

2019 Sustainable Development Report

Aluminium Group – Quebec



OUR OPERATIONS

Our aluminium operations in the Saguenay–Lac–Saint-Jean region include an alumina refinery, four smelters, six hydropower plants, the Arvida Research and Development Centre (ARDC), the Aluminium Operations Centre, a rail network and a port.

In August 2019, Rio Tinto's aluminium operations and production activities in Quebec were combined into a single group, Operations Quebec, under a single management team. Our aluminium production in 2019 totalled 1.26 million tonnes.

For us, success means:

- Keeping our employees safe and healthy
- Optimising our performance
- Strengthening our partner and customer relationships through quality and trust
- Using and developing new technologies
- Constantly improving our environmental footprint
- Creating value in our host communities



2019 HIGHLIGHTS

Lac Saint-Jean Shoreline Stabilisation Programme

- Belle Rivière mouth relocation project, the biggest undertaking in the programme's history
- Ongoing cooperation and activities with the Lac Saint-Jean Sustainable Development Council and its committees
- Project with the Mashteuatsh community to optimise local economic benefits generated by remedial work
- Initial sampling campaign of Lac Saint-Jean shoreline forage fish to measure year-to-year variations in their numbers



Spent potlining (SPL) treatment plant

Removal of 170,000 tonnes of SPL stored in underground cell 650

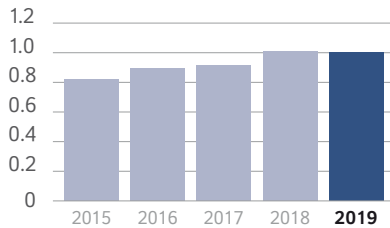


Our key indicators – 2019

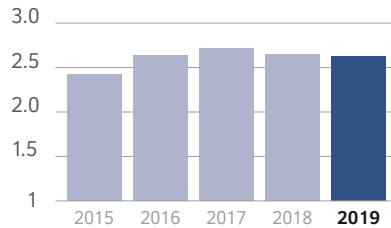
Our alumina refinery and aluminium smelters are among the most technologically advanced in the world, and are powered entirely by clean, renewable hydropower. With a daily spend of \$1 million per day to maintain and increase the competitiveness of our business, we are also the largest private investor in the Saguenay–Lac-Saint-Jean region.

AIR

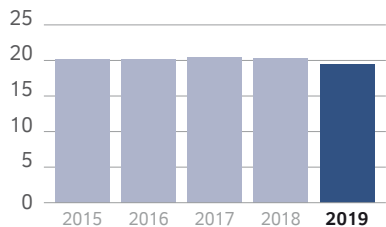
Fluoride emissions intensity
Smelters (kg/t Al)



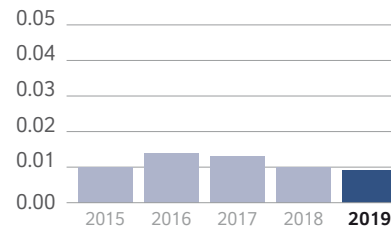
Total particulate emissions intensity
Smelters (kg/t Al)



SO₂ emissions intensity
Smelters (kg/t Al)



PAH emissions intensity
Smelters (kg/t Al)



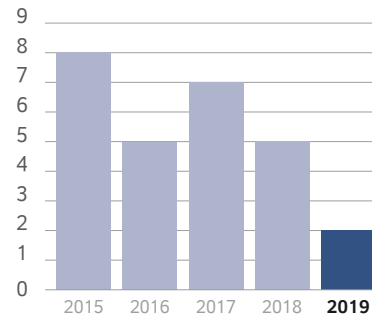
Explanation of the symbols used to rate our results:

- Improvement of more than 10%
- Stable performance or improvement of up to 10%
- Deterioration of up to 10%
- Deterioration of more than 10%

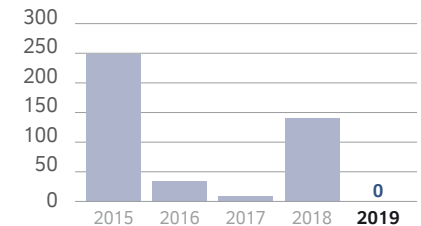


ENVIRONMENTAL INCIDENTS

Number of non-conformance reports

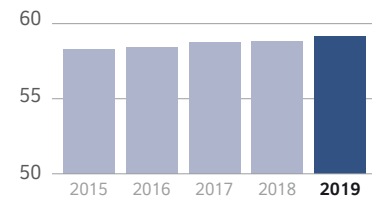


Environmental legal actions and fines
(thousands of \$)

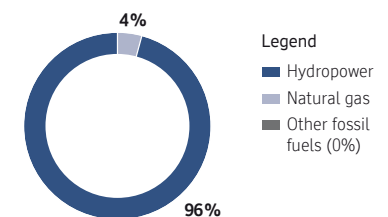


ENERGY

Average of energy consumed
Smelters (GJ/t Al)



Energy consumption by source
Smelters (%)



- Legend
- Hydropower
 - Natural gas
 - Other fossil fuels (0%)



GREENHOUSE GASES

Rio Tinto has renewed its climate change strategy

Company-wide global targets*

- 30% reduction in our emissions intensity in 2030 compared with 2018
- 15% reduction in our absolute emissions in 2030 compared with 2018
- Our growth between now and 2030 will be carbon neutral

Supported by:

- A \$1 billion fund over the next five years

Ultimately:

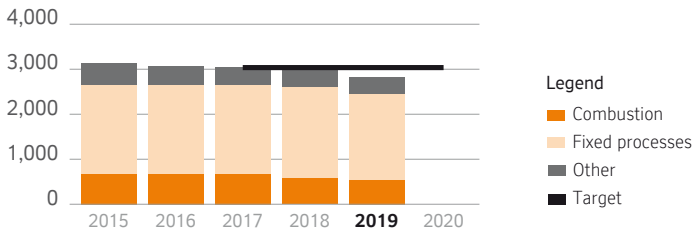
- We aim to be zero carbon in 2050

* Targets include Scope 1 and 2 emissions for all sites managed by Rio Tinto and not managed on an equity basis

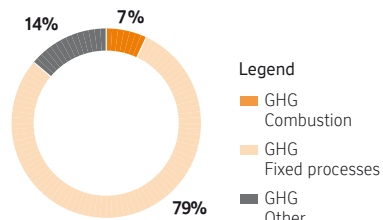


GHG emissions

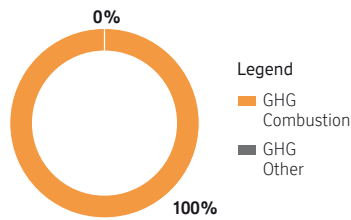
Alumina and aluminium (k/t CO₂ equivalents)



Aluminium production



Alumina production



People

	2015	2016	2017	2018	2019
Average number of employees	4,561	3,942	4,006	4,194	4,375

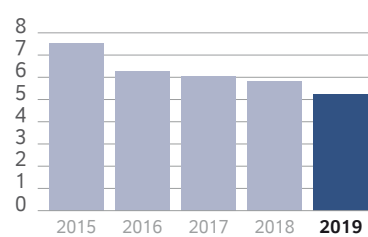
The figures for average number of employees include Category 1 subcontractor employees.



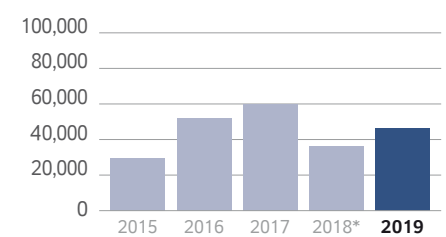
WATER



Water use intensity



Discharge of suspended solids in water



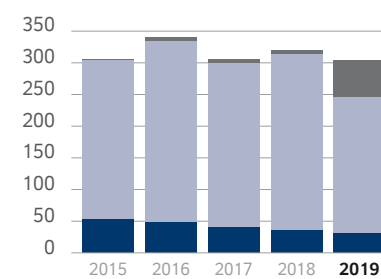
* The 2018 figure was corrected further to our quality assurance processes.



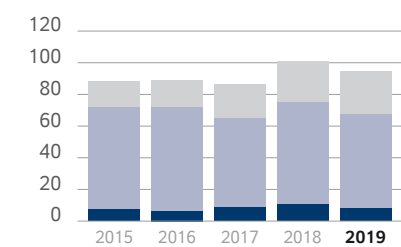
RESIDUAL MATERIALS



Non-hazardous



Hazardous



Legend

- Stored
- Reclaimed
- Landfill
- SPL generated and treated



Close to 40 Rio Tinto employees and managers trekked across the frozen waters of Lac Saint-Jean in February 2019 during the 11th edition of *Double défi des deux Mario*.



PARTNERSHIP FOR PROGRESS

We are proud to support our host communities.

- Since its creation in 2008, the Rio Tinto Aluminium Canada Fund has invested \$10 million per year in Canada.
- The Regional Economic Development Office, which began its operations in 2004, contributes to communities' socioeconomic development via an annual budget of \$3.2 million.

Community and reducing inequalities

For the past 22 years we have supported *Traversée internationale du lac St-Jean*, a major event and tourism driver for the entire Saguenay–Lac-Saint-Jean region.

Our partnership with *Centraide Saguenay–Lac-Saint-Jean* is very important to us. In 2019, management matched employees' donations, for a total of \$600,000.

Environment

In 2019, we renewed our contribution to the *Musée du Fjord*, a museum devoted to raising the population's awareness of the Saguenay Fjord's natural and historic heritage.

Our Shoreline Stabilisation Programme is the only initiative of its kind in the world. It has been monitoring about 20 wetlands along the shores of Lac Saint-Jean since 1986. It is hence only natural that we have joined with Ducks Unlimited Canada for DUC's Saguenay–Lac-Saint-Jean wetlands mapping project.

Education

Supporting education is important for us. We provide this support through two partnerships:

- CREPAS (a regional stay-in-school organisation)
- *Colloque sur la persévérance et la réussite scolaires chez les Premiers Peuples* (symposium on staying in school and academic success for First Nations).

Health and wellbeing

The health of our host communities is one of our top priorities. That's why we support *Fondation de ma vie* (Chicoutimi hospital foundation), as well as *Fondation de l'Hôtel-Dieu* (Alma hospital foundation) as part of a project aimed at improving the psychiatric wing.

Culture and regional heritage

Having put down roots in the Saguenay–Lac-Saint-Jean region almost a century ago, we are proud to support events that highlight culture and regional heritage such as the *Grand rassemblement des Premières Nations* (great gathering of First Nations) and the *Fête estivale d'Arvida* (Arvida summer celebration).

Check out our new votreRioTintoSLSJ.com platform to find out more about our good neighbourly relations committees, partnerships, request and complaint procedures, and past, present and future project consultations.



Explore our website:
www.riotinto.com



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