is designed to allow tailings to achieve a final solids content similar to that of Paragominas. MRN is the operator of the mine and is responsible for the management of its tailings system. Hydro works with MRN and the other shareholders through the board of directors and relevant technical committees to require the safe operation of MRN's tailings ponds in accordance with applicable laws and standards.

Hydro's tailings storage facilities and bauxite residue storage areas are operated in line with all relevant regulations; however following the extreme rain event in February 2018, the free board levels at DRS1 were exceeded for a few days, leading to a production embargo at Alunorte. We also follow voluntary best practice and audits are conducted by international third parties. Following the Brumadinho tragedy in January 2019, Hydro reviewed its tailings storage facilities to ensure continued safe operations and management. Hydro continues to work on improving its tailings management practices and collaborate with relevant stakeholders. Hydro participated in the tailings storage facilities disclosure request initiated by investors and co-chaired by the Church of England pension board in the first half of 2019. Hydro is also participating in the drafting of a new International Standard for Tailings Storage Facilities through our membership in ICM, which is one of the three co-conveners of the International Standard alongside UN Environment Program (UNEP) and PRI, an investor initiative in partnership with UNEP Finance Initiative and UN Global Compact.

Hydro participates in international collaboration projects investigating possibilities to use bauxite residue as a resource. See the section Innovation and Design Thinking later in this report. Hydro has launched a new target to utilize 10 percent of bauxite residue generated from 2030. In addition, we are supporting a PhD candidate in advanced closure management of bauxite residue deposits.

Other waste and emissions

Hydro launched an ambition in 2012 to reduce landfilling of total waste – excluding tailings and bauxite residue – by 60 percent within 2020 from a 2010 baseline. This target has not been reached, primarily due to the too broad scope. Going forward we will have a more targeted approach and aim to recycle 65 percent of our spent pot lining (SPL) by 2030, and find more sustainable solutions for our waste streams, identifying where they can be utilized as a resource.

SPL, or cathode waste, is generated from the electrolysis cells used in primary aluminium production. The production of SPL varies with the relining of electrolysis cells, which is normally done every 4-7 years for established aluminium plants. New plants will get relining peaks at the same interval after start-up. For information about SPL production, see note E5.2 to the environmental statements.

Since 2012, some of the anode waste has been used by Norcem cement plant in Brevik, Norway (part of Heidelberg Cement). The carbon material from Hydro is being used as an alternative fuel in the production process, where high temperature incineration ensures safe treatment of any hazardous components.

Hydro has an agreement with a refractory supplier to recycle part of the bricks coming from relining the anode baking furnace.

Qatalum delivers all first-cut SPL, which is the most energy-rich and contaminated part of the SPL, to its neighbor Qatar Steel, which uses it in its production. In addition, Qatalum has developed in cooperation with local cement plants a solution for co-processing of second-cut SPL.

Albras has a significant stock of SPL. This is being reduced according to the annual plan and target, and being delivered to the cement industry in Brazil.

These agreements are examples of efficient resource use that is sound for the environment by substituting fuel or raw materials while reducing landfill and saving landfill costs.

Proper handling of SPL and other waste is a part of the planned rehabilitation work at Hydro's former aluminium plant in Kurri Kurri, Australia, where production ended in 2012. Hydro has agreed to sell the site of its closed Kurri Kurri smelter in Australia to a joint venture of local property and residential land developers Stevens Group and McCloy Group.

Dross is a mixture of metallic aluminium, alloy components and metal oxides that is formed on the surface of liquid aluminium. Hydro's casthouses have treatment facilities to recover as much aluminium as possible from hot dross. The residual dross can then be sent to certified third parties to recover aluminium and reduce the total dross sent to landfill.

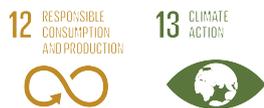
Several projects are in development that will further reduce waste-to-landfill in the medium to long term.

Following a mass balance of mercury at Alunorte in Brazil, which was concluded in 2017, Hydro decided to install four mercury condensers on the digester lines. The first condenser was installed in 2018, as a pilot, and its technical performance is being monitored prior to the installation of the remaining units. The initial timeline was to install the remaining units in 2020, but this has been rescheduled to allow for further performance optimization of the technology.

¹⁰ Hydro has a 5 percent ownership interest and off-take agreements with Vale for a further 40 percent of the volume produced by MRN.

Product stewardship

Hydro engages in dialogue with customers and other stakeholders regarding the environmental impact of our processes and products. We perform life-cycle assessments (LCAs) for all major product groups to identify improvement potentials. We also assess other aspects such as energy and material consumption, toxicity and recyclability.



Over the past two decades, Hydro and other aluminium companies have developed a pan-European network of national initiatives to promote and recycle aluminium packaging. Many of these national activities are emphasizing education and have developed projects with primary and secondary schools and universities to stimulate the next generation to make their contribution to a better environment.

Hydro is an active member of the Aluminium Stewardship Initiative. As of publication of this report, 40 production sites have been certified, covering Hydro's value chain from bauxite to finished products, see page 260.

Ensuring a culture of compliance and integrity

Hydro's board-sanctioned Code of Conduct creates the foundation that supports our efforts to do the right things and to always act with integrity throughout our global organization wherever we operate and conduct business on behalf of Hydro. It requires adherence to laws and regulations as well as internal constituting documents and global directives and is systematically implemented and followed up through our compliance system.

Our compliance system is based on a clear governance structure defining roles and responsibilities with regard to compliance and all compliance-related activities undertaken throughout the company.

The management of compliance risks, including risks related to corruption and human rights violations, are integrated in our business planning, enterprise risk management and follow-up process, including relevant risk-mitigating actions and key performance indicators. The progress of actions as well as any non-compliance matters are addressed in the quarterly performance review meetings that each business area has with the CEO, and an annual compliance report is submitted to the board of directors. The head of group compliance reports to the board of directors through the board audit committee at her own discretion. She meets with the board of directors periodically and participates in all board audit committee meetings.

Combating corruption and respecting human rights are integral to our supplier requirements, see page 93. Procedures are in place relating to assessing the integrity risk of business partners and detecting fraud. Regular transaction-based screening of customers and suppliers is also carried out, see note S10.5 to the social statements. In 2020, Hydro continues to evaluate its integrity risk management approach to ensure adequate management of relevant risks.

An integrity index has been introduced in Hydro's employee engagement survey, and will be part of the survey taking place in 2020. The index will benchmark the employee perception of our integrity culture. It aims to identify weaknesses and provide us with a good basis for specific and tailored compliance activities going forward.

Hydro aims to strengthen sanctions and trade compliance awareness by e-learning and tailored classroom training for exposed functions. The roll-out of e-learning in Hydro was impacted by the cyber-attack, and will continue in 2020. The enhanced sanctions and trade compliance framework was established during the end of 2018.

Hydro's global data protection procedure constitutes the company's binding corporate rules for data protection and ensures compliance with the EU General Data Protection Regulation (GDPR). It was approved by the relevant EU data protection authorities in May 2018. We have performed training, developed detailed standard operating procedures and established risk matrices for data privacy. After the GDPR came into force, we continued to further operationalize internal data protection procedures. We have also strengthened Hydro's data protection work, with a specific emphasis on clarifying roles and responsibilities.

We are committed to building a culture of trust where employees are comfortable to ask questions, seek guidance, raise concerns, and report suspected violations. Normally, concerns and complaints should be raised with the employee's superior. However, if the employee is uncomfortable with that, he or she may raise the issue with human resources, HSE (health, safety and environment), a union/safety representative, compliance, legal or internal audit. The employee can also use Hydro's whistle-blower channel, AlertLine, where concerns can be reported anonymously. All employees and on-site contractors can use the AlertLine in their own language at all times via toll-free phone numbers, Hydro's intranet or through a dedicated address on the internet. In certain countries, e.g. Spain, there are, however, legal restrictions on such reporting lines.

All cases reported through the AlertLine were assessed, and investigations were performed where relevant. In total, 20 persons were dismissed as a result of reported breaches of Hydro policy in 2019. This includes two dismissals in substantiated cases of corruption, please see note S10.1 for more information.

The head of internal audit reports to the company's board of directors through the board audit committee. Every quarter, she informs the board audit committee and periodically the corporate management board about matters reported through the AlertLine. Hydro's internal audit has resources in Norway, Brazil and North America.

For more information about Hydro's performance on compliance, see note S10 to the Viability performance statements in this report. For information about alterations of certain test records in former Sapa, please see page 113.

Transparency

Transparency is key to creating a global level playing field as well as to safeguard the company's reputation. Hydro supports the Extractive Industries Transparency Initiative (EITI) and, since 2005, we have reported payments to host governments related to exploration and extraction activities for bauxite. We also comply with the Norwegian legal requirements on country-by-country reporting, see page 273. The report has been approved by Hydro's board of directors. In accordance with the UK Modern Slavery Act and Australia Modern Slavery Bill, we publish a transparency statement which is also approved by the board of directors, see page 291. In addition, we follow the Euronext guidelines to issuers for ESG reporting.

Hydro is a long-standing corporate member of Transparency International (TI) Norway and participates regularly in seminars with TI and by providing content to TI publications.

Stakeholder dialogue

Engaging with our stakeholders helps us understand what is expected of us, what is important to our stakeholders and how we can solve common challenges. As a global company, Hydro participates in a wide range of activities, from local community meetings to national and international multi-stakeholder and industry association discussions. We are committed to interacting with all our stakeholders in an ethical and transparent manner. We strive to demonstrate integrity in everything we do.

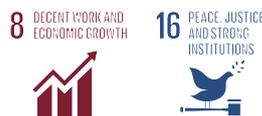
Our dialogue and engagement covers a large number of stakeholders and individuals, such as unions, works councils, academia, customers, suppliers, business partners, authorities, industry associations, non-governmental organizations and local communities, including vulnerable groups. See figure on page 89.

We will consult with interested and affected parties in the identification, assessment and management of all significant social, health, safety, environmental and economic impacts associated with our activities. For more information regarding stakeholder dialogue and human rights, see page 91.

When planning new projects, we map the environmental and social impact when relevant. Before major developments or large expansions are undertaken, it is a requirement to conduct an impact assessment, in line with internationally accepted standards. Both follow standards such as the International Finance Corporation Performance Standards, Equator principles and UN Guiding Principles on Business and Human Rights. This includes the principle of free, prior and informed consent when indigenous and traditional peoples are involved. The assessments follow the requirements regarding information, consultation and

investigation of the project's environmental and social impact, including human rights, as well as action plan and proposed initiatives.

Dialogue with affected groups gives input to plans, detailing our environmental and social responsibilities. We strive to act in an open and credible manner, and gather views from interested parties, aiming for a common understanding of the decisions that are made.



Dialogue with the employees' representatives includes involvement at an early stage in all major processes affecting employees, and we have a tradition for open and successful collaboration between management and unions.

All business areas have a forum for dialogue between the management and union representatives. Hydro's Global Framework Agreement was last updated in 2016. The parties are currently negotiating a new agreement.

Grievance, or complaint, mechanisms are important to understand the impact of Hydro's operations, and the impact on the rights of individuals and groups affected by our operations. Grievances may be of any kind, including social and environmental issues, and can be made anonymously to Hydro through various mechanisms. For more information on human rights and grievance mechanisms, see page 91.

Hydro will not tolerate retaliation against anyone who speaks up in good faith to ask a question, raises a concern, reports a suspected violation or participates in an internal company investigation.

Portfolio changes

Extruded Solutions has been undergoing an optimization of its large asset portfolio to identify ways to streamline its footprint and reduce costs supporting the ongoing NOK 1.0 billion improvement target. During 2019 several extruded plants were closed or divested throughout Europe and in the US, and in most cases, volumes have been transferred to other facilities. Examples of dialogue with affected groups and stakeholders in this process are the two extrusion plants in Europe, Spain and Romania, that were divested in 2019, and a plant that was closed in the US. In Europe, there has been a close dialogue between the management and the communication body working committees in the business area, and the local work councils where these are present. In the US, there was a close dialogue between management and the affected parties, according to local terms and conditions. An employee support program was established, providing job opportunities and job search training.

On December 18, a decision was made to curtail a maximum of 20 percent of primary production at Hydro's majority-owned Slovalco primary aluminium plant in Slovakia, responding to the weakening market environment. In addition, Slovalco recognized an impairment of NOK 506 million (excluded from underlying EBIT) in the fourth quarter of 2019, due to the weakening market environment combined with Slovalco's relatively high cost position and

uncertainty relating to the renewal of its power contract expiring at the end of 2021. See Note 2.5: Impairment for further information. There is a close dialogue between management and the union at Slovalco around the measures that are taken in the company to adapt to the challenging market situation.

Hydro has initiated a strategic review and comprehensive restructuring of the Rolled Products business area to mitigate the declining profitability which the business has faced over the last years. The aim is to significantly turn this development around by lifting organizational and operational efficiency as well as shifting the product portfolio away from declining markets towards growth markets like automotive and beverage cans. The target is a NOK 0.9 billion improvement by 2023. These improvements will be

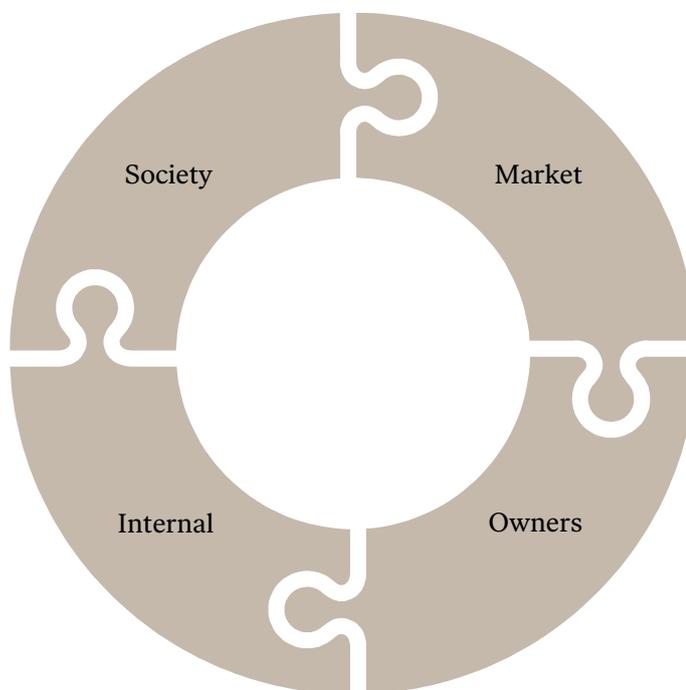
realized, while also continuing the strategic review of the Rolled Products business. Dialogues with affected groups and stakeholders are part of the process, and employees' representatives are involved in all major processes affecting employees.

In 2019, Hydro revised the operating model with leaner staff functions and strong business areas. Staff improvement efforts, represented by the Fit4Future program aims to contribute 0.5 BNOK in improvements mainly through increased efficiency within staff functions across Hydro, of which Global Business Services (GBS) will deliver most of the gains. The revised operating model includes a new Corporate Development function to strengthen Hydro's ability to drive the profitability and sustainability agenda.

Stakeholder dialogue in Hydro

- Academia
- Authorities
- Industry associations
- Lobby groups
- Local communities
- Media
- National and international unions
- NGOs
- Politicians
- Public offices
- R&D funding bodies

- Board of Directors
- Corporate Assembly
- Employee representatives
- Employees



- Commodity and stock exchanges
- Competitors
- Customers
- End users
- Insurers and banks
- Partners/joint ventures
- Suppliers
- Other business relations

- Owners/shareholders
- The Norwegian government
- Financial markets
- Analysts
- Traders
- Brokers
- Ratings agencies

Partnerships

Hydro works through industry and aluminium associations to establish a level playing field for global aluminium production. We support the development of international frameworks on climate change and greenhouse gas emissions and participate actively in organizations such as the World Business Council for Sustainable Development (WBCSD) and the International Emissions Trading Association to provide business solutions to the climate change challenge. In addition, we engage actively in initiatives fostering increased recycling and material stewardship and we are a founding member of the Aluminium Stewardship Initiative (ASI).

The ongoing loss of biodiversity and degradation of ecosystems represent long-term risks for the industry and society at large. We see a need for more sustainable frameworks and participate in several initiatives, including the WBCSD's Ecosystem Program. Hydro is a member of the International Council on Mining and Metals (ICMM), which gives us the opportunity to participate in the development of industry practices on the environment and to share best practices.

To increase our knowledge and secure a science-based approach to rehabilitation, the Biodiversity Research Consortium Brazil-Norway (BRC) was established in 2013. BRC consists of the University of Oslo and its Brazilian partners Museu Paraense Emílio Goeldi, Federal University of Pará and Federal Rural University of the Amazon, in addition to Hydro. The scope of the consortium is to create a research program connected to our mining operations. The aim is to strengthen Hydro's ability to preserve natural biodiversity and to better rehabilitate the areas where we mine bauxite. Thirteen research projects are progressing, while more projects are in the pipeline.

To join forces in collective action is critical in the fight against corruption. Hydro has had a partnership with Transparency International for many years. Hydro is also a member of the Maritime Anti-Corruption Network (MACN), which provides valuable insight into the maritime industry - an important part of our supply chain. Through Alunorte, Albras, Mineração Paragominas and Norsk Hydro Brazil, Hydro has been a signatory of the Business Pact for Integrity and Against Corruption since 2018. The Pact is developed by the Ethos Institute in partnership with global organizations such as the United Nations and the World Economic Forum, seeking to unite companies with the objective of promoting a more ethical market and to eradicate bribery and corruption in Brazil. Hydro is also a signatory to the World Economic Forum's Partnering Against Corruption Initiative (PACI).

Hydro has had a long-standing partnership with Amnesty International Norway since 2002. The partnership is based on human rights education and dialogue meetings on relevant human rights dilemmas. We also cooperate with the Danish Institute for Human Rights for external expertise to further develop, maintain and strengthen our approach to human rights. To contribute to the strengthening of human rights frameworks, we also participate in relevant forums, such as ICMM, ASI and UN Forum on Business and Human Rights.

In 2019, we continued our partnership with Save the Children to contribute to quality education for children. The partnership will not be extended beyond 2019. From 2020, Hydro is a Signature Partner of UNICEF Norway.

In addition, we cooperate with global and local industry organizations, NGOs and other organizations. See www.hydro.com for an overview of important partnerships. For information about how we collaborate with other institutions within R&D, please see the section Innovation and Design Thinking page 100.

Public affairs and lobbying

Given the nature of our industry, Hydro is particularly involved in policies dealing with climate change, recycling, viable production and consumption, trade, energy efficiency, energy markets and infrastructure, health and safety in the workplace, competition and other framework conditions pertaining to our industry.



Hydro recognizes the value of engaging with public authorities and other stakeholders in relation to the development of various policy initiatives that impact our industry. We interact primarily with decision makers in countries in which we have significant operations, such as Norway, Germany, Brazil and the US, as well as with regional structures like the European Union institutions. These interactions are mainly related to securing competitive, stable and predictable industry framework conditions, taxes and legislation that might affect our activities.

We promote our views on issues of importance either through direct interaction with public authorities and other stakeholders, or through various industry associations. These include the International Aluminium Institute, European Aluminium, Eurometaux, the Brazilian Aluminium Association, the U.S. Aluminum Association, the Wirtschaftsvereinigung Metalle, the International Council on Mining and Metals, the World Business Council for Sustainable Development, the Federation of Norwegian Industry, and more, see GRI Standards 102-12 and 102-13 at www.hydro.com/gri

In addition, we participate in a series of think tanks, especially in Brussels, and engage regularly in discussions with various NGOs.

Most resources are dedicated to advocacy activities within the EU, Brazil, the US and Norway, through business associations, and direct dialogue with authorities and decision makers.

We support the principles of free and fair trade, and efforts to create a global level playing field. In our advocacy, we also support the climate targets set in the Paris Agreement.

Hydro supports market-based solutions for pricing of carbon emissions, like the EU Emissions Trading System (ETS). A decisive part of the EU regulation is the ability to compensate for the extra cost occurring within the EU, in order to maintain competitiveness for global industries like aluminium.

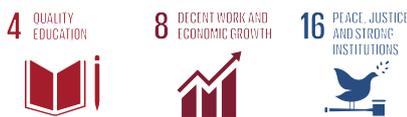
The European Green Deal was announced by EU Commission president Ursula von der Leyen in December 2019. It is a roadmap on policies to achieve carbon neutrality in the EU by 2050 and includes policies to develop markets for low-carbon and circular products, in combination with stricter targets for emission reduction. We see opportunities in this roadmap as long as it is combined with competitive framework conditions.

For information on spending on public affairs and lobbying, see note S12 to the Viability performance statements in this report.

According to our Code of Conduct, Hydro may not make financial contributions to political parties.

Human rights and community impact

As a global aluminium company with mining interests, ensuring responsible conduct in relation to society at large is important throughout Hydro’s value chain. We have to consider our impact on society, spanning from construction to divestment activity, as well as the exposure to corruption and human rights violations, within our own operations, the communities we are part of, and in the supply chain.



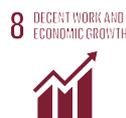
Respecting human rights

We are committed to respecting and promoting the human rights of all individuals potentially affected directly or indirectly by our operations. As an employer, owner and purchaser, an important contribution toward respecting human rights is to secure decent working conditions in our organization, in minority-owned companies and with our suppliers. Information pertaining to Hydro’s human rights policies and compliance is regularly discussed with the board of directors, the Corporate Management Board, business area management teams, and relevant parties such as union representatives.

We do not tolerate any form of harassment or discrimination, including but not limited to gender, race, color, religion, political views, union affiliation, ethnic background, disability, sexual orientation or marital status. And we do not tolerate any form of forced labor or child labor abuse. We support the principle of freedom of

association and collective bargaining. Hydro also supports key frameworks that define human rights principles and is committed to following these, including the UN Guiding Principles on Business and Human Rights and ILO’s eight core conventions. For a full overview, see GRI Standards general disclosure 102-12 and 102-13 at www.hydro.com/gri. Hydro reports according to the UK Modern Slavery Act and Australia Modern Slavery Bill, see the Appendices to Board of Directors report.

Hydro’s human rights management is based on the OECD Due Diligence Guidance for Responsible Business Conduct as described on page 91.



Hydro’s framework for human rights management was reviewed in 2019. The identified necessary improvements include revision of the Human rights policy and strengthening of due diligence and risk mapping procedures. The improvement work will continue in 2020.

Hydro’s human rights management



Hydro’s Human rights management Policy commitment and governance

Hydro’s Human Rights Policy was developed in 2013 through a multi-stakeholder process. The policy was updated in 2016 and outlines the company’s commitment to respecting and promoting human rights. The commitment is integrated in key procedures, including supply chain management, new projects, portfolio management, and risk management. The policy is approved by the Corporate Management Board and is governed by the Executive Vice President of Corporate Development.

Implementation of the Human Rights Policy is a line management responsibility. Human rights risk can be addressed in the business areas’ Sustainability committees or

similar fora. The committees typically include senior members or members of the management team of the business area. Information pertaining to Hydro's most severe human rights risks is communicated to the board of directors, the Corporate Management Board, business area management teams, and relevant parties such as union representatives.

We expect our suppliers and business partners to follow the Universal Declaration of Human Rights, ILO's eight core conventions and other related UN documents and instruments. The minimum requirements to our suppliers are stated in Hydro's Supplier Code of Conduct.

Human rights responsibilities are part of Hydro's Code of Conduct, which is translated into 18 languages. Training in the Code of Conduct is mandatory for all employees. In addition, more specific training on relevant human rights topics is given to functions involved in procurement and social responsibility on a regular basis. E-learning on Hydro's Social responsibility, including human rights, is available to all employees.

Due diligence: Identifying, assessing, acting, monitoring and communicating impacts

Human rights due diligence is integrated in Hydro's processes. As part of the enterprise risk management process, risk of adverse human rights impacts is discussed. Based on this, mitigating actions or activity plans are developed and included in business plans in the business areas. Business plans are monitored, followed up and evaluated through the year in regular performance review meetings. Human rights and other sustainability related issues are discussed when relevant.

Based on our process for integrity due diligence, we assess all new business partners against human rights criteria. We conduct risk-based audits and reviews of business partners and work to improve business partner performance through corrective action plans or supplier development programs.

We consult with interested and affected parties in the identification, assessment and management of significant impacts associated with our activities. This includes communicating findings and addressing mitigating actions. We also consult with human rights experts knowledgeable about the local territories where we operate or through established partnerships. For more information about our partnerships, see page 90.

Hydro's human rights management is risk-based. In countries with higher risks for adverse human rights impact, we aim to conduct stand-alone human rights impact assessments and mitigating action plans.

Before new projects, major developments or large expansions are undertaken, we conduct environmental and social impact assessments when relevant, which includes evaluating risks for adverse human rights impacts. For more information see page 88.

Rightsholder and stakeholder engagement

We engage with rightsholders and stakeholders both internally and externally to help inform about the effectiveness of our human rights management.

We are committed to the principles of non-discrimination and to respecting the rights of vulnerable individuals and groups. We aim to include vulnerable individuals and groups in our dialogues and to pay particular attention to these groups in terms of impact and remediation.

Dialogue with the employees' representatives includes involvement at an early stage in all major processes affecting employees, and we have a tradition for open and successful collaboration between management and unions.

Hydro has regular dialogue with communities, and more frequent and structured dialogue in communities with higher risk of adverse human rights impact. We develop and plan community dialogues in collaboration with affected communities, based on their needs and expectations. Community members in Brazil and at several other major sites are invited to plant visits on a regular basis. We also have regular dialogue with non-governmental organization, academia and other civil society actors to discuss our human rights management. For more information about stakeholder dialogue, see page 88.

Grievance mechanisms and remediation

Grievance, or complaint, mechanisms are important to understand the impact of Hydro's operations on the rights of individuals and groups affected by our operations. Grievances may be of any kind, including social and environmental issues, and can be communicated anonymously. In situations where we identify adverse human rights impact, we work to mitigate, prevent, address and remedy potential adverse impacts as recommended in the UN Guiding Principles on Business and Human Rights. Hydro will not tolerate retaliation against anyone who speaks up in good faith to ask a question, raises a concern, reports a suspected violation or participates in an internal company investigation.

We have several grievance mechanisms depending on stakeholder groups:

- **Employees and contractors**
Employees and contractors can use Hydro's whistleblower channel, AlertLine, where concerns can be reported anonymously. For more information about AlertLine, see page 87.
- **Community members**
Channels for submitting grievances may vary depending on local needs.
 - At many of our sites, we collect information and complaints through community dialogue
 - In Brazil, we use several channels, including Canal Direto (toll-free phone number and email) and dedicated, specially trained field workers.
 - Online contact forms are also available and can be used anonymously
- **Supplier and business partner employees**
Suppliers and business partners can contact us with complaints through online contact forms, which can be used anonymously.
- **Customers**
Customers can contact us through online contact forms, which can be used anonymously. They can also bring complaints to their Hydro key contact person.

Managing human rights risks

Hydro recognizes that there are potential risks of adverse impacts concerning our operations, mainly in Brazil and in the Middle East, as well as in our supply chain in general. For more information about sustainability in the supply chain, see page 93. Below are some examples of how we manage human rights risks.

Brazil

The Brazilian consultancy Proactiva is currently conducting a thorough human rights due diligence of operations in Pará state, Brazil. The due diligence covers Alunorte alumina refinery, Albras primary aluminium producer and the Paragominas bauxite mine, including the pipeline. The due diligence was high on the agenda of the Corporate Management Board in 2019, and part of their key performance indicators (KPIs). The final results are expected in the first half of 2020. We are further increasing our engagement with central Brazilian human rights stakeholders.

The relationship with institutions and local traditional communities has improved through a more structured social dialogue. In 2019, over 200 community dialogue meetings were conducted with communities next to our operations in Pará state.

Unresolved issues remain related to identifying individuals directly impacted by the construction of a 244-km-long bauxite pipeline that crosses areas inhabited by traditional Quilombola groups in the Jambuaçu Territory in Pará. These issues relate back to the time before Hydro became owner, and the former owner of the pipeline is still the legal party. Hydro maintains its relations with Quilombola representatives through dedicated staff and is cooperating with Fundação Cultural Palmares to foster the dialogue and establish a positive agenda within the Quilombola territory. The Palmares foundation is the Brazilian agency in charge of Quilombolas affairs. Currently, Hydro is working together with different stakeholders, including, but not limited to, Palmares, Quilombola communities and the State of Pará, to establish an agreement that seeks to remedy impacts.

Through the Moju Sustainable Territory Program in the Jambuaçu Territory, we have taken actions to support local associations along the pipeline to strengthen their legal, administrative and governance structure. The program currently consists of several associations, with plans to expand to other interested Jambuaçu associations in 2020.

Addressing the issues in the Jambuaçu Territory was high on the agenda of the Corporate Management Board in 2019 and part of their KPIs.

In Barcarena, also in Pará, in an area surrounding Hydro's operations and regulated for industrial purposes, illegal logging and irregular settlements have accelerated since 2016. Neither the authorities nor Hydro want settlement in the area. In addition, allegations have been made by local groups about potential environmental impacts. See Note S10.2 Legal Claims to the Viability Performance Statements.

In the municipality of Oriximiná in Pará, Brazil, where the MRN¹¹ bauxite mine is located, there is an ongoing dispute between Quilombola communities and Brazilian authorities regarding title to land owned by the federal government. The territory claimed by these communities encompasses certain areas that are planned to be mined by MRN in the future, but MRN is not a legal party in this conflict.

Concerns have been raised about traditional peoples' rights during the process for the mine expansion. Hydro engages with MRN through the Board of Director's Committee to request that the scope of the planned environmental and social impact assessment (ESIA) and Quilombola consultation processes for the expansion project comply with local, national and international standards. MRN is currently engaged in understanding and responding to local stakeholder expectations regarding concerns over the impacts of MRN's operations on local communities.

MRN also supports the Sustainable Territories Program, a social program to promote long-term development of traditional communities in Oriximiná.

Qatar

At the primary aluminium producer Qatalum, a joint venture where Hydro holds 50 percent. GIEK (Norwegian Export Credit Guarantee Agency) conducted a review of the CSR performance in April 2019. GIEK recognized the improvement since their last visit in 2016 and made recommendations for further strengthening Qatalum governing documents and its established procedures.

Norway

We have conducted several social responsibility reviews of contractors in Norway in relation to new construction projects. The purpose has been to ensure basic human rights for the migrant workers employed by contractors in the projects at the primary aluminium producers at Husnes, Karmøy and Sunndal in Norway. No major issues were identified.

Canada

In Canada, Hydro's part-owned Alouette smelter is in regular dialogue with representatives of the Innu First Nation community in its vicinity.

Responsible supply chain

Hydro has more than 30,000 active suppliers globally. Most are located in the same countries as our production facilities.



Hydro's supplier and business partner requirements regarding social and environmental responsibility are, as stated in our global directives and procedures, an integral part of all stages of the procurement process. The requirements cover issues related to environment, human rights, anti-corruption and bribery and working conditions, including work environment.

¹¹ Hydro has a 5 percent ownership interest and off-take agreement with Vale for a further 40 percent of the volume produced by MRN

These requirements set out in Hydro's Supplier Code of Conduct are based on international standards, including UN Global Compact, the ILO core conventions, UN Guiding Principles on Business and Human Rights and other UN documents and instruments. The Supplier Code of Conduct will be updated in 2020.

The principles in Hydro's Supplier Code of Conduct are made binding through contractual clauses, to ensure suppliers and business partners reflect the values and principles that Hydro promotes. Standard contracts also include clauses on auditing rights and the supplier's responsibility to actively promote the principles with its own suppliers/contractors and sub suppliers/subcontractors of any tier that have a material contribution to the supply of goods and services to Hydro under the contract.

Group Procurement was established as a global function in Hydro in 2019 to ensure better coordination and more efficient procurement processes, including risk management.

Hydro's procedure for integrity risk management of business partners includes suppliers and customers, strategic partners and intermediaries/agents. It sets requirements for risk assessments and integrity due diligence when entering into a new business relationship or renewing an existing contract. Implementation is risk-based and takes into consideration contractual value, sector specific risk, human rights risk, corruption risk and more.

Suppliers, customers and other business partners registered in our main accounting systems are screened on a weekly basis against recognized international sanction lists. Furthermore, supplier audits and site visits are performed by

Hydro personnel and external auditors based on risk analyses. See note S10.5 "Screening of business partners and supplier audits" to the Viability Performance Statements for more information

A non-compliance with or breach of the principles in Hydro's Supplier Code of Conduct that is not able to be corrected within a reasonable period may lead to termination of the supplier contract. In 2019, we for example terminated a contract with one of our metal suppliers. Hydro was concerned about the metal supplier's compliance with the principles, but was not given permission to audit the supplier's operations.

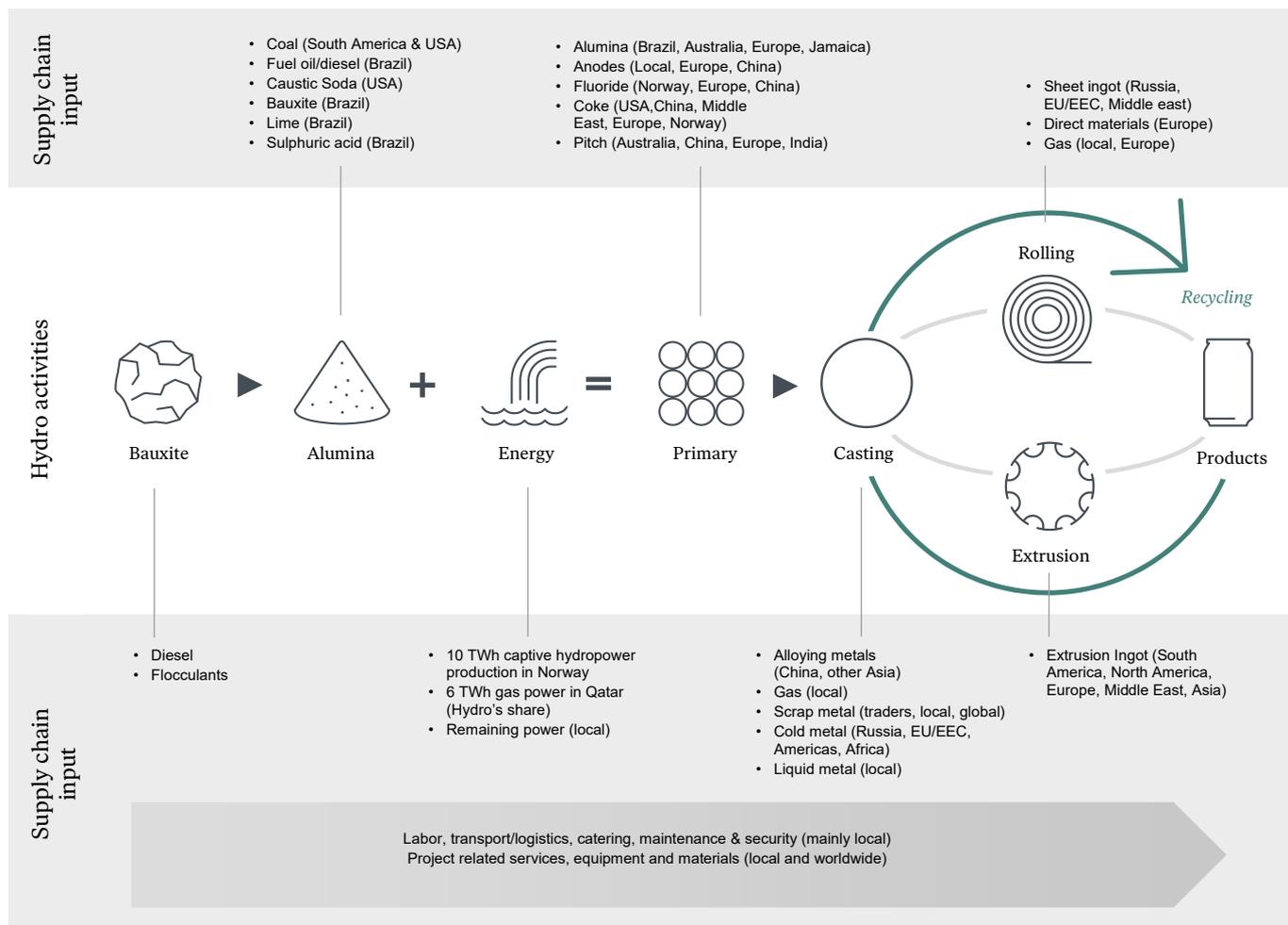
Examples of monitored risks in Hydro's supply chain include business practices, environmental risks and risks to people. These risks are integrated in Hydro's Supplier Code of Conduct, integrity risk management and supplier audits.

The risk of incidents of child labor abuse, compulsory or forced labor in our supply chain is low in the majority of Hydro's business areas. We do, however, recognize a risk of forced or compulsory labor among suppliers in the Middle East, South America and Asia. This is addressed in our supplier audits.

Hydro works to strengthen and improve suppliers' sustainability performance. This may be done through dialogue, sharing of knowledge, innovation processes, incentives or supplier development programs.

In Brazil, suppliers can apply to participate in a comprehensive, year-long supplier development program. In 2019, 26 supplier companies participated in the program.

Hydro's supply chain



The figure shows Hydro's supply chain related to its value chain, and does not reflect the current organizational structure.

Social responsibility – strategy and targets

Hydro's social responsibility ambition is to make a positive difference by strengthening our business partners and the local communities where we operate. To deliver on this, we target the fundamental drivers of long-term development. In line with local stakeholder expectations and needs, and through strong partnerships, we aim to:

- Contribute to quality education in our communities
- Promote decent work throughout the value and supply chain
- Foster economic growth in our communities
- Strengthen local communities and institutions through capacity building on human rights and good governance

We have committed to contribute to quality education and capacity building for 500,000 people in our communities and for business partners from 2018 until end of 2030.

In 2019, we reached over 26,000 people. Continuous improvement of current initiatives and development of new

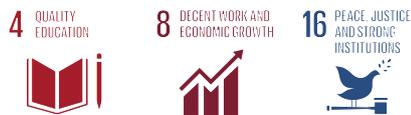
effective, high-impact initiatives will be important going forward.

The insight from quantitatively measuring the people reached and the impact of our initiatives makes us better equipped to select and execute future initiatives with a positive impact. We have developed a methodology to measure the target to ensure consistency across the company.

Community investments and social programs

A key element in Hydro's social responsibility strategy is to strengthen the societies and communities where we operate. The way we do this differs from country to country and from community to community. The main contribution is generated from our operations through production and purchase of goods and services, direct and indirect job creation, and tax payments. We engage in capacity building through targeted programs, and we have partnerships aiming to further enhance the public's knowledge about Hydro and

its operations. Hydro has corporate requirements on management of community investments, charitable donations and sponsorships.



Some of our community programs are linked to mining license requirements, while others are voluntary commitments. The programs target education, economic growth, decent work, capacity building and strengthening of institutions.

To support local communities, we organize volunteer programs at many of our production sites. The volunteer activities are based on local customs and needs. Many sites also support local communities through a range of sponsorships and charitable donations. Extruded Solutions has a broad range of sponsorships and support programs. These activities are not yet included in Hydro’s reporting on community investments, charitable donations and sponsorships.

Another important contribution is the transfer of competence that takes place through our cooperation with universities and research institutions. This includes the cooperation with three academic institutions in Pará, Brazil, and the University of Oslo through the Biodiversity Research Consortium Brazil-Norway. See page 90 for more information. In addition, we provide scholarships to selected PhD candidates doing research relevant for our business areas. Hydro is also sponsoring professorships in Norway and has several adjunct professors among its own employees. See also page 101 for further information.

Many programs from 2018 continued in 2019. We have introduced new programs in Brazil following the restructuring of programs in 2018 and strengthened other programs. Several programs are also linked to partnerships. See more about our partnerships on page 90. Below are some examples of the programs currently running.

Brazil

Hydro has significant operations in Barcarena, Brazil, including the Alunorte alumina refinery and Albras aluminium plant. Local social conditions are challenging, with high levels of unemployment and general poverty. To read more about the situation related to the extreme rain event in Barcarena in February 2018, please see Hydro’s Annual Report 2018.

In Pará state, Hydro currently has more than 10 social programs across the seven municipalities where we have operations. For each of these projects, we have an implementation partner. The implementation partners met several times in 2019 to share knowledge and identify synergies to strengthen our partners and contribute towards the common goal of local development.

We initiated the Sustainable Barcarena Initiative in 2018 and have continued developing it in 2019. The initiative is an independent platform for sustainable development in Barcarena in Pará state. The overall aim is to bring local

stakeholders together to discuss challenges and opportunities, strengthen capabilities and ultimately invest in the social initiatives they plan and develop together. In 2019, we established the Hydro Sustainability Fund, which serves as a financing mechanism for the Sustainable Barcarena Initiative. The first round of financing is currently underway. Hydro is contributing BRL 100 million to the fund over a 10-year period. The fund will also seek funding from other sources. In 2020, we will continue supporting the development of the Sustainable Barcarena Initiative.

In Pará state we also engage with regional initiatives to preserve the Amazon. We run several programs that emphasize entrepreneurship and strengthening of traditional livelihood. This also includes environmental efforts and collaborations such as the Biodiversity Research Consortium Brazil-Norway. See page 90 for more information.

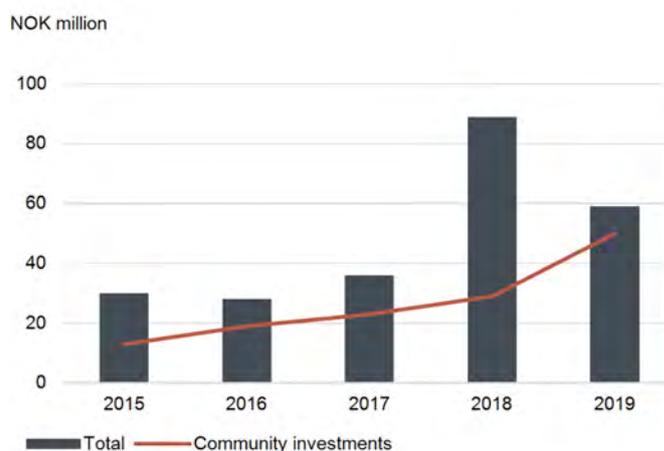
India

In Kuppam, India, where we have an extrusion plant, we continued developing a local educational program using tablets. We currently support two local schools through the program. In 2019, we also piloted a program to make the tablets with the pre-installed learning software available to all community members as a “hot spot” center. The pilot will be evaluated in 2020.

United States

Hydro continued to support FIRST®, a mentor-based program to inspire young people to be leaders and innovators within science and technology. Employees volunteer their time to mentor a team. The teams use parts provided by Hydro to develop innovative solutions. In 2019, Hydro supported three teams in Michigan, Georgia and Indiana to build, program and compete with a robot.

Community investments, charitable donations and sponsorships



In 2018, around 45 million NOK relates to emergency relief and TAC-agreement following the extreme rainfall and subsequent flooding of Barcarena. Extruded Solutions has a wide range of sponsorships and support programs based on local needs. These activities are not yet included in Hydro’s reporting.

Organization and work environment

Through Hydro's global people processes we ensure the right competence, capabilities and organizational culture to be able to deliver on our overall strategic agenda – lifting profitability, driving sustainability.

Hydro's new people strategy, launched during 2020, sets global strategic priorities, ambitions, targets and activities, in addition to a defined process for annual update and revision. The global priorities cover learning and competence development, leadership and succession as well as diversity and inclusion. These priorities are supported by every business area with targets and activities based on their specific needs, addressing challenges in regions where they operate.

A new people platform is being rolled out in 2020 to enable standardized and digitalized global human resources processes throughout the employee's career path.

Hydro's common process for people performance and development includes an appraisal dialogue, individual development plan and follow up, as well as talent planning and succession management.

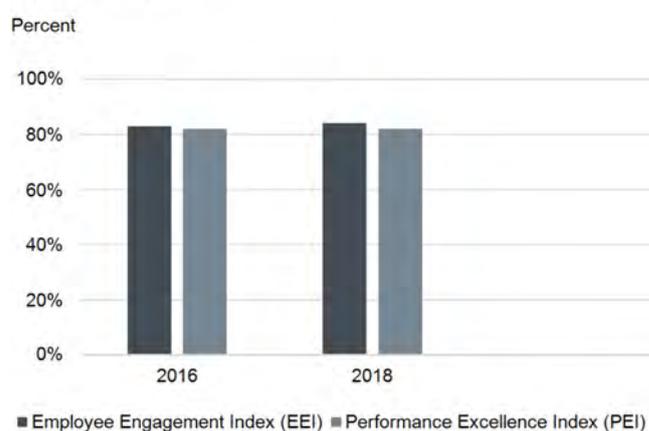
Hydro has a global engagement survey, normally run every second year. The last survey took place in 2018 and reached the top 10 percent according to the IBM External Norm on the Employee Engagement Index. The 2018 survey did not include the business area Extruded Solutions, which will be included 2020. A new survey for the entire organization was to be conducted for all employees in 2019, but was postponed to third quarter 2020 due to the cyber-attack. Maintaining employee engagement is a key priority going forward. All units have action plans based on their results.

Our philosophy is that 70 percent of competence building is direct on-the-job training, while 20 percent is acquired via networking and mentoring and 10 percent via traditional training. We have a common platform for learning and development for employees. It is also the umbrella for all other faculties and academies in Hydro, such as the business systems, HSE, compliance, digitalization and leadership. One important goal is to make training more visible and easily accessible to leaders and employees. This includes an overview of available training and mandatory training modules that each employee should complete or has completed.

We offer new employees introductory training related to the organization and to their individual work tasks. This includes required knowledge within health, security, safety and environment. The most important development takes place locally, primarily with on-the-job training. A special training course, Hydro Fundamentals, targets leaders and specialists, giving them insight into Hydro's history, values, diversity, competitive landscape and businesses. A digital version is under development to significantly extend the reach of the program.

In order to have a healthy pipeline of leaders with the required breadth of experience, we strive to rotate leaders so that they gain knowledge from different parts of the organization. Through the succession and talent processes, we work with the leadership and specialist pipeline and identify required development. We have a portfolio of learning programs that supports development for leaders as well as specialists.

Hydro Monitor



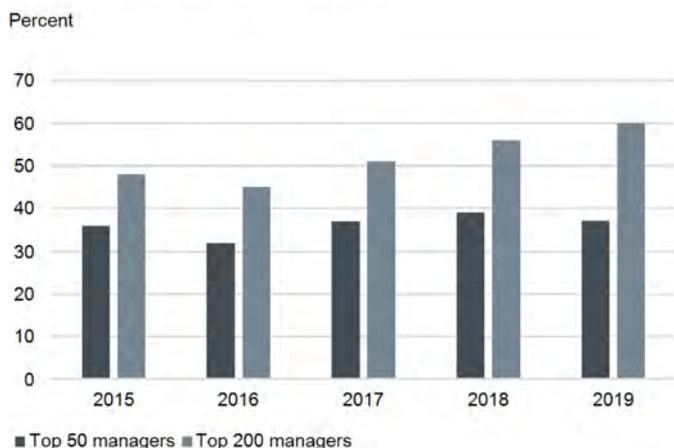
Hydro Monitor did not include employees from Extruded Solutions in 2018. A new Hydro Monitor was to be performed for all employees in 2019, but was postponed due to the cyber-attack.

Diversity and inclusion

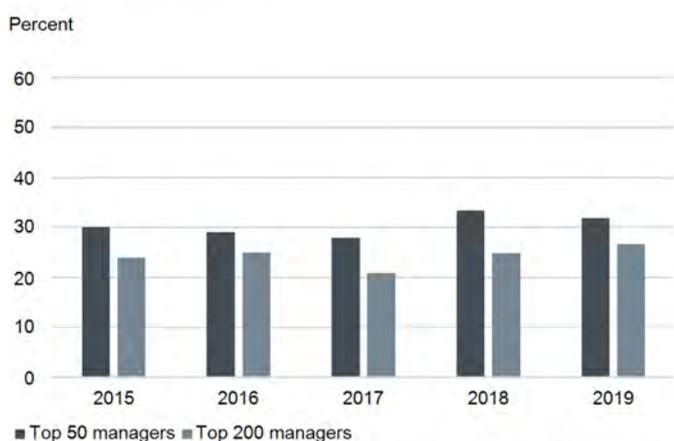
Hydro's organization around the world represents significant diversity in education, experience, gender, age and cultural background. We see this diversity as a source of competitive advantage, as it encourages innovation, learning and better customer understanding.

Our ambition is to have a high-performing and sustainable work environment, based on diversity and inclusion. We want all employees to know they are valued for their differences and that they contribute to the success of our business strategy. A part of the new people strategy is to identify measures and quantifiable targets to support our ambition.

Share of non-Norwegian leaders



Share of women leaders



The total share of women at all levels in Hydro was 18 percent in 2019.

We are continuously adjusting working conditions so that all employees have the same opportunities in their workplace. In Brazil, we are required to employ at least 5 percent employees with disabilities. 4.5 percent of the employees in Paragominas were disabled by the end of 2019, and Alunorte employed 4.5 percent at the end of 2019, while the level at Albras was 3.5 percent. While the absolute number for employees with disabilities was constant in 2019, decreases in share compared to 2018 are due to an increase in permanent employees. We are working to increase the share of disabled employees. Just as important as achieving the legal requirements, Alunorte, Paragominas and Norsk Hydro Brasil are working on the career development of employees with disabilities.

Compensation

All employees shall receive a total compensation that is competitive and aligned with the local industry standard (but not market-leading). The compensation should also be holistic, performance oriented, transparent, fair and objective. Relevant qualifications, such as performance, education, experience and professional criteria, shall be

considered when providing training, settling compensation and awarding promotions.

The annual bonus of Hydro executives shall reflect achievements in relation to pre-defined financial targets and achievements of operational and organizational key performance indicators (KPIs). Targets relating to safety, environment, corporate social responsibility, compliance and leadership expectations constitute a substantial part of the annual bonus plan. Please see note 9.1 and 9.2 to the consolidated financial statements for more information.

To learn about gender-related salary differences, see note S2.1 to the social statements.

Occupational health and safety

Hydro shall be a leading company in our industry in the area of occupational health and safety. This will be achieved through consistent implementation of the management system, with committed and visible leadership, and full engagement of all employees.

Our ambition is to prevent all injuries and ill health to avoid human suffering and we will work continuously to avoid damage to property and loss of production.

We continue to see high-risk incidents with a potential for fatality or permanent injuries or ill health, but at a lower level than previous years. From 2020, our emphasis will be the closing rate of actions related to high-risk incidents in our operations in 30 days. We consider this the main leading indicator for our safety performance

The number of total recordable injuries and associated rates improved over 2018 levels to a total recordable injury rate of 3.0, which is the lowest since 2016. All business areas are active in identifying risks, and our performance indicator related to risk is important in helping monitor and manage processes and tasks with high inherent risks. The high-risk incidents rate, which is a leading indicator, improved in 2019.

There were no serious or life-threatening injuries during the year; however, there were four high-risk injuries that had the potential to have been fatal. There was one fatality at Qatalum, a 50/50 joint venture primary aluminium smelter managed by Qatalum, in 2019. A sub-contracted security guard tragically lost his life when a 1.5-ton guard porta cabin he was in was blown into the sea during a violent storm.

In 2019, all business areas supported the development and deployment of fatality prevention procedures and associated life-saving rules and behaviors. Fatality prevention and the elimination of high-risk incidents will continue into 2020 and builds upon the processes developed in 2019.

A revised HSE auditing process was deployed in 2019 aimed at compliance and identifying and sharing best practices.

Hydro HSE teams are embracing new and innovative ways to engage workers using a variety of digital tools to complement existing processes. See also note S5.1.

In addition, we are strengthening our behavioral tools using human performance techniques and the consistent use of peer-to-peer job observations.

Existing health and well-being programs have been expanded to include psychosocial risk and the creation of a global health team.

Since 2012, the CEO HSE Committee has been the strategic decision-making committee for all main HSE-related matters in Hydro. The committee is led by President & CEO Hilde Merethe Aasheim and consists of the members of the Corporate Management Board.

Hydro is monitoring the development of the Coronavirus disease (COVID-19) and assessing current and potential impact on employees and operations. Initial mitigating actions have been implemented and further mitigating actions are evaluated on a continuous basis.

Security and emergency preparedness

Increased exposure in risk-filled areas and the global volatile risk picture in general have made us intensify our preventive efforts. We are committed to the protection of people, environment, physical assets, data and information, anticipating and preparing for potentially adverse incidents with crisis potential in order to maintain business and operational continuity.

To prepare for and respond to intentional, unintentional and/or naturally caused disasters, and to protect people and critical assets, we adapt and initiate security measures depending on the evolving risk picture.

Security guards are employed on a regular basis to protect our personnel and assets. No armed guards were engaged in our activities in 2019, and there were no significant incidents reported in connection with the use of security guards. Hydro is committed to the Voluntary Principles on Security and Human Rights.

In 2019, we started the progression to achieve certification for ISO 18788, a management system for private security operations, requirements and guidance. It is founded upon the Voluntary Principles on Security and Human Rights, and it will benchmark Hydro's security management system against the international standard. The process started in our extrusion plant Yankton, US, and once the site is certified we will assist our third-party security providers in achieving the same level of conformity. This will ensure all third-party security providers, across all Hydro sites, comply with the international standard, and deliver a consistent security provision irrespective of area or region in which the Hydro site is located.

Hydro is responsible for infrastructure and functions on local and regional levels that might be critical to society's operability, and we operate large-scale production sites where a crisis could influence community interests and safety in general. Hence, we are subject to control and follow-up by relevant national authorities. We have emergency plans in place at the plant and business area level, and we train with these regularly. Lessons identified indicate

that a standardized approach to emergency planning, more closely linked to risk mapping, will improve our ability to deal with emergency situations.

In December 2019, a transmission tower along the pipeline from Paragominas to Alunorte overturned, ceasing power supply to Paragominas and temporarily halting production at the mine. The transmission tower has been repaired, and the power connection resumed. There were no personnel injuries or damage to other production assets related to the power outage. The incident is under legal investigation.

In 2019, we began a program of conducting emergency and crisis management workshops to help link the process of emergency response, crisis management and recovery from the plant through to business area level and above. This program of workshops is aligned with the risks identified through the plant and business area risk management process and is aligned with Hydro's enterprise risk management program. In 2019, we conducted seven workshops covering 45 plants.

Secure information handling is important to ensure Hydro's business continuity and reputation. Crucial computer systems are subject to surveillance and regulations. All personnel with access to sensitive information are bound to secrecy, and required to handle information according to corporate guidelines and requirements.

Hydro's IS/IT infrastructure is a critical element in all parts of our operations, covering areas such as process control systems at production sites, central personnel databases and systems for external reporting. Cybercrime is increasing globally, and Hydro is exposed to threats to the integrity, availability and confidentiality of our systems. Threats may include attempts to access information, computer viruses, denial of service and other electronic security breaches.

Hydro has launched several initiatives to increase the robustness of its IS/IT infrastructure against malicious attacks by improving system infrastructure and by educating employees to develop and improve secure work processes and routines, and to understand how these threats can be prevented.

Employees are safeguarded through systems for travel planning, risk assessment and emergency preparedness. Our ability to respond quickly to incidents worldwide has increased through risk monitoring, incident-monitoring tools and a continuous development of competence.

On March 19, 2019, Hydro was hit by an extensive cyber-attack, please see the section Risk Review on page 105 for more information.

Innovation and design thinking

We believe that the key to Hydro's 114-year-long stretch of industrial progress is the combination of production and innovation, where research and development have gone hand in hand with full-scale production.



Our R&D efforts are concentrated on:

- Making products and solutions that promote the use of aluminium and sustainable development
- Implementing technology elements in order to optimize productivity, energy efficiency and emissions in smelters
- Using R&D and technology to ensure optimal operations in existing assets, including cost and HSE
- Improving environmental impact in Bauxite & Alumina, such as biodiversity, rehabilitation and utilization of bauxite residue
- Developing recycling technology
- Increasing the share of value-added products and tailored solutions in collaboration with the customer
- Utilizing the opportunities of Industry 4.0 to improve process stability, productivity, cost and safety

In our mature industry, the development cycles are long, with a need for highly skilled technology competence. This includes smelter technology, new aluminium alloys with special properties, lighter transportation, better packaging to reduce cooling needs and food spoilage, and aluminium façades that lead to lower operating costs and enable buildings to generate as much energy as they use during operation. At the same time, our downstream activities are continuously developing new solutions, together with customers. More and more, this collaboration reflects design thinking, bridging the gap from idea to solution.

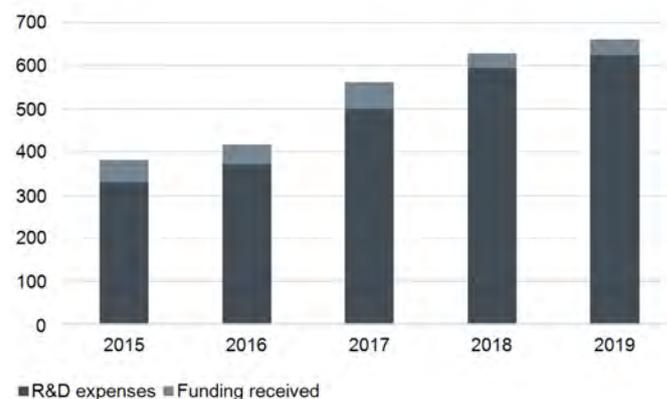
Hydro's Technology Board consists of the members of Hydro's Corporate Management Board. The technology and innovation group meets every quarter to understand and discuss innovations in the business areas, including their value to the company. Innovations include the changes achieved through our continuous improvement work on all organizational levels. Business areas are responsible for their own technology development and for the execution of their respective technology strategies. A corporate technology office is established to ensure a holistic and long-term approach to Hydro's technology strategy and agenda. The Chief Technology Officer leads an internal R&D network with representatives from the business areas and supports the Hydro Technology Board in developing overall research and technology priorities and strategies.

The greater part of our R&D expenses goes to our in-house research and application development organization, while the remainder supports work carried out at external institutions. Our main R&D centers are in Årdal (smelter technology) and Sunndal (alloys and casting) in Norway,

Bonn in Germany (Rolled Products), and Finspång in Sweden and Detroit in the US (both Extruded Solutions). A significant research and development department for Bauxite & Alumina has been built at Alunorte in Barcarena, Brazil.

R&D Expenses

NOK million



A major advantage for Hydro from an innovation perspective is our broad knowledge and control of the entire value chain from bauxite mining, alumina refining, electrolysis of primary aluminium and alloy technology to finished products and recycling.

Our 75,000-tonne-per-year technology pilot at Karmøy (Norway), with the aim of full-scale industrial testing of our proprietary HAL4e technology, reached full production in 2018. Although still in a qualification phase, the Karmøy Technology Pilot is producing the world's most climate- and energy-efficient primary aluminium. The pilot produced 73,000 tonnes of aluminium in 2019. In 2020, we will perform a validation test of the technology.

We are now in the process of implementing the technology elements from the Karmøy Technology Pilot in our existing primary aluminium producers, improving performance and financial robustness. This includes the Husnes line B in Norway, planned to start production in 2020, and as a part of the regular maintenance and relining of our electrolysis cells in all smelters, where Sunndal presently has strong focus due to its importance in the smelter portfolio. Hydro has also started working on several initiatives to reduce direct CO₂ emission in primary aluminium production.

Bauxite residue is a challenge in our industry due to its alkalinity and large volumes. Hydro participates in international collaboration projects investigating possibilities to use bauxite residue as a resource. An important example is with the Norwegian University of Technology and Science (NTNU), Sintef, Norcem/Heidelberg and Veidekke to develop a new type of concrete using bauxite residue as a resource to improve quality. We are also working with other aluminium companies through the International Aluminium Institute to solve this industry challenge. In addition, we are investing in R&D to reduce the total alkalinity of the bauxite residue.

Aluminium in automotive

The growing use of aluminium in the automotive industry is being driven by emissions regulations and passenger safety requirements. Aluminium is well-suited for all cars, from gasoline- and diesel-powered automobiles to fully electric vehicles and vehicles which use hydrogen fuel cell technology. This is creating new opportunities for Hydro.

Aluminium has inherent suitable forming and functional properties. It is lighter than competing materials and its energy-absorption properties can increase safety. Applications include extruded aluminium frames and sub-frames, body-in-white components, and sheet for hang-on parts such as car doors and hoods.

Hydro is a large supplier to the automotive industry. Customers include major producers in Europe, North America and Asia.

Hydro develops aluminium-based material concepts for battery technology from cathode foil to cell housing, up to integrated solutions for thermal management and battery modules. For the e-mobility market, we won our first contracts to supply battery producers. Furthermore, achieving certification according to the ASI Performance and Chain of Custody standards in 2019, Rolled Products was first mover to supply ASI-certified material for the lower protection cover and battery box for the Audi e-tron model.

High level of expertise

An important part of Hydro's technology strategy is to utilize our researchers, operators and other experts in optimizing the operations at our plants. The competence base in Hydro's technology environments is on a high level in general and world-class in several core areas. As a result, we emphasize using this competence in operational improvements. Examples are reduced energy consumption in casting furnaces, new cathode solutions for relining of electrolysis cells, improved blending tools for utilization of recycled materials, reduced emissions from foil annealing furnaces, and improvement projects related to quality and productivity.

Upstream, we prioritize our R&D and innovation efforts toward technology development and operational efficiency, while downstream, we concentrate on application and product development. Part of our work downstream is conducted together with customers, reflecting design thinking from idea to solution.

The President's Award aims to energize all employees by recognizing excellent work and best-practice sharing. Awards are presented each year within the areas of HSE,

innovation, performance and technology development. Winners should clearly demonstrate the spirit of The Hydro Way, emphasizing Hydro's values. In 2019, Extruded Solutions' high-performance struts solution for automotive customers won the innovation award for products and processes and Primary Metal's HyForge forging stock technology won the innovation award for technology development.

To promote idea generation and innovation, Hydro's business areas have specific programs in place. For more information about R&D in the individual business areas, please see the section "Business description" in this report.

Cooperation with other institutions

In Norway, we receive support from several public institutions to further develop our smelter and casthouse technology as well as our downstream activities. These include The Research Council of Norway, Enova, Innovation Norway and Prosessindustriens Miljøfond. The majority of the support from The Research Council of Norway is paid directly to projects administered or partnered by Hydro at the Norwegian University of Science and Technology (NTNU), SINTEF or Institute for Energy Technology (IFE). Since 2015, we have been a partner in three centers for research-based innovation, supported by The Research Council of Norway: SFI Metal Production, SFI Center for Advanced Structural Analysis and SFI Manufacturing. These are cross-disciplinary R&D programs with a frame of eight years. For more information, see note S8 to the Viability performance statements about public funding.

We also participate in other national and EU-funded R&D projects on post-consumer scrap recycling technology, following market demand for products with a low carbon footprint. Our R&D program includes joint projects with external research institutes such as SINTEF, NTNU, IFE and the University of Oslo in Norway, RWTH Aachen in Germany and the University of Auckland in New Zealand.

Hydro has been a partner since 2016 in NAPIC, the NTNU Aluminium Product Innovation Center. Its purpose is to develop new aluminium applications. A consortium that comprises several downstream industries has been established and five different faculties at NTNU are participating. In order to support and speed up the activity, Hydro is sponsoring an NTNU Professor in this area for five years, from autumn 2016.

Another example is participation in the AMAP (Advanced Metals and Processes) Research Cluster at RWTH Aachen, where among others, one BMWi-funded project deals with energy- and resource-efficient recycling of organically contaminated aluminium scrap.

Status on Better Bigger Greener

The Better-Bigger-Greener program was launched in 2015, and included a number of strategic targets for the period 2016-2025. A number of these targets were negatively impacted by the Alunorte curtailment in 2018-2019, including the improvement programs. The table below summarizes the targets and status per end 2019 for the relevant targets.

Mid-term strategic goals

	Ambitions	Medium-term target	Timeframe	2019 progress	Comment
Better	Extend technology lead with Karmøy Technology Pilot	Full ramp-up	Q2 2018	Jun 27, 2018	Completed
	Best available technology or similar implemented for treatment, storage and use of bauxite residue	New press filters in full operation	2019	Ramp-up of press-filters delayed due to Alunorte embargo	Delayed
	Reduced waste to landfill	60 percent reduction compared to a 2010 baseline ¹⁾	2020	Target not reached	New waste target established
	Maintain zero tolerance on corruption	No instance of corruption	Long-term	Two instances of substantiated corruption in 2019	Target continued, introduction of biennial integrity survey
		Roll-out of revised Code of Conduct, including updated guidance documents within key topics		Code of Conduct rolled out through mandatory e-learning and town-hall meetings	Completed
	Improve safety performance, strive for injury free environment	TRI <2 ²⁾	2020	3.0	Ambition continued; target definition to be replaced at Group level
	Hydro scores in the top 25 percent on the Employee Engagement index	Top 25 percent ³⁾	2020	Top 25 percent	Completed
	All employees participate in the people performance and development process	90 percent ⁴⁾	2020	92 percent	Completed
Differentiate through product innovation, quality and service	min. 1 step change/yr	Annually	1 step change	Completed	
Bigger	Increase nominal automotive Body-in-White capacity	200,000 mt/yr	2017	Ramping up, qualifications ongoing	Ambition included in new improvement program
	Complete ramp-up of UBC recycling line	>40,000 mt/yr	2017	Run-rate of 40,000 mt/y achieved in 2nd half of 2019	Ambition included in new improvement program
	Deliver additional hydropower production volumes through upgrades/sustaining investments	~ 0.1 TWh	2020	Continuous progress	Continuous progress
	Realize technology-driven smelter capacity creep	200,000 mt/y	2025	35,000 mt/yr ^{5) 6)}	Continued, subject to positive business case ⁶⁾
Greener	Become carbon-neutral from a life-cycle perspective	Zero	2020	Achieved in 2019	Closed. New climate strategy launched
	Deliver on reforestation ambition	1:1 ⁷⁾	Continuous	On track	Ambition continued
	Increase recycling of post-consumer scrap ⁸⁾	>250,000 mt/yr	2020	175,000 mt/yr ⁹⁾ 1.57 mt CO2e/mt aluminium	Ambition replaced with a new target
	Continuously reduced specific GHG emissions/mt from electrolysis	EU benchmark	Long-term		
	Making a positive difference	Contribute to quality education and capacity building for 500 000	2030	Implement reporting methodology to track progress	Target continued
		Supplier development within HSE and human right issues	Long-term	Develop and test new solution to initiate and track improvements	Target continued

- 1) Excluding tailings and bauxite residue. It also excludes construction and demolition waste.
- 2) TRI, total recordable injuries per million hours worked, includes own employees and contractors.
- 3) Currently 78% according to the external norm.
- 4) Excluding Extruded Solutions in 2018.
- 5) Original target of 150,000 mt/yr will not be met by 2020.
- 6) Production creep achievements included in the new improvement program
- 7) From 2018 the target covers two hydrological seasons. This revised definition takes into account the nature of the mining cycle, and the time lag is necessary to ensure quality rehabilitation to restore biodiversity.
- 8) Includes Hydro's share of recycling in Alunorf.
- 9) Original target of 250,000 mt/yr will not be met by 2020.