



Norsk Hydro

SEB Nordic Seminar 2019

Stian Hasle, Head of Investor Relations

The global and complete aluminium company

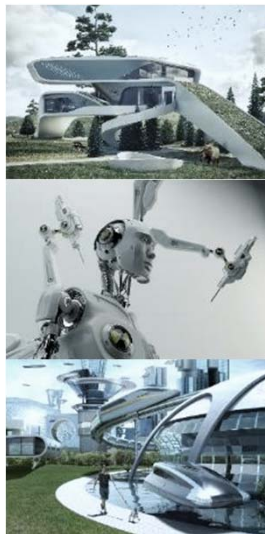


“...create a more viable society by innovative and efficient use of natural resources and products”

More than 110 years of industrial development and responsibility



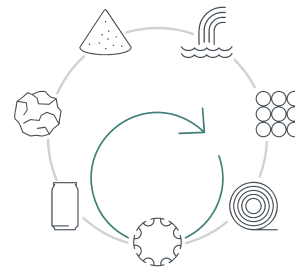
Aluminium – metal of the future



Hydropower – infinitely recyclable energy



Engaged in the entire value chain – R&D, innovation and tailor-made solutions



Global reach, local presence

35,000 employees

150 locations

40 countries

Involved and engaged



MEMBER OF
Dow Jones Sustainability Indices
In Collaboration with RobecoSAM



Product service offering and quality along the value chain



Built on market understanding, customer closeness and competence

North America

#3 position extrusion ingot

~24% market share in extruded products

Europe

Strong presence in the Nordic power market

~22% market share in extruded products

#1 position in value added metal products²

Strong market presence across segments³

~18% market share in building systems

- Rolled Products
- Primary Metal
- Energy
- Bauxite & Alumina
- Extruded Solutions
- Recycling

Globally

Top 3 positions in 3rd-party bauxite & alumina market globally¹

#1 position precision tubing globally

#1 positions foil and litho globally

Asia

Top 3 positions in extrusion ingot and PFA⁴

1) Outside China;
 2) Extrusion ingot, sheet ingot, primary foundry alloys and wire rod;
 3) Packaging, automotive, litho, building & construction and general engineering;
 4) Primary Foundry Alloys



Roadmap to full production in Brazil

Alunorte site

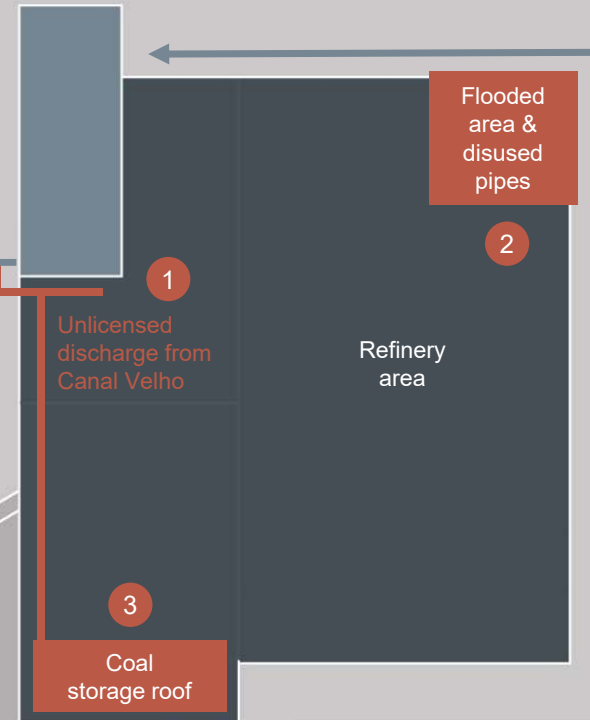


World's largest alumina refinery outside China

- Nameplate capacity of 6.3 mtpy, with more than 2 000 employees
- Connected to Paragominas bauxite mine via 244 km slurry pipeline
- Old DRS1 bauxite residue area to be replaced by new DRS2 area, based on press filter technology
- Wastewater treatment system treats process and rain water before discharging into Pará river

Rainfall event of February 2018

Wastewater treatment plant



Rainfall event on February 16-17

- No spills from bauxite residue areas DRS 1 and DRS2
 - Confirmed by IBAMA and SEMAS
- Unlicensed discharges of rain water from:
 1. Canal Velho
 2. Disused pipes
 3. Coal storage roof
- Internal and external environmental assessments find no evidence of any significant or lasting damage

Current situation in Brazil



Embargos on Alunorte

- State environmental agency SEMAS: production limited to 50% of capacity
- Federal court: production limited to 50% of capacity / no use of DRS2
 - On request from Ministerio Público
- Federal environmental agency IBAMA: lifted embargo on use of DRS2 and pressfilters

Operations

- Alunorte production at 50%, using DRS1 combined with press filter
- Paragominas production at 50%, in accordance with Alunorte run-rate
- Albras production at 50%, due to reduced alumina supply from Alunorte
- Alumina secured into Q2 2019 for primary portfolio, significant third-party sourcing

Way forward for Alunorte



Process addresses technical, environmental and social aspects

Operations and environment



Today

Alunorte, Paragominas, Albras production at 50%

January 2019

Increasing water basin capacity by 350%

Q2 2019

Increasing waste water treatment capacity by 50%

Q2/Q3 2019

Adding additional press filter

Social



Shorter term

Local community dialogue
Water distribution, health services, emergency preparedness

Food coupons to communities surrounding Alunorte

Longer term

Investing in projects supporting sustainable urban development in defined communities (TC)

Social and environmental investments under the Sustainable Barcarena Initiative

Process to restore normal production at Alunorte

- Timing for resuming 100% production remains uncertain
- Operational, environmental and social investments in progress, totalling BRL ~1.1 billion
- Continued dialogue with authorities on creating common platform to resume normal operations
- Alunorte capable of running safe operations – improvement initiatives to strengthen robustness





Market outlook

Geopolitical events impacting our industry

Aluminium demand remains solid



Geopolitical events impacting trade flows, EU struggling with continued Brexit uncertainty



China moderating primary supply growth, global climate concerns continue to rise



Underlying demand remains solid

2-3% Global primary demand in 2019

1-3% World ex. China primary demand in 2019

2-4% China primary demand in 2019



* Intercontinental panel on climate change

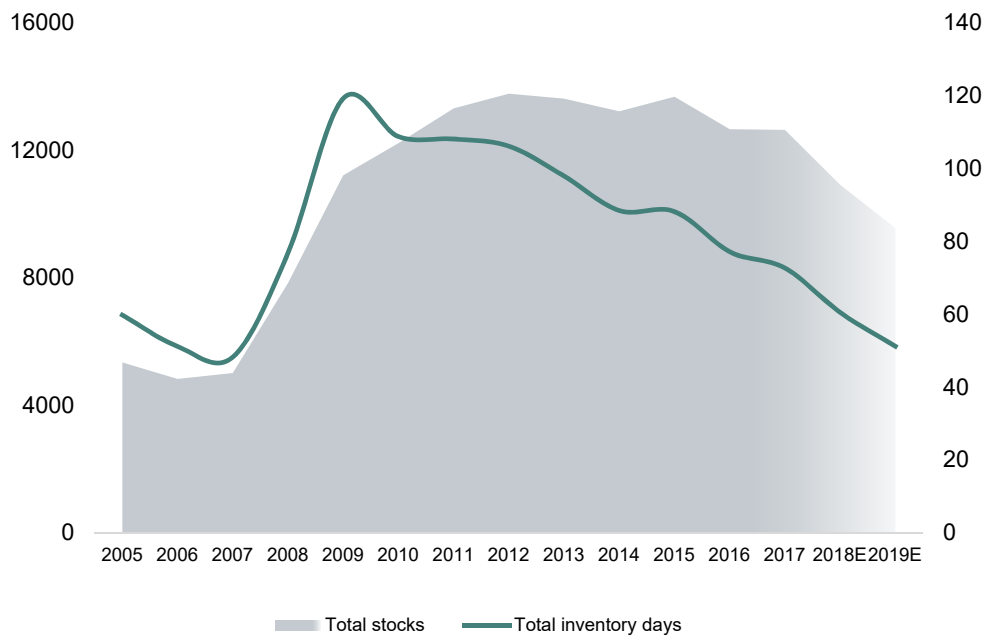
Global aluminium market expected in deficit in 2019



Inventories gradually trending towards historical levels

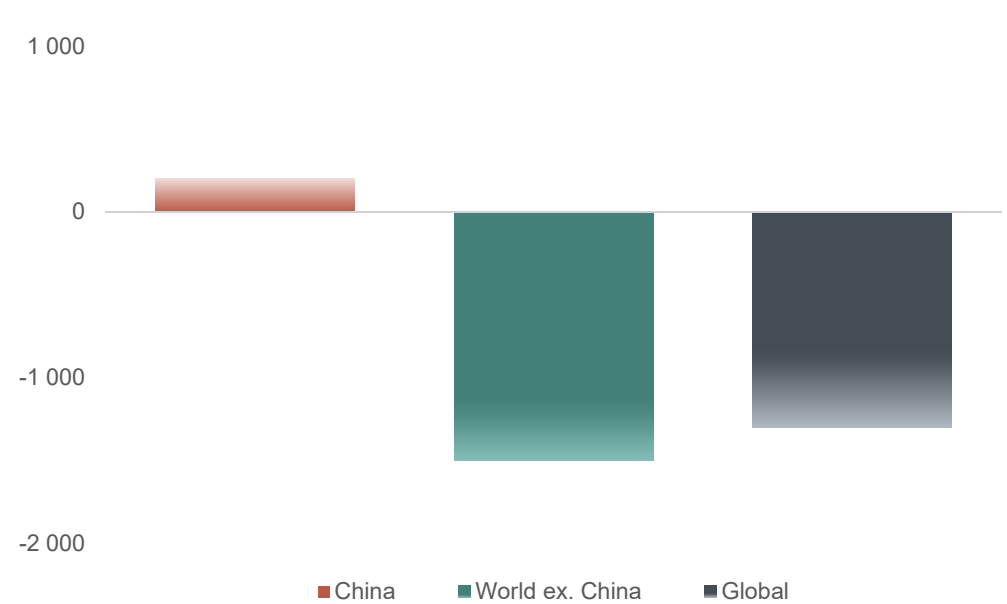
Inventory levels trending downwards

Global reported and unreported, in thousand tonnes



Estimated primary market balance 2019

('000t)



Source: Source: Republished under license from CRU International Ltd, Hydro analysis

Aluminium's reach is growing over the next decade in response to key long-term trends

Substitution continues to be a key driver for aluminium

Transport
3-4%



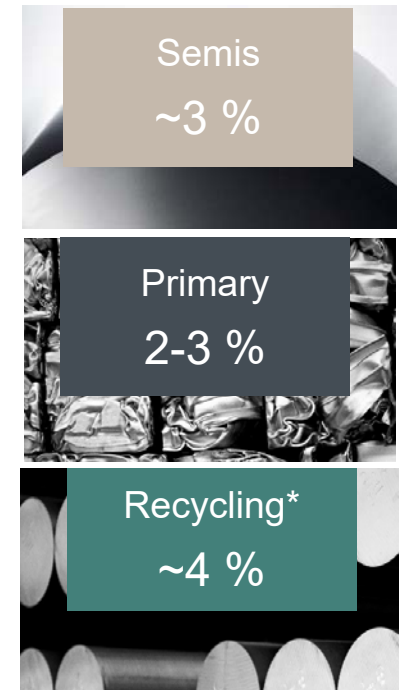
Packaging
2-3%



Building & construction
2-3%



Electrical
2-3%



Global semis demand for segment, CAGR 2018-2028
Source: CRU, Hydro Analysis
* Post-consumer and fabrication scrap

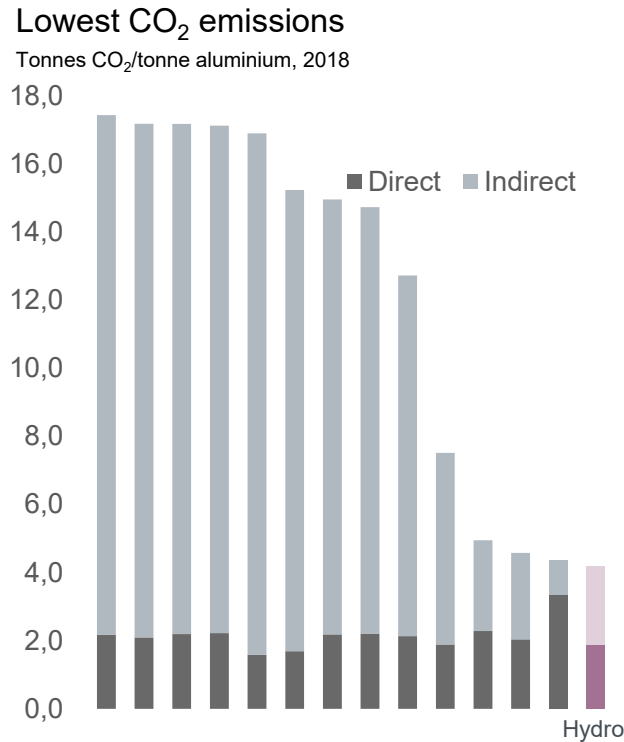
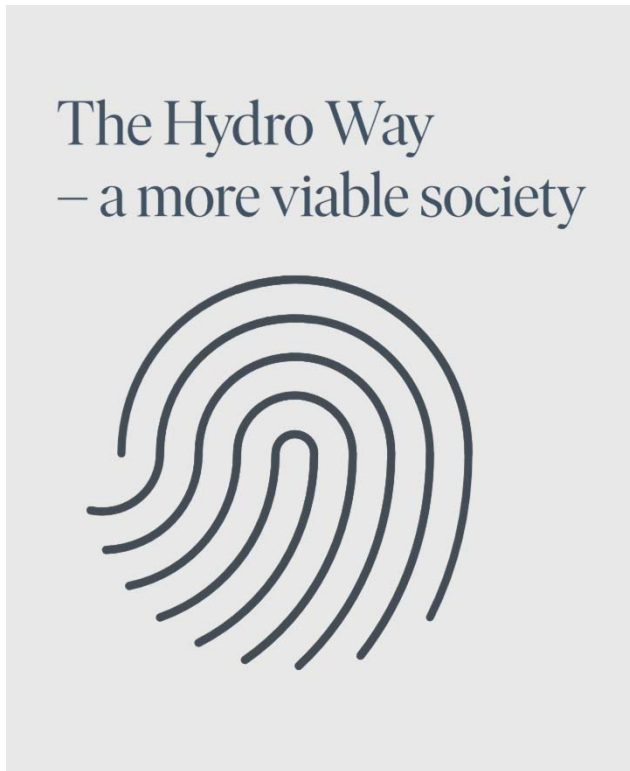


Engineering the future,
lightweighting our planet

Sustainability and innovation – key competitive advantages



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



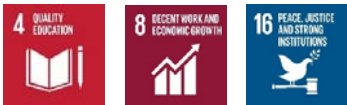
Source: Republished under license from CRU International Ltd

Sustainability is fully integrated into our business

People, Planet, Prosperity



Making a positive difference



Improving our footprint



Driving innovation

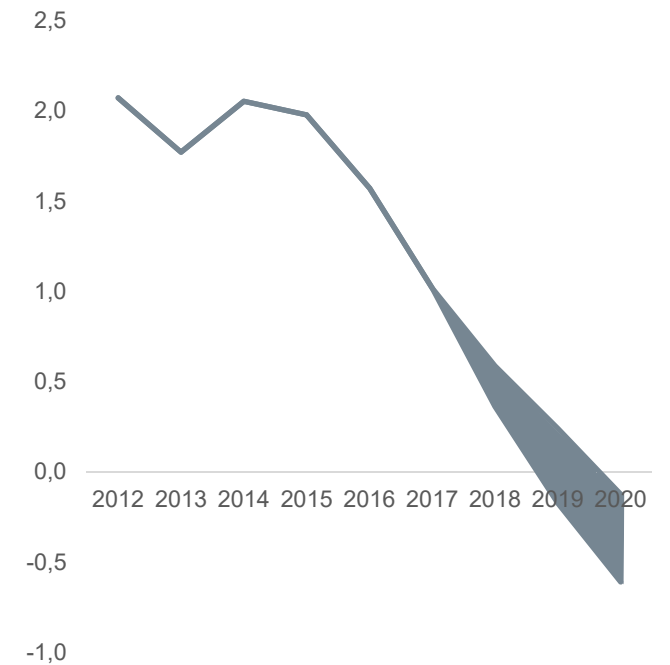


Part of the solution – turning words into action

Industrial strategy, business development and climate ambitions hand in hand



Hydro's climate strategy: Carbon-neutral from a life-cycle perspective by 2020¹



1) In million tonnes Co2

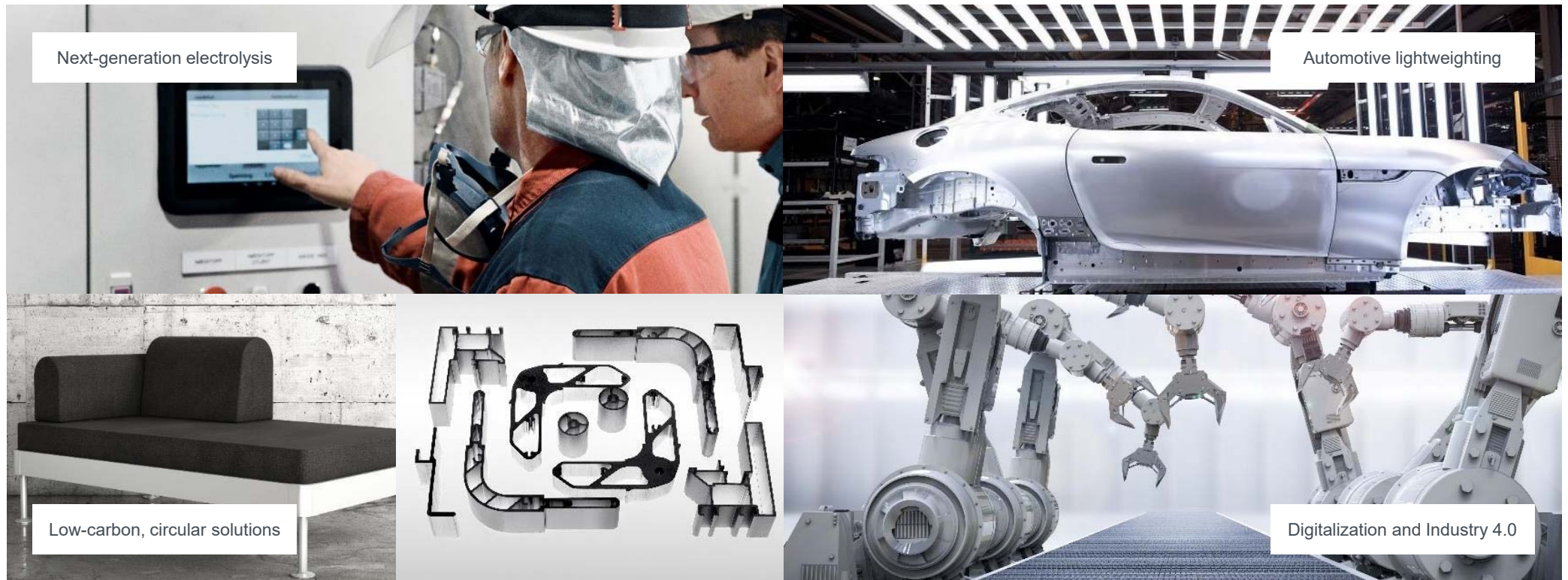
Responsible, low-carbon products for a greener future



Driving innovation, R&D and product development



Support customers, increase market share and lift efficiency





Financial framework, competitive positions

Strong positions across the value chain



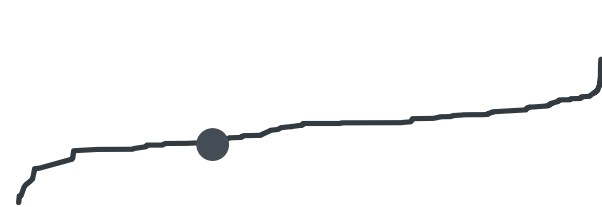
Upstream

Competitive cash cost position upstream

Alumina BOC curve by company¹ (2018)
USD/mt



Smelter BOC curve by company² (2018)
USD/mt



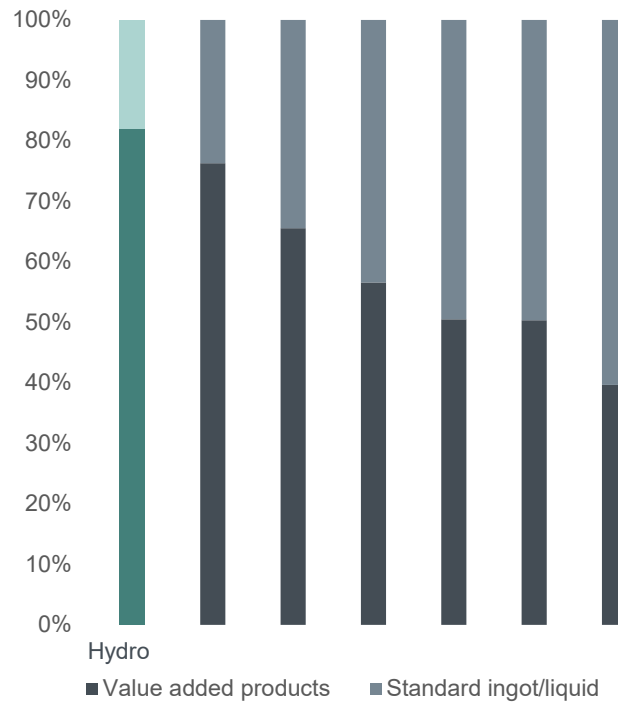
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1) Alumina cost curve: caustic soda USD 600, USD/BRL 3.75

2) Aluminium cost curve: LME USD 1 945, alumina USD 412, NOK/USD 8.5
Assumed 100% production at Alunorte and Albras

Midstream

Strong position in value added products¹

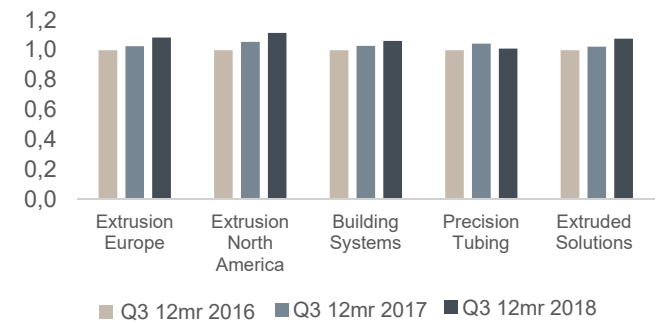


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Actual figures for Hydro sales 2017

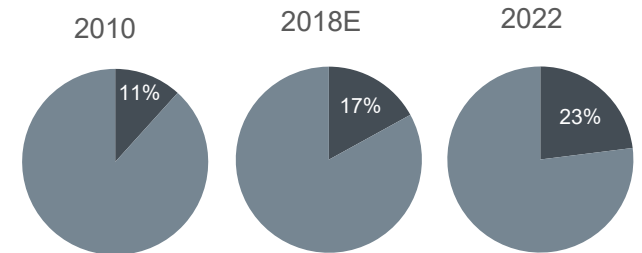
1) % of total shares being value added products; extrusion ingot, wire rod, sheet ingot and primary foundry alloy

Downstream

Improving NAV^{1,2} in Extruded Solutions



Increasing automotive share in Rolled Products³



1) Net Added Value: calculated as operating revenues less cost of material, including freight costs out

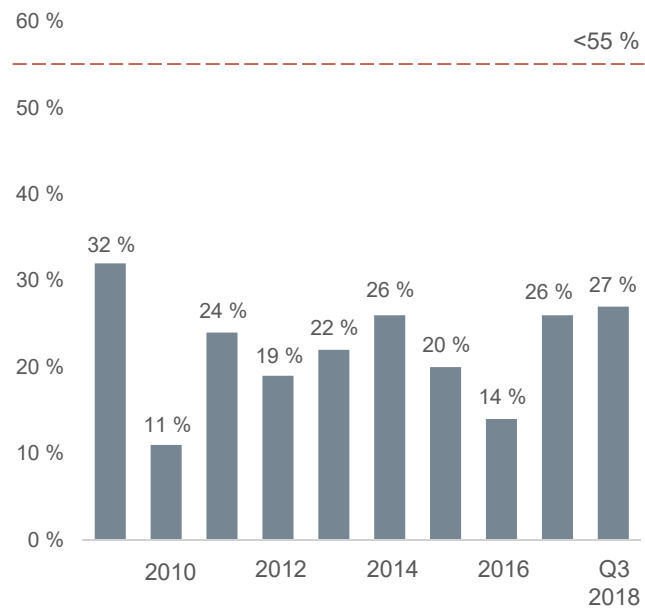
2) NOK indexed, translated to NOK based on Q3 2018 12 m rolling currency rates

3) In percentage of total sales

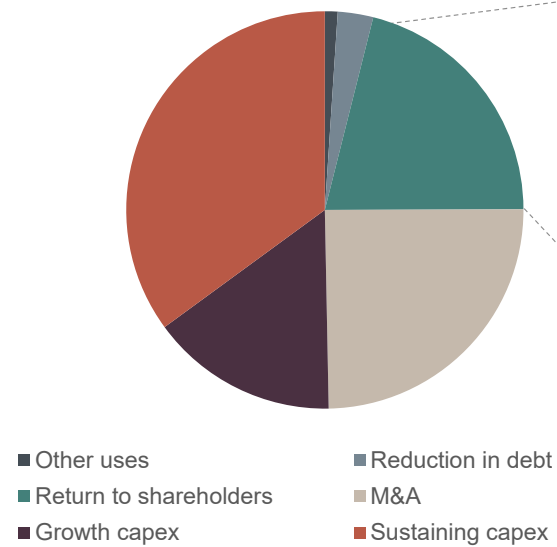
Solid balance sheet, balanced capital allocation, competitive pay-out ratio



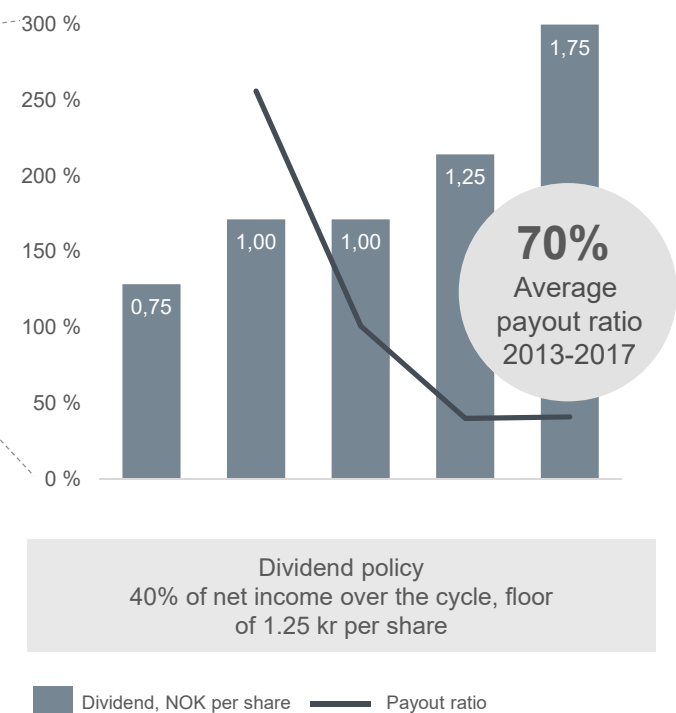
Adjusted net debt / Equity



Uses of cash 2015-Q3 2018



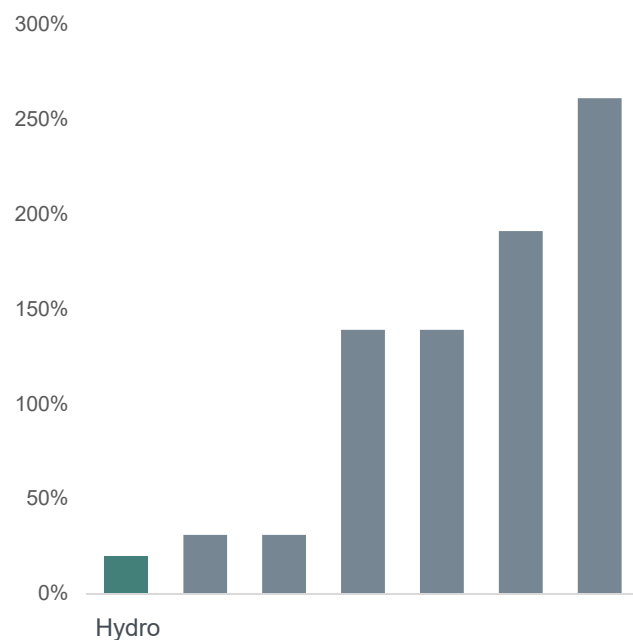
Dividend per share and payout ratio



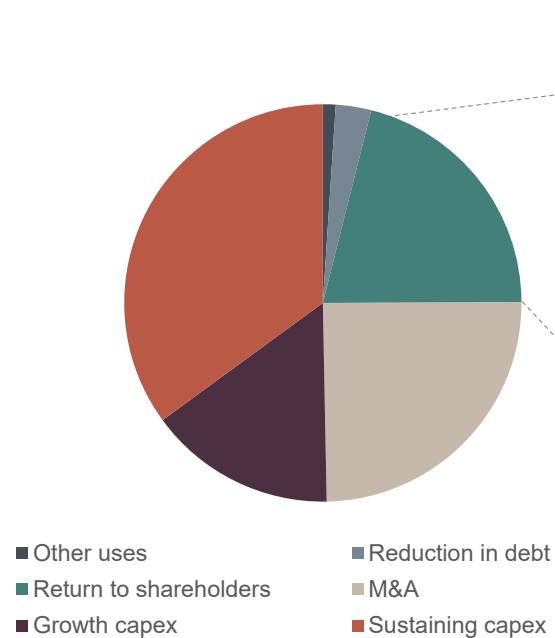
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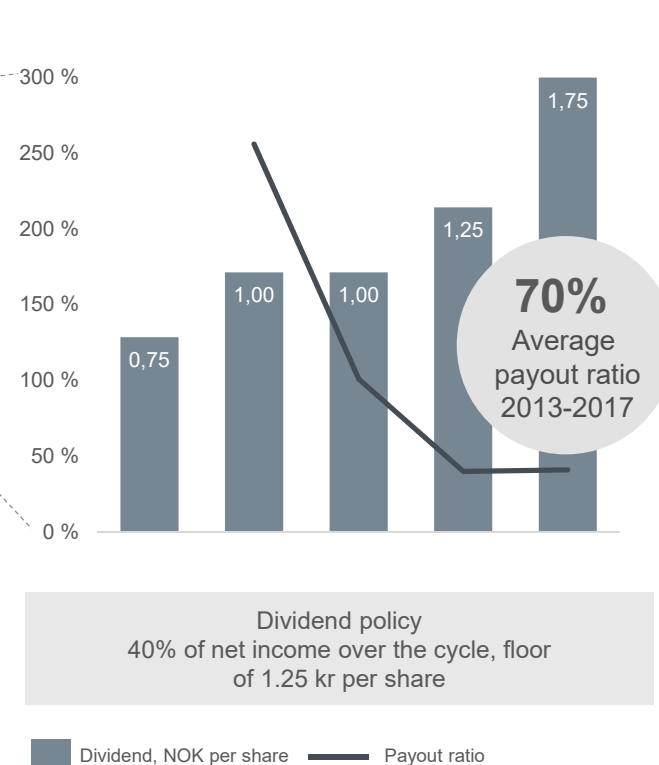
Debt/equity compared to peers*



Uses of cash 2015-Q3 2018



Dividend per share and payout ratio



Source: Debt/equity - Nasdaq

*Peers include Alcoa, Arconic, Rusal, Chalco, Century, Hindalco

Total debt/Total Equity end-2017 = (Long Term Debt + Short Term Debt & Current Portion of Long Term Debt) / Equity attributable to shareholders

Industry-leading improvement drive



Better improvement program hit by Alunorte situation, will not meet 2019-target of BNOK 3*

Hydro's improvement drive until 2015

Total improvements 2009-2015:
BNOK 4.5

'From B to A'

Sapa JV

'Climb'

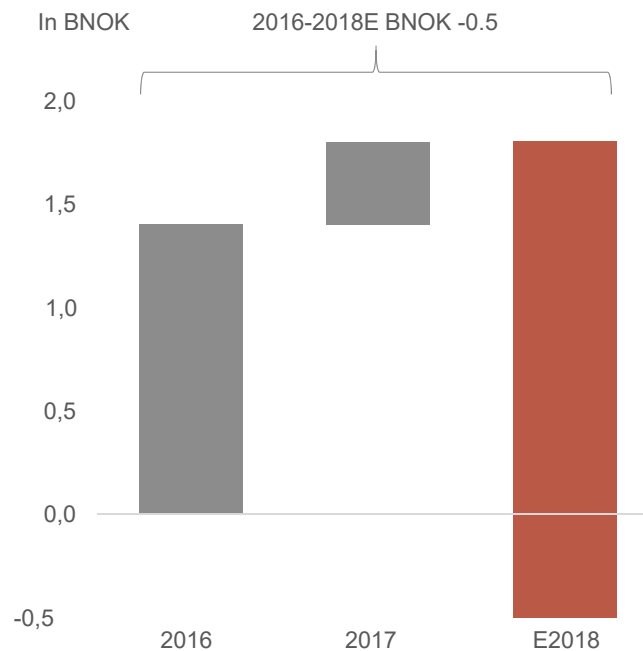
'Energy Aspiration'

CCIP II

'USD 300 program'

'JV program'

BNOK 3.0 Better improvement program progress



Primary Metal

- 50% production at Albras impacting improvement program negatively
- 50% production Alunorte with negative impact due to alumina qualities
- 2019 target of BNOK 1.0 - E2018 accumulated delivery of 0.1 BNOK

Bauxite & Alumina

- 50% production at Alunorte and Paragominas with strong negative impact – 26-17 improvements more than offset by negative 2018 effects
- 2019 target of BNOK 1.3 - E2018 accumulated delivery of negative 1.0 BNOK

Rolled Products

- Benefit from AL3, UBC and cost performance
- Operational and ramp-up issues reducing improvement speed
- 2019 target of BNOK 0.7 - E2018 accumulated delivery of 0.4 BNOK

Better improvement program 2019 targets compared to 2015
* Real 2015 figure

Summary of strategic focus areas going forward



On-going initiatives and strategic ambitions

Bauxite & Alumina



- B&A operations back on track
- Closer collaboration with key stakeholders
- Fuel switch project

Energy



- RSK solution
- New business
- Competitive sourcing

Primary Metal



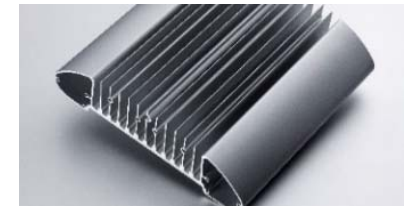
- Pilot spin-offs
- Husnes restart
- Albras back on track
- Recycling

Rolled Products



- Further growth in automotive
- Recycling
- High-grading product portfolio

Extruded Solutions



- Selective growth
- Value over volume

Innovation, technology, digitization

Sustainability

Commercial differentiation

Continuous improvements

Hydro key focus areas

Engineering the future,
lightweighting our planet

- Resolving Alunorte situation
- Maintaining financial strength and flexibility
- Providing attractive returns over the cycle
- Strengthening competitiveness through continuous improvement, innovation and sustainability





Hydro

We are aluminium

