

# Viability performance

87	Viability – The Hydro Way
89	Energy and climate change
91	Environmental impact management
95	Integrity and compliance
99	Human rights and community impact
107	Organization and work environment
109	Innovation

## Quick overview

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

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 2020.

Hydro reports in accordance with the GRI Standards' "Core" option. Please see our GRI index at [www.hydro.com/gri](http://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. The Hydro Way was updated in 2018.

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 131.

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

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](http://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 modern slavery transparency statement. Read more about our reporting principles and materiality process on page 231.

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

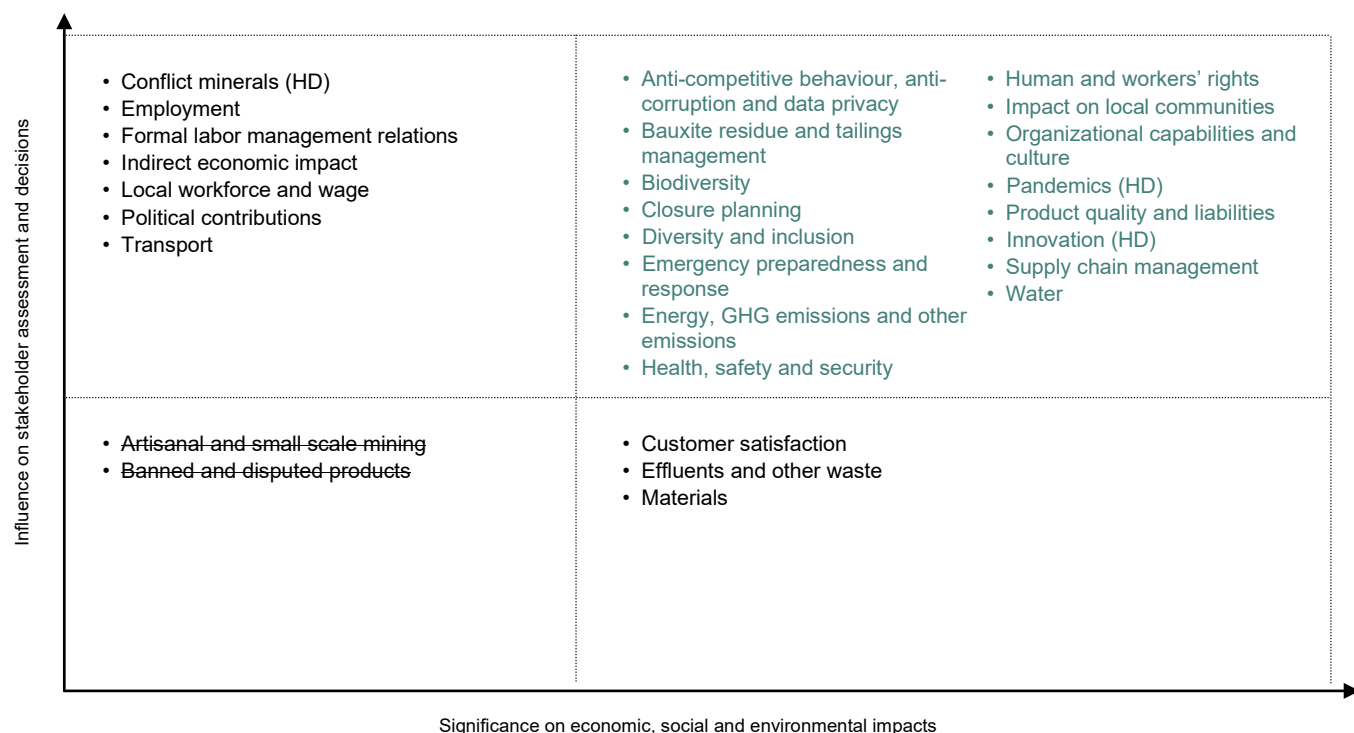
- Letter to shareholders on page 8
- Board of Directors' report on page 12
- Business description on page 40
- Performance and targets on page 74
- Risk review on page 112
- Corporate governance on page 130

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 74.

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](http://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 2020

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](http://www.hydro.com/gri)

The main changes compared to 2019 are:

- Anti-competitive behavior, Anti-corruption and data privacy have been merged into one topic in the materiality matrix
- Bauxite residue, tailing and dam safety renamed *Bauxite residue and tailings management*, in line with Brazil report
- Diversity and equal opportunity renamed *Diversity and inclusion*
- Emergency preparedness and security renamed *Emergency preparedness and response*
- GHG emissions and energy renamed *Energy, GHG and other emissions*, in line with Brazil report
- Occupational health and safety renamed *Health, safety and security* to also include community health and security
- Individual and organizational development renamed *Organizational capabilities and culture*. Topic includes learning, leadership and succession planning. *Moved to most material topics.*
- *Pandemics* added as one of the most material topics. The topic also influences topics such as emergency preparedness, impact on local communities, health, safety, security and compliance
- Innovation and design thinking renamed Innovation
- *Fines and other sanctions* have been removed as material topic as it is a consequence of other topics
- Tax as topic is deemed material, and is part of the broader topic "Indirect economic impact"

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 for total as well as specific emissions, i.e. emission per tonnes product produced. On the other hand, aluminium can save significant amounts of energy and GHG emissions in the use phase due to its lightweight properties.



## Climate change

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 strategy puts emphasis on reducing own emissions. Changes in our production portfolio might influence these targets, but our aim is still to reduce our specific emissions, i.e. per ton produced. 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 CO<sub>2</sub>e and includes direct emissions and indirect emissions from electricity generation (scope 1 and scope 2 emissions). The Hydro Rolling transaction will impact the strategy baseline, see page 18.

In 2019, Hydro 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, and is linked to annual reduction targets. In 2020, we expected no emission reductions due to higher expected production. However, total emissions were reduced by 9.1% compared to the climate strategy's baseline, thus meeting the required target for 2020. About half of the reduction were due to improved performance, especially at the Alunorte refinery. The remaining reduction was due to significant reduced production across Hydro because of the Covid-19 pandemic.

Innovation and technology development are key enablers towards reducing CO<sub>2</sub> emissions. We have initiated a significant R&D program towards 2030 to look into different alternatives to achieve CO<sub>2</sub>-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.

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

Hydro's footprint with 70 percent of primary production from renewable electricity and the low carbon aluminium brands Hydro REDUXA and Hydro CIRCAL differentiate our product portfolio from many peers' and support both margin and volume growth. Hydro earns additional premiums or volume commitments on its low carbon products, and many customers choose Hydro's aluminium due to its low carbon footprint.

Demand for low carbon aluminium products increased in 2020 and is expected to grow in 2021. Hydro will make key capacity investments over the medium term to ensure our recycling portfolio can facilitate the increasing demand for Hydro CIRCAL.

Reaching our 2030 climate ambition will result in an even lower carbon footprint from our products. This is reflected in the ambition to deliver REDUXA 2.0 with a carbon footprint of less than 2 tons of CO<sub>2</sub> per ton of aluminium by 2030.

Hydro's climate strategy is an integral part of our overall business strategy, aiming at driving improvements and development within the company. Impact on 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.

Since 2013, Hydro's ambition has been to be carbon neutral in a life cycle perspective by 2020. This was achieved in 2019. Please see Hydro's Annual Report 2019 for more information on the previous climate strategy.

Direct greenhouse gas emissions from Hydro's consolidated activities



Hydro's direct greenhouse gas emissions increased in 2020 due to increased production at Hydro's alumina refinery Alunorte. Still, specific emissions per ton alumina and aluminium produced decreased due to improved performance.

Hydro is a signatory to the Task Force on Climate-Related Financial Disclosures (TCFD). See page 274 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, we operate 39 hydropower plants with a combined installed capacity of 2.663 MW. Adjusted for ownership shares, our captive hydropower production is 9.4 TWh in a normal year. On December 31, 2020, Hydro and Lyse merged part of their respective hydropower production assets to create a new hydropower company. The new company - Lyse Kraft DA - has a normal annual power production capacity of 9.5 TWh, of which Hydro owns 25.6 percent and Lyse 74.4 percent. In addition, we operate a windfarm and purchase more than 9 TWh of renewable power annually in the Nordic market under long term contracts. For more information please see Energy in the Business description section in this document.

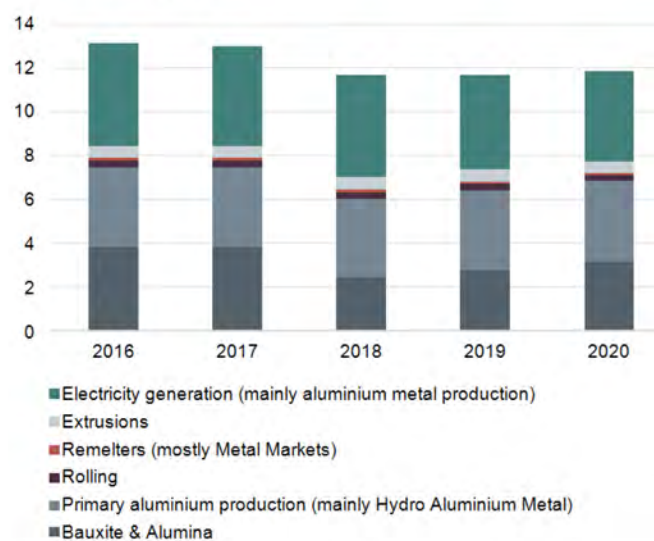
The Qatalum aluminium plant in Qatar has natural gas as its energy source. The International Panel on Climate Change (IPCC) recognizes natural gas as an important transition fuel that can help reduce global temperature increases. Hydro owns 50 percent of Qatalum. Our share of Qatalum's production represents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

Energy efficiency is an important part of Hydro's ongoing efforts to reduce costs and air emissions. Our alumina refinery in Brazil, Alunorte, is among the most energy-efficient refineries in the world. Switching part of our fuel oil consumption at Alunorte to more cost-efficient natural gas with lower emission is an important enabler to reach our emission reduction targets. The project is on track to reduce emissions by 600 thousand tonnes CO<sub>2</sub>e by 2025. In addition we are planning to install three electrical boilers, with a potential to reduce emissions by further 400 thousand tonnes of CO<sub>2</sub>e by 2025.

Average electricity consumption at our consolidated production sites was 14.1 kWh per kilogram primary aluminium produced in 2020. The global average was 14.3 kWh in 2019. The Karmøy technology pilot in Norway is currently testing Hydro's next generation smelter technology with potential electricity consumption reductions of 10-14 percent, see section Innovation, page 109. The Karmøy technology pilot is testing this technology on an industrial scale.

## Greenhouse gas emissions from Hydro's ownership equity

Million metric tons CO<sub>2</sub>e



Hydro's direct greenhouse gas emissions increased in 2020 due to increased production at Hydro's alumina refinery Alunorte. Still, specific emissions per tonne alumina and aluminium produced decreased due to improved performance.

## Reducing CO<sub>2</sub> 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 aluminium 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.

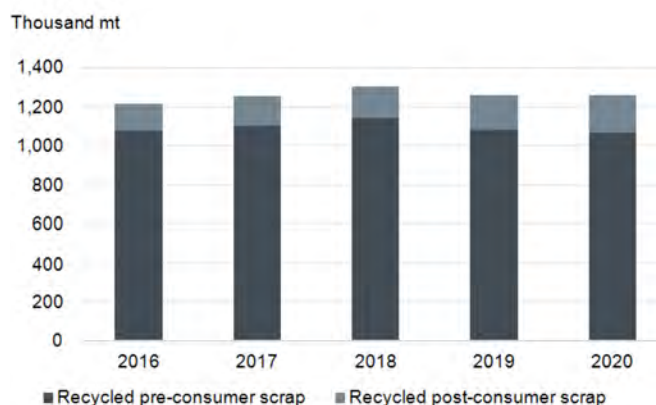
During 2020 we performed a strategic review of our recycling activities and set a growth ambition to double the post-consumer scrap recycling capacity to more than 600 thousand tonnes per year by 2025<sup>15</sup>. To deliver on the growth ambition we established a center of excellence for recycling in Hydro Aluminium Metal to bundle competence and develop necessary capacity supporting all business areas in their growth ambitions.

A new recycling line at our Azuqueca plant in Spain was commissioned and ramped up in 2020. It is modelled as a next generation of our recycling facility in Clervaux, Luxembourg. This, in combination with an upgrade at Clervaux and the remelter Deeside, UK, added up to 30,000 tonnes of post-consumer scrap recycling capacity.

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 has among the lowest carbon footprint in the aluminium industry. In 2020, the recycling sites were partly curtailed due to Covid-19, still, the CIRCAL capacity was fully utilized during the periods of operation.

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 installed an industrial pilot line at Hydro's scrap sorting facility St. Peter in Germany. Start of production was delayed due to Covid-19 to June 2020. We are now working on improvements of the pilot LIBS – Laser Induced Breakdown Spectroscopy – sorter to increase throughput and quality. Also, we have started on developing a Hydro LIBS sorting machine that will be more flexible on raw materials with a much higher throughput and more consistent quality of the sorted product. The idea is to sort post-consumer scrap back into its original alloys for remelting in Hydro casthouses.

## Recycling



We set a growth ambition to double the post-consumer scrap recycling capacity to more than 600 thousand tonnes per year by 2025.

## Environmental impact management

The goal of our 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 surface 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 65. Hydro has primary aluminium production in Australia, Brazil, Canada, Germany, Norway, Qatar and Slovakia, where the main environmental impact relates to emissions to air and waste.



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

- Ecosystems and biodiversity
- Water
- Waste and efficient resource use
- Emissions to air
- Product stewardship

<sup>15</sup> Target may be subject to revision following the Hydro Rolling transaction, see page 18

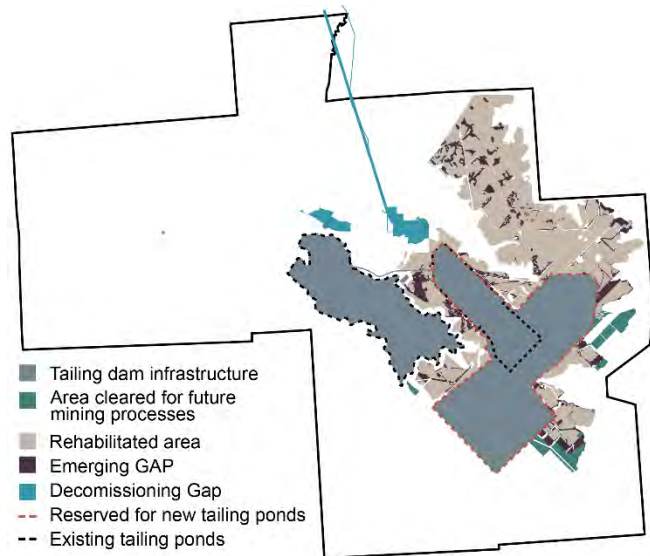
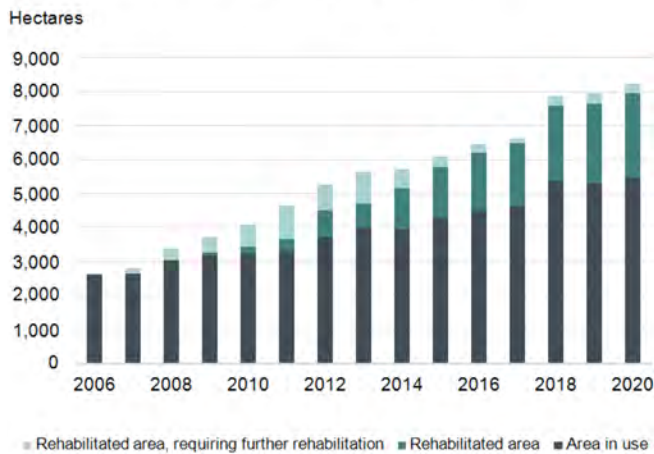
## Ecosystems and biodiversity



Hydro’s only operated mine, the Paragominas bauxite mine, is located in the state of Pará in Northern-Brazil, in the Amazon Basin. Due to the nature of mining, Paragominas has an impact upon the landscape, that will affect the ecosystems and biodiversity that exists there and must be managed in a responsible manner.

To address this impact, Paragominas has set a target to rehabilitate these impacted areas, as soon as practically possible. The rehabilitation target is rolling, aiming to begin the rehabilitation of all available mined areas within two hydrological seasons after their release from operations. 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. This is what we refer to as our 1:1 rehabilitation target.

Land use and rehabilitation - Paragominas



Area reserved for new tailings ponds is expected to be reduced as a consequence of the new Tailings Dry Backfill methodology.

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 98.

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

- Traditional rehabilitation (plantation)
- Natural regeneration of vegetation
- Nucleation

Hydro has used nucleation 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 restore 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 65 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 97.

## 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 2020 showed that 0.8 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).

Operating in water-stressed areas is not considered 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, and as of Hydro’s Annual Report 2020 we are in line with the ICMM’s minimum water disclosure standard.

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 a significant part of its water supply through the bauxite slurry that is transported from Paragominas by pipeline, reusing more than 80% of this water in the refining process. Paragominas’ water use was close to their current regulatory limits. However, based on new hydrological studies of the Parariquara river, Paragominas’ water extraction permits were revised in 2018. Water collection can still be an issue if a new third-party user requests water extraction from the same watershed. To address this, Paragominas has implemented actions to help increase water recycling within the operation and improve water storage capacity. To learn more, see note E4 to the environmental statements.

For more information about the impact of our water reservoirs related to hydropower production, please see Energy’s business description on page 65.

## 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.

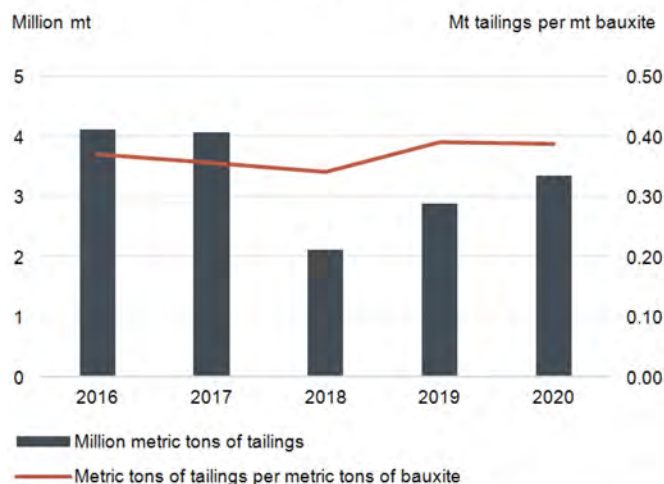
In Paragominas, a new tailings system was completed in 2017. The new tailings dam is situated on a plateau where mining has been finalized. The old tailings system is constructed in a shallow valley. When tailings dams are closed, they need to settle for at least five years before being available for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

Hydro Bauxite & Alumina has initiated tests of the “Tailings Dry Backfill” at the Paragominas mine. This is an approach to minimize the amount of tailings stored, by excavating dried tailings from the storage facility and returning it to the mined areas before they are rehabilitated. The methodology eliminates the need for continuous construction or upgrade of new permanent tailings dams. The application of this approach represents the end of the use of large dams for permanent storage of bauxite tailings. The operating license was received in December 2020, and it has now been fully adopted into operations at the mine.

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 an updated socioeconomic study to assess if there were any significant impacts of the installation of the new bauxite residue storage area (DRS2). If the study indicates such impacts and a need for compensatory measures, such measures shall aim to contribute to sustainable and long-term improvements in potentially affected communities.

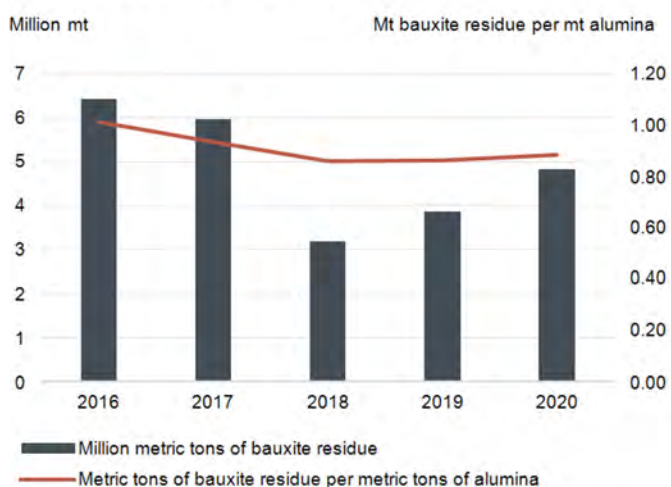
Tailings from bauxite production



Tailings production decreased significantly in 2018 due to the Paragominas curtailment. This is partly reversed in 2019 and 2020 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 and 2020 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 geotechnical consultants, NGI and Geomecnica, in 2016 and 2019. Based on the output of the 2016 audit, an action plan was created for tailings storage facilities and dams at Paragominas. The recommendations have been addressed, based on priority, and, to date, 54 of the 56 identified actions have now been completed, with the remaining two actions expected to be addressed in 2021. In addition to this, independent third-party audits are performed twice a year, to comply with Brazilian regulations and maintain the stability certifications for each dam.

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)<sup>16</sup>, 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 relevant regulations. For active storage facilities we follow voluntary best practice and audits are conducted by international third parties. Hydro is committed to implement the Global Industry Standard on Tailings Management (GISTM). Tailings facilities operated by Hydro with "Extreme" or "Very high" potential consequences will be in conformance with the Standard by 5 August 2023. Other tailings facilities operated by Hydro not in a state of safe closure will be in conformance with the Standard by 5 August 2025. In addition to the tailings dams at Paragominas and the bauxite residue deposits at Alunorte, Hydro has closed tailings dams in Schwandorf and Stulln in Germany that falls under the GISTM commitment. Hydro is a member of ICMM which is one of the three co-conveners of GISTM 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 later in this report. Hydro has launched a new target to utilize 10 percent of bauxite residue generated from 2030.

#### Other waste and by-products

Waste is a by-product of the aluminium production process and is generated at all stages of the value chain. Our waste management approach is based on the mitigation hierarchy: finding ways to avoid, minimize and recycle waste rather than sending it to landfill.

Hydro 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. We have initiated a research project in collaboration with Alcoa with the aim to material recycle fist cut SPL.

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 has a temporary solution for handling SPL in cooperation with local cement plants. They are working to find a permanent solution.

<sup>16</sup> Hydro has a 5 percent ownership interest and off-take agreements with Vale for a further 40 percent of the volume produced by MRN.

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.

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 third parties to recover aluminium and reduce the total dross sent to landfill.

Hydro is also involved in the research project BADELand, that looks into recovery of valuable surplus bath components from aluminium electrolysis.

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

## Emissions to air

Emissions to air are a by-product of the aluminium production process and are generated at all stages of the value chain. Key air emissions from our operations include sulfur dioxide, nitrogen oxides, fluorides, polycyclic aromatic hydrocarbons, and particulates. Emissions to the external environment are minimized through treatment of the effluent gases prior to their release into the environment.

In addition to reducing our greenhouse gas emissions, Hydro has introduced a target to halve non-greenhouse gas emissions from fossil fuels (i.e. NOx, SOx, and particulates) by 2030.

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.

## Legacy management

Following 115 years of activities Hydro also has areas that are no longer used for industrial purposes. Managing such areas to safeguard the environment and nearby communities is an important task for us. We are reviewing such areas continuously to identify risks and actions needed.

The proposal to remediate the former Kurri Kurri aluminium smelter site was approved in December 2020 after a rigorous assessment by the New South Wales' Department of Planning, Industry and Environment (DPIE).

The project is primarily for construction of an onsite, engineered containment cell, and the transfer of the contents of an existing approved stockpile of mixed waste generated

during the 1970's and 1980's, the first decades that the smelter was in use. Several pockets of contaminated soil, along with some demolition and other smelter waste that cannot be reused or recycled, will also be placed in the cell.

The reuse of historic SPL as feedstock for cement production is progressing according to the plan.

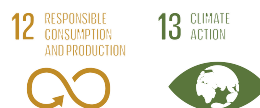
Hydro has agreed to sell the site to a joint venture of local property and residential land developers Stevens Group and McCloy Group. The Kurri Kurri smelter was formally closed in 2014.

The Norwegian Environment Agency has required Hydro to clean up historical contamination in the Gunnekleiv Fjord by 2023. The work is progressing according to the plan. We are exploring alternative methods in cooperation with the relevant authorities.

For information related to Hydro's tailings storage facilities, please see page 93

## 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, 61 production sites have been certified, covering Hydro's value chain from bauxite to finished products, see page 272.

## 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.

In 2020, we reviewed the content and implemented a new system for all internal global directives to make them easier accessible for our employees and to ensure efficient governance.

Our compliance system is based on a clear governance structure defining roles and responsibilities regarding 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 internal board 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 103. 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 continued to evaluate its integrity risk management approach to ensure adequate management of relevant risks.

An integrity culture index was introduced in Hydro's employee engagement survey in 2020. The index benchmarked the employee perception of our integrity culture, measuring the tone from the top, within their department, their leaders, the comfort of speaking up and organizational justice, i.e. perception of fairness. The overall score of the index was within the first quartile of the defined external benchmark, which was one of the KPI's of the CEO scorecard. The results, which identified strengths and weaknesses, provide us with a good basis for specific and tailored compliance activities going forward.

Hydro strengthened sanctions and trade compliance awareness by e-learning and tailored classroom training for exposed functions, and will continue also in 2021, please see note S10.4 for more information.

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. In 2020, we have continued to strengthen Hydro's data protection work, with a specific emphasis on clarifying roles and responsibilities. Designated data privacy coordinators appointed by and for the respective business areas and staff functions forms part of the data privacy network chaired by the head of data privacy. A special emphasis was given to data privacy as in

the compliance training provided by Group Compliance and Legal in 2020.

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.

In 2020, 224 cases were reported through the AlerLine channel. All cases reported through the AlertLine were assessed, and investigations were performed where relevant. In total, 4 people were dismissed as a result of reported breaches of Hydro policy in 2020, 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, he 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 123.

## 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 284. 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 302. 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

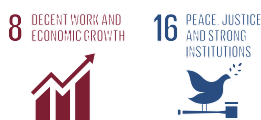
Engaging with our stakeholders helps us understand what is expected of us, what is important to them, how we impact them and how we can solve common challenges. As a global company, Hydro participates in a wide range of activities, from local community meetings to national and international multi-stakeholder 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 98.

We 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 99.

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 or employee 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 99.

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

On March 5, 2021, Hydro entered into an agreement to sell its Rolling business to KPS Capital Partners for EUR 1,380 million (around NOK 14.2 billion) on an enterprise value basis. The sale of Rolling will enable Hydro to deliver on the 2025 strategy, strengthening our position in low-carbon aluminium, while exploring new growth in areas where our capabilities match global megatrends. The transaction includes seven plants, including the Neuss primary aluminium plant, one R&D center, global sales offices, and around 5,000 employees, of which 650 employees are in Norway and the remaining mainly in Germany. Hydro Rolling has been under a strategic review since September 2019. Dialogues with affected groups and stakeholders are part of the process, and employees' representatives are involved in all major processes affecting employees.

Owners Rio Tinto and Hydro have come to the joint decision of starting a consultation process to permanently close Dutch anode producer Aluchemie, as the highly competitive market situation and significant reinvestment needs in the facility make continued operations unviable. The close-down process will include consultation processes with employee representatives and unions, as well as key external stakeholders such as environmental authorities and landowner regarding the site remediation process. The plant is currently expected to close toward the end of 2021 and follows a thorough strategic review to explore alternatives to closing Aluchemie.

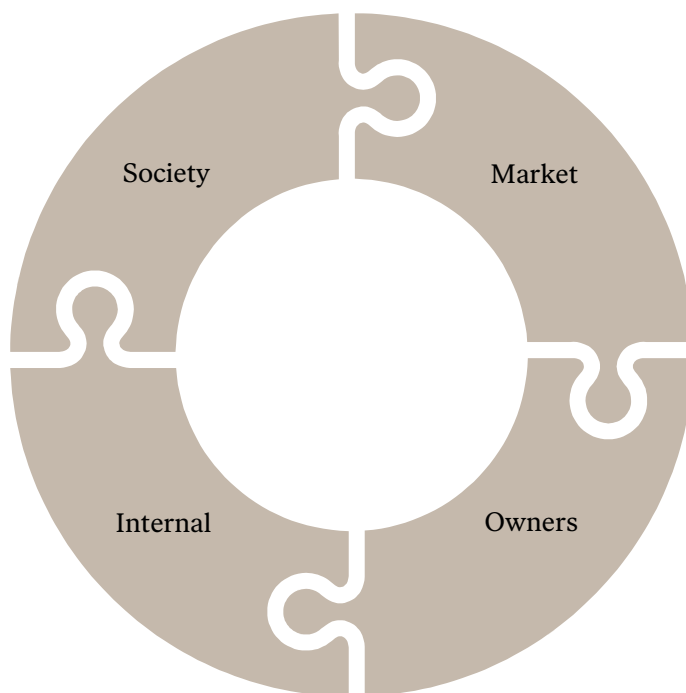
Hydro Extrusion has been undergoing an optimization of its large asset portfolio to identify ways to streamline its footprint and reduce costs supporting its improvement targets. During 2020 some extrusion plants were closed or divested, and in most cases, volumes have been transferred to other facilities. In the US, the closure of Belton and Kalamazoo was completed in first quarter 2020. In India, the plant in Pune was closed in June 2020. In Europe, several restructuring projects were completed in 2020, including the divestment of a plant in Romania and Santa Oliva in Spain, as well as the closure of Pinto in Spain. In addition, the sale of the Remscheid plant in Germany was signed in October 2020. Examples of dialogue with affected groups and stakeholders in this process in Europe are 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.



### 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. Seventeen 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.

Hydro is a Signature Partner of UNICEF Norway to contribute to quality education for children and adolescents. In 2020, Hydro supported the UNICEF program Upshift in India. Together with UNICEF, we also celebrated World Children’s Day through an internal campaign to encourage children and young people to reimagine their future. For

information about our community investments and social programs, see page 105.

In addition, we cooperate with global and local industry organizations, NGOs and other organizations. See [www.hydro.com](http://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 page 109.

## 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 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 / Bundesverband der Deutschen Industrie, 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](http://www.hydro.com/gri)

In addition, we participate in 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. When relevant, we are in dialogue with applicable tax authorities in Norway, the EU and Brazil. We may also discuss fundamental tax developments and issues with other enterprises.

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 the EU Commission in 2019 and increased European climate protection targets 2030 were decided in December 2020. 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 interesting opportunities in this roadmap as long as it is combined with competitive framework conditions.

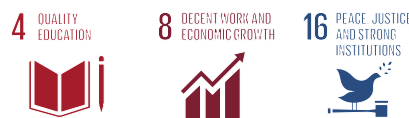
Hydro is working to implement the requirements set out in the EU Taxonomy.

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 energy and 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, including risk of human rights violations, within our own operations, the communities we are part of, and in the supply chain.

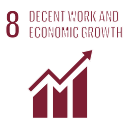


### Respecting human rights

Hydro recognizes that businesses have a responsibility to respect, support and promote human rights. We respect the human rights of all individuals and groups that may be affected 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](http://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 part of the ongoing process to manage and improve Hydro’s human rights impacts, we updated our Human rights policy and Supplier Code of Conduct in 2020. We also prioritized Hydro’s major risks related to human rights (salient issues) and revised the mapping of risk

to people in our enterprise risk management process. A corporate coordination group was established to improve collaboration on human rights topics across the organization. The improvement work will continue in 2021.

**Hydro’s human rights management**

**Policy commitment and governance**

Hydro’s Human Rights Policy was last updated in 2020 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 available at [www.hydro.com/principles](http://www.hydro.com/principles)

We have identified Hydro’s major risks to people, the human rights salient to our operations and which we are most at risk of impacting:

- Modern slavery, forced labor and child labor abuse
- Principles of freedom of association and collective bargaining
- Freedom from discrimination and harassment
- Decent working conditions
- Right to privacy
- Right to health
- Right to safety
- Rights of vulnerable individuals and groups
- Access to information, dialogue and participation
- Rightful, respectful and lawful resettlement, relocation and repossession

Implementation of governing documents, processes and procedures that concern the respect for human rights is a line management responsibility. Human rights risk can be addressed in the business areas’ Sustainability committees or similar fora. 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 related UN documents and instruments. The minimum requirements to our suppliers are stated in Hydro’s Supplier Code of Conduct (updated in 2020).

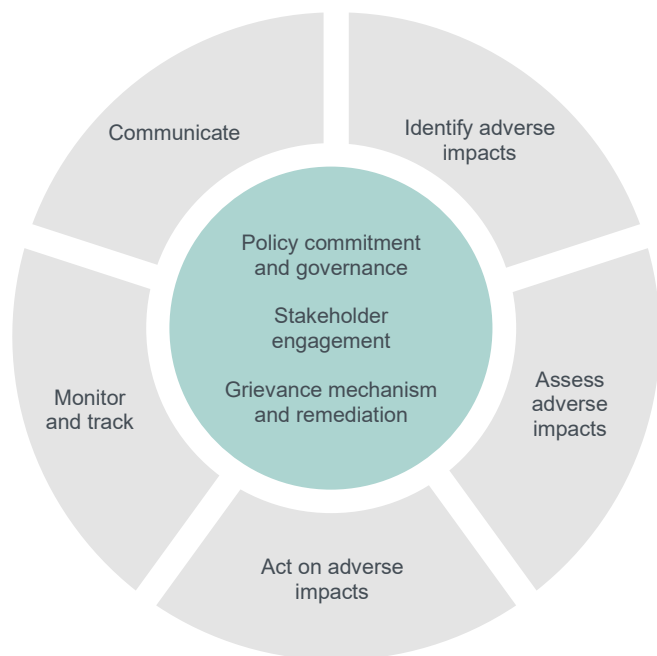
Human rights responsibilities are part of Hydro’s Code of Conduct, which is translated into 19 languages. Training on the Code of Conduct is provided to employees. In addition, more specific training on relevant human rights topics is provided to relevant functions and locations. E-learning on Hydro’s Social responsibility, including human rights, is available to all employees. For more information, see note S10.4 to the Social statements.

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

Human rights due diligence is integrated in relevant business processes including the enterprise risk management process. Mitigating actions or activity plans are developed and included in business plans in the business areas where relevant. Business plans are monitored, followed up and evaluated through the year in regular internal board meetings. Human rights and other sustainability related issues are discussed when relevant.

In line with our risk-based approach, we aim to conduct more thorough stand-alone human rights impact

**Hydro’s human rights management**



assessments with mitigating action plans where there is a higher risk for adverse impacts.

Before new projects, major developments or large expansions are undertaken, we aim to conduct risk-based environmental and social impact assessments, when relevant, which include evaluating risks for adverse human rights impacts. We are guided by The IFC Performance Standards on Environmental and Social Sustainability in doing so. For more information see page 97.

#### **Rightsholder and stakeholder engagement**

When relevant, we consult parties that might be significantly impacted by our activities.

We engage and collaborate with stakeholders both internally and externally when relevant to help inform us about, and evaluate the effectiveness of, our human rights management. This may include NGOs, unions, local associations, authorities, etc. For more information about our partnerships, see page 98.

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.

Where relevant, and in line with our risk-based approach, we have regular dialogue with communities, and more frequent and structured dialogue in communities with higher risk of facing adverse human rights impacts. We develop and plan community dialogues in collaboration with affected communities, based on their needs and expectations. Community members close to our sites in Brazil and at several other major sites are invited to plant visits on a regular basis. For more information about stakeholder dialogue, see page 97.

#### **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.

To help facilitate informed and effective participation with people who are potentially affected by our operations, we establish or facilitate access to effective grievance mechanisms where relevant. We encourage, and will not retaliate against, individuals who in good faith raise concerns regarding Hydro's respect for human rights. Hydro is committed to not interfere, retaliate or hinder access to judicial or non-judicial grievance mechanisms.

In countries with higher risks for adverse human rights impact to communities, according to our risk-based approach, we aim to have local community-based grievance mechanisms.

In situations where we identify adverse human rights impact that we have caused or contributed to, we work to cooperate in, promote access to and/or provide fair remediation.

We have several grievance mechanisms depending on stakeholder groups. Employees and contractors can use the companywide AlertLine for reporting concerns involving illegal, unethical or unwanted behavior. For more information see page 95.

Grievance mechanisms for community members can have different approaches 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.

Other stakeholders, including customers, suppliers and other business partners can contact us with complaints through online contact forms. All mechanisms can be used anonymously unless prohibited by local legislation. We are aiming at further improving the accessibility of our grievance mechanisms.

#### **Managing human rights risks**

We monitor Hydro's major risks to people and recognize 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 3. Below are some examples of how we manage human rights risks.

##### *Brazil*

The Brazilian human rights consultancy Proactiva has conducted a thorough human rights due diligence of our operations in Pará state, Brazil. The due diligence covers the alumina refinery Alunorte, primary aluminium plant Albras and the Paragominas bauxite mine, including the bauxite slurry pipeline from Paragominas to Alunorte.

Several positive impacts have been identified, including the contribution to direct and indirect job creation in the region, considerable improvements to health and safety at our plants, and healthcare and access to education for our employees. The due diligence points to important groundwork already underway to strengthen systems for anti-discrimination and diversity, strengthen our knowledge related to traditional communities in the municipalities where we operate, and strengthen environmental information to the public. Some of the main suggestions for improvements include better internal implementation and awareness on Hydro's Human rights policy, and strengthening the local grievance mechanism, Canal Direto, and security and dialogue with communities along the pipeline.

We acknowledge that several identified topics are complex and have historical relevance to the region. Some topics date back to before Hydro took over the majority shareholdings in 2011. Examples include the original land appropriation process by the authorities in the 1970s/80s to create the industrial area for Alunorte and Albras and settlements of financial compensation for Quilombolas communities in the Jambuaçu Territory. We are investigating further to understand the history and what influence we may have for



meaningful actions today in accordance with the UN Guiding Principles on Business and Human Rights (UNGPR).

An action plan is under implementation, prioritized by severity for implementation by 2023. During 2020, we made progress in several areas. Examples include conducting human rights training for employees and for suppliers and improving human rights in the Bauxite & Alumina's Enterprise Risk Management and procurement processes.

On February 5, 2021, CAINQUIAMA – Associação dos Cablocos, Indígenas e Quilombolas da Amazônia (an association with office in Barcarena) and nine Brazilian individuals filed a lawsuit with the Rotterdam District Court, in the Netherlands, against Hydro's Dutch entities and Norsk Hydro ASA (Hydro) seeking compensation for alleged financial damages and personal injuries suffered as a result of Alunorte and Albras activities in the municipality of Barcarena. According to the plaintiffs, Hydro's Dutch entities and Hydro are part of Alunorte and Albras' corporate group and, therefore should be liable for the alleged environmental violations caused in the municipality of Barcarena throughout the years.

CAINQUIAMA has since 2017 initiated five lawsuits in Brazil against Hydro entities. The matters brought forward by Cainquiama in the Netherlands are similar to the cases that are already ongoing before Brazilian courts and Brazilian authorities and earlier publicly reported by Hydro. The cases are related to allegations following the rainfall in the municipality of Barcarena in February 2018, incidents dating back to 2002, as well as the historic land appropriation process back to the 1970/80s. Hydro became the majority owner of Alunorte, Albras and Paragominas in 2011. For more information about the lawsuits, see note S10.2.

Through a more structured social dialogue we aim at further improving the relationship with local communities, institutions and local traditional communities. Due to Covid-19, dialogues in 2020 have to a large extent been moved to digital platforms, and infection prevention protocols are strictly followed for physical meetings to reduce infection risk. More than 800 dialogue meetings were conducted in 2020 with communities next to our operations in Pará state.

To better understand the perception of Hydro's reputation, the impact of our social initiatives and dialogue, and Hydro's relationship with the communities, a survey was performed in the seven municipalities we operate in. The baseline was conducted in early 2020 with a second survey conducted in late 2020. In the second survey, half of the respondents agreed to Hydro's social initiatives as being positive. This is a 13% improvement from the baseline survey. The surveys were part of the Corporate Management Board's KPIs in 2020. We will follow up with yearly surveys to monitor the perceived impact of our initiatives.

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 collaborating with Fundação Cultural Palmares to foster the dialogue and

establish a positive agenda within the Quilombola territory. The Fundação Cultural Palmares foundation is the Brazilian agency in charge of Quilombolas affairs.

As part of an integrated plan to remedy impacts along the pipeline, Hydro reached an agreement in 2020 with 61 families identified as directly impacted by the construction, but not covered under the legal agreement with the former owner. In addition, Hydro is currently working together with different stakeholders, including Quilombola communities, Fundação Cultural Palmares, State of Pará and INCRA to reach an agreement to support six community associations, and establish a fund for social investments for the Jambuaçu Territory that Hydro aims to contribute to. INCRA is the Brazilian agency in charge of land certifications, including Quilombola matters, as part of the environmental licenses.

Through the establishment of a fund for social investments, we will continue the Moju Sustainable Territory Program in the Jambuaçu Territory. The program supports local associations along the pipeline to strengthen their legal, administrative and governance structure.

In an area surrounding Hydro's operations in Barcarena and which is regulated for industrial purposes, illegal logging and irregular settlements have accelerated since 2016. We realize that we need to better understand the situation in collaboration with the relevant stakeholders, the municipality and civil organizations. 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 Barcarena, the Community Environmental Emergency Brigade is part of Hydro's emergency preparedness plan. The brigade includes representatives from local communities hired by Hydro and trained in how to protect and support the community in case of an emergency. They are also trained to help oversee and report on the security and safety of Hydro's assets, especially from the community perspective. In 2020, the brigade also provided information to local communities about infection prevention protocols to help combat Covid-19 and the spread of misinformation related to Covid-19.

In the municipality of Oriximiná in Pará, Brazil, where the MRN 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 its board of directors and committees 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 is engaged with stakeholders and supports the Sustainable Territories Program, a social program to promote long-term development of traditional communities in Oriximiná. In 2020, MRN put in place measures to reduce the spread of Covid-19 including providing medical equipment and food to local Quilombola and other traditional communities.

#### *Qatar*

At the primary aluminium producer Qatalum, a joint venture where Hydro holds 50 percent, the large majority of employees are migrant workers. Qatalum strives to secure good working conditions for its employees and to follow up the conditions for contracted workers. GIEK (Norwegian Export Credit Guarantee Agency) conducted a review of the social responsibility performance in 2019. Qatalum has followed up on the recommendations identified. Some recommendations have been delayed due to travel restrictions during Covid-19. In 2020, Qatalum put in place measures to limit the spread of Covid-19 among its employees and for contracted workers. This included information campaigns and steps to reduce mobility such as home office, shift changes, etc.

#### *Other countries*

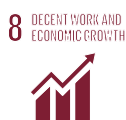
We have conducted several social responsibility reviews of contractors in Norway in relation to new construction projects. The purpose has been to ensure basic human rights for the migrant workers employed by contractors in the projects at the primary aluminium producers at Husnes, Karmøy and Sunndal in Norway. The Covid-19 situation required extra attention on routines for quarantine, living conditions for the workers, and their health. No major issues were identified.

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

We also have more limited operations in other countries where there is an increased human rights risk, including China, Mexico and India. We track the human rights developments in these countries and seek ways to mitigate our impact when and where relevant.

## 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 business conduct including anti-corruption and bribery, human rights, health, safety, environment and climate.

The 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 Hydro Supplier Code of

Conduct was updated in 2020 to be more specific on several of the requirements than the former version. The changes are based on international standards Hydro is committed to and more requirements have been included, e.g., data privacy, minimum wages, alert line and conflict minerals.

The principles set out in the 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.

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 2020, the Covid-19 situation had major impact on parts of our supply chain, and we implemented actions to support our suppliers in a challenging situation.

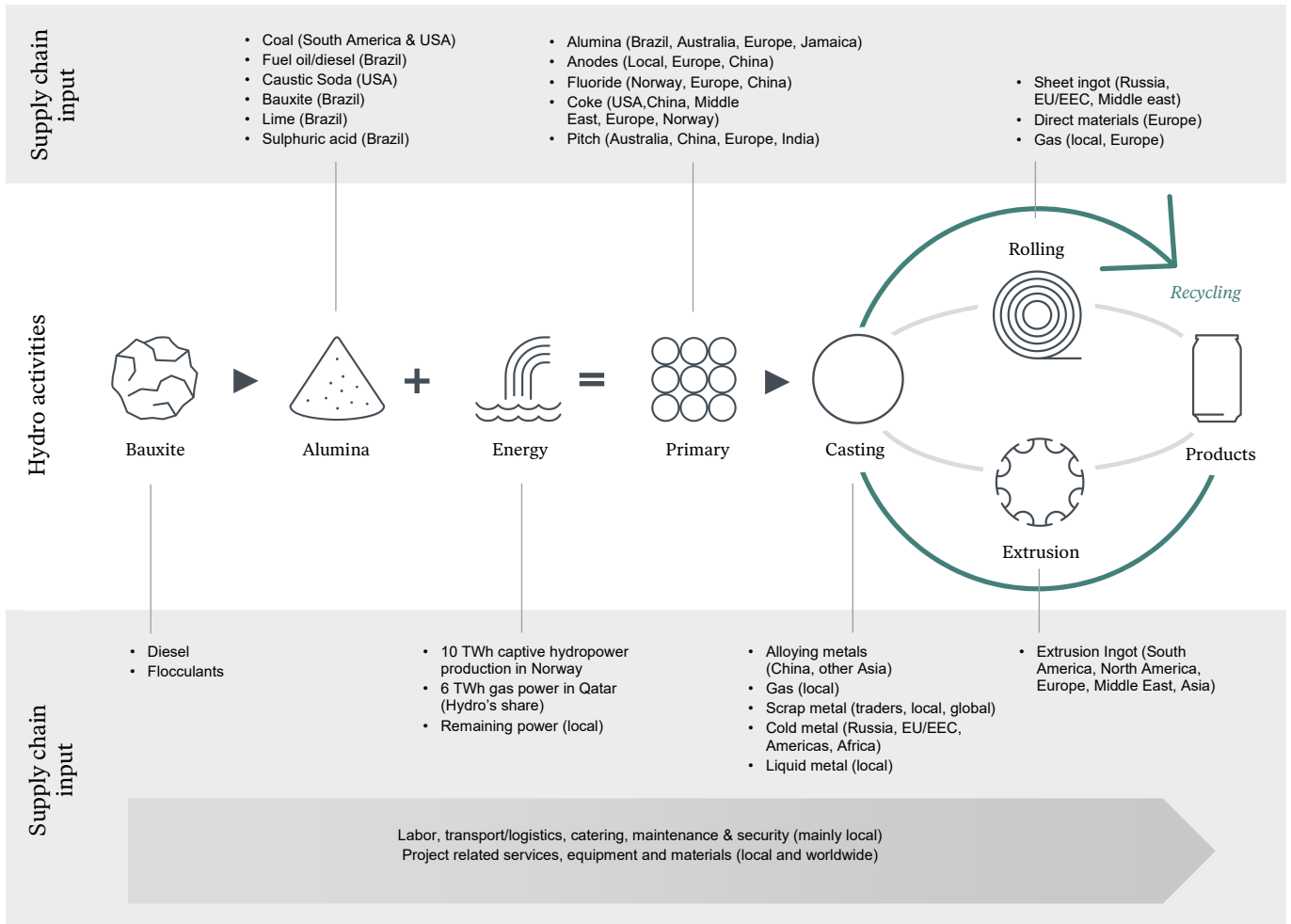
The major risk to people monitored in the supply chain are related to safe and decent working conditions, health, discrimination, freedom of association and collective bargaining. The risk of incidents of child labor abuse, compulsory or forced labor is also monitored. There have rarely been any findings of these severe risks in our supply chain the last years. 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 screenings, supplier audits and regular dialogue with the suppliers.

In Norway, Hydro has an offtake agreement with Statkraft on power from the new Fosen wind power installation. The projects at the Fosen peninsula are located within Sami reindeer grazing land. Agreements on mitigating measures and compensation for extra costs during the construction phase have previously been entered into with the two affected reindeer herding groups. It has not been possible to reach agreements with the groups regarding measures and compensation for the operational phase. The High court determined the compensation for the herding groups related to the operational phase of the wind farms in June 2020. The ruling was appealed to and has been allowed for hearing by the Supreme court.

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 2020, 21 supplier companies participated in the program totaling over 300 participants.

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 communities impacted by our activities
- Promote decent work throughout the value and supply chain
- Foster economic growth in communities impacted by our activities
- Strengthen local communities and institutions through capacity building on human rights and good governance

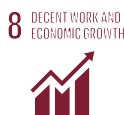
We have committed to contribute to quality education and capacity building for 500,000 people in communities impacted by our activities and for business partners from 2018 until end of 2030.

In 2020, we reached more than 59,000 people - compared to approximately 27,000 in 2019. Continuous improvement of current initiatives and development of new high-impact initiatives will be important going forward.

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

## 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. Hydro Extrusions has a broad range of sponsorships and support programs.

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 98 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 111 for further information.

Many social programs have either been put on hold or transferred to digital platforms due to Covid-19 in 2020. Several programs are linked to partnerships. See more about our partnerships on page 98. 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.

In Pará state, Hydro currently has 10 social programs across the seven municipalities where we have operations. Due to Covid-19, all programs have adapted new measures. Where possible, programs have been moved to digital platforms, and prevention protocols are strictly followed for physical activities. For each program we have an implementation partner. In 2020, the implementation partners met digitally to share knowledge and identify synergies to strengthen our partners and contribute towards the common goal of local development. In 2020 we also established initiatives to train community leaders in leadership and administration in the communities where we operate. Furthermore, we started a technical training program for community members along the pipeline to strengthen their job opportunities. See Hydro's Sustainability report for Brazil to learn more about the social programs and initiatives. We initiated the Sustainable Barcarena Initiative in 2018 and have continued developing it in 2020. 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. Hydro is contributing BRL 100 million to the fund over a 10-year period.

In 2020, the fund established partnerships with USAID and the Partnership Platform for the Amazon's Solidarity initiative to strengthen initiatives in the Amazon region. In response to Covid-19, the fund together with these partners are financing income generation projects for local production of face masks, as well as strengthening of existing social projects for local farmers through the pandemic. In addition, a partnership between the fund, the Mitsui Fund and Instituto Peabiru will invest BRL 1.3 million to microfinance for local family-based manioc processing.



## 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.

The fund launched its first round of financing in December 2019. Based on set criteria, BRL 765 000 has been allocated to projects that will support local associations, increase the capacity of community businesses and promote cultural events. The implementation is currently on hold due to Covid-19.

To support the -preservation of the Amazon region, 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 98 for more information.

In 2020, over 600 employees participated in the volunteer programs organized at several of our locations in Brazil. The volunteers organized over 50 different activities including organizing food baskets, fundraising, seed planting and training for community leaders.

### India

In Kuppam, India, where we have an extrusion plant, we continued developing a local educational program using tablets. We currently support two local learning labs through the program. Due to Covid-19, students have been given access to the learning apps for use on private tablets and phones so that the training and development can continue despite closed schools. A recent pilot to offer tablets to all community members was discontinued due to low participation.

In 2020 we started supporting UNICEF's "Upshift" program, a youth social innovation and social entrepreneurship program designed primarily for marginalized or at-risk young people. We currently support the program for school children in India in Karnataka and in Telangana.

### 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. Due to Covid-19, the number of teams participating declined and the material Hydro donated in 2019 covered the need of the program in 2020.

## Covid-19 and social responsibility

While the health and safety of our employees are crucial in these times, Hydro also plays a role in the local communities where we operate and in the global effort to stop the pandemic and its effects.

Hydro established guidelines for community response to Covid-19 pandemic in March. They set out the importance of engaging with national, regional and local authorities including health authorities to understand how Hydro best can assist. Coordination and monitoring our response in regions with vulnerable health systems is an integrated part of Hydro's emergency response to Covid-19. Some examples of our efforts to date:

- Supplying material and products to customers critical to fight Covid-19, including materials for field hospitals, ventilators, medical lighting, medical beds, etc.
- Many plants across our global operations have contributed with protective gear or monetary donations to local hospitals, medical centers, local health organizations or local food banks.
- Responding to suppliers that potentially are in a critical financial situation and implement actions where needed.
- Donated NOK 500 000 towards UNICEF's Humanitarian Action for Children (HAC) Covid-19 appeal to support the most vulnerable affected by the pandemic

The social risk related to Covid-19 in northern Brazil is particularly high. So far, we have donated more than 18 MBRL to support related response initiatives for the local communities in close collaboration with authorities and municipalities. Examples include the construction of field hospitals, procurement of medical equipment and test kits for the municipalities, donation of water to a homeless shelter, and donation of food baskets to vulnerable communities. We have also donated property for field hospitals. Furthermore, we have introduced a range of initiatives to increase awareness and correct information on prevention in the communities with, for instance, support from the Community Environmental Emergency Brigade. We also strengthened the local grievance mechanism to manage concerns over the situation and to provide information on prevention. Also, volunteering activities were redirected to support local communities during the pandemic. We have, to the extent possible, continued social dialogue with communities to understand ongoing needs, and maintained activities linked to social programs through digital platforms. These have been important efforts towards the economic recovery of the communities.

## 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 was launched in 2020, setting global strategic priorities 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 was 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.

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.

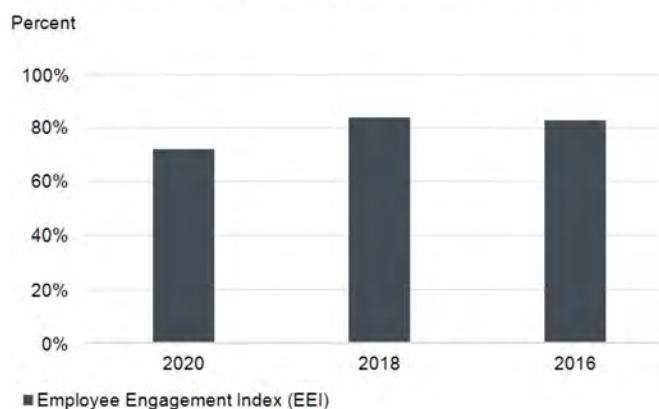
We offer new employees introductory training related to the organization and to their individual work tasks. This includes required knowledge within health, security, safety and environment. The most important development takes place locally, primarily with on-the-job training. A special training course, 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.

For information about Hydro's approach to diversity and inclusion, including information about our global employee engagement survey Hydro Monitor as well as information

about compensation, please see the appendix "Diversity & Inclusion" to the Board of Directors report on page 295.

### Hydro Monitor - Employee Engagement Index (EEI)



Change in methodology makes the 2020 results not directly comparable to previous years. Hydro Monitor did not include employees from Hydro Extrusions in 2018.

## 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. To learn more about Hydro's diversity and inclusion strategy and work, please see the appendix "Diversity & Inclusion" to the Board of Directors report on page 295.

## 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 and others who work with us.

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.

Hydro has developed a comprehensive health and safety management system which is based on Hydro’s best practices and compliant with international standards.

We embrace digital tools where possible and have developed an advanced incident management system, self-assessment tools, risk management processes, etc. They are all easily accessible to employees. In addition, we have strengthened our behavioral tools using human performance techniques and the consistent use of peer-to-peer job observations.

The number of total recordable injuries and associated rates improved over 2019 levels to a total recordable injury rate of 2.7 from 3.0.

There were no life-threatening injuries during the year; however, there was one life changing injury at one of our North American facilities where a worker’s right foot was surgically amputated after his foot was crushed when a heavy load fell from the forks of a forklift truck. Major incidents and near-misses are investigated, corrective actions implemented, and used in training and communication purposes to secure knowledge sharing.

The deployment of fatality prevention procedures and associated life-saving rules and behaviors continued in 2020 which contributed to a significant reduction in the number and rates of high-risk incidents and this process will continue into 2021.

From 2020, our emphasis has also been on the closing rate of actions related to high-risk incidents in our operations in 30 days. For 2020 we achieved a rate above 90%. We consider this one of the main leading indicators for our safety performance. The high-risk incident rate improved in 2020.

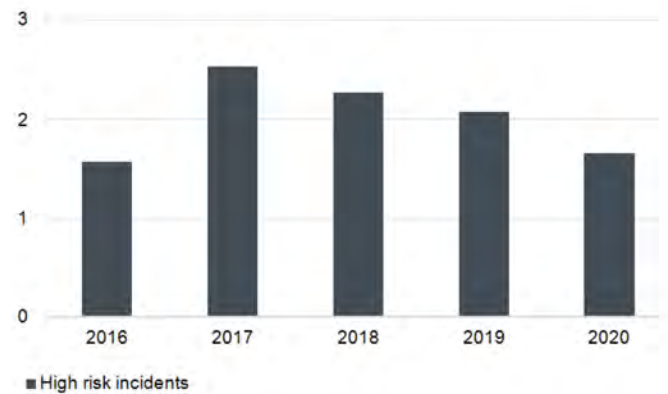
Our approach to improve occupational health is based on work environment risk assessments covering physical, chemical and psychosocial risks.

Hydro closely monitors the development of Covid-19 and has implemented control measures to help prevent the risk of infection and spread and its impact on employees and operations. Hydro has acknowledged the potential impact of Covid-19 on our employees’ mental health and have held several webinars to provide tools to help build resilience and coping mechanisms in line with our mental health and wellbeing programs.

The CEO HSE Committee is 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 and the head of HSE.

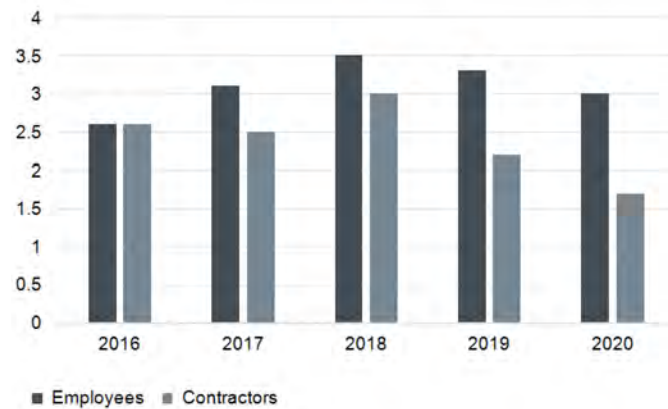
### High risk incidents

Per million hours worked (employees and contractors combined)



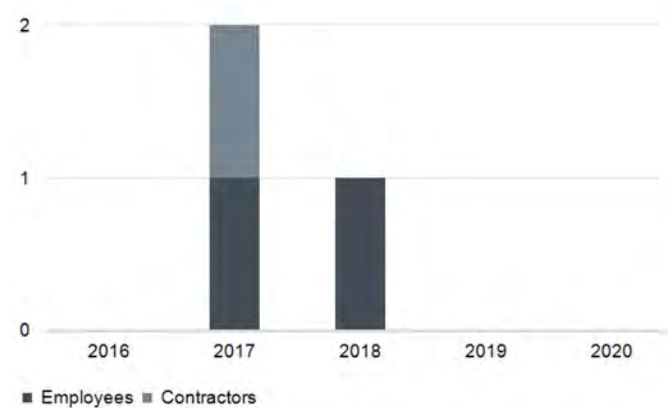
### Total recordable injuries

Per million hours worked



### Fatal accidents

Number



In 2019, there was one fatality in Qatar in the 50/50 JV managed by Qatalum

## 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 and anticipate and prepare 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. Our emergency preparedness plans enable effective response to high-risk incidents and crises ensuring an effective, cohesive, integrated and timely response to any business disruption, regardless of scale or complexity and its origin.

Security within Hydro is delivered and implemented through a pro-active security risk management process, which has a focus on analysis, to enable appropriate mitigating actions and accurate and timely decision-making. Security guards are employed on a regular basis to protect our personnel and assets. No armed guards are involved in our activities, however, there was one significant incident involving our security guards being fired upon while on patrol at one of our Brazilian sites. No security personnel were injured and resulting security mitigation measures were employed to protect personnel and prevent further incidents.

In 2020, we continued 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 standards. The process of certification is progressing with Hydro employed security teams in the USA and Hydro is also supporting our third-party security providers to achieve the same level of conformity in Brazil.

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.

In early 2020, we continued the program of conducting emergency and crisis management workshops with risk mapping at its core. The workshops help to link the process of emergency response, crisis management and recovery from the plant through to business area level and above.

One workshop was conducted before the Covid-19 travel restrictions was imposed. However, remote security and emergency training modules were developed, three of which are now on the companies e-Learning portal for all Hydro personnel. Other more complex remote emergency and crisis management training, incorporating lead and senior management teams is being developed for deployment early in 2021.

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.

Cyber risk assessment is an integrated part of Hydro's enterprise risk management system. This is to facilitate the Business Areas awareness of how cyber risks relate to their critical assets and operations.

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 information and systems. Threats may include attempts to access information, computer viruses, denial of service and other digital security breaches.

Hydro has launched several initiatives to increase the robustness of 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.

## Innovation

We believe that the key to Hydro's 115-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:

- Reducing energy consumption, waste, emissions and carbon footprint in line with Hydro's sustainability agenda
- Making products and solutions that promote the use of aluminium and sustainable development
- Implementing technology elements from the Karmøy Technology Pilot 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 and low-carbon products based on post-consumer scrap, e.g. Circal



- 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 the mature aluminium 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, Barcarena in Brazil (bauxite and alumina), and Finsspång in Sweden and Detroit in the US (both Extrusions). The R&D unit in Bonn in Germany is included in the Hydro Rolling transaction, see page 18.

A major advantage for Hydro from an innovation perspective is our broad knowledge and oversight 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, went through a complete validation test in 2020. The ambitious targets were successfully reached and operations are stable. The Karmøy Technology Pilot is producing the world’s most climate- and energy-efficient primary aluminium.

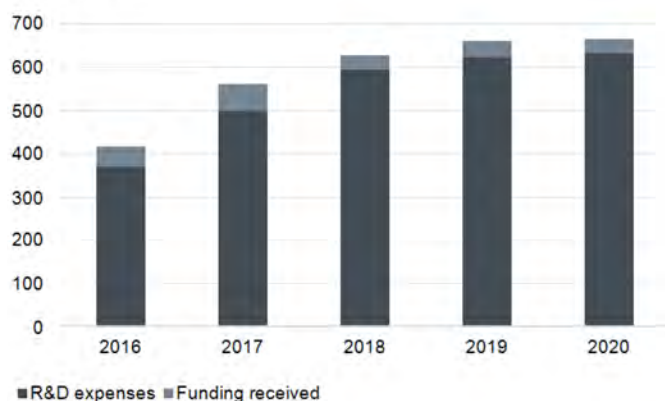
We are now in the process of implementing the technology elements from the Karmøy Technology Pilot in our existing primary aluminium producers, improving performance and financial robustness. This includes the Husnes line B in Norway, which started production in 2020, and as a part of the regular maintenance 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 CO<sub>2</sub> emission in primary aluminium production.

Towards 2050 we are exploring different paths for low or zero carbon technology for aluminium production. We are partnering with several start-ups and academic environments to explore and develop technology for low carbon concentrations, like direct air capture and the emissions from our own primary production facilities. We are looking into projects to replace fossil carbon in our anodes with bio carbon, and while it appears challenging, we are part of two fundamental R&D programs supported by the Research Council looking into this. In addition, we are on track with our chloride feasibility project, supported by Gassnova, where we explore a new process based on aluminium chloride with zero CO<sub>2</sub> emissions.

Tailings management and bauxite residue is a challenge in our industry. One example of our progress relates to the tailings dry backfill project. The application of this approach in Paragominas represents, if successful, the end of construction of new facilities for storage of bauxite tailings. 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.

R&D Expenses

NOK million



## 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 automotive due to low weight, good strength and formability, corrosion resistance, recyclability and its energy-absorption properties that can increase safety. Light-weighting is particularly important for electric vehicles with heavy battery packages.

This is creating new opportunities for Hydro. Applications include extruded aluminium frames and sub-frames, body-in-white components, battery casings 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.

## 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, 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. Throughout 2020 we have prioritized more resources towards technology development that supports our ambitious sustainability targets on emissions, waste and circularity.

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 2020, Bauxite &

Alumina won the innovation award in the products and processes category for the tailings dry backfill methodology, and Aluminium Metal's planning and optimization tool for scrap blending 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). We are a partner in four centers for research-based innovation, supported by The Research Council of Norway: SFI Metal Production, SFI Center for Advanced Structural Analysis, SFI Manufacturing and SFI Physical Metallurgy. These are cross-disciplinary R&D programs with a frame of up to eight years. We are also partner in similar centers for environmental-friendly energy (FME). 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.