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AP60 - innovation in action for the future of the aluminium industry

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Aluminium contributes to solving some of the world's most challenging issues



Lower GHG emissions through **lighter vehicles** and buildings and through its **recyclability**



Bringing energy efficiency for cities and buildings in an energy constrained world



Preserving food and medicines through its unique barrier properties

The world will need more and more aluminium

A long and constant growth trend : Inflection point not yet reached for Aluminium



Rio Tinto Alcan invests in innovation for productivity and efficiency • Arvida Research & Development Centre – LRF in France Spent potlining treatment plant

13th Turbine at Shipshaw

AP60 technology

Kitimat

Innovation: an essential component of making aluminium a sustainable product

Hydropower / Technology Combination







Renewable energy

Latest, more energy efficient AP Technology™

World's cleanest aluminium

Made-in-Canada ingot has a footprint nearly 5 times less than that produced in China.

Economic benefits of innovation



Environmental benefits of innovation

- World productivity benchmark
- More energy efficient
- Less environmental footprint



Impressive results...

- Canada confirms its place as a leader in innovation
- World's most advanced smelter built here
- This technology will be available for export around the world

... for the community at large

- More the 200 Quebec companies associated with the project
- More than 70% of the contracts were awarded to Quebec-based companies
- Allowing engineering firms and our network of partners and equipment suppliers to develop and market their know-how

World-class partners



North America could be aluminium industry's "middle **RioTintoAlcan** kingdom" Canada's clean aluminium is well positioned

Conclusion

- The world needs more aluminium
- Aluminium produced in Quebec is the most responsible – thanks in large part to innovation
- Innovation provides for economic, environmental, social solutions
- With innovation and clean energy Canada poised to be the aluminium industry's *middle kingdom*