



Third quarter 2019 Investor presentation

October 2019

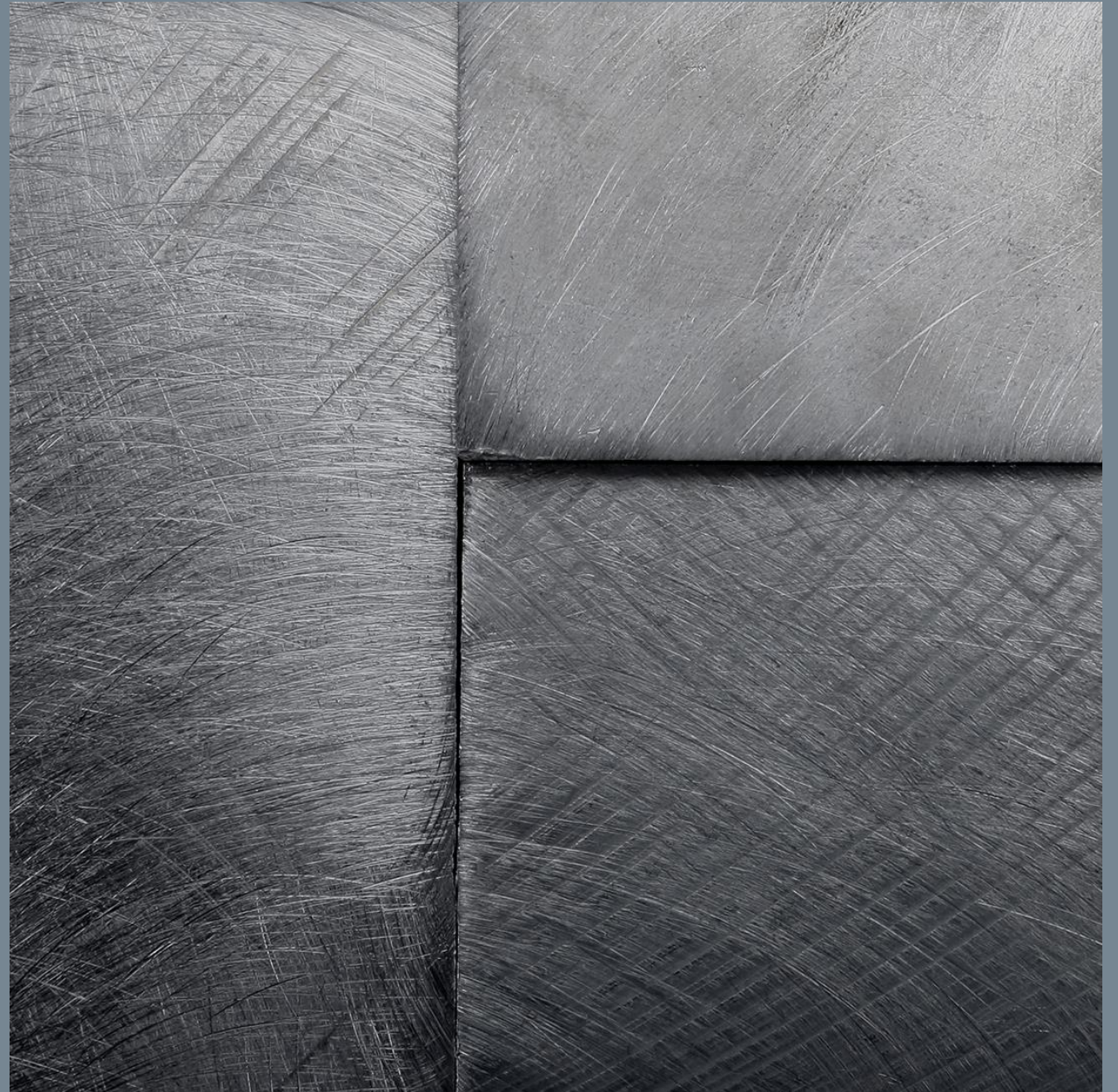


Table of contents



Third quarter results 2019	3
Market	37
Business overview	50
Hydro - Group	51
Bauxite & Alumina	71
Energy	79
Primary Metal	87
Metal Markets	93
Rolled Products	97
Extruded Solutions	104
Additional information	112

Cautionary note

Certain statements included in this announcement contain forward-looking information, including, without limitation, information relating to (a) forecasts, projections and estimates, (b) statements of Hydro management concerning plans, objectives and strategies, such as planned expansions, investments, divestments, curtailments or other projects, (c) targeted production volumes and costs, capacities or rates, start-up costs, cost reductions and profit objectives, (d) various expectations about future developments in Hydro's markets, particularly prices, supply and demand and competition, (e) results of operations, (f) margins, (g) growth rates, (h) risk management, and (i) qualified statements such as "expected", "scheduled", "targeted", "planned", "proposed", "intended" or similar.

Although we believe that the expectations reflected in such forward-looking statements are reasonable, these forward-looking statements are based on a number of assumptions and forecasts that, by their nature, involve risk and uncertainty. Various factors could cause our actual results to differ materially from those projected in a forward-looking statement or affect the extent to which a particular projection is realized. Factors that could cause these differences include, but are not limited to: our continued ability to reposition and restructure our upstream and downstream businesses; changes in availability and cost of energy and raw materials; global supply and demand for aluminium and aluminium products; world economic growth, including rates of inflation and industrial production; changes in the relative value of currencies and the value of commodity contracts; trends in Hydro's key markets and competition; and legislative, regulatory and political factors.

No assurance can be given that such expectations will prove to have been correct. Hydro disclaims any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.



Third quarter results 2019
Ramping up production in Brazil,
declining market prices

Investor presentation, October 2019

Third quarter highlights

- Underlying EBIT of NOK 1 366 million
- Final Alunorte embargo lifted
- Results down on lower aluminium and alumina prices
- Positive effects from higher upstream production and lower raw material costs
- New improvement program on track for 2019 target
- Increased market uncertainty and reduced demand expectations

All result explanations versus same quarter previous year



Ramping up production at Alunorte

- Final embargo lifted on September 26, allowing Alunorte to resume installation and commissioning activities at DRS2
- 83% average capacity utilization in Q3, targeting 75-85% in Q4
- Commissioning of 9th press filter during November, expected to reach full utilization end-2019 – estimated average capacity utilization 85-95% in 2020
- Expect to reach full capacity utilization in 2021 with further process optimization
- Fully committed to deliver on obligations under technical and social agreement (TAC and TC)



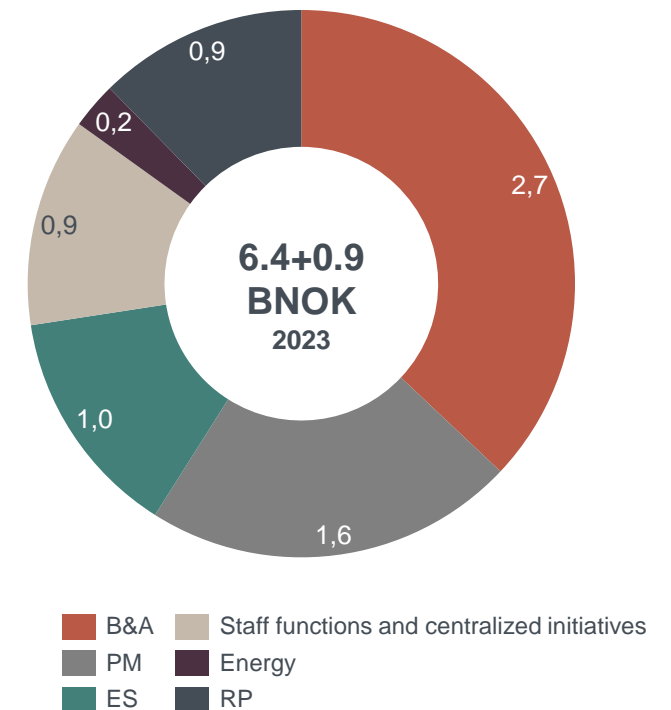
On track for 2019 improvement target of NOK 500 million



Faster ramp-up in Brazil, Extruded Solutions facing market headwinds

<p>Bauxite & Alumina Curtailment reversal Fixed cost and efficiency</p>	<p>Primary Metal Curtailment reversal Fixed cost and efficiency Husnes restart</p>
<p>Rolled Products Organizational efficiency Operational efficiency Commercial excellence</p>	<p>Extruded Solutions Portfolio optimization Fixed cost and efficiency Value-over-volume Selective growth</p>
<p>Energy Commercial and operational handling Renewable and storage initiatives</p>	<p>Staff and support functions Fixed cost and simplification Procurement initiatives</p>

By business area

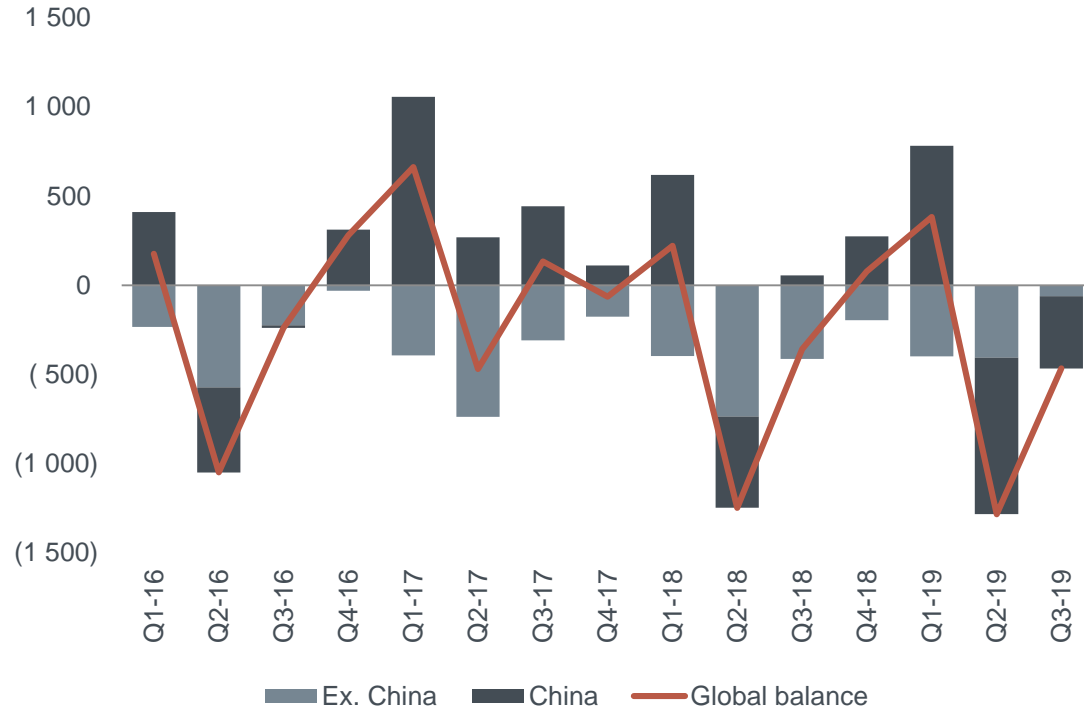


Global aluminium market in deficit in Q3 2019

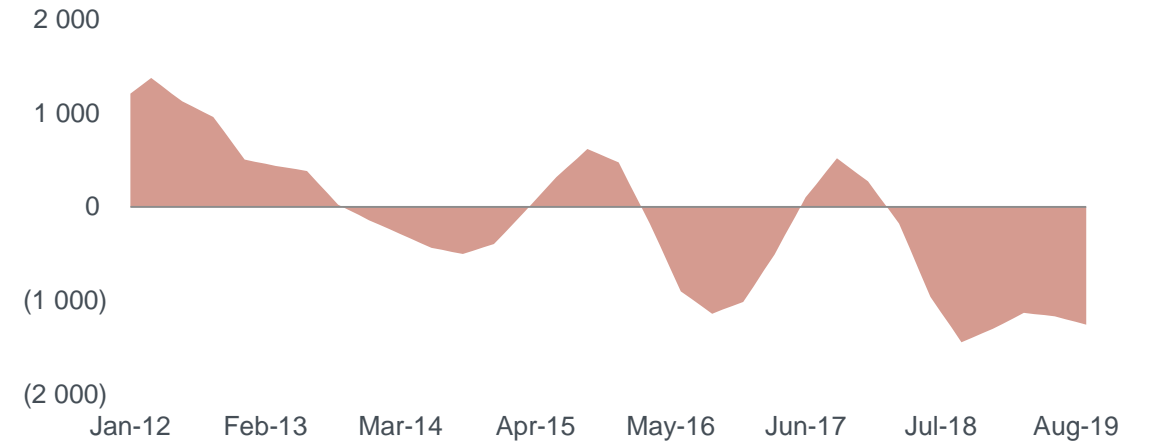


Balanced market in world outside China, deficit in China driven by production disruptions

Quarterly market balances, world ex. China and China
1 000 mt primary aluminium



Production less demand*)
1 000 mt primary aluminium

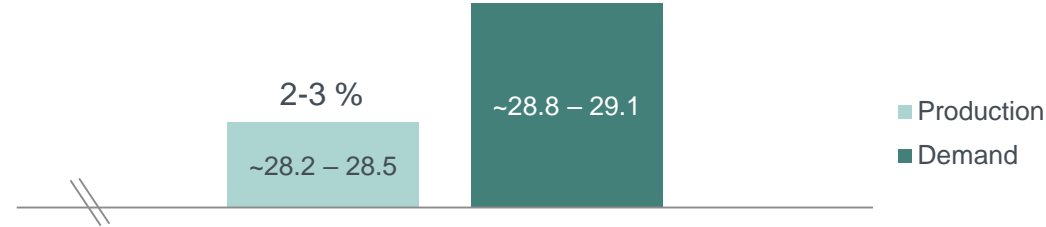


- ~0 % primary demand growth Q3-19 vs Q3-18
 - ~2 % China
 - ~(2) % World ex. China
- 2019 demand growth expected at (0.5) - 0.5%

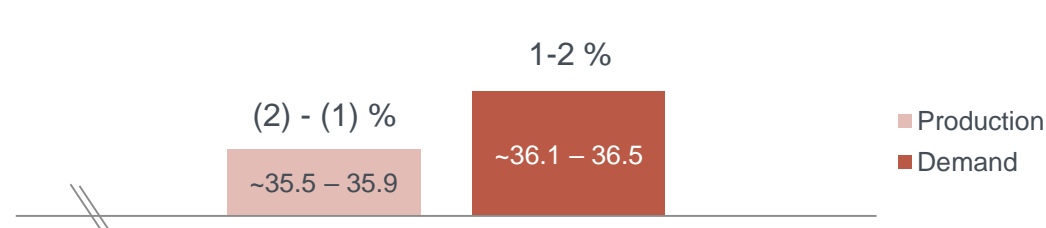
Source: CRU/Hydro
* Yearly rolling average production less demand

Global primary market expected in deficit for 2019

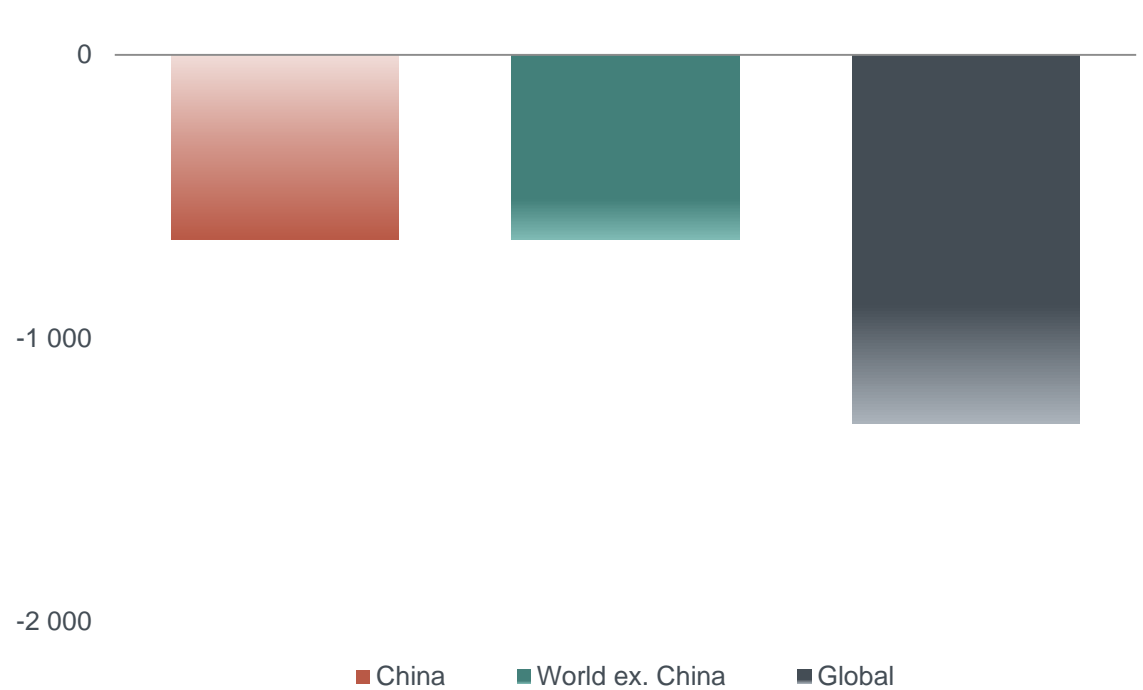
World ex. China 2019
(mill t.)



China 2019
(mill t.)



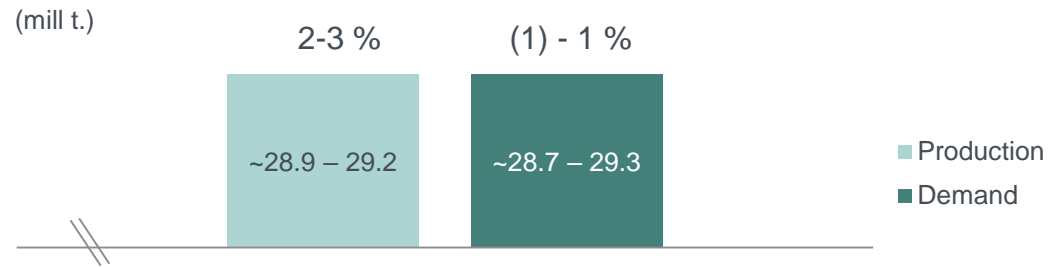
Estimated primary market balance 2019
(‘000t)



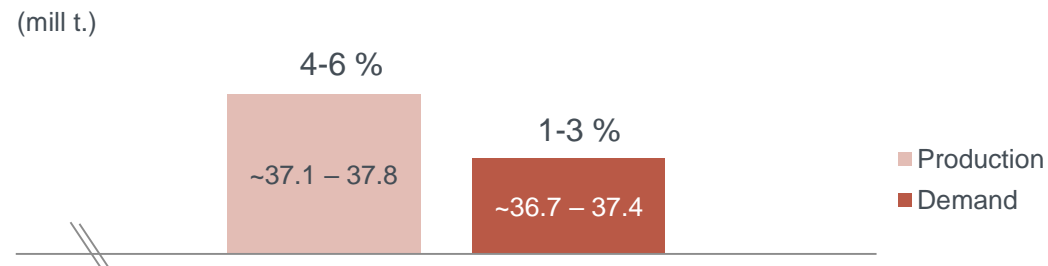
Largely balanced market expected for 2020

Higher production growth and continued subdued demand

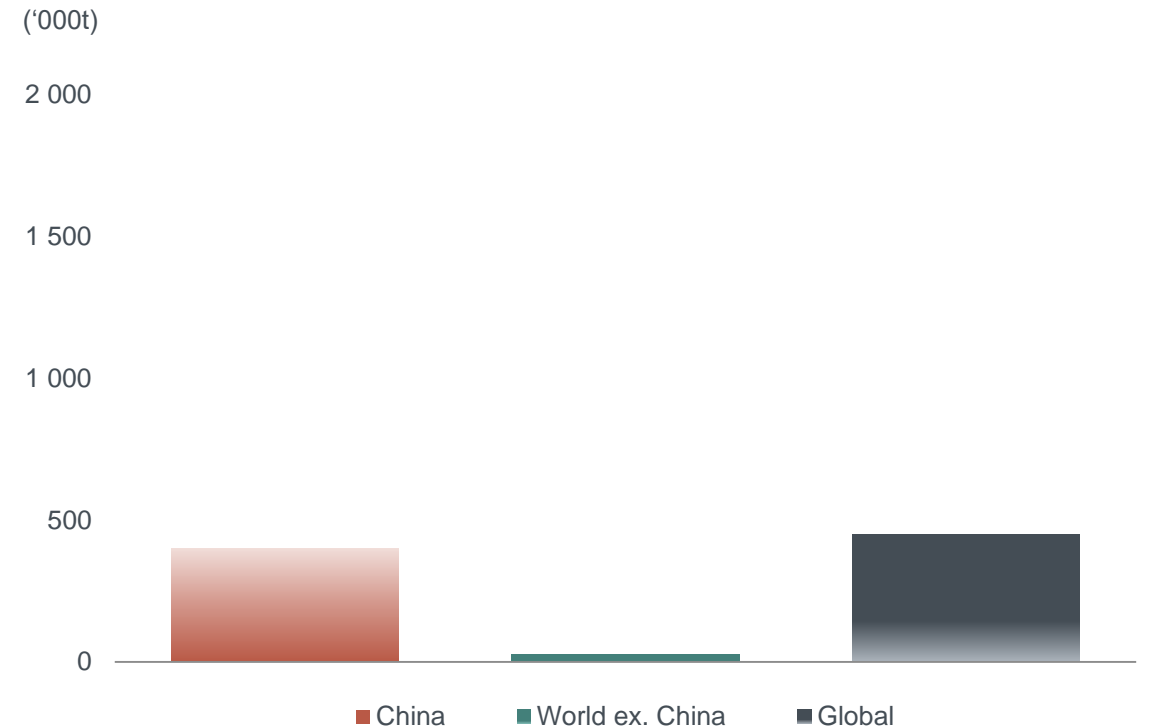
World ex. China 2020



China 2020

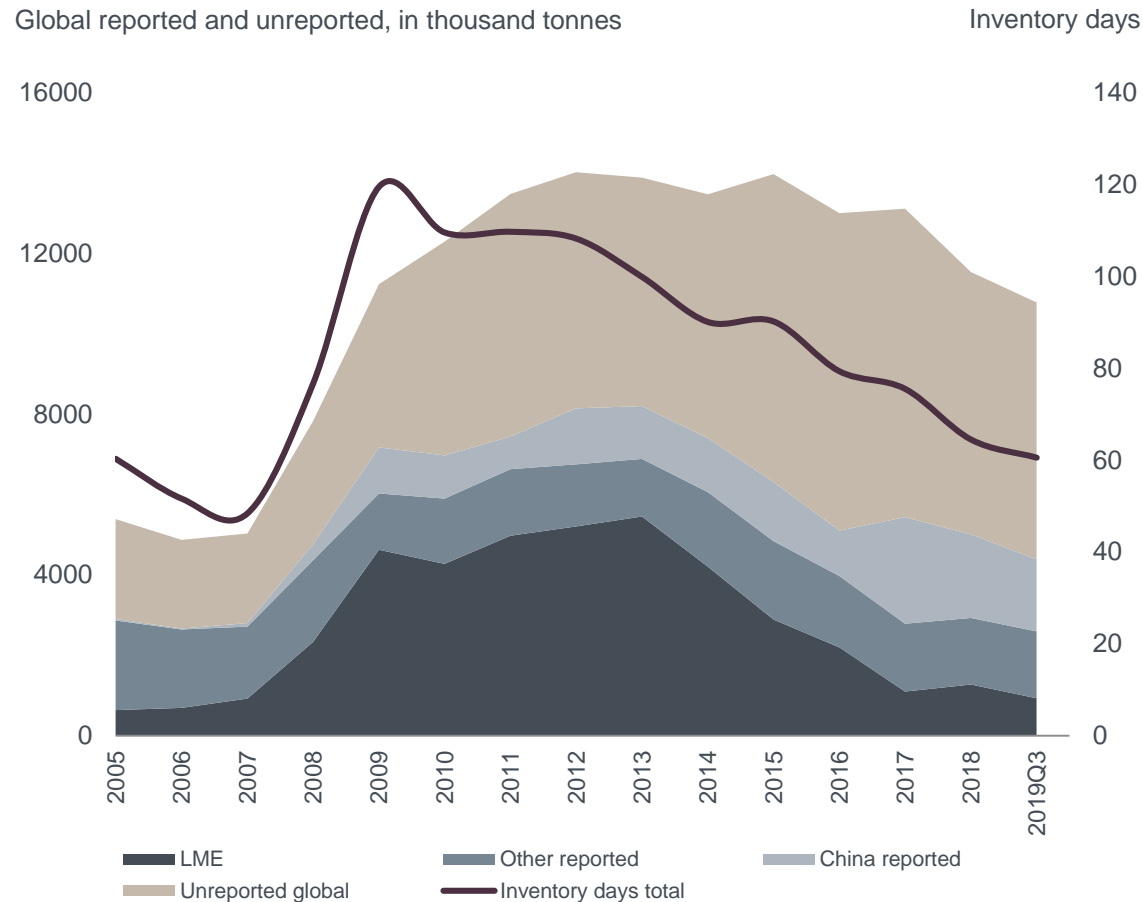


Estimated primary market balance 2020

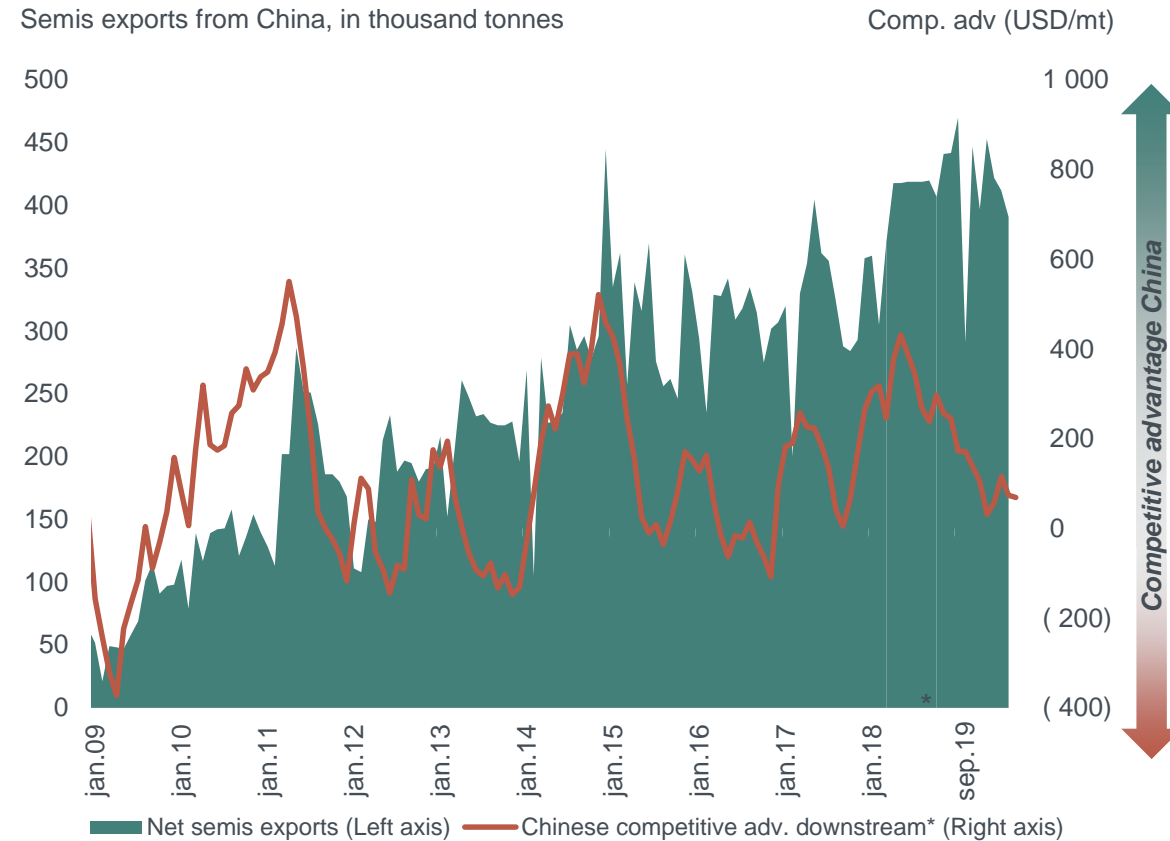


Inventories gradually trending downwards

Chinese semis exports moderating



*2019 Q2 inventory days estimated on 12-months rolling historic consumption
 Source: Republished under license from CRU International Ltd, Hydro analysis



Source: CRU, Thomson Reuters
 Estimated metal cost China versus Europe
 Europe: LME cash + European duty-paid standard ingot premium
 China: SHFE cash + avg. local premium + freight – export rebates (~13%)
 *No detailed data for April to September 2018, semis months for these months distributed flat

Stable LME in USD, improving in NOK during Q3



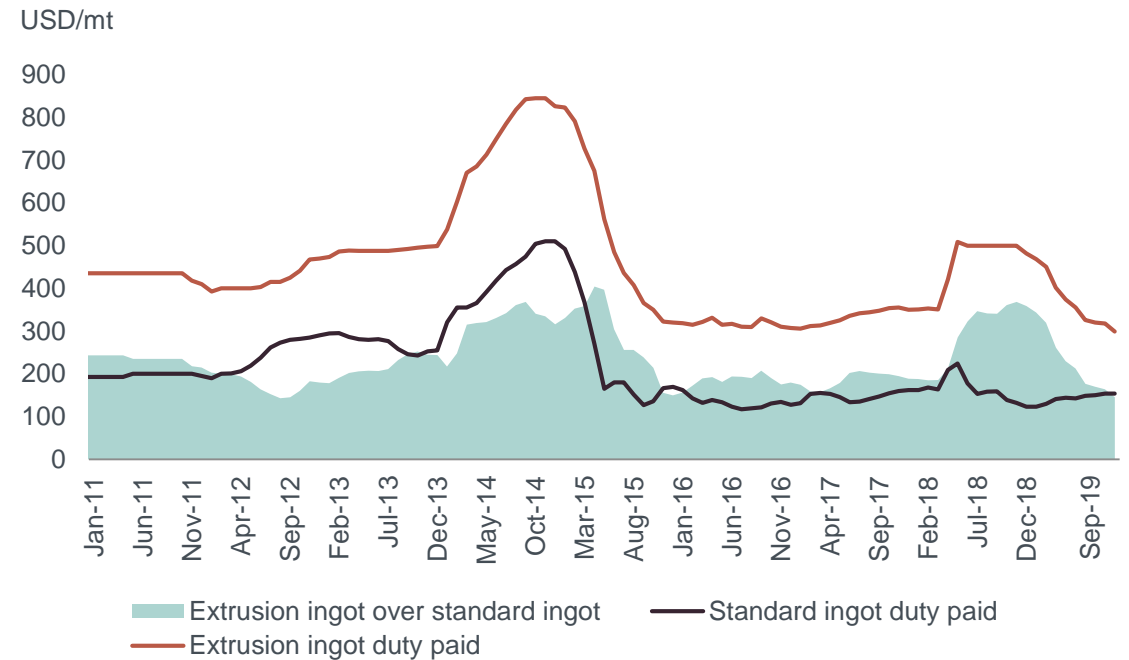
Tightening spread between standard ingot and product premiums

LME and SHFE aluminium prices



- LME mostly trading between 1 750 and 1 800 USD/t in Q3
- Continued low price differential between LME and SHFE

European extrusion ingot margin over standard ingot



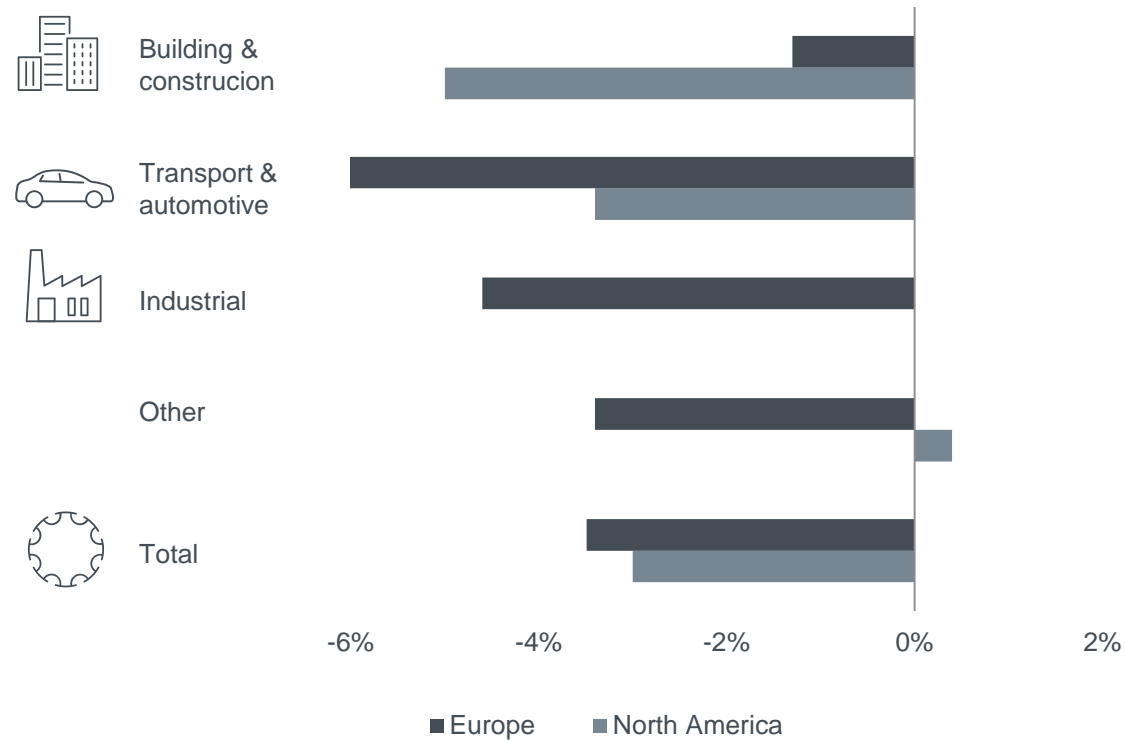
- Largely stable standard ingot premiums
- Declining extrusion ingot premiums on reduced demand

Negative extrusions demand in Europe and North America

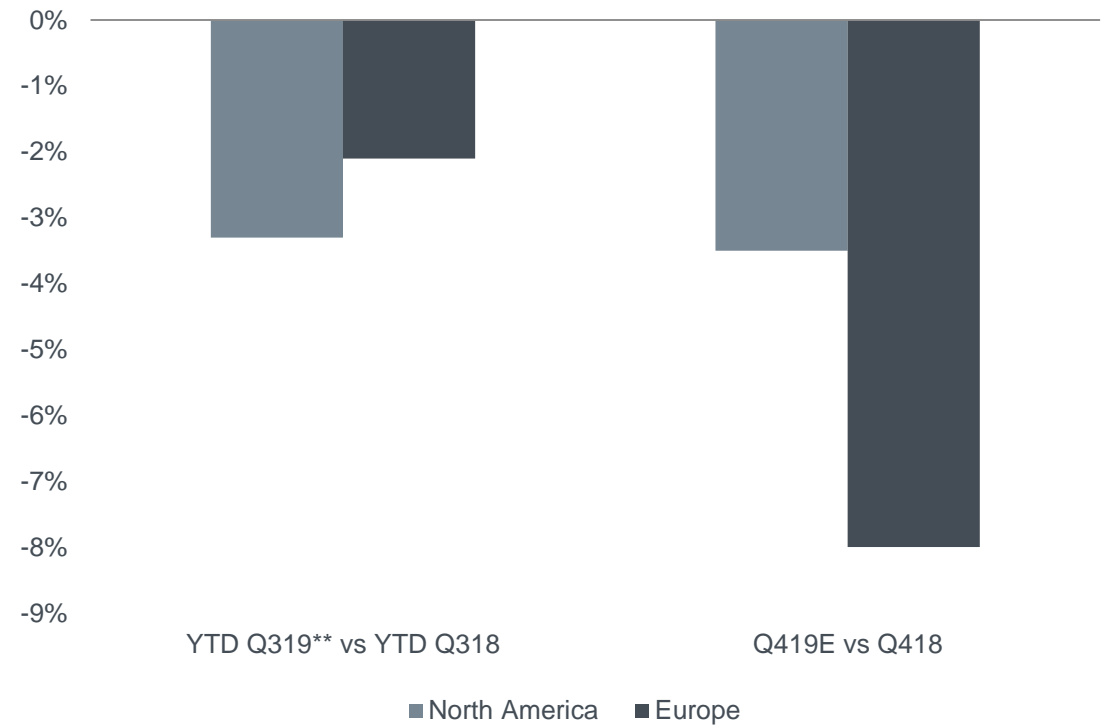


Driven by weak macroeconomic development

Extrusions – estimated market growth 2019 vs 2018 (%)



Extrusions – estimated market growth 2019 vs 2018 (%)



Source: CRU / Hydro analysis

* Industrial includes consumer durables, electrical and machinery

** Q319 numbers for North America are based on July and August estimates as September numbers have not yet been published

Europe excluding Russia/Turkey

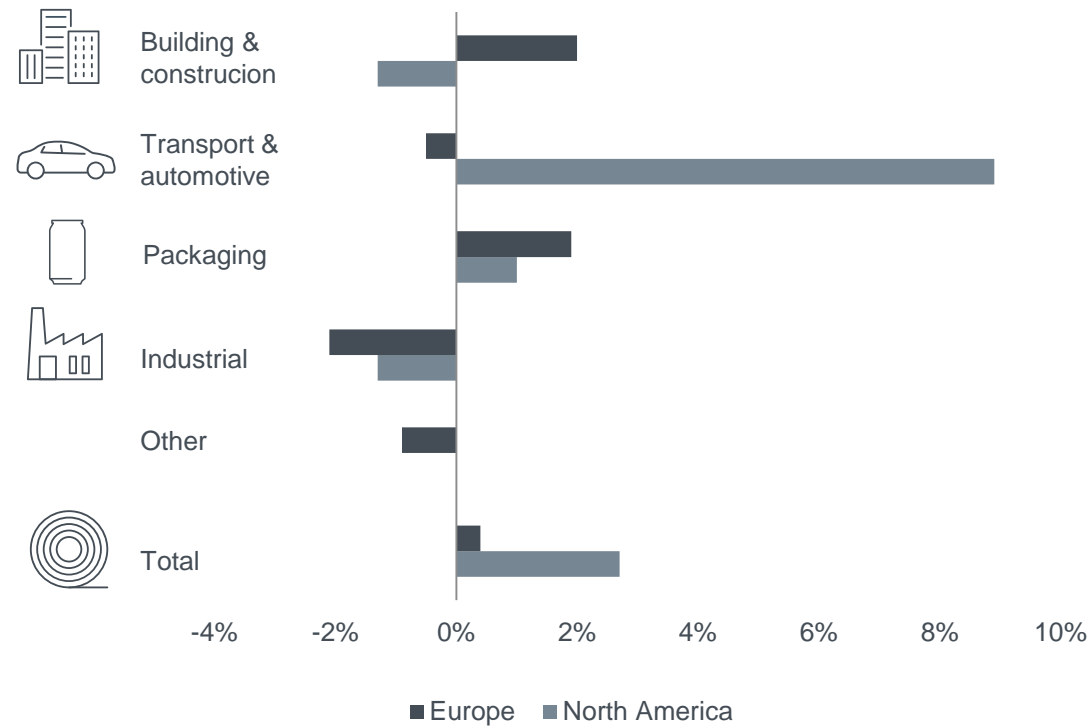
Extruded Solutions taking firm measures in weak markets

- Restructuring in Europe
 - Full closures: Pinto (Spain), Redditch (UK), Rotherham (UK), Wakefield warehouse (UK), Lodz warehouse (Poland), Dusseldorf office (Germany)
 - Divestments: Chisineu Cris (Romania)
- Restructuring in North America
 - Full closures: Belton (South Carolina), Kalamazoo (Michigan)
- Business largely transferred to other sites
- Additional restructuring and cost reduction initiatives under way
- These initiatives support ongoing BNOK 1.0 improvement target for Extruded Solutions
- Restructuring and impairment cost of MNOK 156 booked in Q3 (excluded from underlying EBIT)
 - MNOK 228 booked in Q2

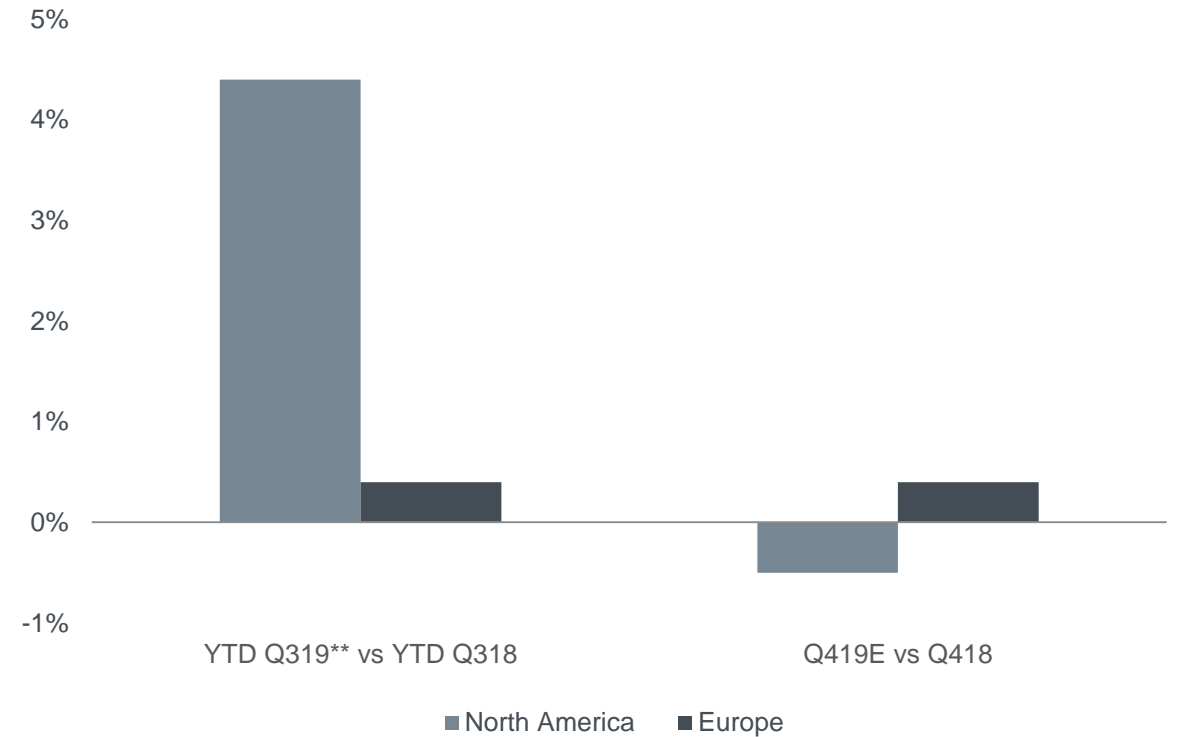


Transport and packaging demand remains firm, overall rolled products demand weakening

Rolled products – estimated market growth 2019 vs 2018 (%)



Rolled products – Estimated market growth 2019 vs 2018 (%)



Source: CRU / Hydro analysis

* Industrial includes consumer durables, electrical and machinery

** Q319 numbers for North America are based on July and August estimates as September numbers have not yet been published

Europe excluding Russia/Turkey



Growing can market, supported by substitution

- Sustainability trend supporting substitution to aluminium
- Several announcements on transition from beverage companies and can producers
- Can sheet demand in Europe expected to grow by 5-6% in 2019 and 6-7% in 2020
- Interesting market growth opportunity for Rolled Products
 - YTD 2019 vs YTD 2018 volumes to can segment up by 4%
 - Targeting to increase deliveries to can segment by ~20% by 2023

Restructuring and strategic review in Rolled Products

- Improvement and restructuring
 - Organizational efficiency
 - Operational efficiency
 - Commercial excellence
 - Shifting volumes to more attractive market segments: automotive and can
- BNOK 0.9 improvement targeted by 2023, in addition to BNOK 0.9 release in net operating capital by 2021
- Total restructuring costs BNOK ~1.6
 - Restructuring and impairment cost of MNOK 1 145 booked in Q3 (excluded from underlying EBIT)
- Improvements to be realized while continuing strategic review



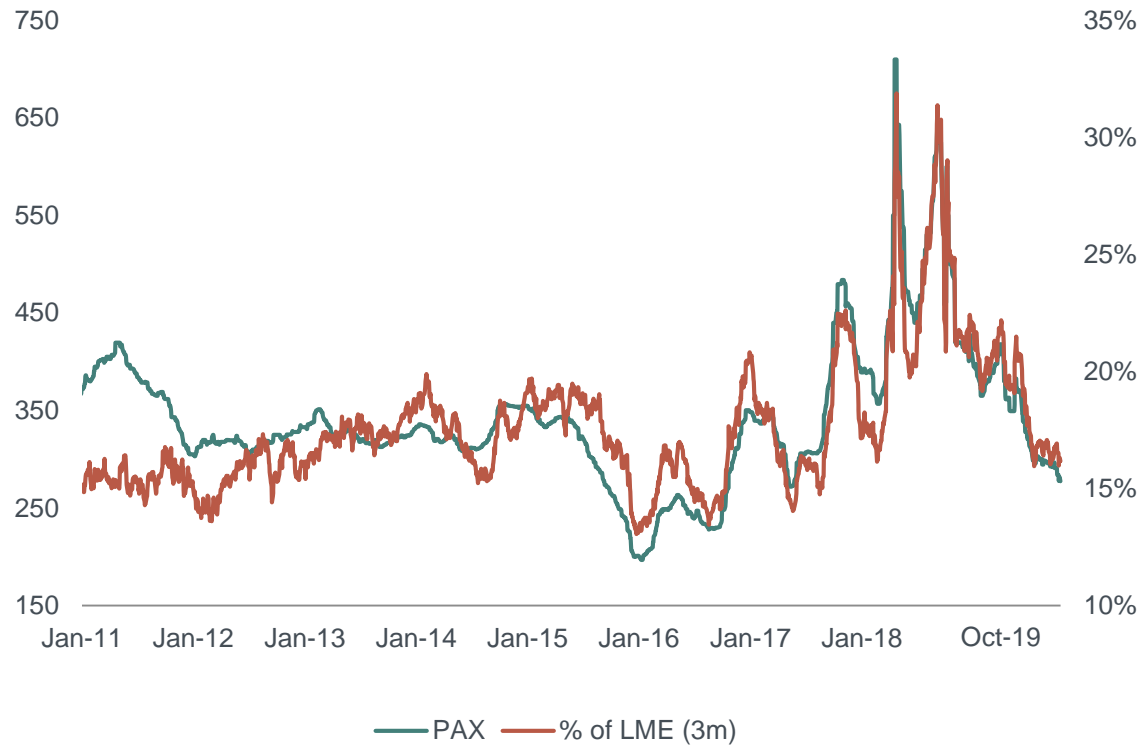
Alumina prices down in Q3



Increasing alumina imports to China on widening price arbitrage

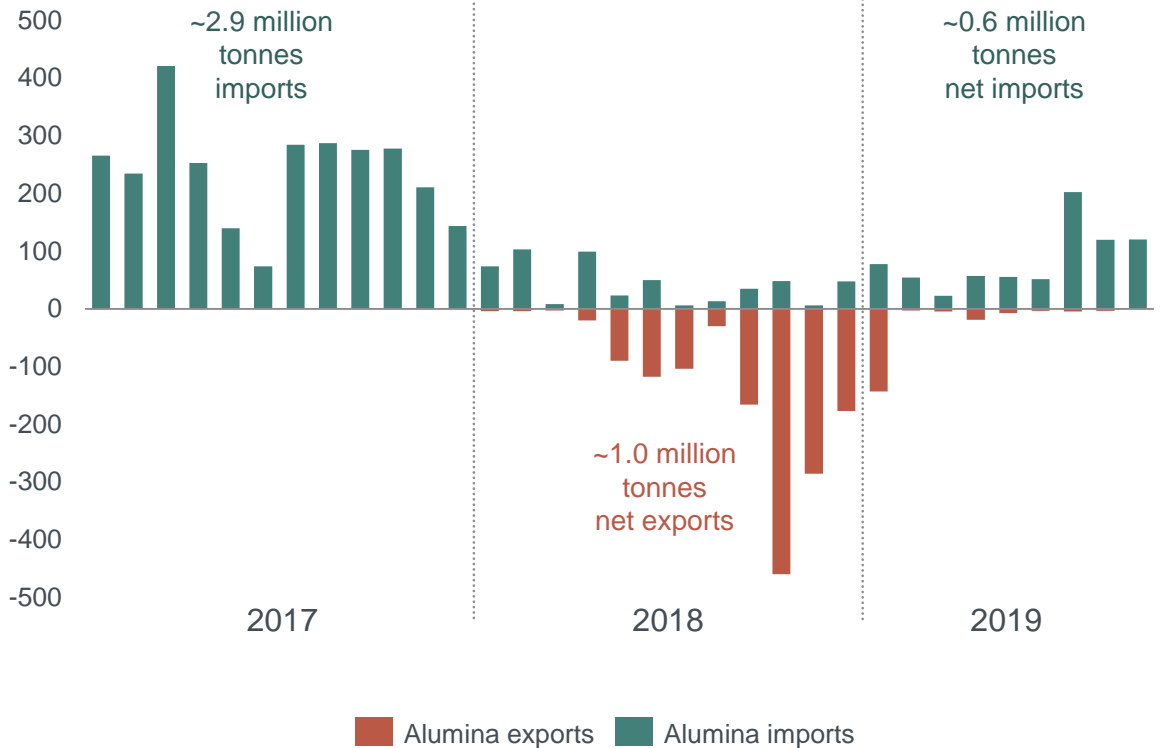
Platts alumina index (PAX)

In USD per tonne



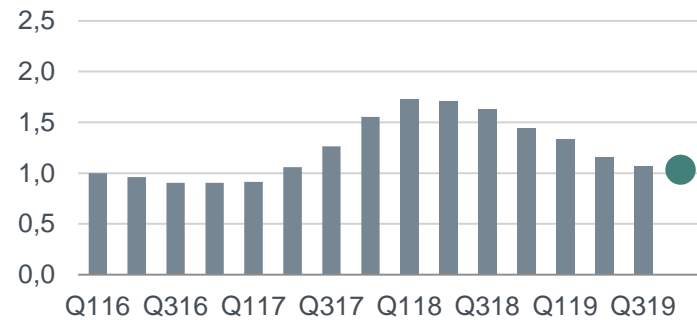
Monthly Chinese alumina trade balance (kt)

In '000 tonnes

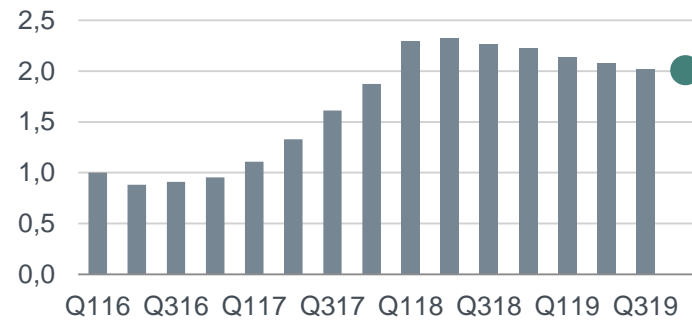


Industry raw material costs down in Q3

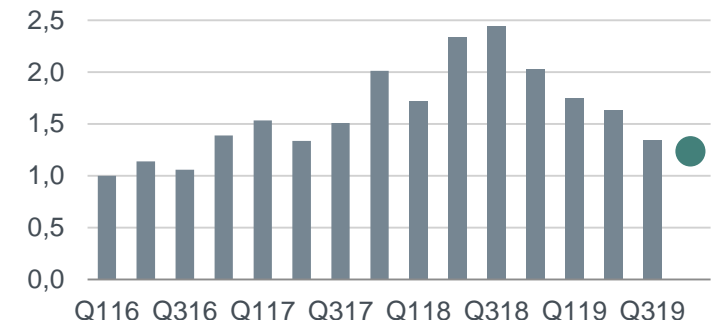
Petroleum coke FOB USG (indexed)



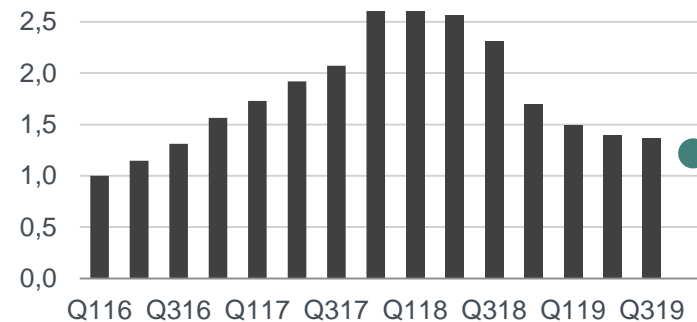
Pitch FOB USG (indexed)



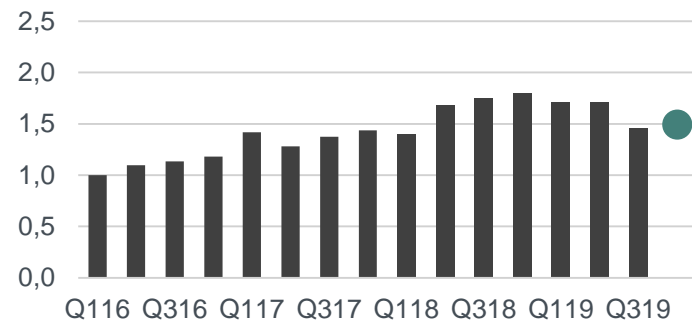
Alumina PAX index (indexed)



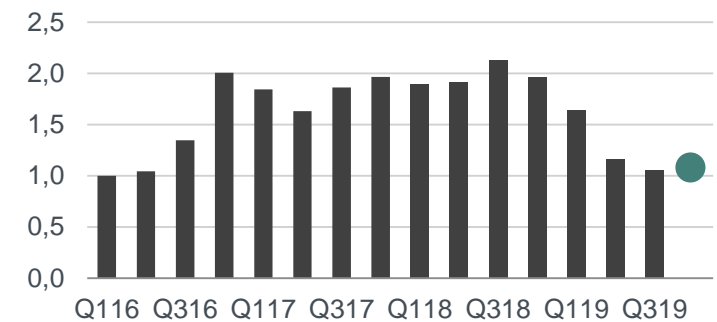
Caustic soda (indexed)



Fuel oil A1 (Indexed)



Steam coal (indexed)



● Indication of current market prices

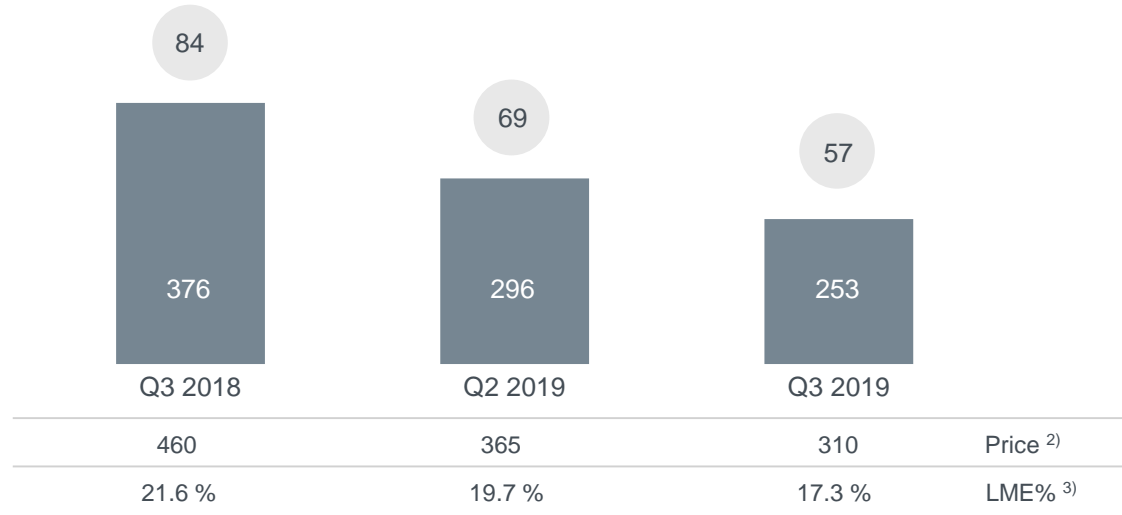
Upstream costs trending downwards



Implied costs approaching pre-curtailment levels

Implied alumina cost and margin

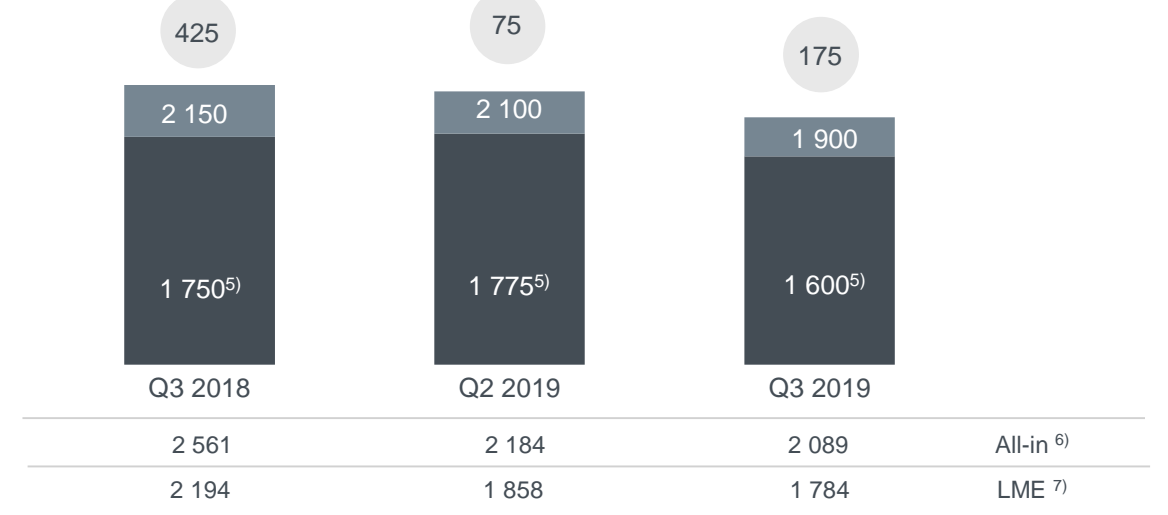
USD/mt ¹⁾



Implied alumina cost down in Q319 vs Q219, mainly on increased production, lower raw material costs and reduced external alumina sourcing and cost

All-in implied primary cost and margin

USD/mt ⁴⁾



Implied primary cost down in Q319 vs Q219 on reduced costs, mainly related to alumina

■ Implied EBITDA cost per mt ● EBITDA margin per mt

■ All-in Implied EBITDA cost per mt ■ LME Implied EBITDA cost per mt ● All-in EBITDA margin per mt

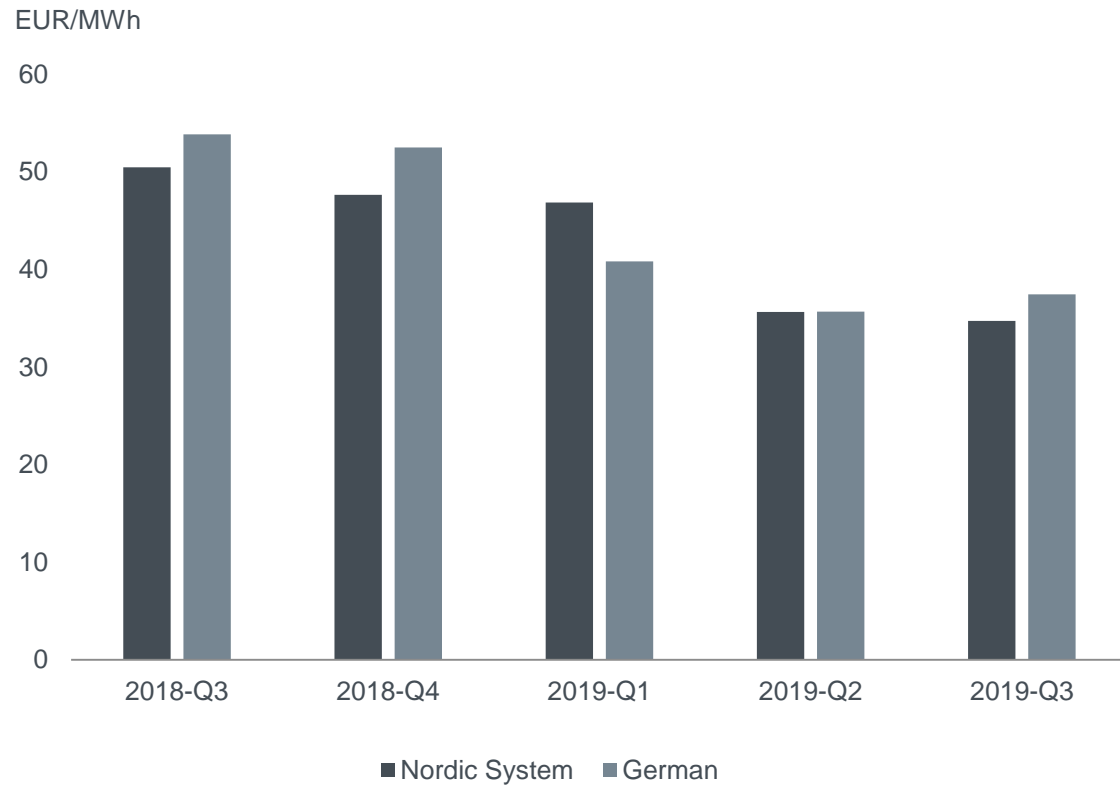
1) Realized alumina price minus underlying EBITDA for B&A, per mt alumina sales
 2) Realized alumina price
 3) Realized alumina price as % of three-month LME price with one month lag
 4) Realized all-in aluminium price less underlying EBITDA margin, incl Qatalum, per mt aluminium sold.
 Implied primary cost and margin rounded to nearest USD 25

5) Realized LME aluminium price less underlying EBITDA margin, incl Qatalum, per mt primary aluminium produced
 6) Realized LME plus realized premiums, including Qatalum
 7) Realized LME, including Qatalum

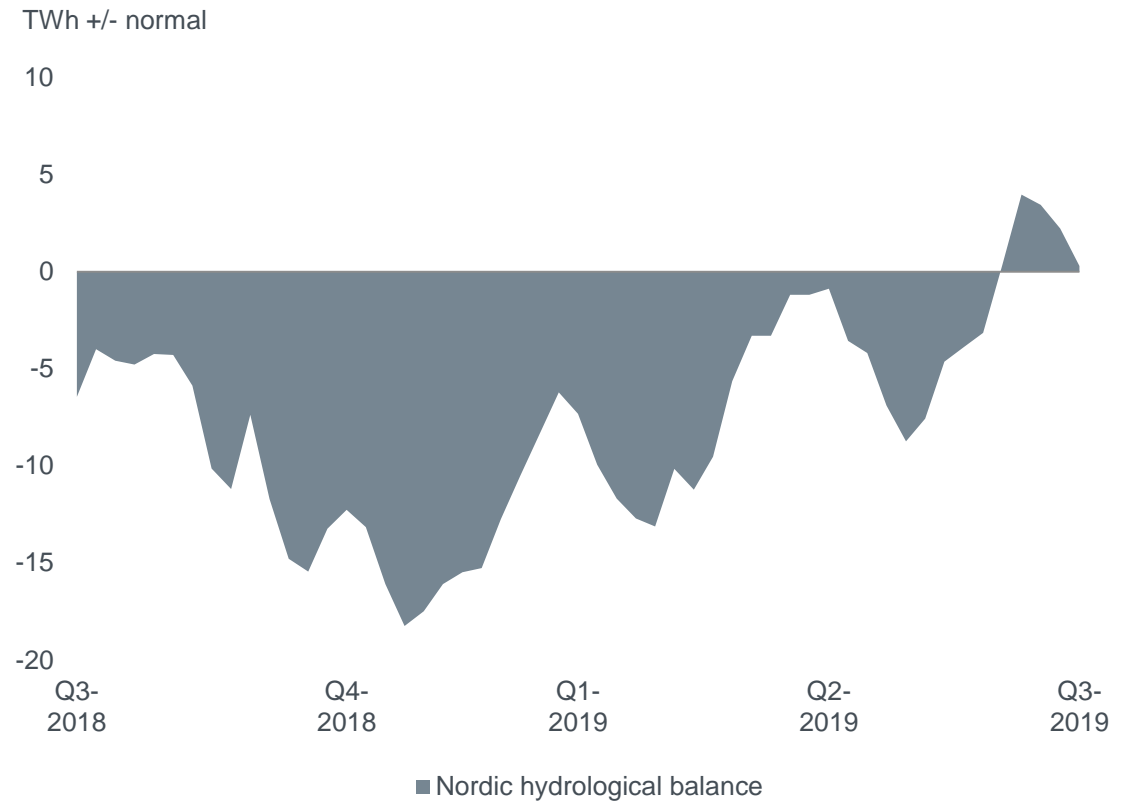
Nordic power prices down on improved hydrological balance through Q3



Nordic System and German Power Prices (EUR/MWh)



Nordic hydrological balance



Source Nordic Hydrological Balance: Wattsight, Hydrological normal based on historical data from 1967-2011 and covers Norway and Sweden (the Nordic countries with significant hydrology resources)
 Source Prices: NordPool (Nordic system price), Phelix (German price) The system price is the Nordic reference price for trading and clearing of most financial contracts.

Audi e-tron and Hydro: joint sustainability commitment

- Hydro provides ASI certified aluminium to the battery housing of the Audi e-tron
- The Aluminium Stewardship Initiative is the industry-leading standard of responsibility and sustainability
- Hydro with longest unbroken chain of ASI certifications in the industry - from mining through refining and primary aluminum production to fabrication of end products
- 19 Hydro plants in 8 countries have been ASI certified, several more in the process

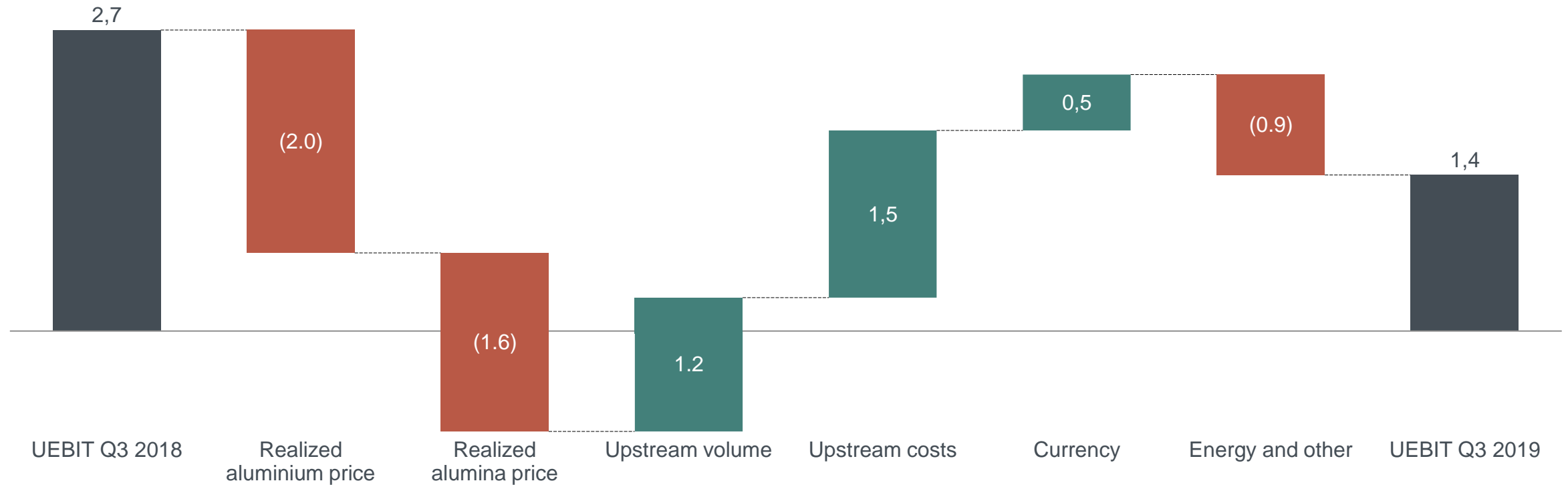


Results down on lower realized prices

Year-on-year results

Q3 2019 vs Q3 2018

NOK billion



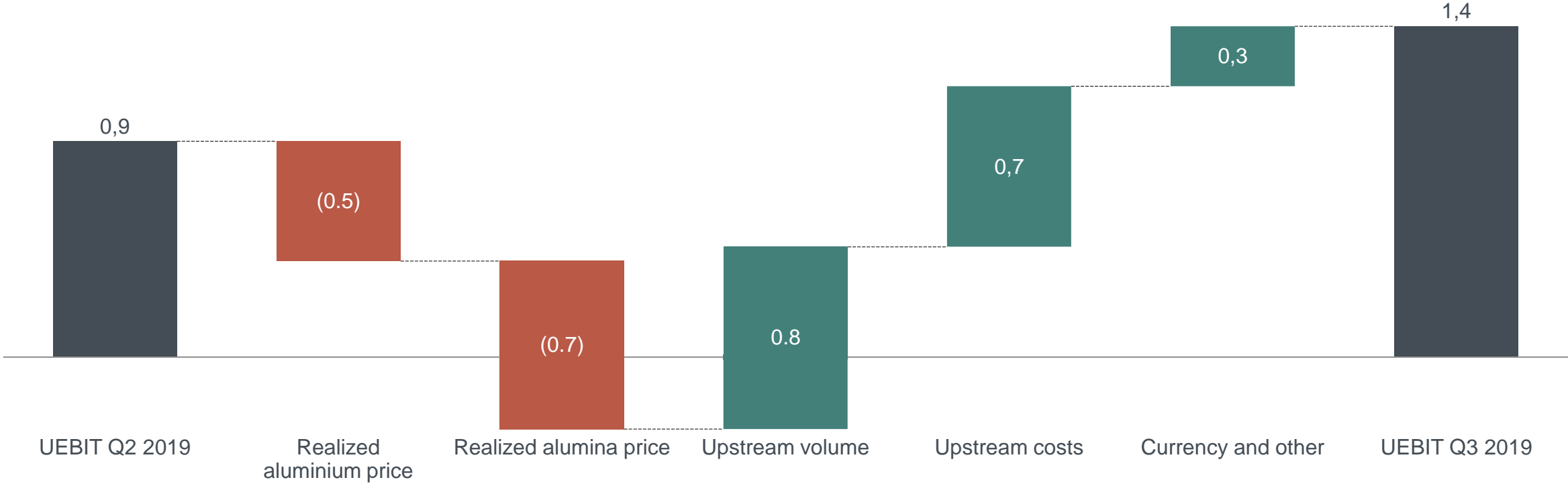
Improved results on lower costs and higher volumes upstream



Quarter-on-quarter results

Q3 2019 vs Q2 2019

NOK billion



Key financials



NOK million	Q3 2019	Q3 2018	Q2 2019	Year 2018
Revenue	37 517	39 766	39 176	159 377
Underlying EBIT	1 366	2 676	875	9 069
Items excluded from underlying EBIT	1 144	620	219	547
Reported EBIT	222	2 057	656	8 522
Financial income (expense)	(1 628)	(423)	(664)	(2 060)
Income (loss) before tax	(1 407)	1 634	(8)	6 462
Income taxes	16	(710)	(183)	(2 139)
Net income (loss)	(1 390)	925	(190)	4 323
Underlying net income (loss)	606	1 696	281	5 819
Reported EPS, NOK	(0.62)	0.37	(0.04)	2.08
Underlying EPS, NOK	0.33	0.74	0.19	2.75

Items excluded from Underlying EBIT



Excluded a loss of 1 144 MNOK from Underlying EBIT

NOK million	Q3 2019	Q3 2018	Q2 2019	Year 2018
Underlying EBIT	1 366	2 676	875	9 069
Unrealized derivative effects on LME related contracts	120	(436)	(11)	(39)
Unrealized derivative effects on power and raw material contracts	46	183	72	260
Metal effect, Rolled Products	(123)	153	(3)	73
Significant rationalization charges and closure costs	(1 206)	-	(200)	(79)
Impairment charges	(95)	-	(28)	-
Alunorte agreements – provisions	(30)	(519)	(14)	(519)
Transaction related effects	-	-	(35)	-
Other effects	82	-	-	(203)
Pension	62	-	-	(40)
Reported EBIT	222	2 057	656	8 522

Bauxite & Alumina

Results down on lower realized alumina prices

Key figures	Q3 2019	Q3 2018	Q2 2019
Alumina production, kmt	1 320	821	932
Total alumina sales, kmt	2 124	1 711	1 668
Realized alumina price, USD/mt	310	460	365
Implied alumina cost, USD/mt ¹⁾	253	376	296
Bauxite production, kmt	2 152	1 286	1 624
Underlying EBITDA, NOK million	1 071	1 193	1 004
Underlying EBIT, NOK million	481	685	415
Underlying RoaCE, % LTM ²⁾	3.9%	9.5%	4.5%

Underlying EBIT

NOK million



1) Realized alumina price minus underlying EBITDA for B&A, per mt alumina sales

2) URoaCE calculated as underlying EBIT last 4 quarters less 25% tax / average capital employed last 4 quarters



Results Q3 19 vs Q3 18

- Lower realized alumina price
- Higher alumina and bauxite production reflecting ongoing ramp-up
- Lower costs per tonne on scale effects and lower raw material prices

Outlook Q4 19

- Continued ramp-up at Alunorte and Paragominas

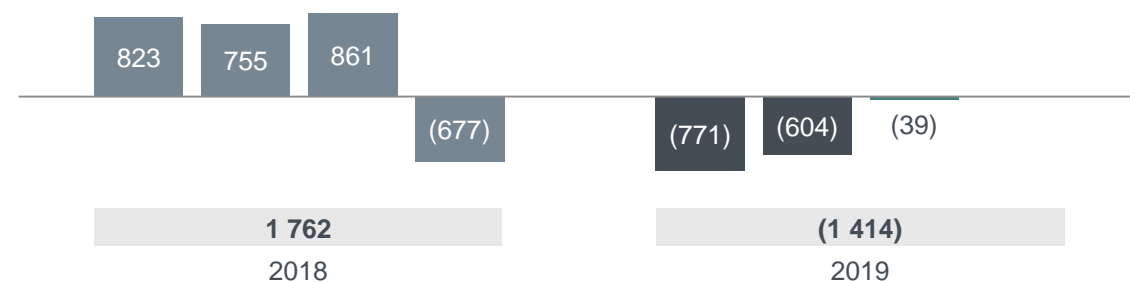
Primary Metal

Results down on lower realized metal prices

Key figures	Q3 2019	Q3 2018	Q2 2019
Primary aluminium production, kmt	522	497	486
Total sales, kmt	537	516	527
Realized LME price, USD/mt	1 784	2 194	1 858
Realized LME price, NOK/mt	15 732	17 905	15 959
Realized premium, USD/mt	305	367	326
Implied all-in primary cost, USD/mt ¹⁾	1 900	2 150	2 100
Underlying EBITDA, NOK million	550	1 424	(27)
Underlying EBIT, NOK million	(39)	861	(604)
Underlying RoaCE, % LTM ²⁾	(4.5)%	9.9%	(2.5)%

Underlying EBIT

NOK million



1) Realized all-in aluminium price minus underlying EBITDA margin, including Qatalum, per mt aluminium sold. Including Qatalum volumes.

2) URoaCE calculated as underlying EBIT last 4 quarters less 25% tax / average capital employed last 4 quarters



Results Q3 19 vs Q3 18

- Lower realized all-in metal price
- Lower earnings on excess power sales in Brazil
- Lower raw material and fixed costs
- Positive currency effects

Outlook Q4 19

- ~ 55% of primary production for Q4 priced at USD ~1 765 per mt ²⁾
- ~ 60% of premiums affecting Q4 booked at USD ~325 per mt ²⁾
- Q4 realized premium expected in the range of USD 250-300 per mt
- Raw material costs trending downwards
- Higher production on Albras ramp-up

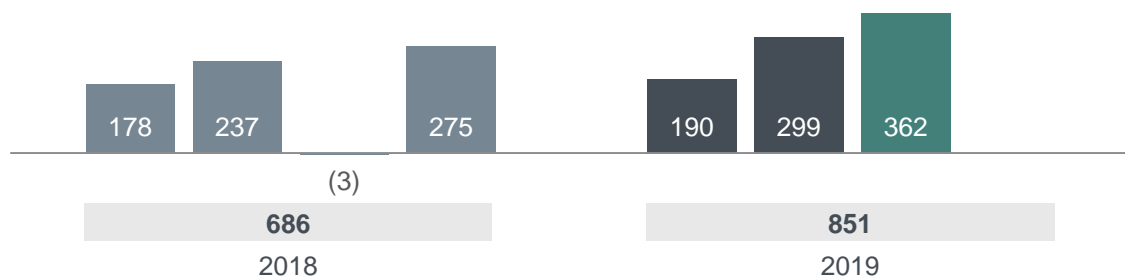
Metal Markets

Results up on stronger performance from remelters and commercial activities

Key figures	Q3 2019	Q3 2018	Q2 2019
Remelt production, kmt	125	126	139
Metal products sales, kmt ¹⁾	662	685	707
Underlying EBITDA, NOK million	395	22	328
Underlying EBIT excl currency and inventory valuation effects, NOK million	338	78	352
Underlying EBIT, NOK million	362	(3)	299
Underlying RoaCE, % LTM ²⁾	28.8%	20.2%	19.7%

Underlying EBIT

NOK million



1) Includes external and internal sales from primary casthouse operations, remelters and third-party metal sources.
 2) URoaCE calculated as underlying EBIT last 4 quarters less 25% tax / average capital employed last 4 quarters



Results Q3 19 vs Q3 18

- Improved results from remelters on higher margins in the US
- Strong contribution from sourcing and trading activities
- Currency and inventory valuation effects positive NOK 24 million in Q3 19 vs NOK 81 million negative in Q3 18

Outlook Q4 19

- Softening market conditions for remelters
- Volatile trading and currency effects

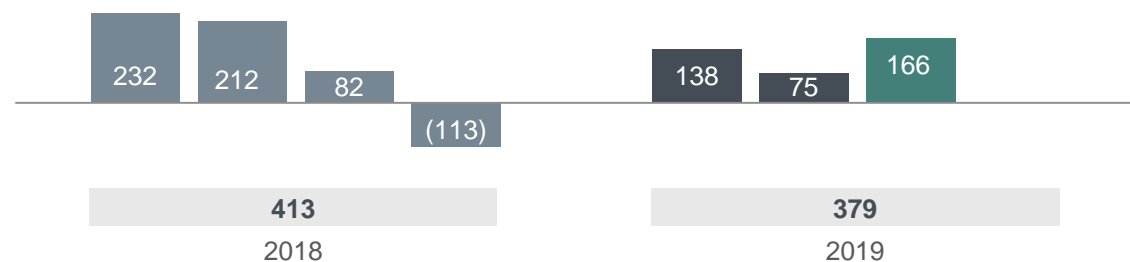
Rolled Products

Results up driven by Neuss smelter

Key figures	Q3 2019	Q3 2018	Q2 2019
External sales volumes, kmt	245	235	242
Underlying EBITDA, NOK million	430	314	326
Underlying EBIT, NOK million	166	82	75
Underlying RoaCE, % LTM*	1.5%	3.6%	1.0%

Underlying EBIT

NOK million



Results Q3 19 vs Q3 18

- Stable results from the rolling mills
 - Higher volumes
 - Inflationary cost pressure
 - Positive currency effects
- Improved results from Neuss smelter on lower raw material costs

Outlook Q4 19

- Softening demand growth in some market segments
- Neuss results driven by all-in metal and raw material price development

*URoaCE calculated as underlying EBIT last 4 quarters less 25% tax / average capital employed last 4 quarters

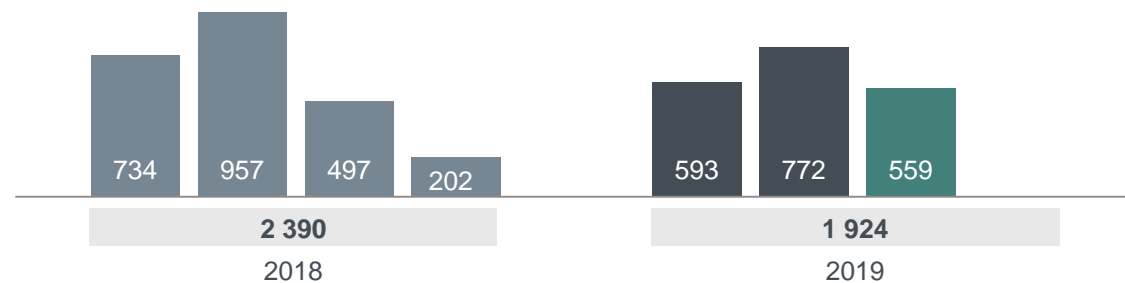
Extruded Solutions

Results up on higher margins, despite lower volumes

Key figures	Q3 2019	Q3 2018	Q2 2019
External sales volumes, kmt	316	343	348
Underlying EBITDA, NOK million	1 099	931	1 279
Underlying EBIT, NOK million	559	497	772
Underlying RoaCE, % LTM*	5.9%	7.8%	5.9%

Underlying EBIT

NOK million



Results Q3 19 vs Q3 18

- Improved margins
- Higher costs
- Lower volumes due to weaker markets

Outlook Q4 19

- Continued volume decline due to softening market demand
- Softening market conditions for remelt operations

*URoaCE calculated as underlying EBIT last 4 quarters less 25% tax / average capital employed last 4 quarters

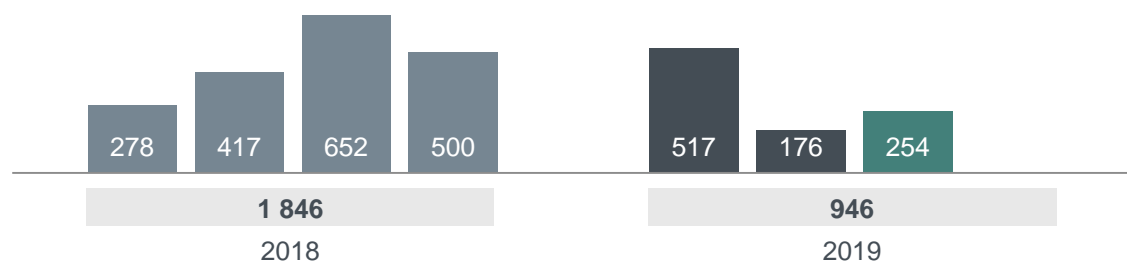
Energy

Results down on lower volumes and prices

Key figures	Q3 2019	Q3 2018	Q2 2019
Power production, GWh	2 273	2 888	1 993
Net spot sales, GWh	582	1 315	289
Southwest Norway spot price (NO2), NOK/MWh	328	475	360
Underlying EBITDA, NOK million	319	716	242
Underlying EBIT, NOK million	254	652	176
Underlying RoaCE, % LTM*	21,3%	17,3%	21,2%

Underlying EBIT

NOK million



Results Q3 19 vs Q3 18

- Significantly lower volumes
- Lower power prices

Outlook Q4 19

- Continued low production levels
- Volume and price uncertainty

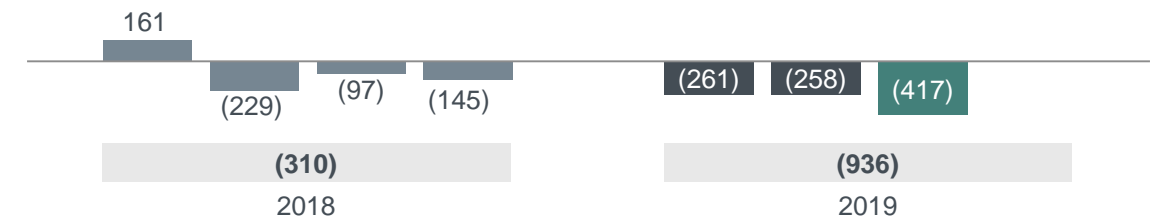
*URoaCE calculated as underlying EBIT last 4 quarters less 70% tax / average capital employed last 4 quarters



Other and Eliminations

Underlying EBIT, NOK million	Q3 2019	Q3 2018	Q2 2019
Other	(160)	(190)	(253)
Eliminations	(257)	93	(5)
Other and Eliminations	(417)	(97)	(258)

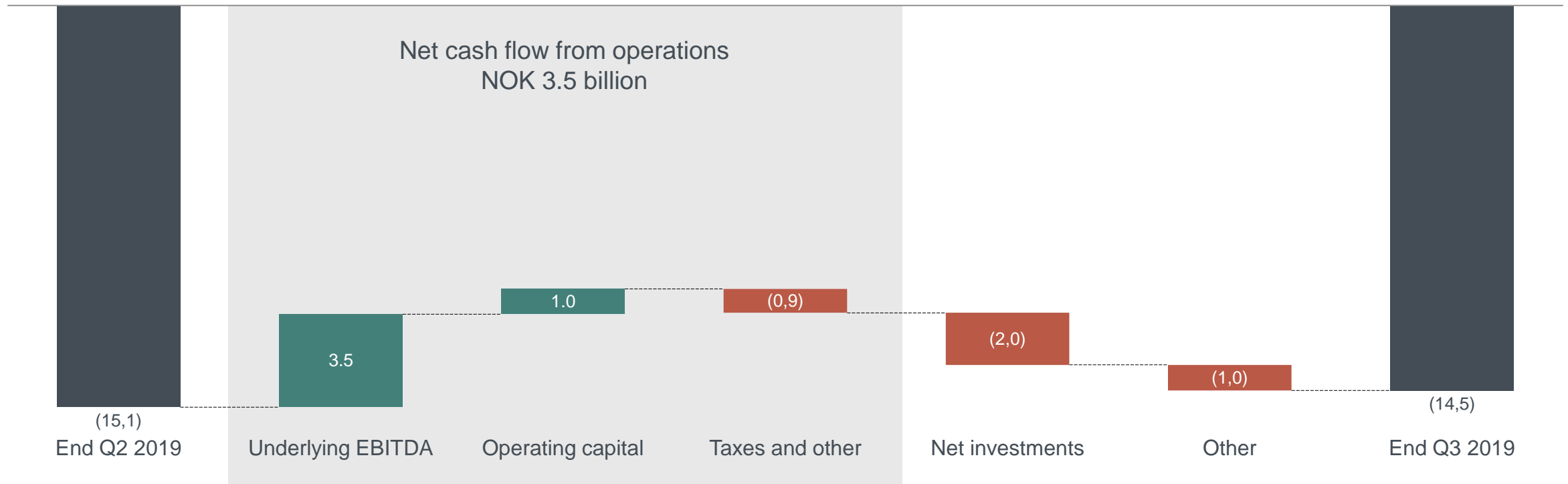
Underlying EBIT NOK million



Net debt reduced in Q3 2019

Higher operating cash flow supported by further NOC release

NOK billion



Adjusted net debt up in Q3

Driven by increased net pension liability on lower discount rates

NOK billion	Sep 30, 2019	Jun 30, 2019	Mar 31 2019
Cash and cash equivalents	10.6	10.6	6.1
Short-term investments	0.9	1.1	1.3
Short-term debt	(6.1)	(8.2)	(8.9)
Long-term debt	(20.0)	(18.6)	(10.6)
Net cash/(debt)	(14.5)	(15.1)	(12.1)
Net pension liability at fair value, net of expected tax benefit	(10.3)	(8.8)	(8.4)
Other adjustments ¹⁾	(4.8)	(4.0)	(3.9)
Adjusted net debt ex. EAI	(29.6)	(27.9)	(24.4)
Net debt in EAI	(5.4)	(5.4)	(5.7)
Adjusted net debt incl. EAI	(35.0)	(33.3)	(30.1)

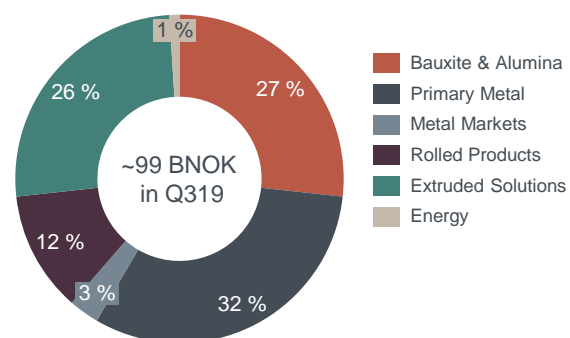
1) "Other adjustments" include, e.g., asset retirement obligations, cash and short-term investments in Industriforsikring.



Capital return dashboard for Hydro Q3 2019

Hydro targets URoaCE above 10% over the cycle

Capital employed¹⁾



URoaCE

2.4%
LTM Q3 2019³⁾

10% target over the cycle

FFO/aND

24%
LTM Q3 2019⁴⁾

>40% target over the cycle

Free cash flow

0.7 BNOK
YTD Q3 2019⁵⁾

Improvement program

On track
for 2019 target

2023 target 6.4 + 0.9 BNOK²⁾
2019 target 0.5 BNOK

Net operating capital

2.3 BNOK release
YTD Q3 2019

Target 12 NOC days reduction
(~ 4 BNOK) from end-2018 to end-2020

Capex

6.5 BNOK
YTD Q3 2019

2019 estimate ~10.5 BNOK



1) Graph excludes (7.8) BNOK in capital employed in Other & Elimination
 2) 6.4 BNOK in improvement ambitions, 0.9 BNOK in Rolled Products restructuring. 2019 Rolled Products target ~ 0 BNOK
 3) URoaCE calculated as underlying EBIT last 4 quarters less 30% tax / average capital employed last 4 quarters. RoaCE tax is calculated on UEBIT excluding net income from equity accounted investments.
 4) Funds from operation LTM/Average LTM adjusted net debt
 5) Free cash flow – operating cash flow less investing cash flow excl. sales/purchases of short-term investments



**Lifting profitability,
driving sustainability**

Priorities

- Safe and efficient operations
- Portfolio optimization, restructuring and compensating measures in challenging market
- Delivering on improvement programs, including returning Brazilian assets to full production and operational excellence
- Net operating capital release and strict capital discipline
- Differentiating through low-carbon position



Market

Macro trends and favorable properties drive aluminium demand

Hydro's strategic direction aims to realize full potential of aluminium's strong qualities and versatility



Aluminium

- ✓ Lightness and strength
- ✓ Durability and formability
- ✓ Corrosion resistance
- ✓ Conductivity
- ✓ Recyclability
- ✗ Energy-intensity



Steel

- ✓ Strength and durability
- ✓ Recyclability
- ✓ Price
- ✗ Weight
- ✗ Corrosion
- ✗ Energy-intensity



Copper

- ✓ Conductivity
- ✓ Corrosion resistance
- ✓ Recyclability
- ✗ Price
- ✗ Weight
- ✗ Energy-intensity



Composites

- ✓ Lightness
- ✓ Strength
- ✗ Price
- ✗ Recyclability
- ✗ Climate footprint
- ✗ Energy-intensity



PVC

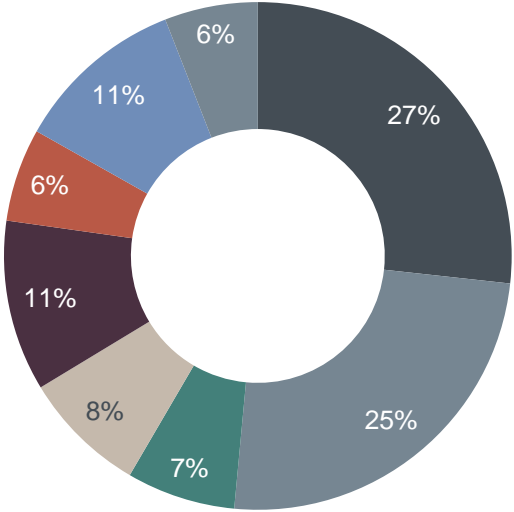
- ✓ Lightness and formability
- ✓ Corrosion resistance
- ✓ Price
- ✗ Climate footprint
- ✗ Recyclability
- ✗ Durability

Transport & construction key semis demand segments



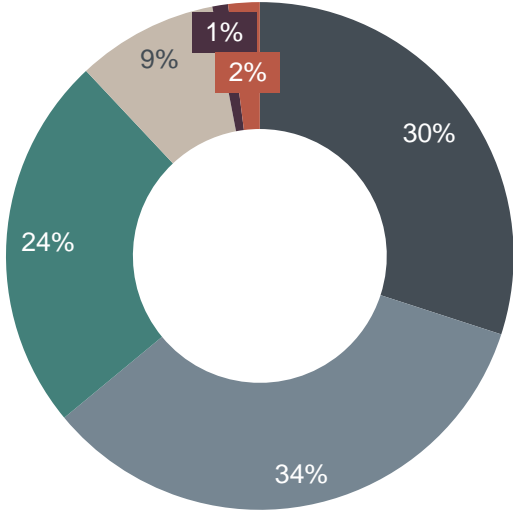
Global semis demand 2018: ~91 million tonnes

Per segment



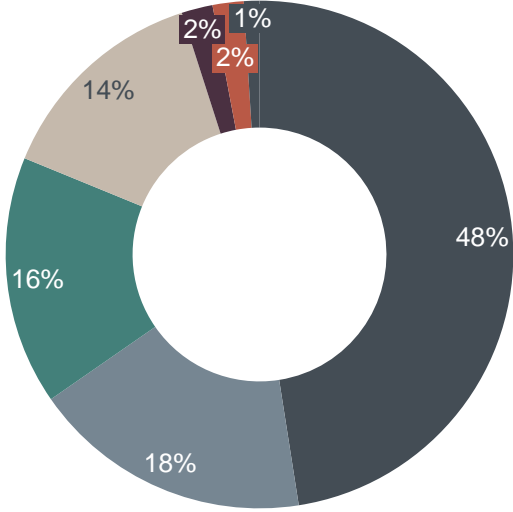
- Transport
- Construction
- Packaging
- Foil stock
- Electrical
- Consumer durables
- Machinery & Equipment
- Other

Per product form



- Rolled products
- Extrusions
- Castings
- Wire & Cable
- Forgings
- Powder & paste, other

Per region

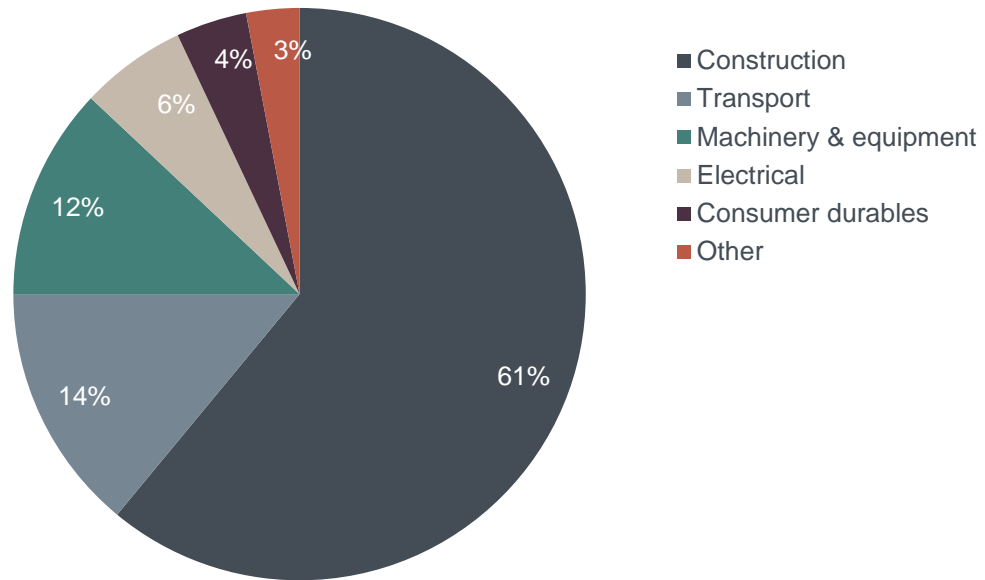


- China
- Asia ex. China
- Europe
- North America
- Central & South America
- Africa
- Australasia

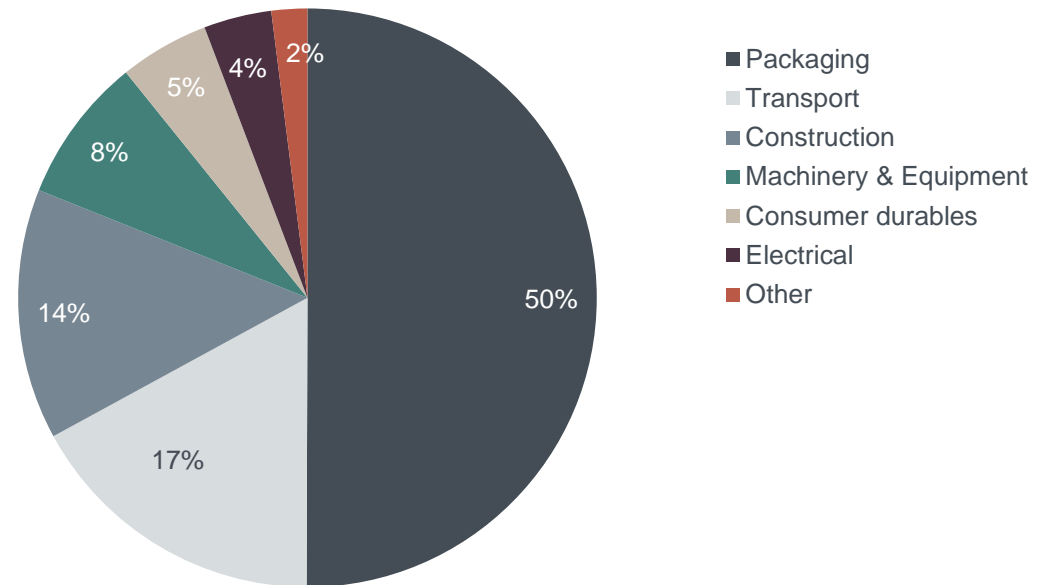
Source: CRU, Hydro Analysis

Segment composition in extruded and rolled products

Global segment composition, extrusions
(2018)



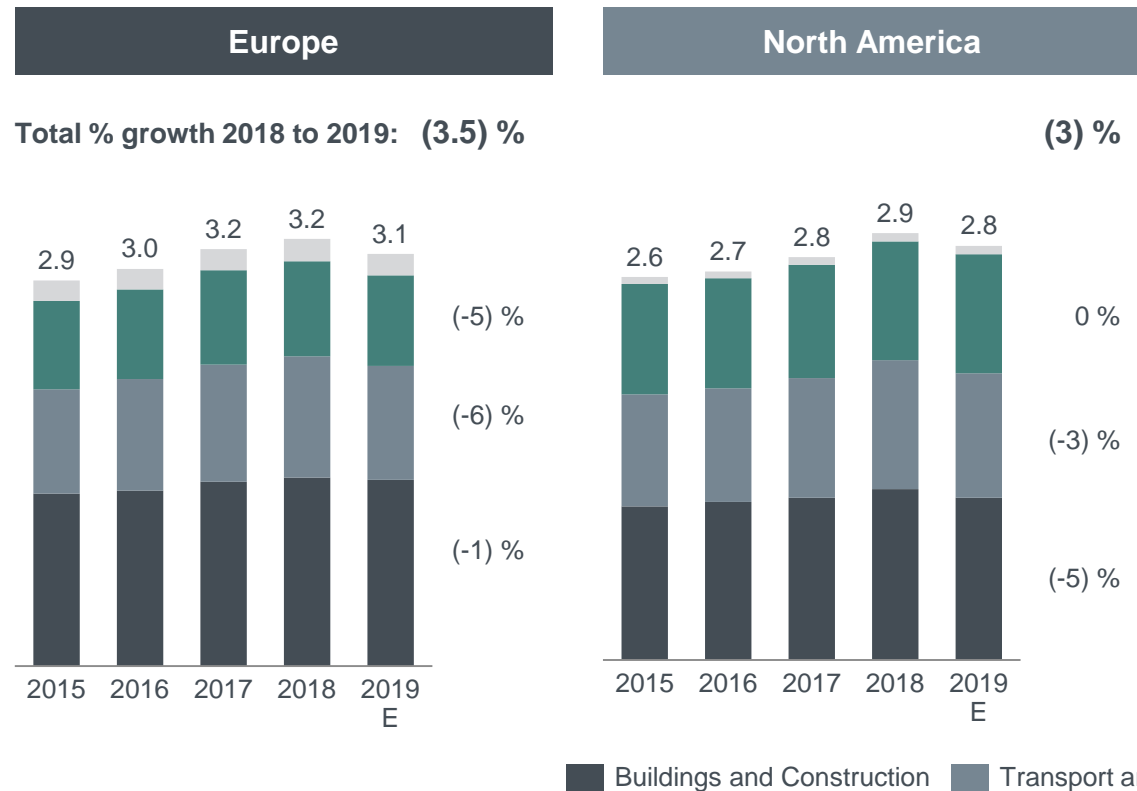
Global segment composition, rolled products
(2018)



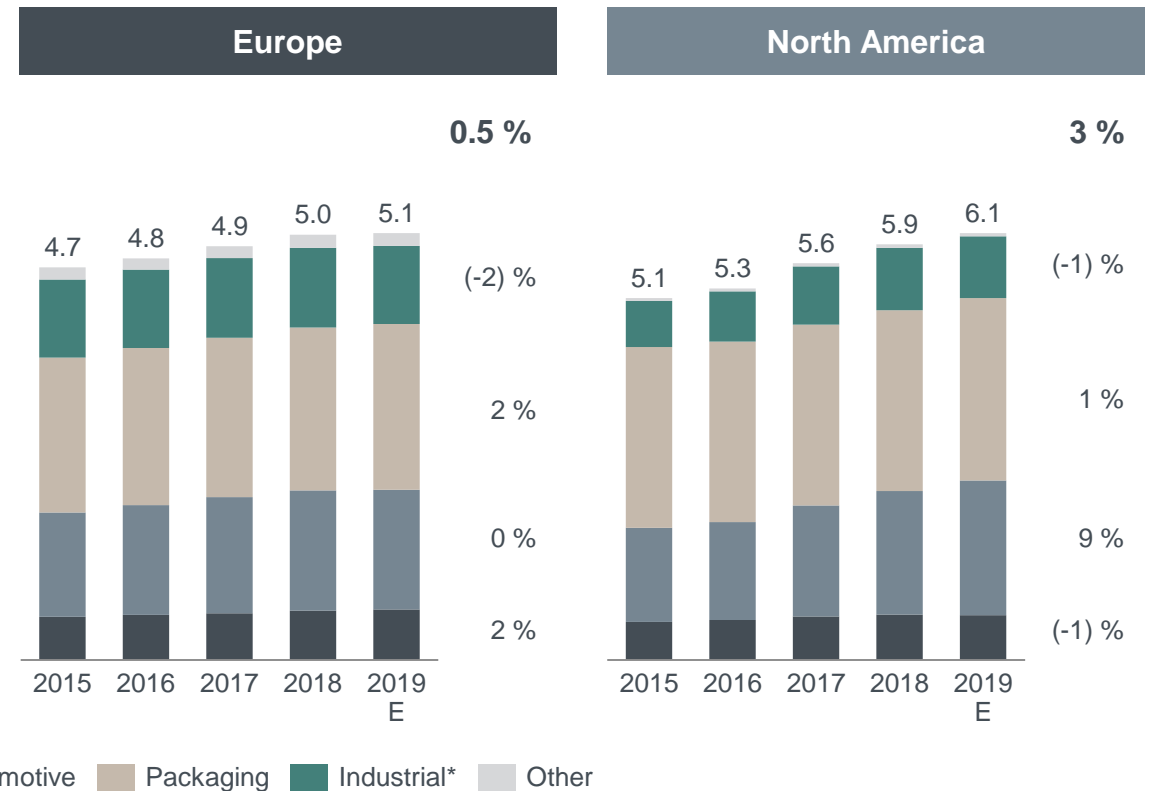
Negative extrusions demand in Europe and North America, rolled products demand supported by packaging & transport



Extrusions – estimated market size 2015-2019 (million tons)



Rolled products – estimated market size 2015-2019 (million tons)



Source: CRU, Hydro analysis
 * Industrial includes consumer durables, electrical and machinery
 Europe excluding Russia/Turkey
 % growth from 2018 to 2019

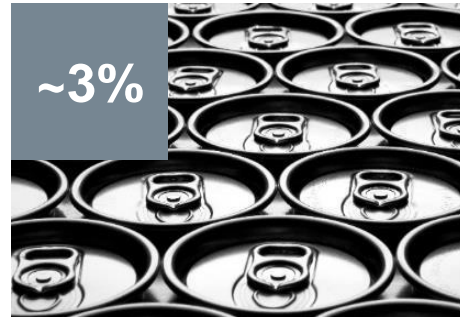
Strong growth drivers across segments providing solid demand outlook

Solid demand growth across main segments

Transport



Packaging



Buildings and construction



Electrical, consumer durables & industrial



Semis demand growth in segment, CAGR 2018-23

Global demand increasingly supplied by recycled material



Demand growth, CAGR 2018-23

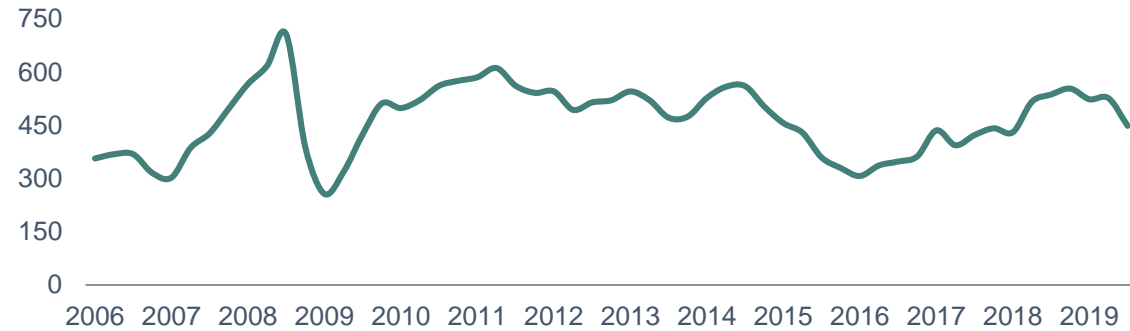
Source: CRU, IAI, Hydro

* Includes both post consumer and fabricated scrap

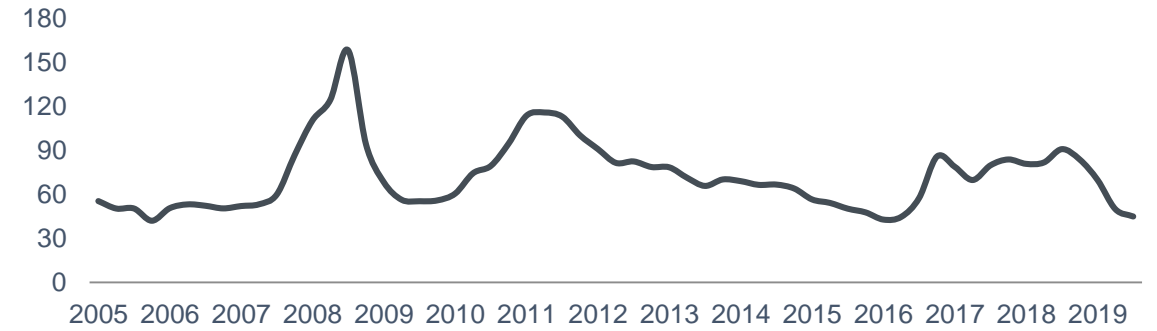
Commodity prices drive industry costs



Fuel oil A1 (USD/mt)



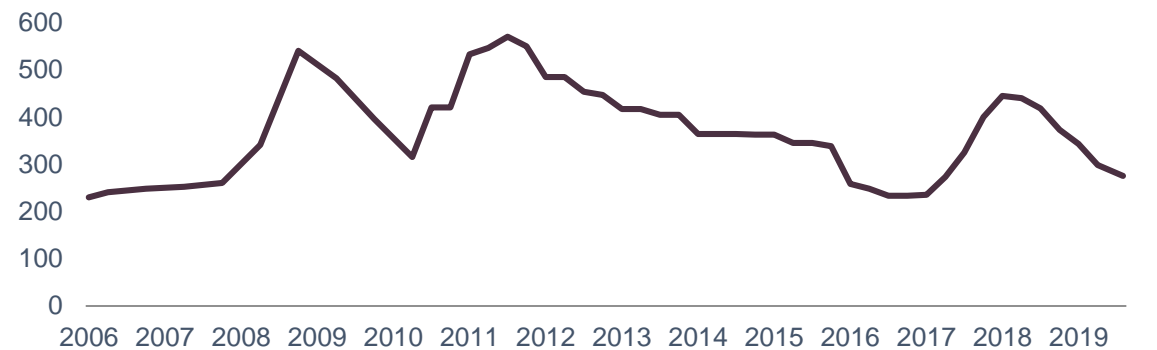
Steam coal (USD/mt)



Caustic soda (USD/mt)



Petroleum coke FOB USG (USD/mt)

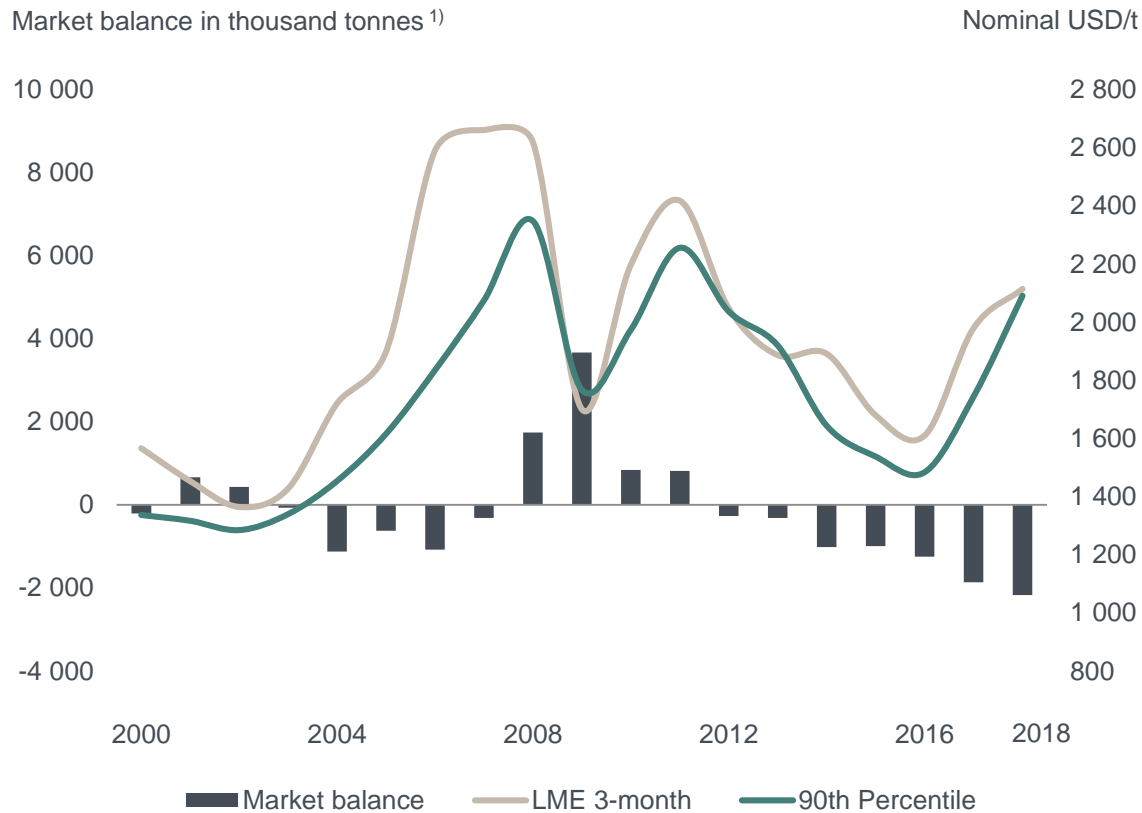


Historical strong correlation between LME and 90th percentile smelters

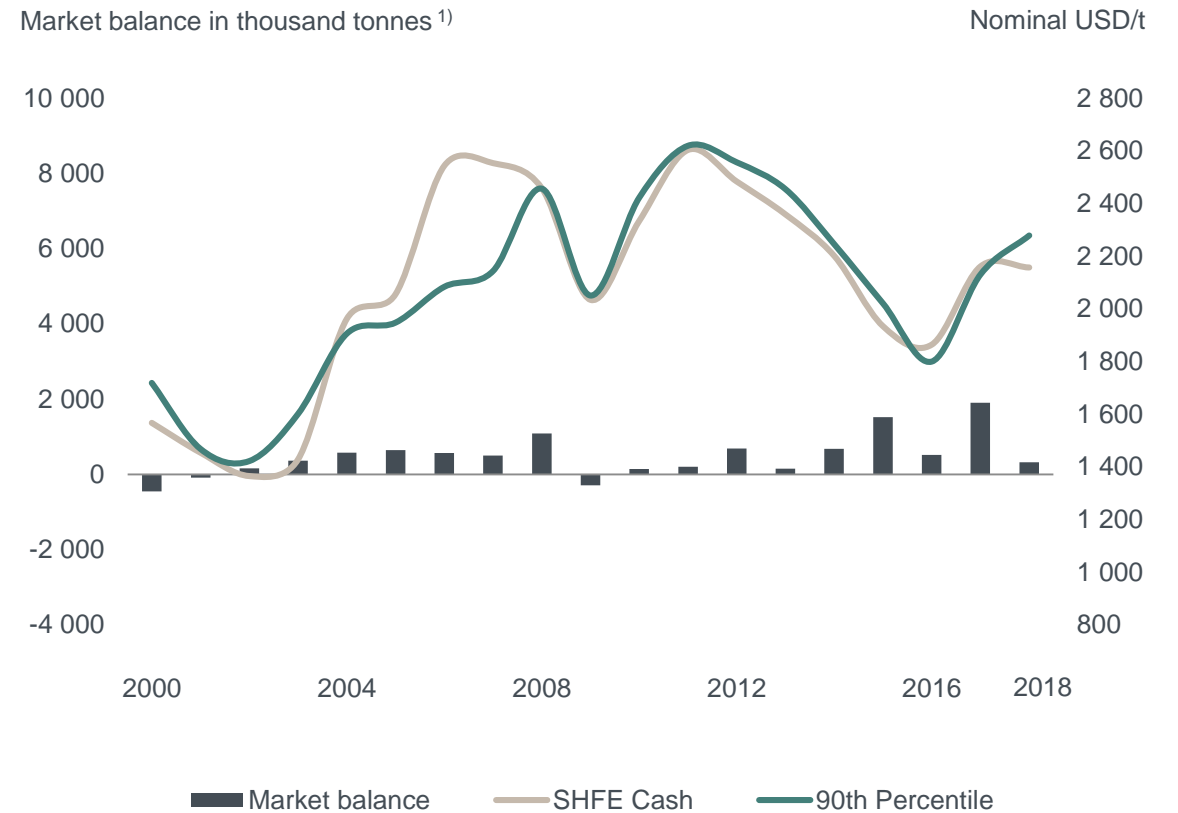


Primary metal market

World ex-China



China



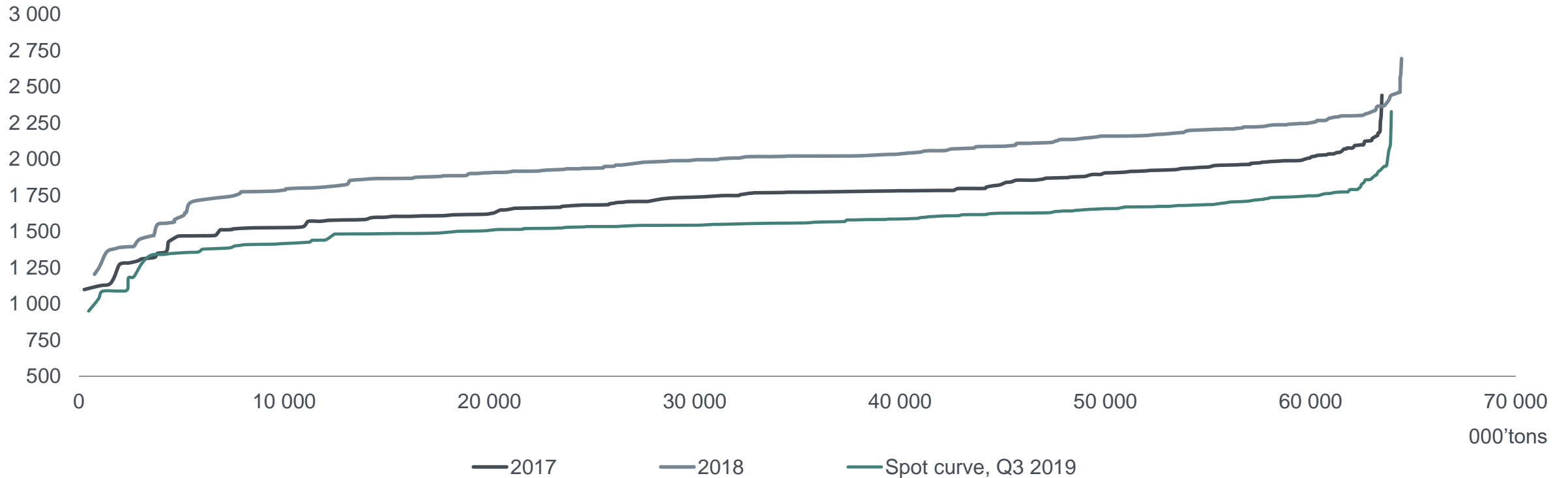
Source: CRU, Hydro Analysis
 1) Primary production less primary demand

Global cost curve lower in 2019 as raw materials cost normalize

Primary metal market

CRU BOC curve by smelter

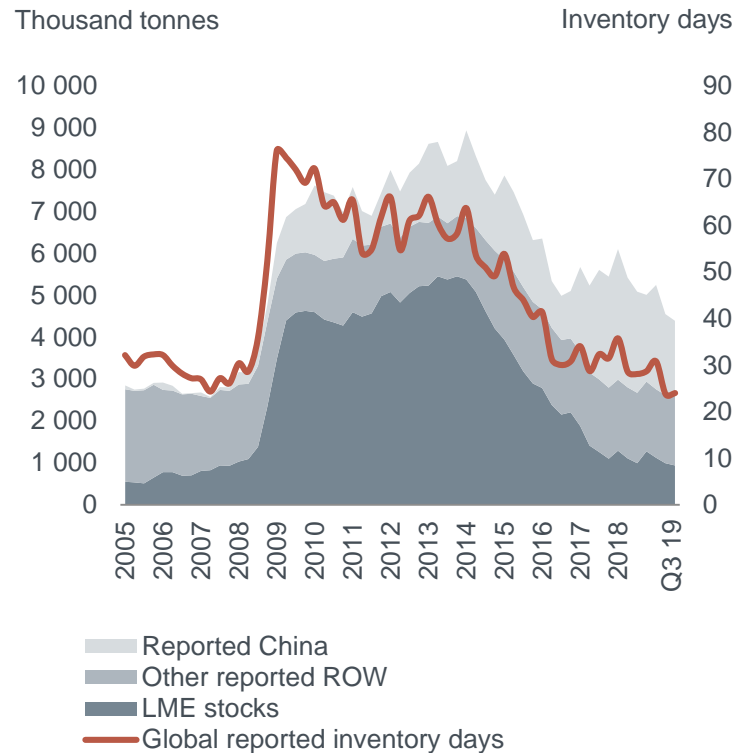
USD/t



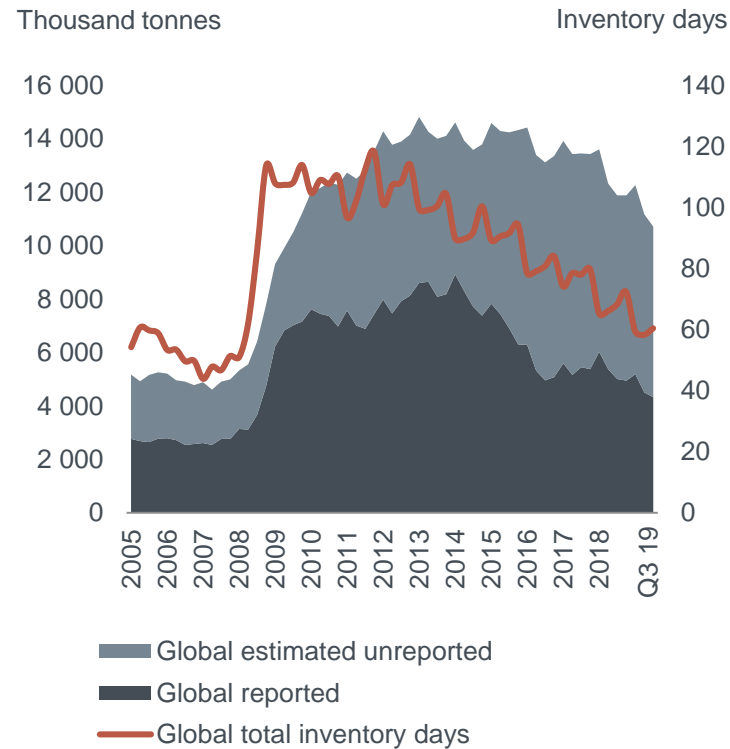
Total global inventory days trending downwards

Primary metal market

Global reported stocks and inventory days



Total global stocks and inventory days



- Reported stocks decreasing in Q3-19
 - Reported stocks ex. China flat, drop in reported stocks China on the back of production disruptions
- LME stocks at low levels compared to the last years, down in Q3-19
- High uncertainty regarding absolute level of unreported volumes

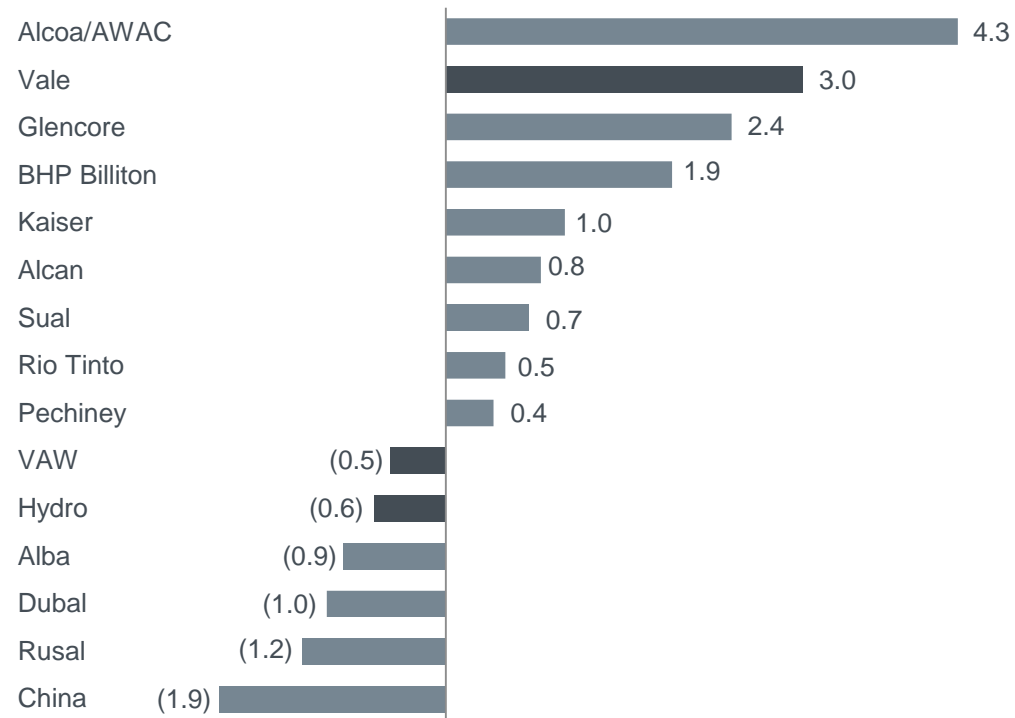
Alumina market consolidating, becoming more integrated



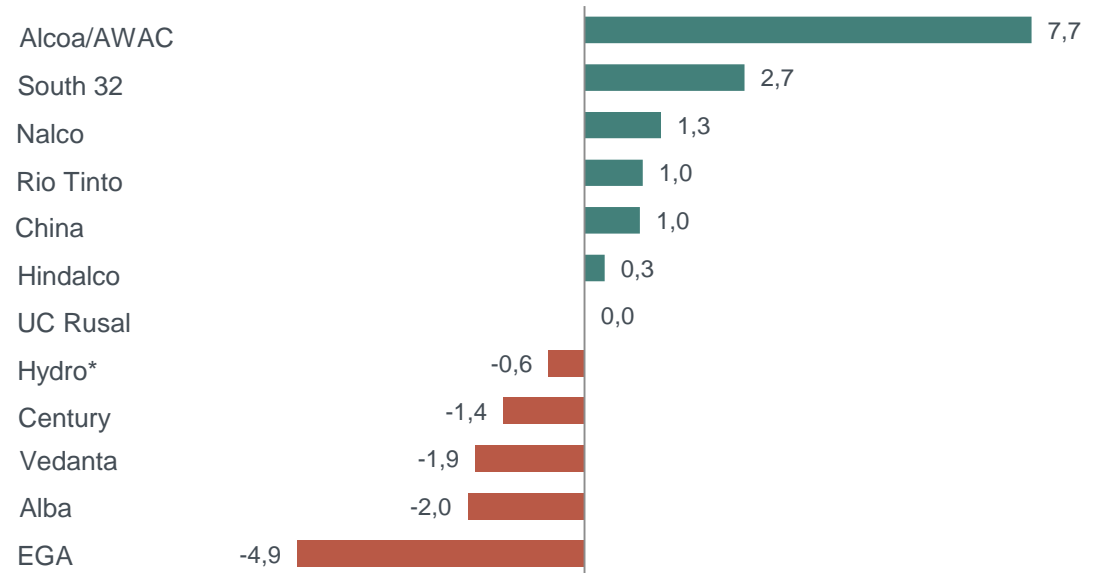
EGA and Vedanta planning capacity additions

Estimated net equity alumina position, in million tonnes

2000



2018



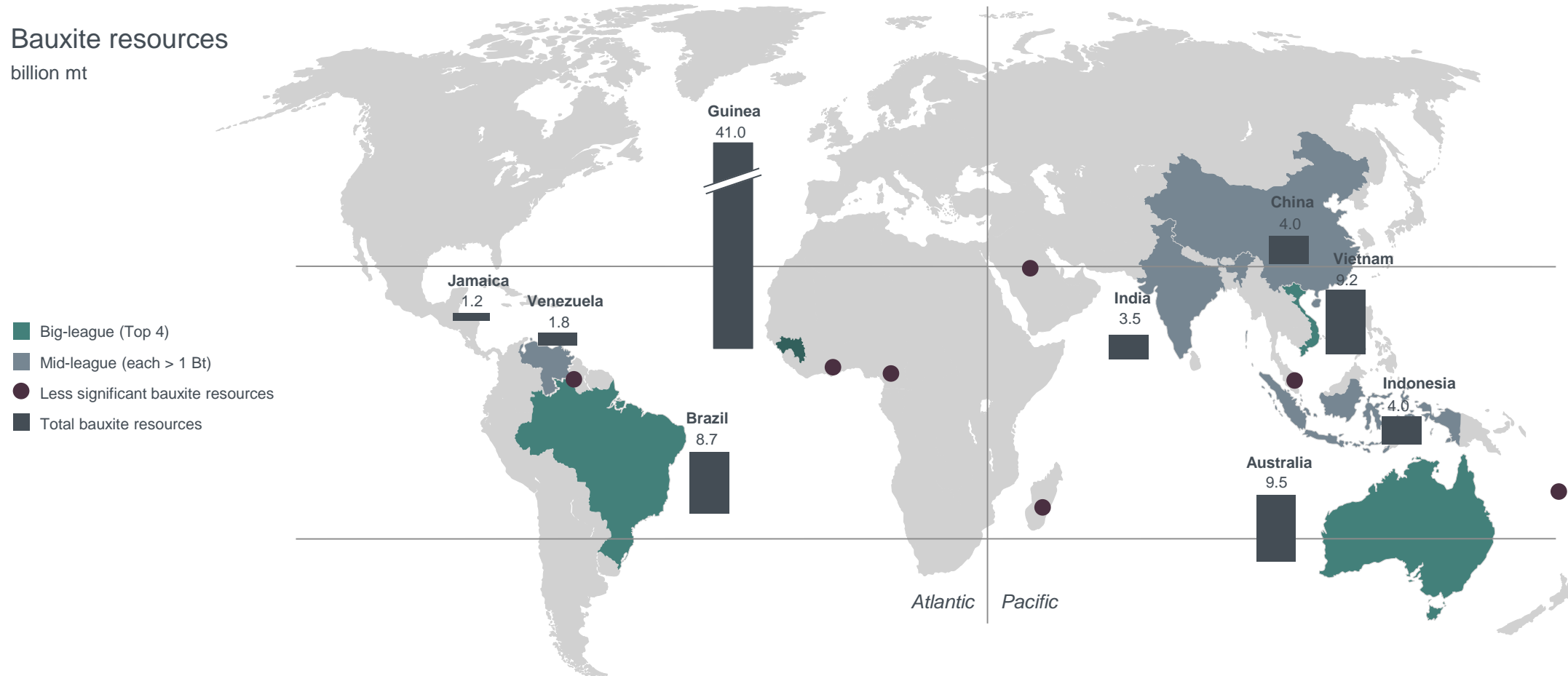
Source: CRU, Hydro

*Hydro's alumina position was affected by the 50% production embargo at Alunorte from March 2018 to May 2019. Prior to the curtailment Hydro had a long alumina position of 1.7 million tonnes.

Large and concentrated bauxite resources

Guinea stands out as a long-term source

Bauxite resources
billion mt

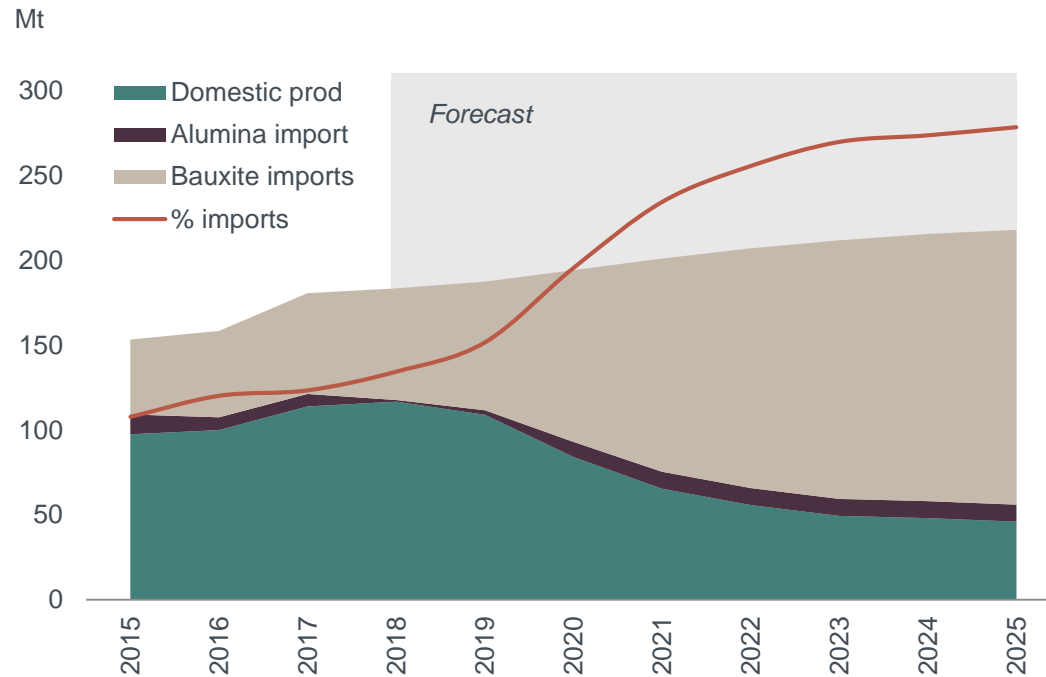


China increasingly reliant on bauxite imports



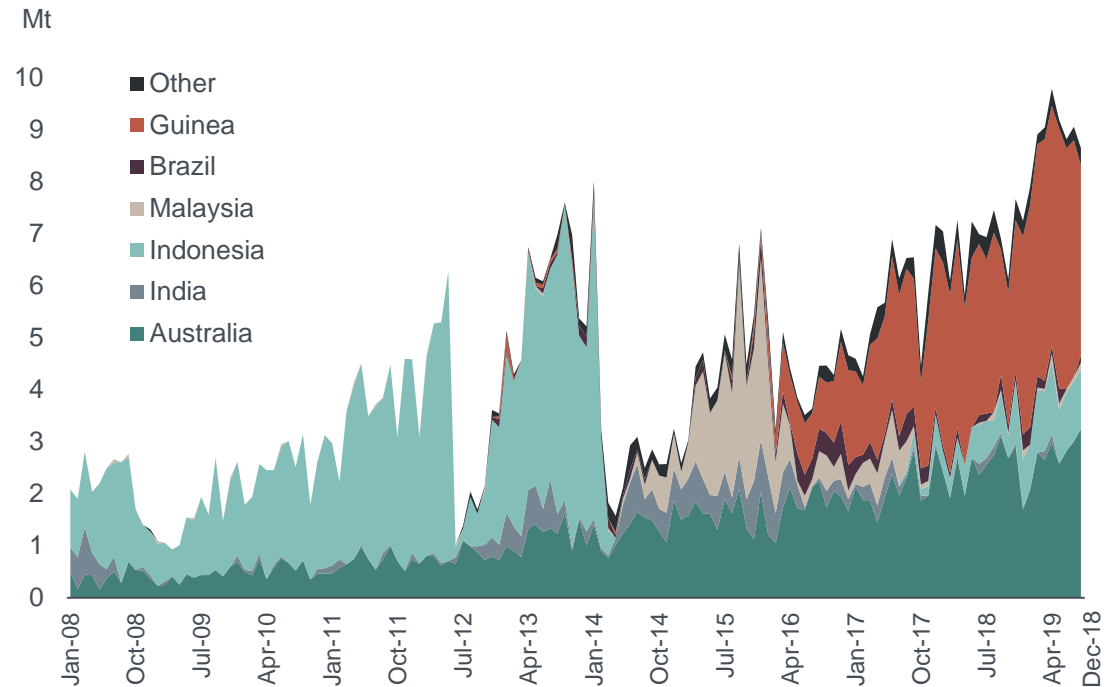
Guinea bauxite increasingly satisfying Chinese demand

Growing need for bauxite imports amid domestic depletion



- Increasing Chinese bauxite prices triggering more bauxite imports
 - Chinese quality deteriorating
 - Unlicensed mines closures

Monthly Chinese bauxite imports by origin



- Guinea bauxite production increasing dramatically
 - Includes non-Chinese players
 - Atlantic-sourced seaborne bauxite continues to grow, adding freight exposure



Business overview

Investor presentation, October 2019

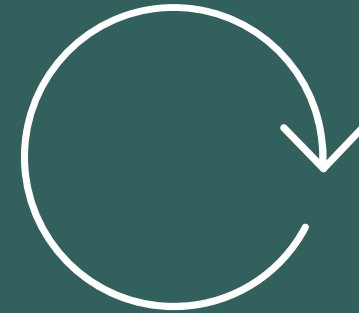


Hydro – Group



Profitability

ROACE > 10%



Sustainability

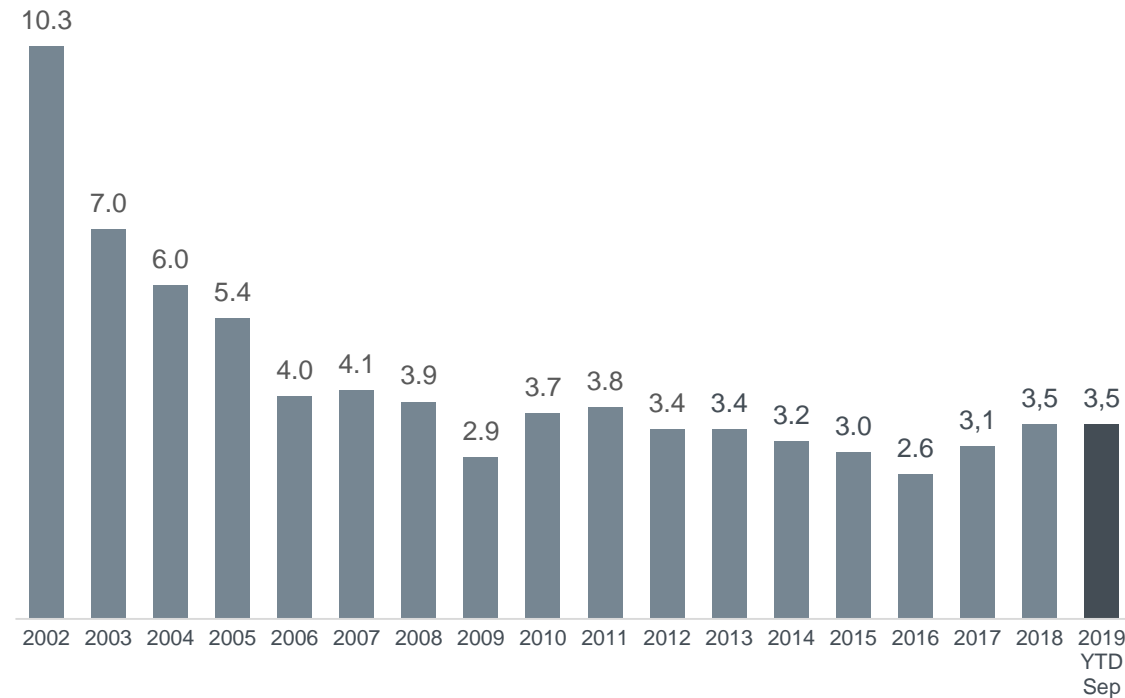
CO₂ - 30%

Safe and responsible operations is a top priority

Leadership in HSE, CSR and compliance as a license to operate



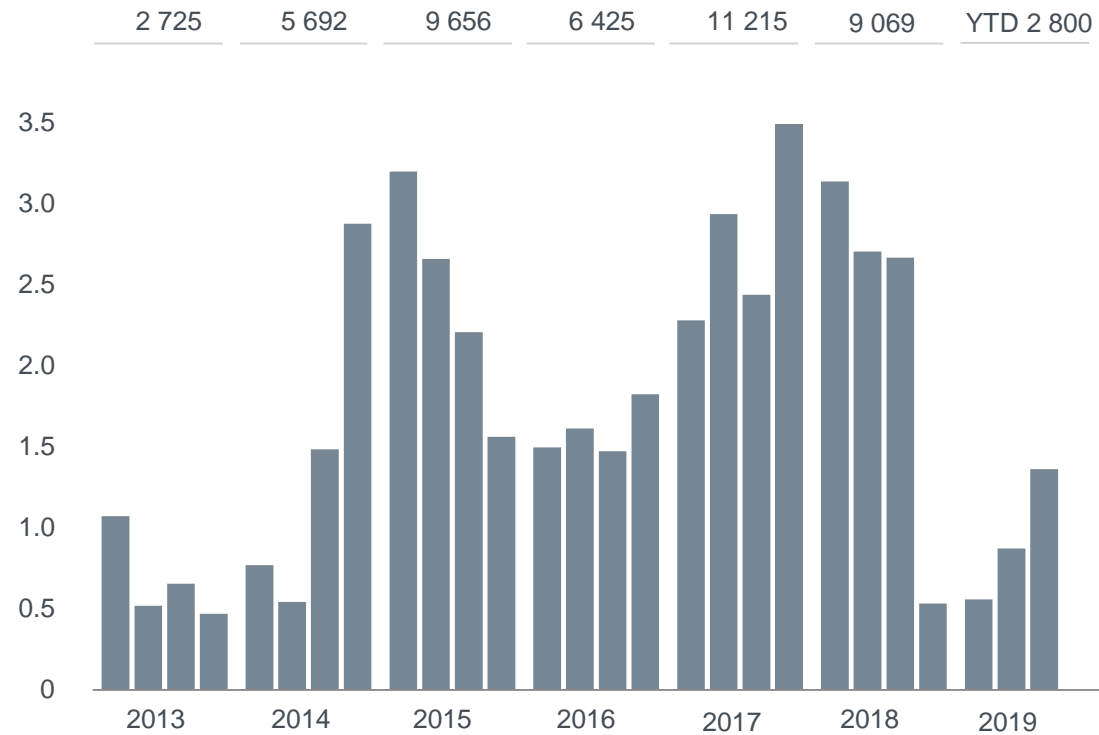
TRI Rate¹⁾



1) Total recordable incidents (TRI) rate defined as cases per 1 million hours worked, for own employees

Hydro: a resource rich global aluminium company

Hydro underlying EBIT quarterly, NOK billion



Extruded Products classified as discontinued operations, and thereby excluded from revenues and underlying EBIT in 2013. Figures for 2013 are adjusted reflecting IFRS 11
 1) As per Oct 16, 2019



- Based in Norway, involved in activities in more than 40 countries
- Operating revenues
 - 2018: NOK 159 billion
 - 2017: NOK 109 billion
- Current market capitalization
 - ~NOK 64 billion/ USD 7 billion¹⁾
- ~35 000 employees

The aluminium value chain

World class assets, high-end products and leading market positions

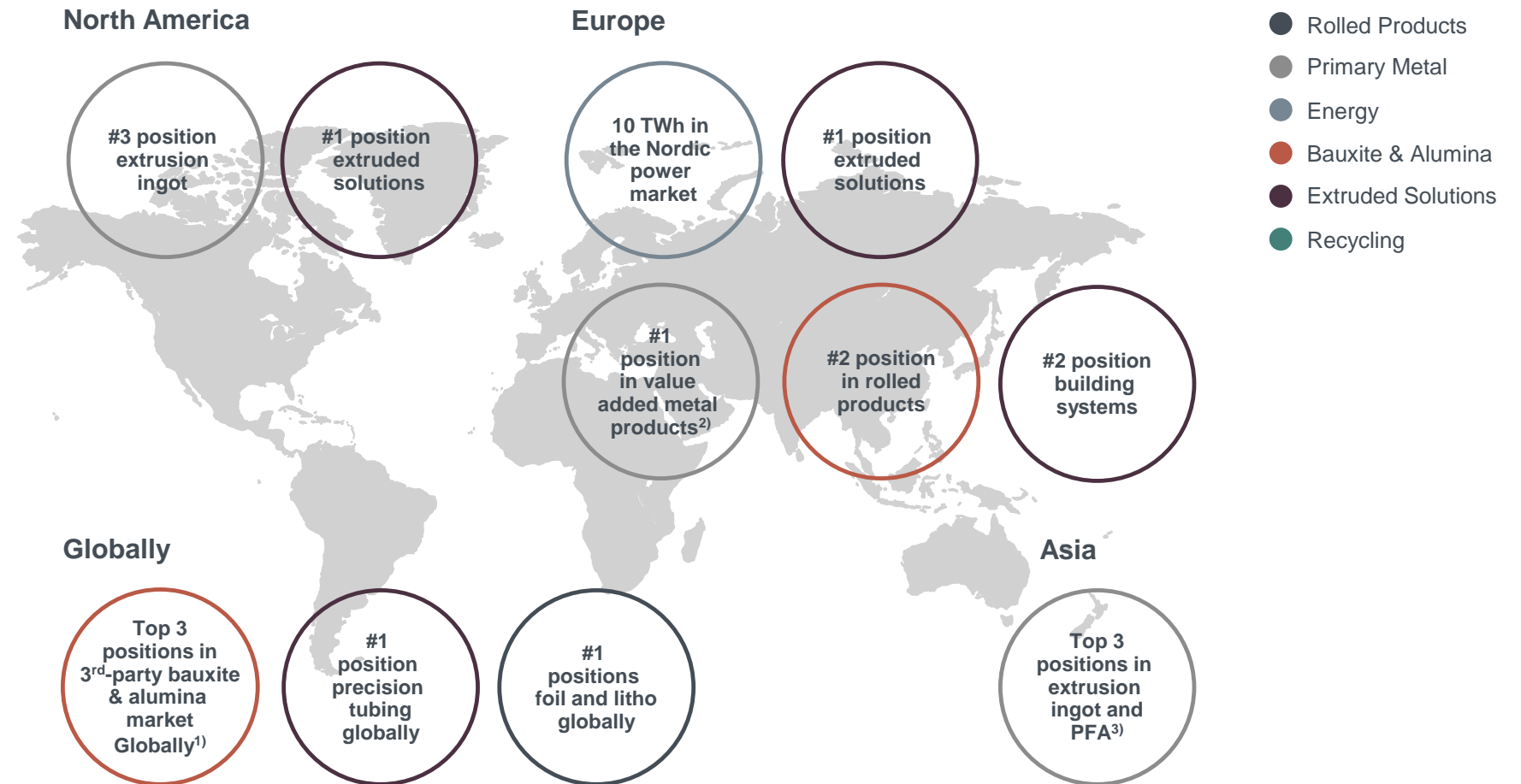


Strong global presence throughout the aluminium value chain

Built on market understanding, customer closeness and competence

The complete aluminium company

- High-quality bauxite and alumina production in Brazil
- Primary production in Norway, Germany, Qatar, Slovakia, Brazil, Canada, Australia
- 10 TWh captive hydropower production
- European #2 in rolled products
- World leader in aluminium extruded profiles
- Remelting in the US, European recycling network
- Unparalleled technology and R&D organization

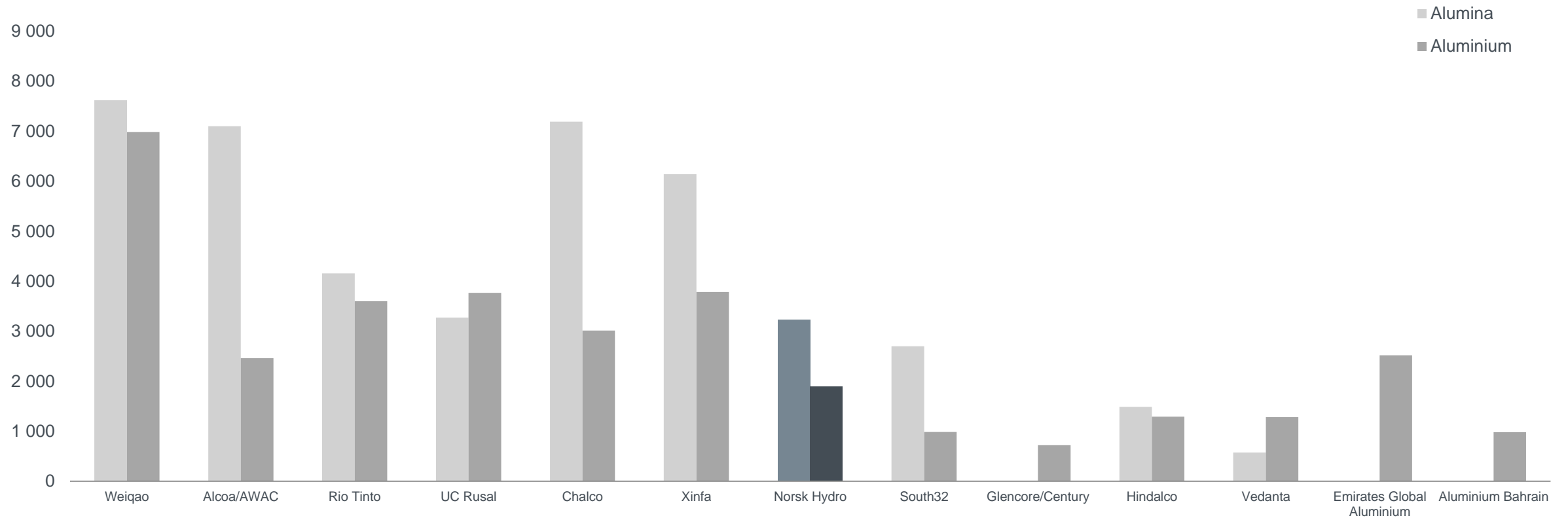


1) Outside China
 2) Extrusion ingot, sheet ingot, primary foundry alloys and wire rod
 3) Primary Foundry Alloys

Hydro - the fourth largest aluminium producer outside China



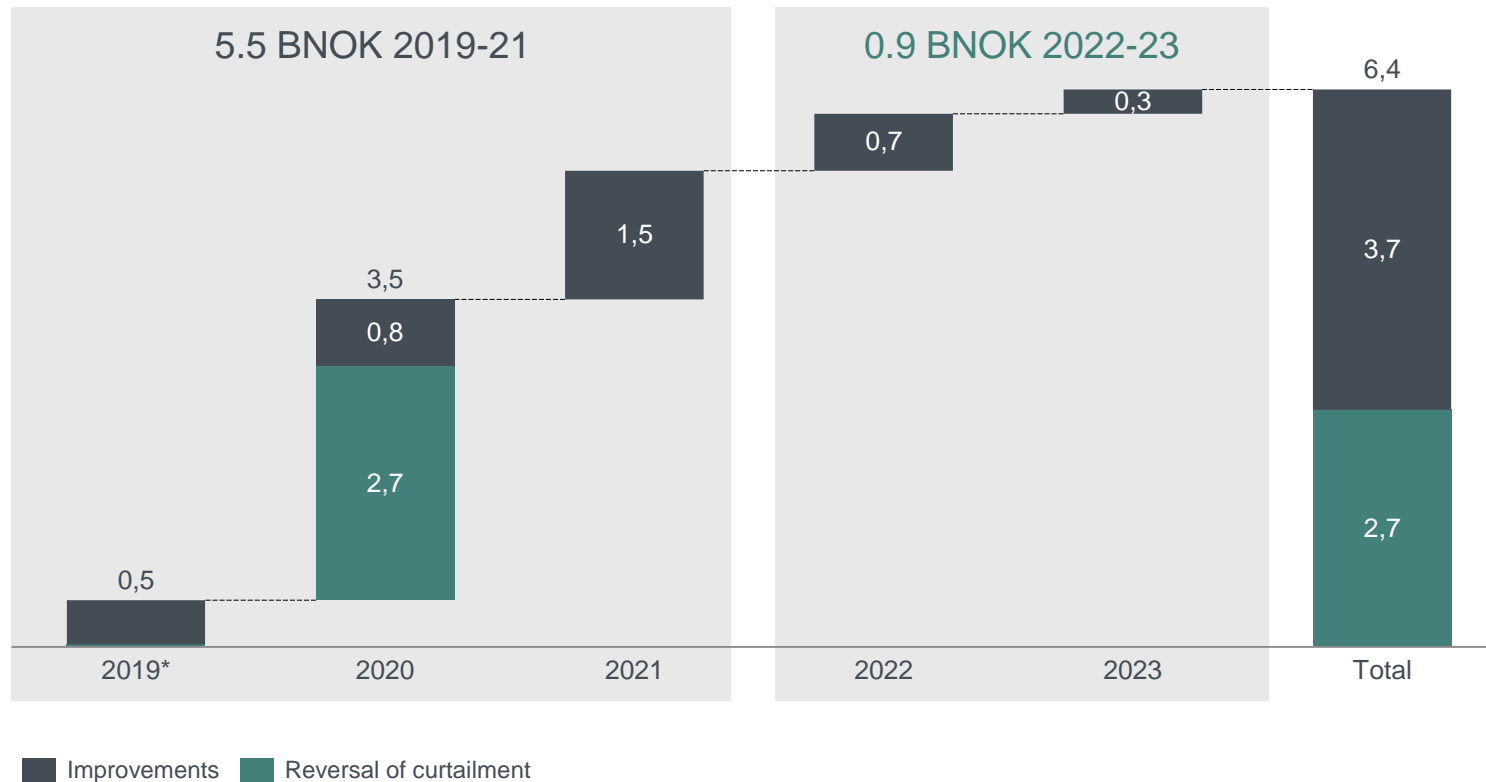
Equity production in 2017 in aluminium equivalents, thousand mt



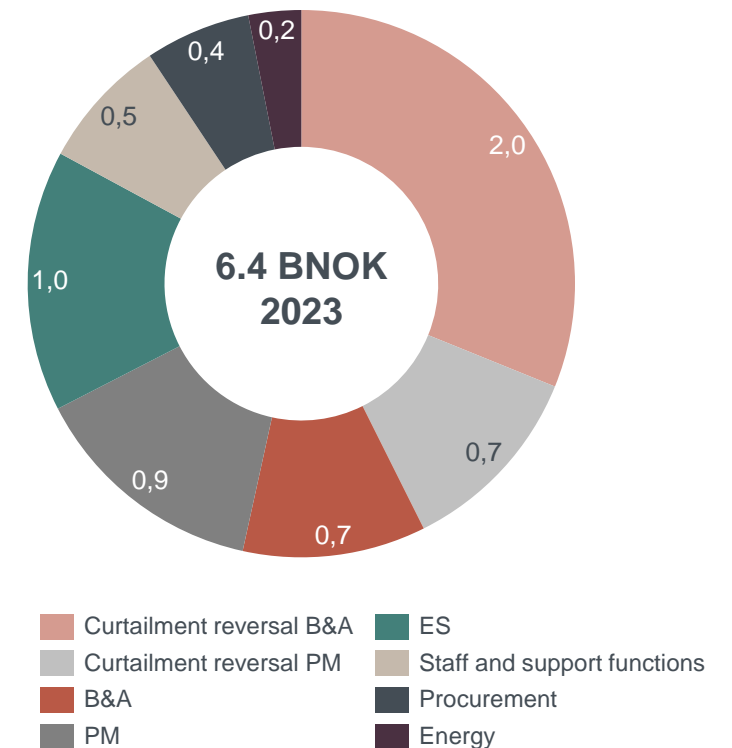
Launch of new and ambitious improvement program

Targeting 3.7 BNOK in improvements on top of 2.7 BNOK in curtailment reversal

Improvements by year, in NOK billion



By business area

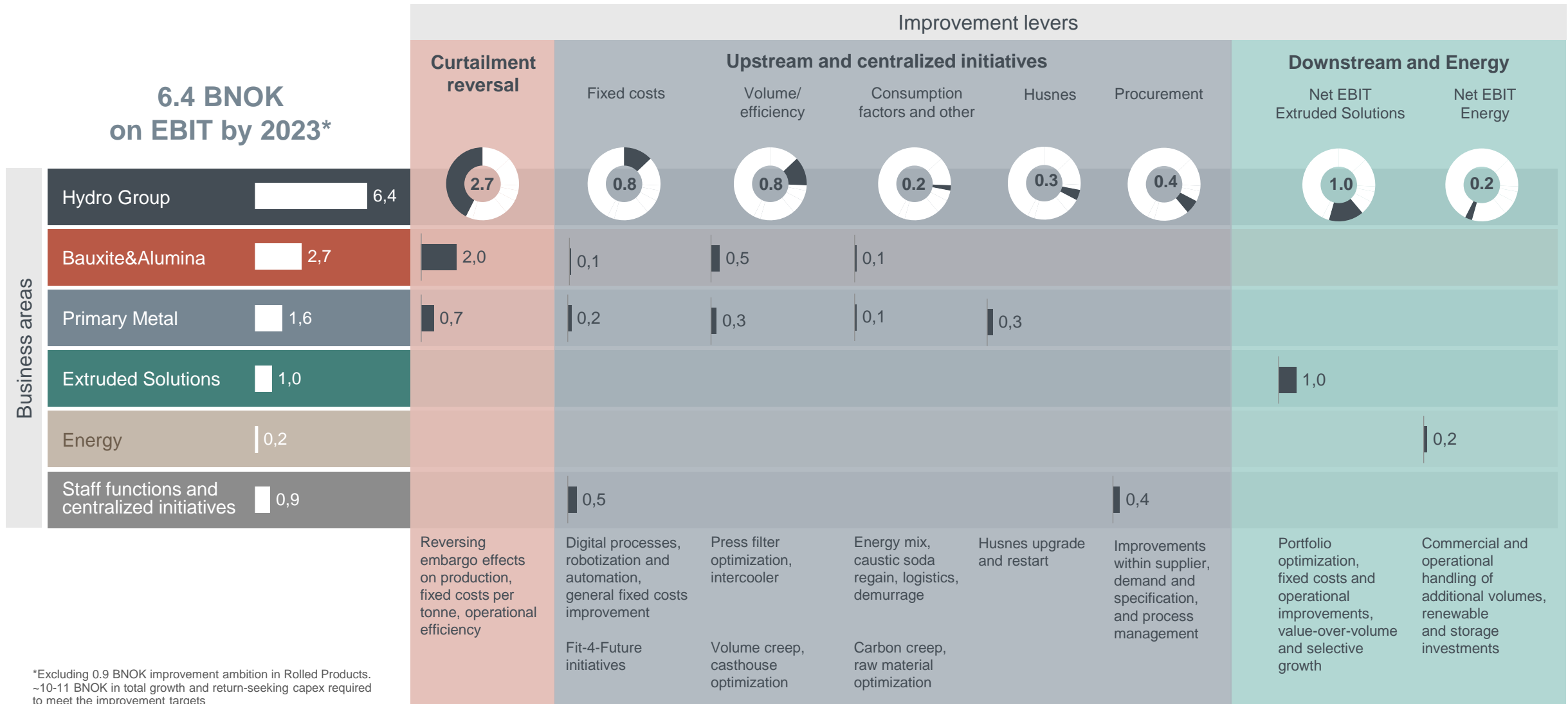


* Excludes negative effects of cyber attack for Extruded Solutions .
BNOK 6.4 improvement ambition excludes improvement target in Rolled Products of BNOK 0.9
~10-11 BNOK in capex required to meet the improvement targets

Revitalizing the improvement drive



Targeted improvements to deliver ambitious potential

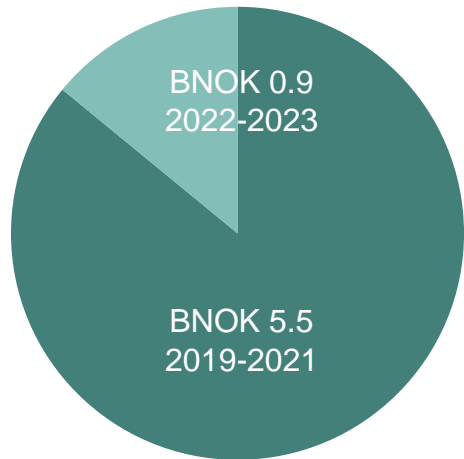


*Excluding 0.9 BNOK improvement ambition in Rolled Products.
~10-11 BNOK in total growth and return-seeking capex required to meet the improvement targets

Total measures with significant cash flow contribution

Large share being delivered in 2019-2021

Improvement ambition Incl reversal of curtailments



6.4 BNOK
2023 vs 2018

Rolled Products restructuring

- Cost and efficiency initiatives, targeting improvements of BNOK 0.9
 - BNOK 0.4 by 2021
- Restructuring cost BNOK 1.6¹
- BNOK 0.9 net operating capital to be released by end-2021
- Improvements to be realized while continuing strategic review

0.9 BNOK
2023 vs 2018

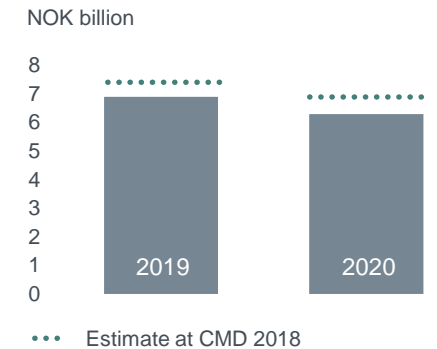
Net Operating Capital release

- Target to reach 52 NOC days by end-2020 vs 64 NOC days end-2018, corresponding to ~4 BNOK release
- Majority of release expected by end-2019
- Key initiatives to reduce NOC
 - Reducing inventory levels across all business areas – normalization after 2018 market uncertainty
 - Focus on performance improvements

~4 BNOK
End-2020 vs end-2018

Short-term sustaining capex reduction

- Combination of reduction and postponement – while evaluating measures to reduce sustaining capex to larger extent



~1 BNOK
2019-20²

1) Of which BNOK 1-1.2 will taken in provision in Q3 2019

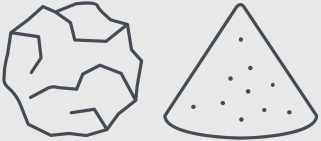
2) Communicated estimated sustaining capex targets of BNOK 7-7.5 and BNOK 6.5-7 in 2019 and 2020 respectively at CMD 2018, leading a reduction of BNOK ~1 in the updated estimates for 2019 and 2020

Differentiated capital allocation

Different strategic modes for the business areas

Safe, compliant and efficient operations
– The Hydro Way



Business area	 Bauxite & Alumina	 Primary / Metal Markets	 Energy	 Rolled Products	 Extruded Solutions
Strategic mode	Sustain and improve*		Selective growth	Strategic review	Selective growth
Impact on capital allocation	Sustaining capex and cost efficiency (Creep and recycling with high profitability)		Selected growth investments	Sustaining CAPEX and cost efficiency	Selected growth investments both organic and M&A

*Creep and recycling with high profitability

Sustainability: basis for our future positioning

Social responsibility



Environment



Climate



Sustainability in the marketplace: greener products portfolio

Building trust in local communities

Becoming a better neighbor in Brazil



Improving dialog through community meetings in Pára



Targeted activities where we have operations



Our global social responsibility ambition: Empowering 500,000 people with education and skills by end of 2030



Tackling the industry's key environmental challenges across the value chain

- Restoring **biodiversity** at our bauxite mine
- Exploring more sustainable **tailings** management practices
- Turning **bauxite residue** into a resource
- Recovering our historical **bauxite residue** storage areas
- Improving the **recycling** of our key waste streams
- Strengthening our resilience to **water** related risks
- Reducing our key **emissions** to air



Targets and ambitions

1 to 1 rehabilitation of available areas

Utilise 10% of bauxite residue generated (from 2030)

*50% reduction in key non-GHG air emissions by 2030**

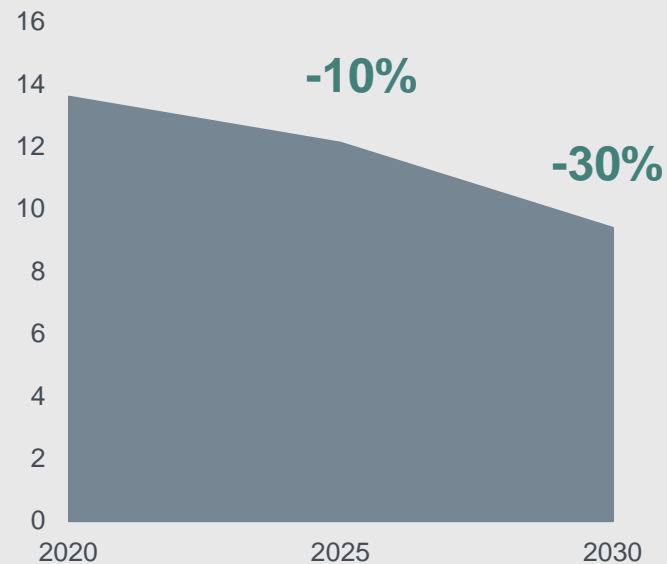
* SO_x, NO_x and PM (2017 baseline)

New climate strategy: Cut CO₂ emissions by 30% by 2030

Innovation and technology development key enablers toward CO₂-free processes

Ambition to reduce own emissions by 10% in 2025, 30% by 2030

Total own emissions in million mt CO₂E



**Greener energy mix at Alunorte:
Key enabler for new climate
and environment ambitions**



**R&D for low or zero-carbon
technology towards 2050**

Exploring different paths

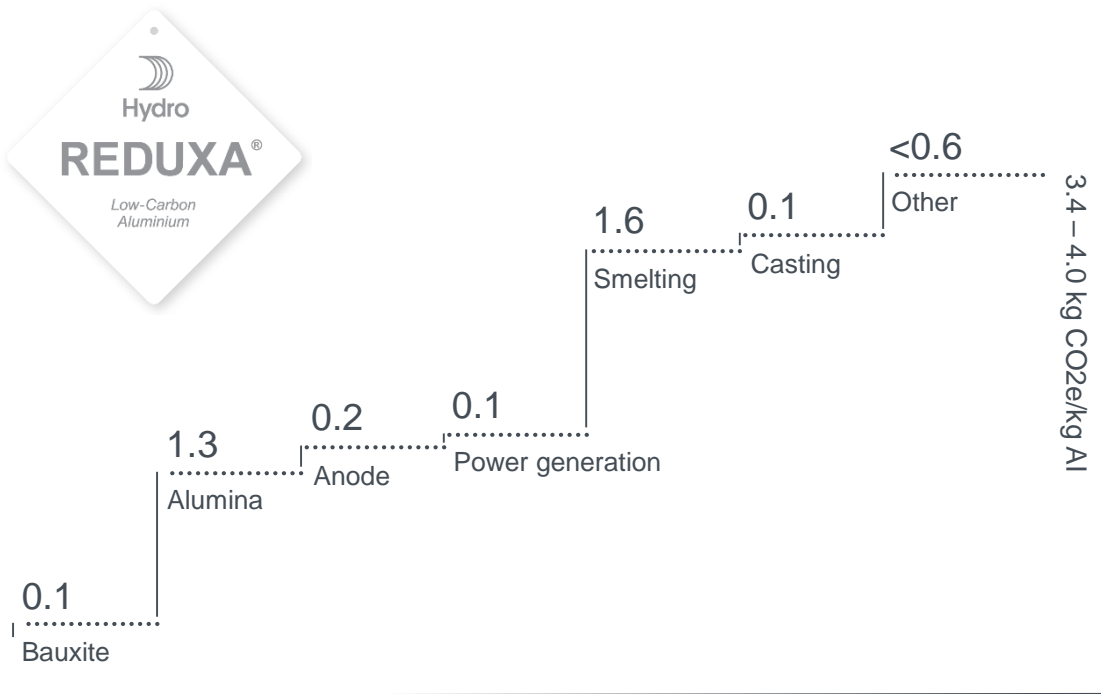
- Carbon Capture
- Biomass anodes
- Carbon-free process

Greener products: From REDUXA 4.0 to 2.0



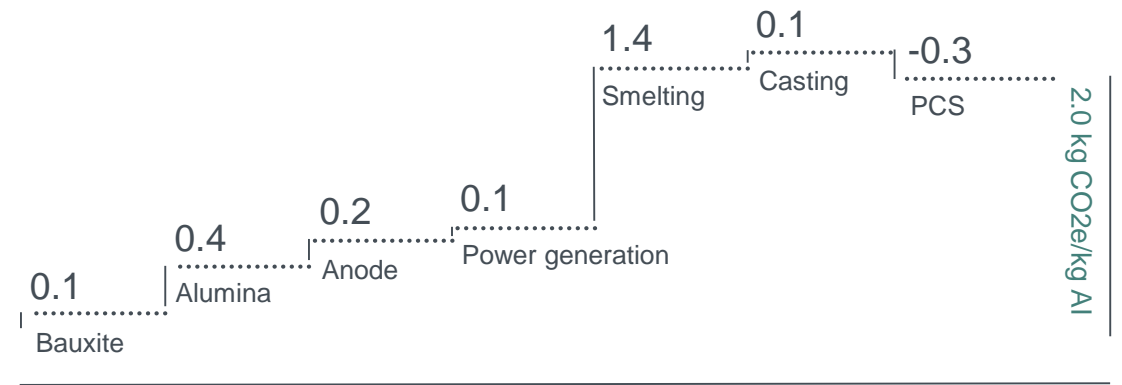
New energy mix in Alunorte important enabler to reach 2.0

From REDUXA 4.0



Typical production values

Towards REDUXA 2.0 by 2030

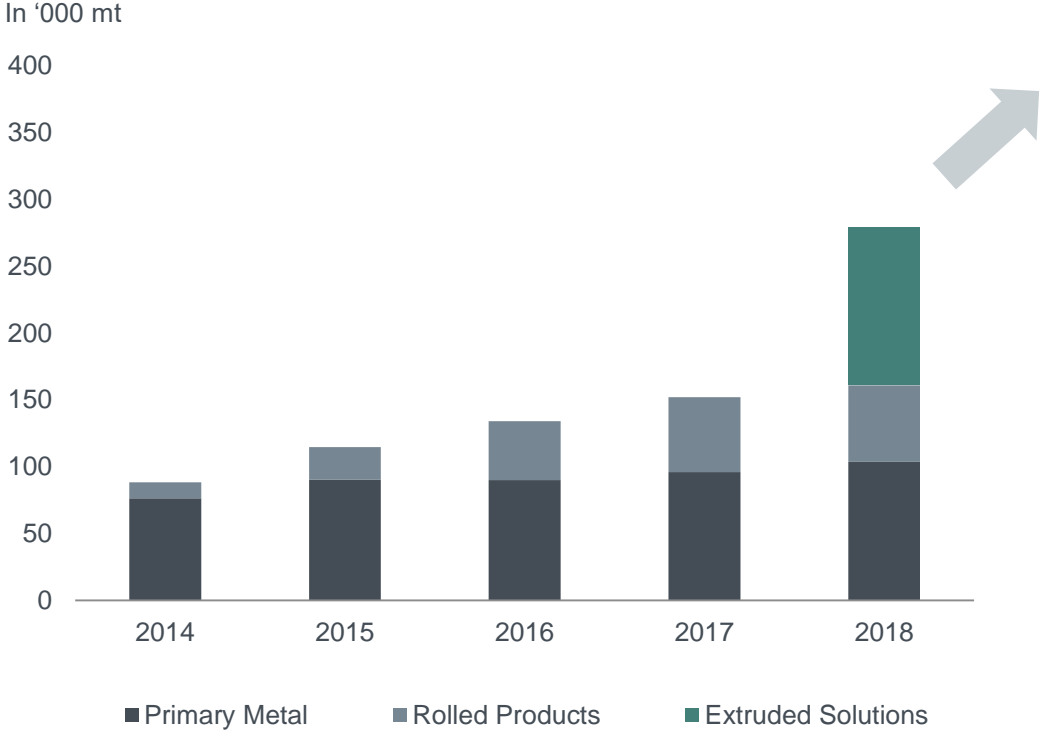


Potential production values

Growing in recycling – expanding CIRCAL portfolio

Competence, technology,
integrated value chain

Recycled post-consumer scrap 2014-2018*



* Total post-consumer scrap – only a certain amount currently utilized in the CIRCAL product



Sustainability translated into profitability



Alunorte fuel switch project

Significantly lower energy costs



Karmøy technology pilot

Spin-off effects: volume creep, lower energy consumption



Recycling in Metal Markets

12% RoaCE avg. last 5 years



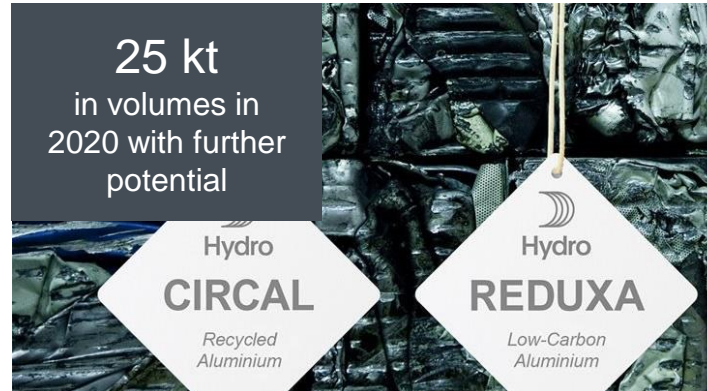
Automotive growth

~20-30% higher margins vs average portfolio¹⁾



Greener brands

25 kt in volumes in 2020 with further potential



Battery solutions - Corvus

40% CAGR in deployed battery packs (MWh) 2013-2018



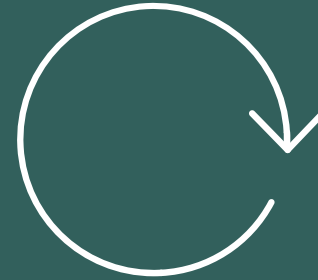
1) Based on EBITDA/t margins in the Rolled Products portfolio

Strategic objectives

Driving long-term shareholder value



- More stable earnings profile
- Less exposed to China
- More downstream customer base
- 10% return target over the cycle



- Sustainable value chain with lower footprint will reduce risk
- Differentiate through sustainable products, developing greener products for the future
- 30% reduction in CO₂ emissions

Strategic priorities • Portfolio management • Capital allocation



Bauxite & Alumina

Bauxite and alumina cluster in Para, Brazil

MRN bauxite mine



- Top 3 bauxite mine in the world
- 5% ownership
- Volume off-take agreement for Vale's 40% stake
- Capacity 18 million tonnes

Paragominas bauxite mine



- 100% ownership
- Nameplate capacity of 9.9 million tonnes
- 2017 production 11.4 million tonnes
- 2018 production 6.2 million tonnes*
- Long-life resource

Alunorte alumina refinery



- 92% ownership
- World's largest alumina refinery outside China
- Nameplate capacity of 6.3 million tonnes
- 2017 production 6.4 million tonnes
- 2018 production 3.7 million tonnes*
- Bauxite supplied from Paragominas and MRN
- World-class conversion cost position
- Utilizing state-of-the-art press filter technology to process bauxite residue
- Enhancing plant robustness to prepare for extreme weather events

Bauxite licenses

Refining and mining competencies

External supply contracts

Sales contract portfolio

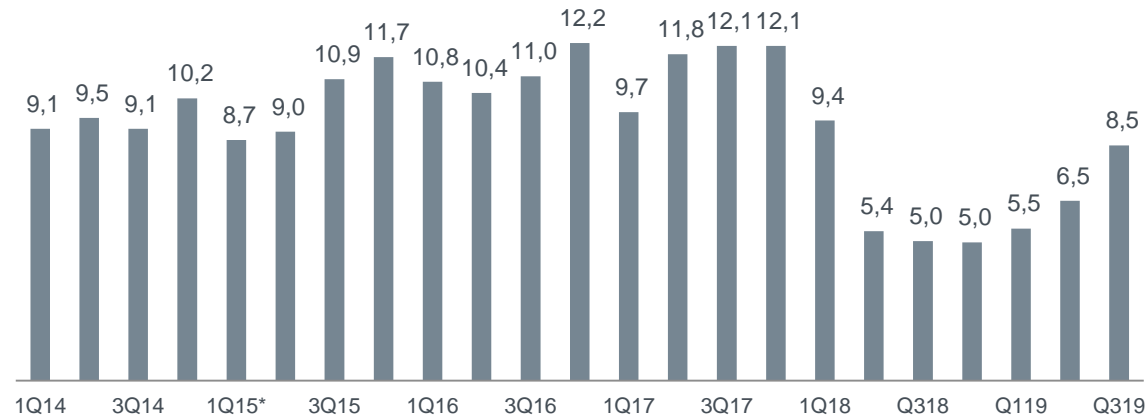
* Alunorte and Paragominas produced at 50% capacity from March 2018 to May 2019 due to a 50% production embargo on the Alunorte refinery. The production embargo was lifted in May 2019.

Ramping-up production following lifting of the embargoes



Bauxite production in Paragominas

Annualized million tonnes

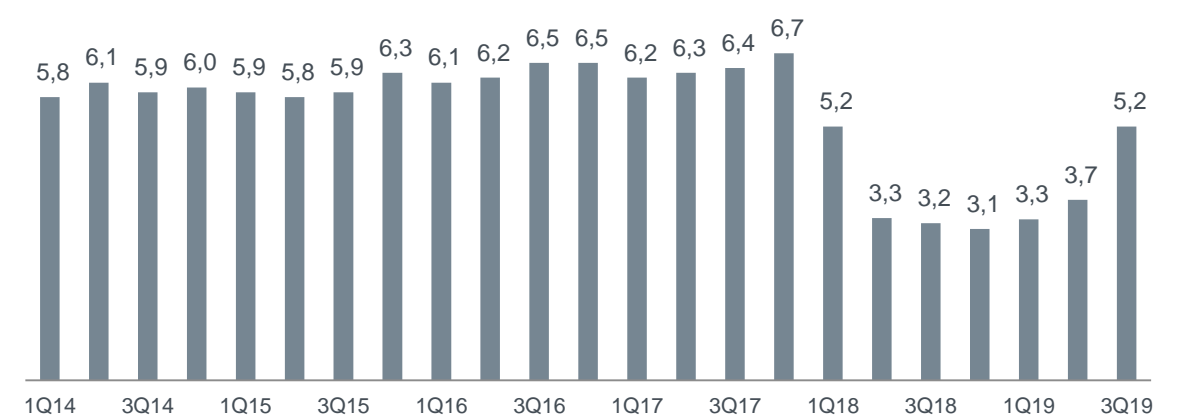


Paragominas bauxite mine

- Production affected by Alunorte embargo from March 2018 – May 2019, currently ramping-up

Alumina production at Alunorte

Annualized million tonnes



Alunorte alumina refinery

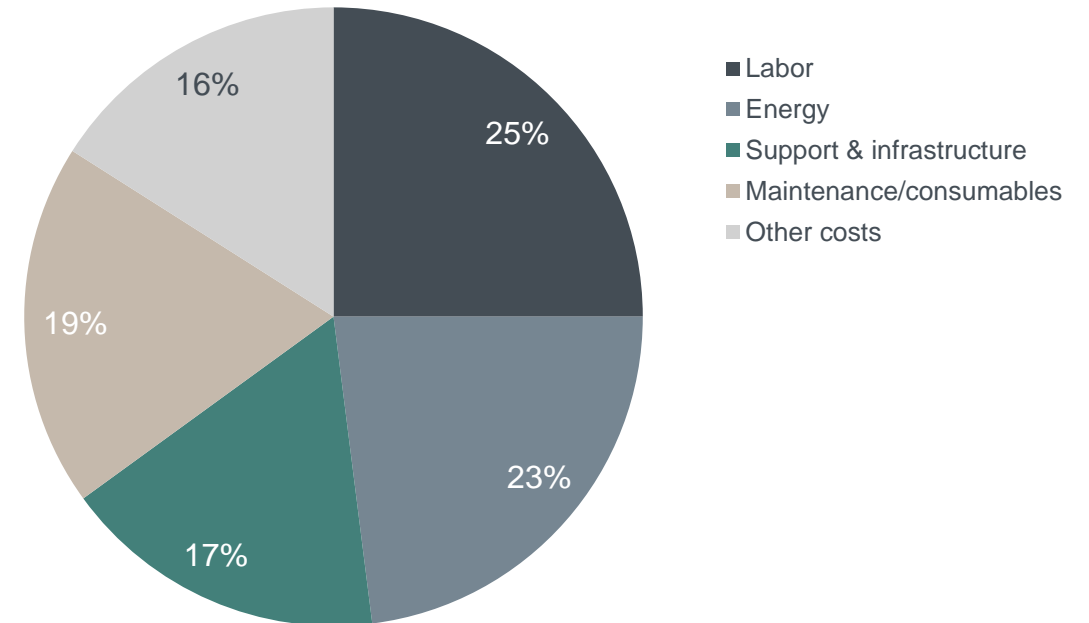
- Production affected by 50% Alunorte embargo from March 2018 – May 2019, currently ramping-up

* Extended maintenance period in March / April 2015 resulted in lower bauxite production

Bauxite operational mining costs in Paragominas

- Energy cost - Power and fuel
- Large fixed cost base
- Labor cost
 - Influenced by Brazilian wage level
 - Productivity improvements
- Maintenance and consumables
 - Mainly influenced by Brazilian inflation

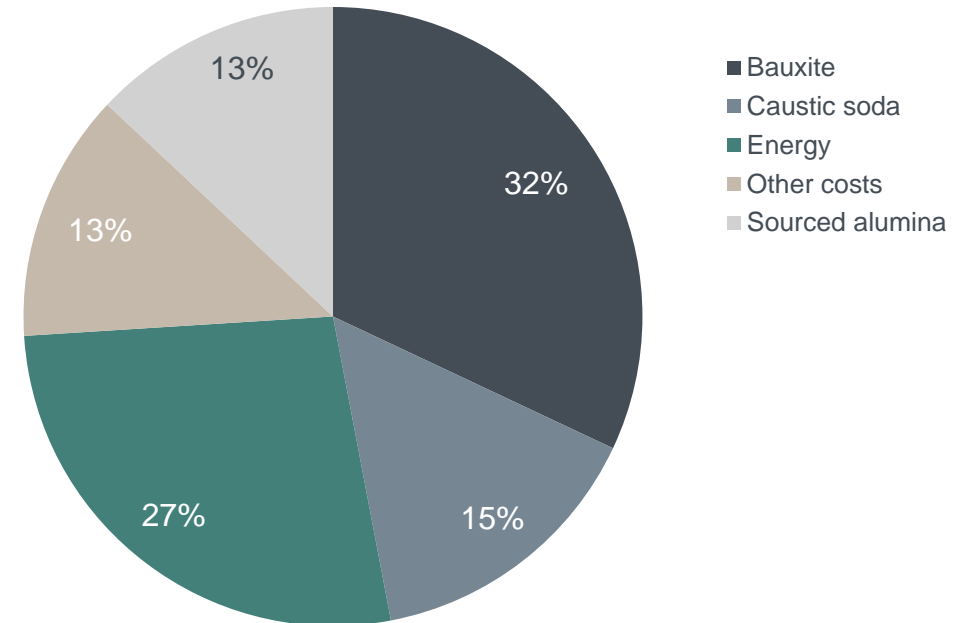
Paragominas bauxite mining costs 2017



Favorable integrated alumina cost position

- Implied alumina cost 2017 - USD 242 per mt
 - Alunorte, Paragominas and external alumina sourcing for resale
- Implied alumina cost 2018 – USD 358 per mt
 - Short alumina position, additional external sourcing to compensate for the 50% production embargo
- Bauxite
 - Internal bauxite from Paragominas at cost, sourced bauxite from MRN
 - External bauxite sales
- Energy
 - First-quartile energy consumption – 8 GJ/mt
 - Energy mix of heavy fuel oil, coal and electric power
- Caustic soda
 - Competitive caustic soda consumption due to bauxite quality
 - Competitive caustic soda sourcing contracts
- Other costs
 - Maintenance, labor and services

Implied alumina cost¹⁾ position 2017
USD 242 per mt



1) Realized alumina price minus Underlying EBITDA for B&A, per mt alumina sales

Strong commercial organization maximizing the value of B&A assets



External alumina sourcing

- 2.0-2.5 million mt of external alumina sourced annually
 - 4.0 million mt sourced in 2018 to compensate for the 50% production embargo at Alunorte
 - Additional sourcing mainly on PAX
- Long term off-take agreement with Rio Tinto
 - ~900 000 mt annually from Yarwun refinery
- Short- and medium term contracts
 - To balance and optimize position geographically
 - Various pricing mechanisms
 - Older contracts linked to LME
 - New medium to long term contracts mostly index
 - Fixed USD per mt for spot contracts on index

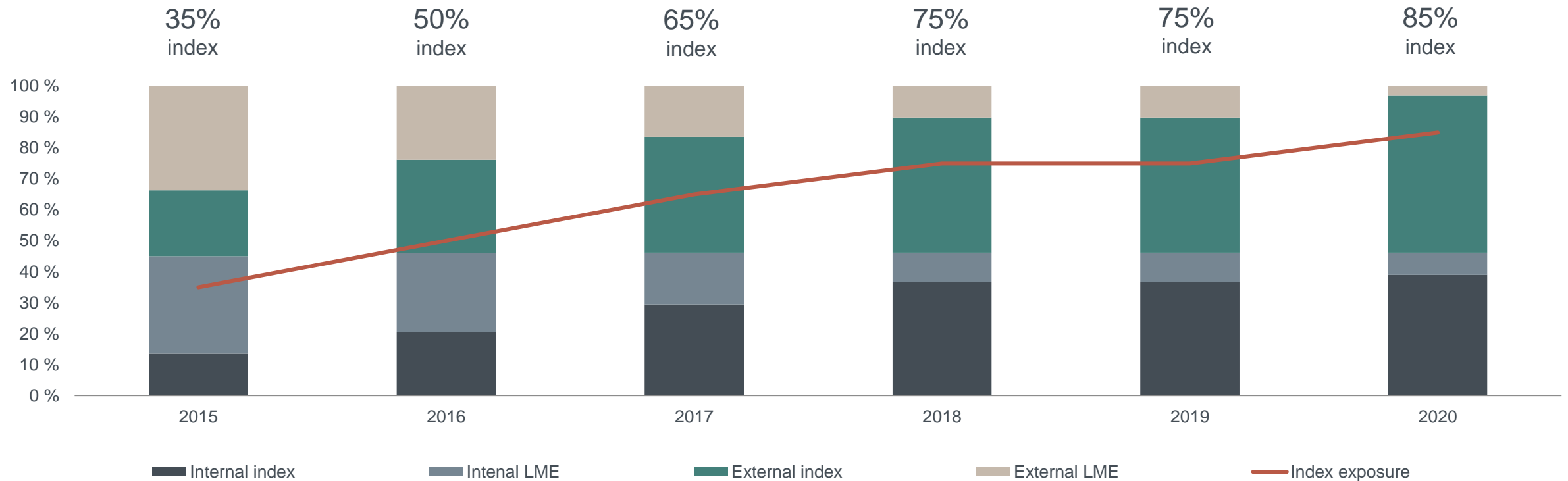
Long positions in bauxite and alumina

- Pricing should reflect bauxite and alumina market fundamentals
- Selling 2.5-3.5 million mt annually of MRN bauxite externally
 - Premium for high bauxite product quality
 - Majority sold to customers in the Atlantic basin
 - Mostly term contracts based on % of PAX and/or fixed USD/mt element
- Selling 3.0-4.0 million mt/yr of alumina externally in a “normal” year
 - In 2018 sold 3.0 million mt externally affected by the production embargo and force majeure clauses
 - Index pricing and short to medium-term contracts
 - New contracts: 100% sold on index, except Hydrate and short-term contracts, normal terms 2-7 years
 - Legacy LME-linked contracts: priced at ~14% of LME 3M

Shift of alumina sales to index-based pricing continues at full speed

Index pricing the new norm for the industry

Sales exposure to index and short term pricing¹⁾

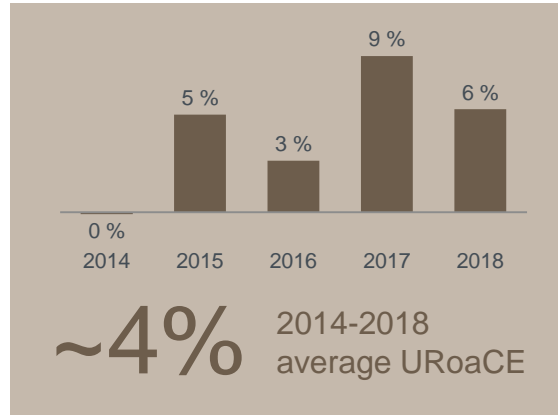
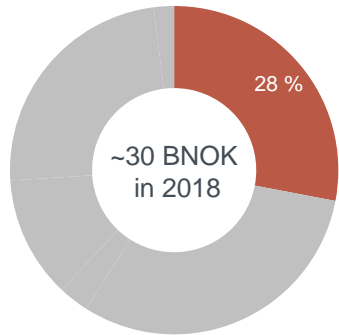


1) Rounded figures. Indicating volumes available for index pricing. Includes minority sales priced at % of LME with floor. Based on annual sourced volumes of around 2.5 mill t, assuming normal production at Alunorte.

Capital return dashboard for Bauxite & Alumina

Returns below the cost of capital reflecting challenging markets, embargo and operational issues during the early years

Capital employed in B&A



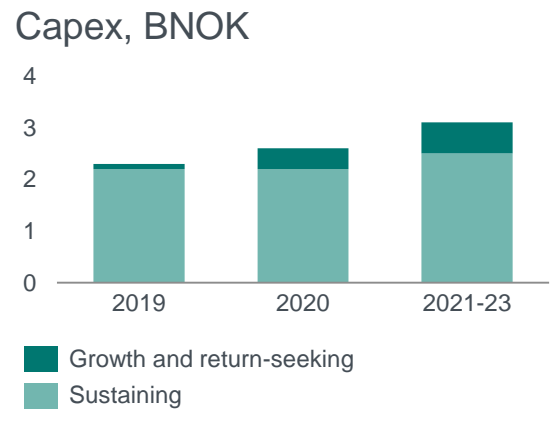
URoaCE > CoC

10-11%
Nominal long-term cost of capital

2.7 BNOK
on EBIT by 2023 in improvement potential

Key initiatives to reduce NOC

- Reduction in commercial stocks
- Reduction in caustic soda price and alumina inventories
- Reduction in Paragominas inventories



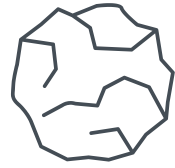


Energy

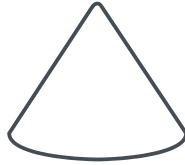
Energy is a key differentiator in the aluminium industry



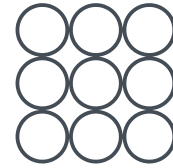
Center of energy excellence in Hydro



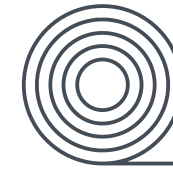
Bauxite



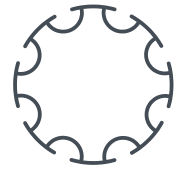
Alumina



Primary



Rolling



Extrusion

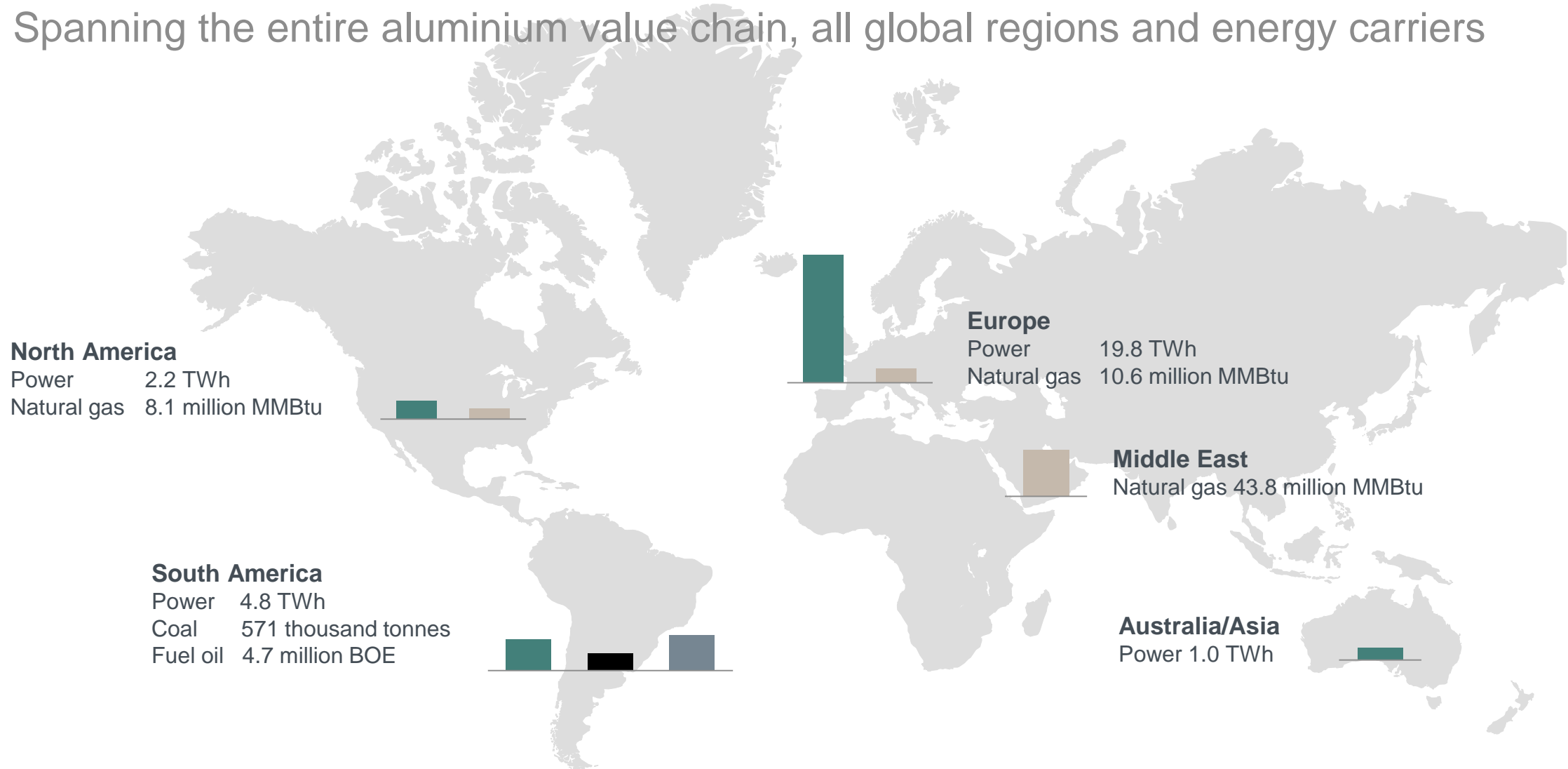
Energy cost*	~25%	~35%	~35%	~10%	~8%
	~50%				
Energy business area's contribution to Hydro	<ul style="list-style-type: none"> Power sourcing 	<ul style="list-style-type: none"> Power sourcing Fuel switch project (LNG) Energy mix long term, renewables, storage 	<ul style="list-style-type: none"> Power sourcing and production Gas sourcing 	<ul style="list-style-type: none"> Power sourcing Gas sourcing 	<ul style="list-style-type: none"> Power sourcing Gas sourcing

Market understanding. Framework advocacy. «Greener» support & energy efficiency support. Security of supply

*Share of Business Operating Cash Cost

Hydro's global primary energy demand

Spanning the entire aluminium value chain, all global regions and energy carriers



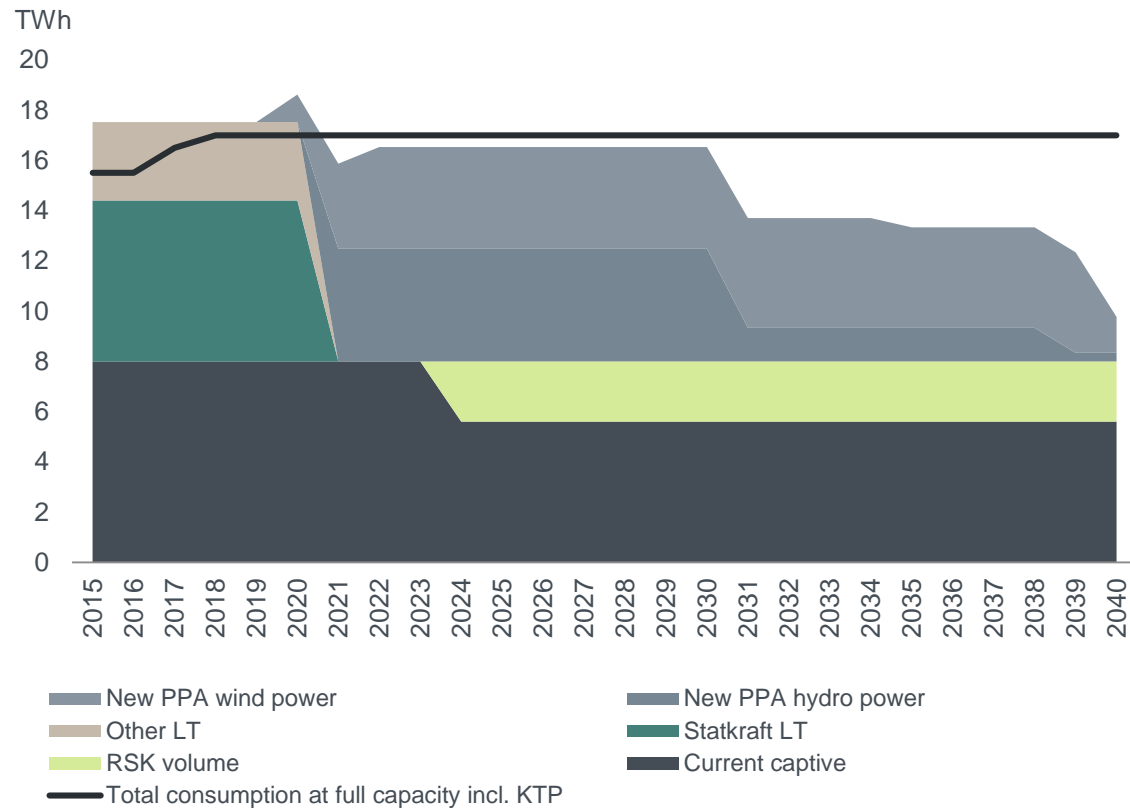
Values are listed in its conventional trading unit. MMBtu= Million British thermal units, ton=metric ton thermal coal, BOE= Barrel of Oil Equivalent.
Bar charts are represented in the equivalent primary energy size for each category. Primary energy follows IEA's definition.
Based on equity-adjusted 2018 values for Norsk Hydro's bauxite mines, alumina refineries, smelters, remelters, rolling mills and 2018 estimate for extrusion plants.

Securing long-term competitive power sourcing for smelters

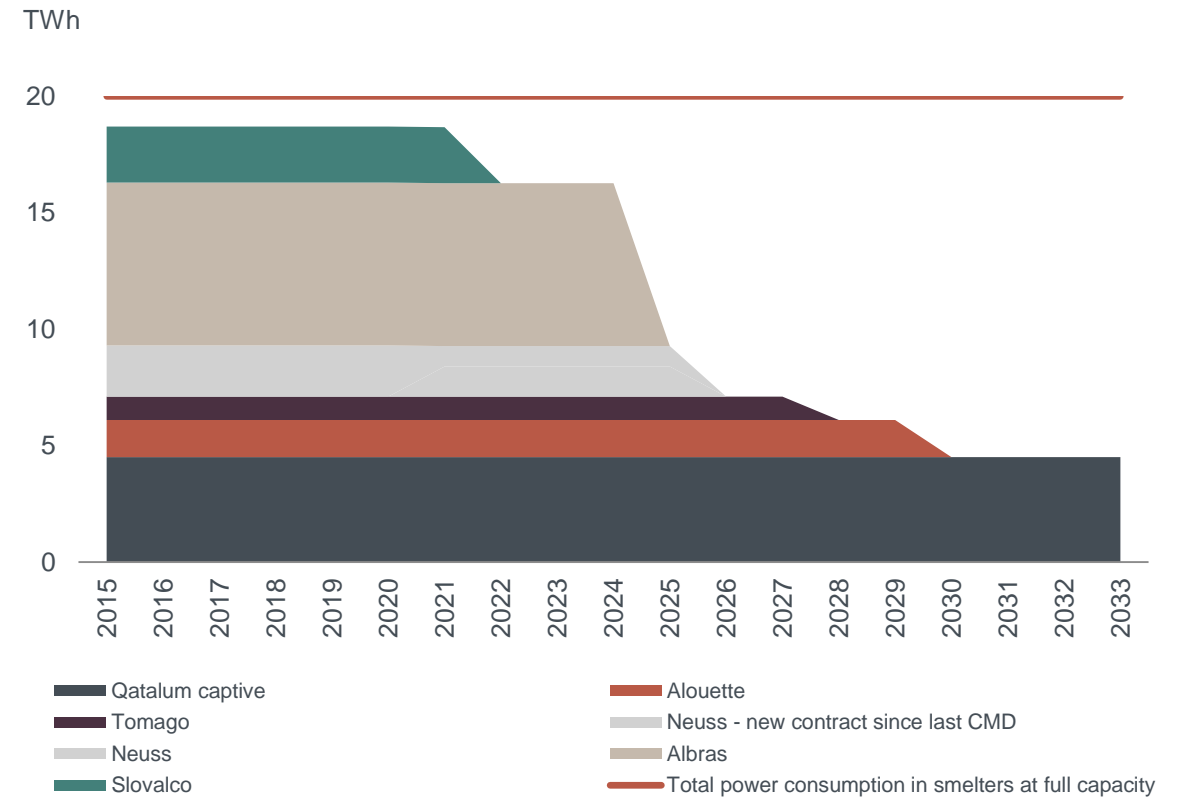


Unique combination of hydro- and windpower

Sourcing platform for fully-owned smelters, Norway¹⁾



Sourcing platform for JVs and Neuss smelter¹⁾



1) Net 8 TWh captive assumed available for smelters
 2) Albras and Slovalco on 100% basis

10 TWh normal annual power production

Development in power assets last five years

- 2012: Holsbru and Vasstøl power plants in operation
- 2013: Vigeland acquisition completed, exemption from concession requirement granted
- 2016: Midtlæger and Mannsberg power plants in operation
- Turbine runner projects improving plant efficiency
- Focus: maintain cost control in operations and projects

New growth projects

- Mature new equity growth options

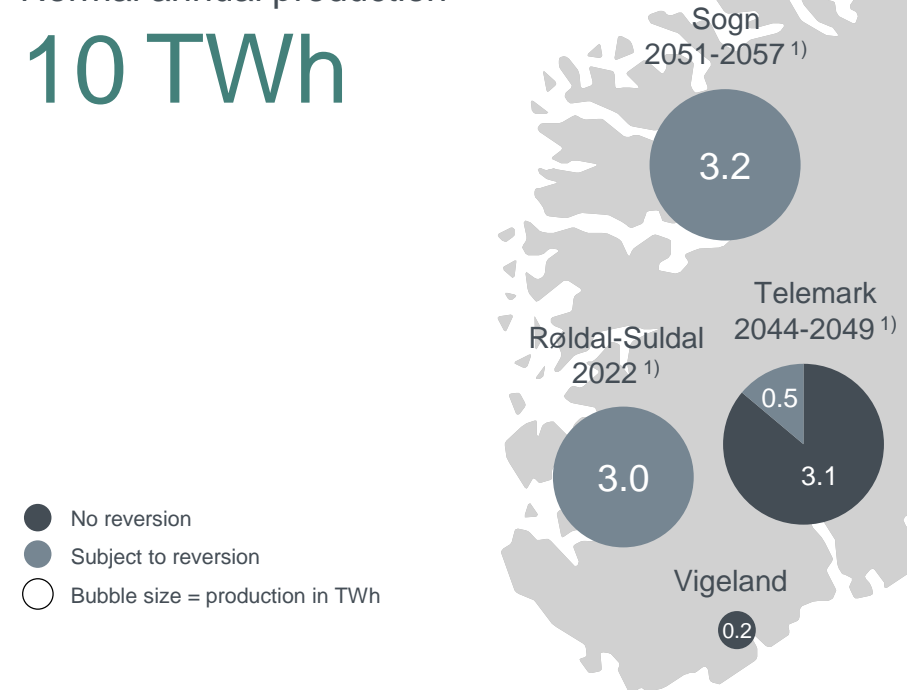
Framework conditions

- Reversion regime secures full value of energy assets:
 - Prevents further licensing to non-public entities, but allows for everlasting minority private ownership of up to 1/3
 - Law proposal from government on industrial ownership approved by Parliament in June 2016
 - Broad optionality to maintain asset value within the reversion regime

Power production capacity (TWh), per region and reversion year

Normal annual production

10 TWh

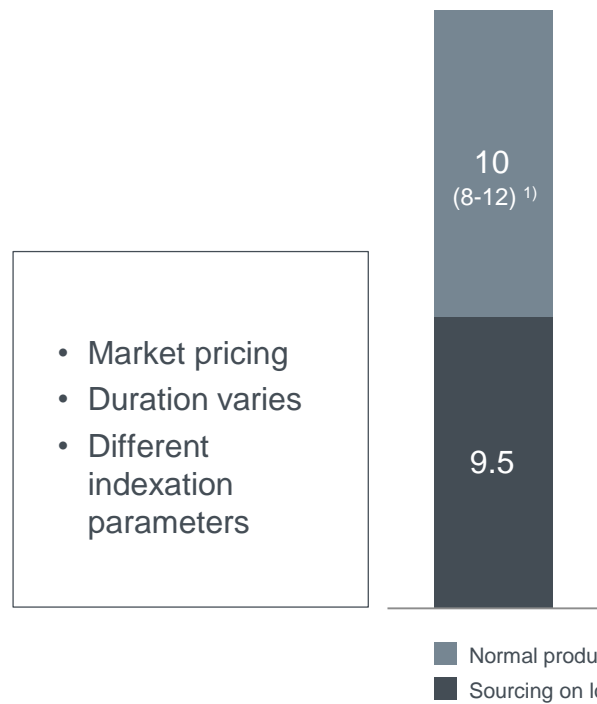


1) Reversion year

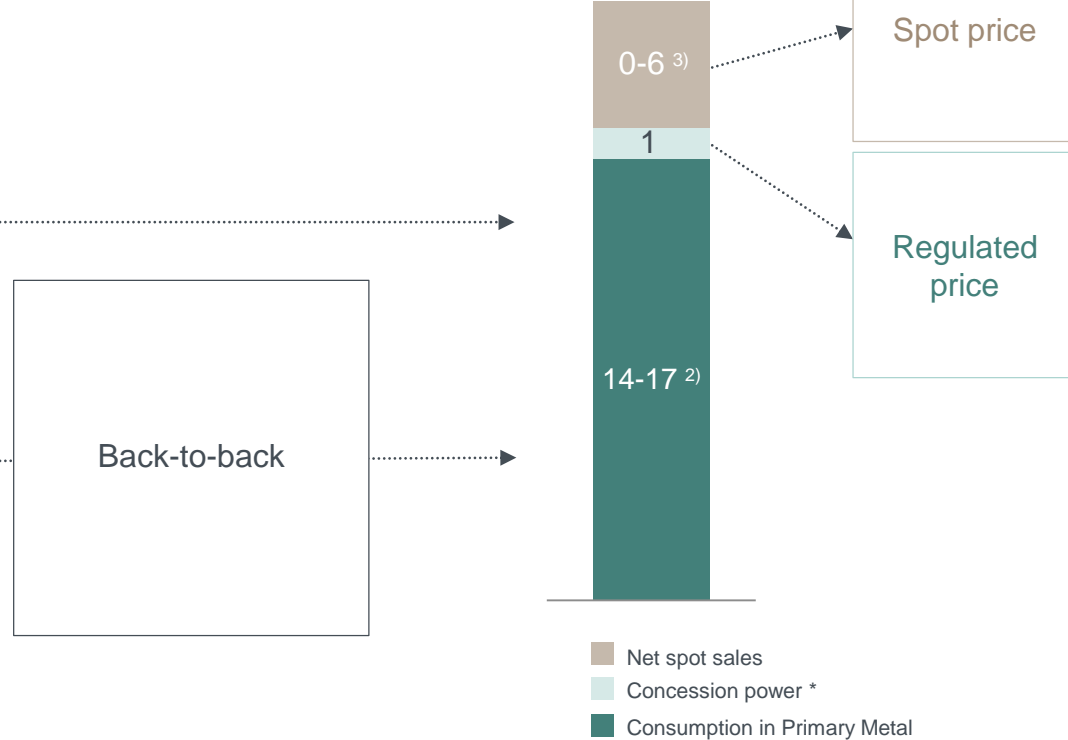
Market pricing principle applied to internal contracts

Based on external price references

Sourcing side
TWh



Revenue side
TWh



- Long-term contract
- Market pricing
- Fixed annual pricing adjustments

Back-to-back

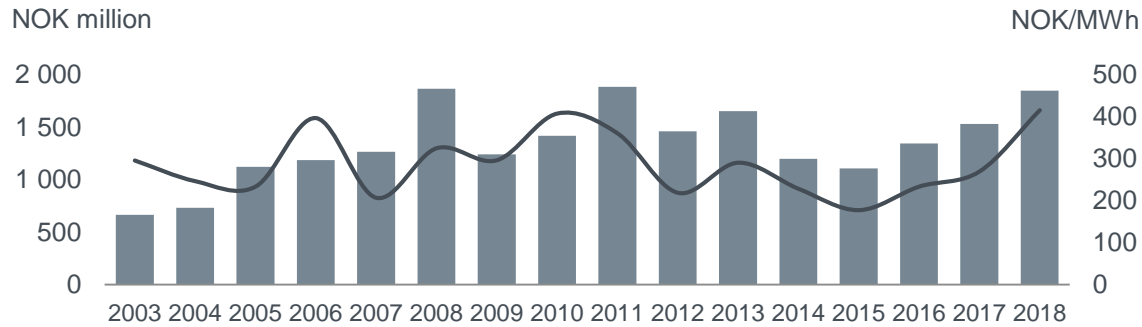
Norway up to 2020

1) Depending on the precipitation level, hydropower production may vary from 8 TWh in a dry year to 12 TWh in a wet year
 2) Consumption in PM at current production levels and at full installed capacity (incl. Karmøy pilot plant)
 3) Net spot sales vary depending on the power production level and internal consumption in PM
 * Includes legacy external contracts

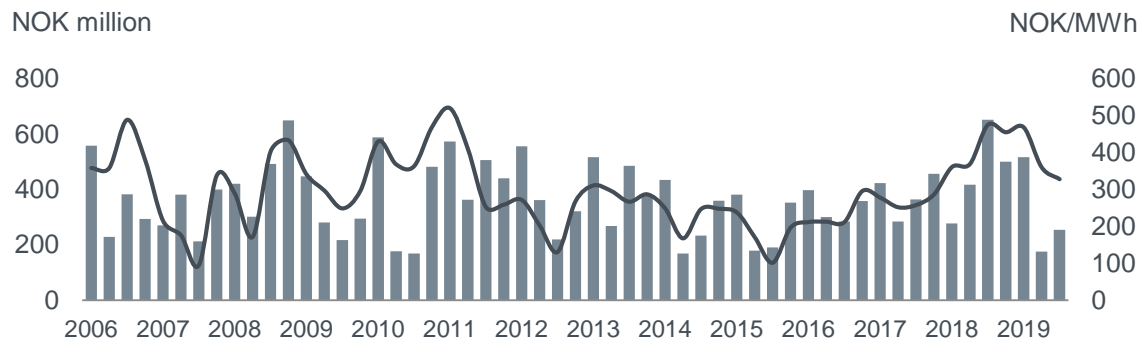
Energy earnings drivers



Underlying EBIT¹⁾ and spot price



Underlying EBIT and spot price



■ Underlying EBIT — Spot price

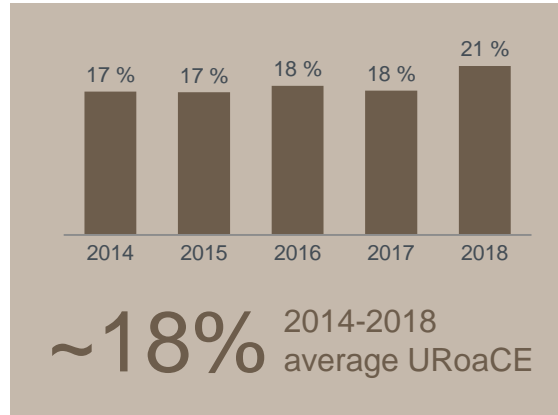
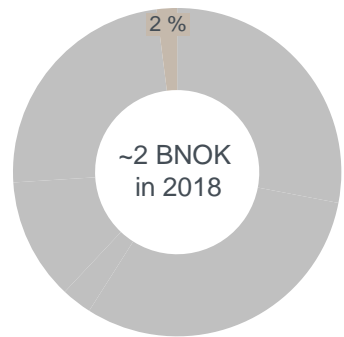
- Production and market prices strongly linked to hydrological conditions
- Fairly stable annual EBIT contribution
- Seasonal market variations in demand and supply
- Occasional delink between area prices
- Power portfolio optimized versus market
- Stable and competitive cost base:
 - Mainly fixed costs
 - Volume-related transmission costs
- Expiry of legacy supply contract entered in 2008 will have positive effect of ~NOK 400 million from 2021
- New 8 TWh internal contract for power sales to Primary Metal in Norway effective from 2021-30
 - Positive EBIT effect to Energy approximately NOK 300 million
 - Net power sourcing cost, internal and external, for Primary Metal largely unchanged

1) Underlying EBIT 2003–2006 based on USGAAP

Capital return dashboard for Energy

Returns significantly above the cost of capital reflecting the depreciated asset base

Capital employed in Energy



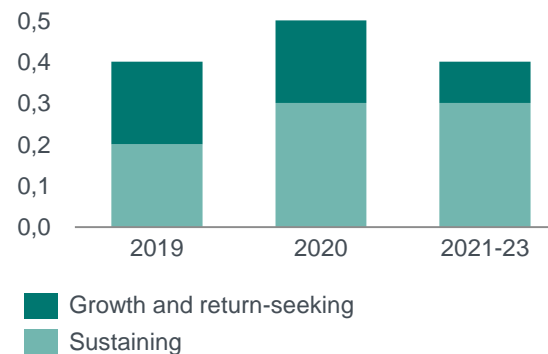
URoaCE > CoC

6-7%
Nominal long-term cost of capital

0.2 BNOK
on EBIT by 2023 in improvement potential

0.7 BNOK
in EBIT upside due to the new contract portfolio from 2021

Capex, BNOK



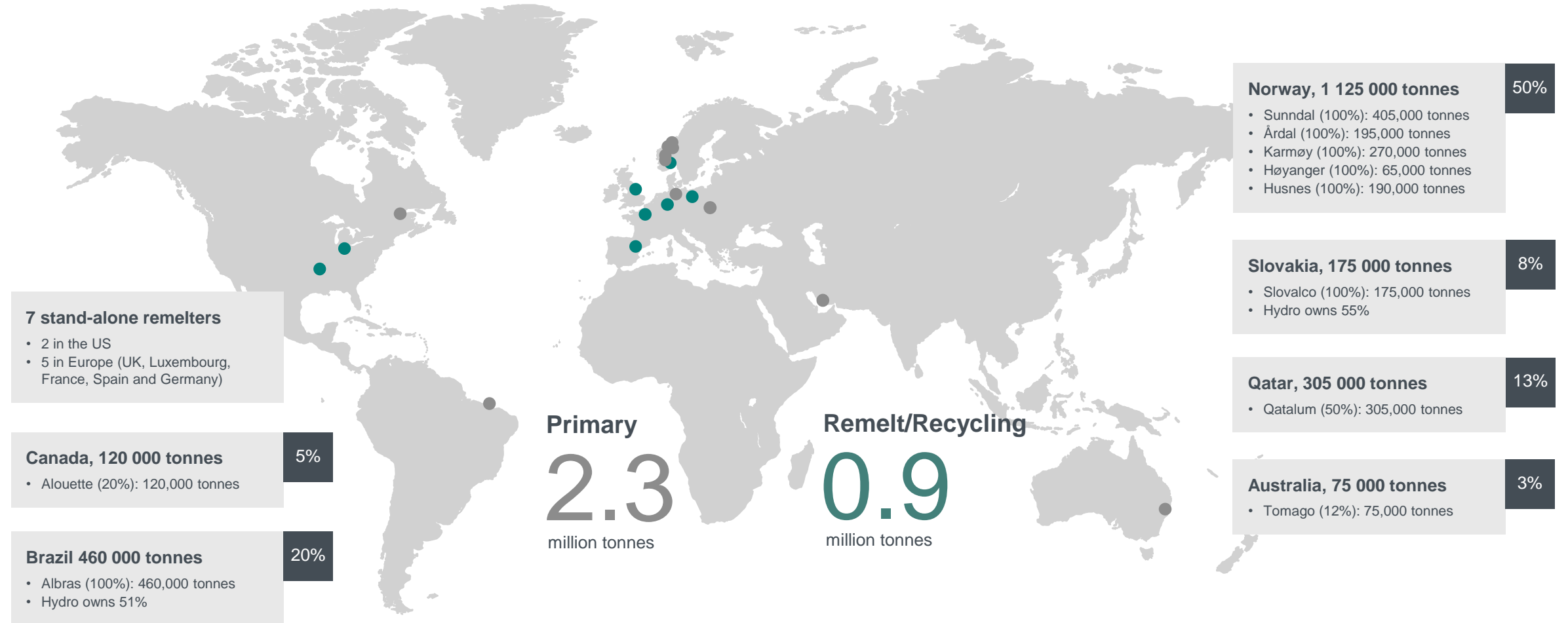


Primary Metal

World-wide primary aluminium production network



Primary Metal and Metal Markets



2.3 million mt is consolidated capacity. Slovalco and Albras are fully consolidated, Tomago and Alouette are proportionally consolidated and Qatalum is equity accounted. Neuss, which is a part of Rolled Products, is not included. 0.9 million mt includes stand-alone remelters, recycling facilities and additional casthouse capacity at primary plants.

Unlocking new improvements through Industry 4.0 initiatives

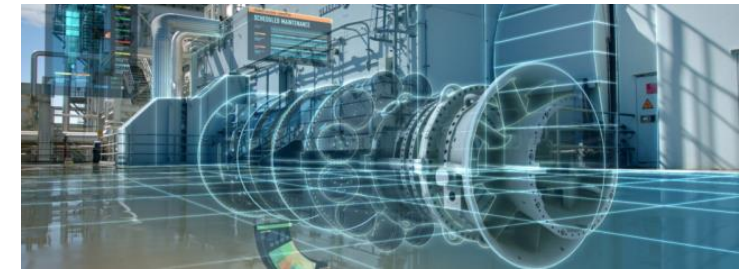
40 ongoing projects



Robotics & Automation projects



Trusted Data Layer Casthouse



Soft Sensor incl. Trusted Data Layer



Mobile Maintenance Worker



Trusted Data Layer Carbon + Analytics workbench improvements



Bring Your Own Device

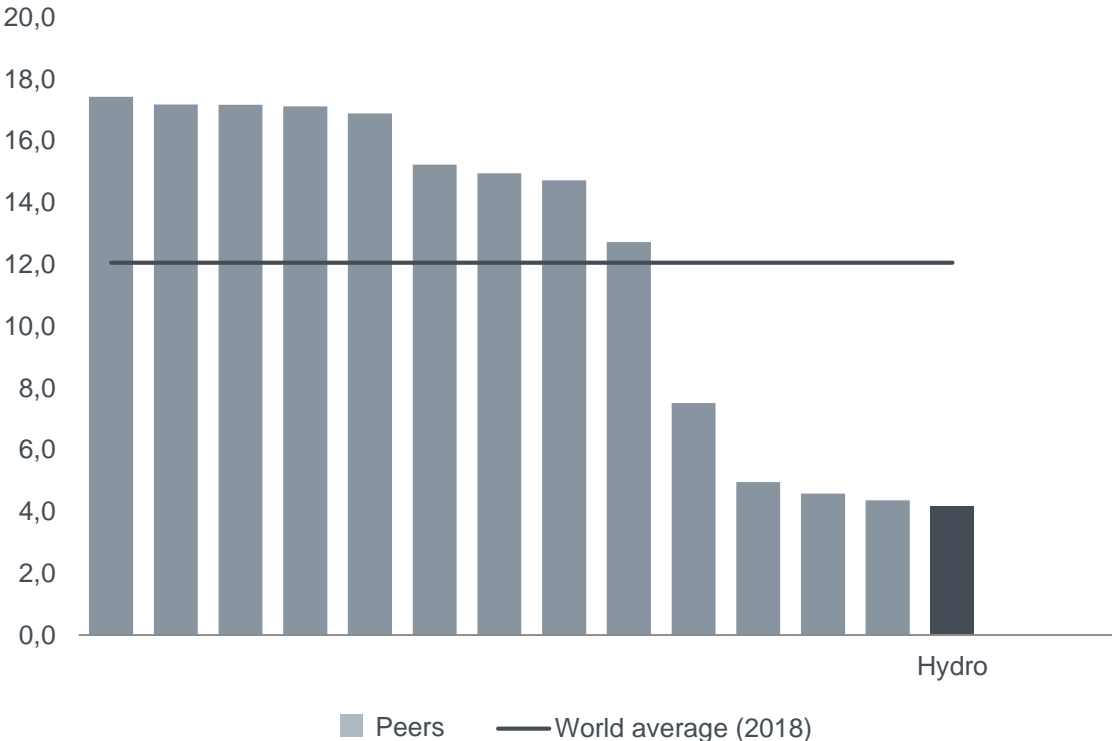
Digital Foundation including Cyber Security

Organization Foundation including Primary Metal Digital Academy

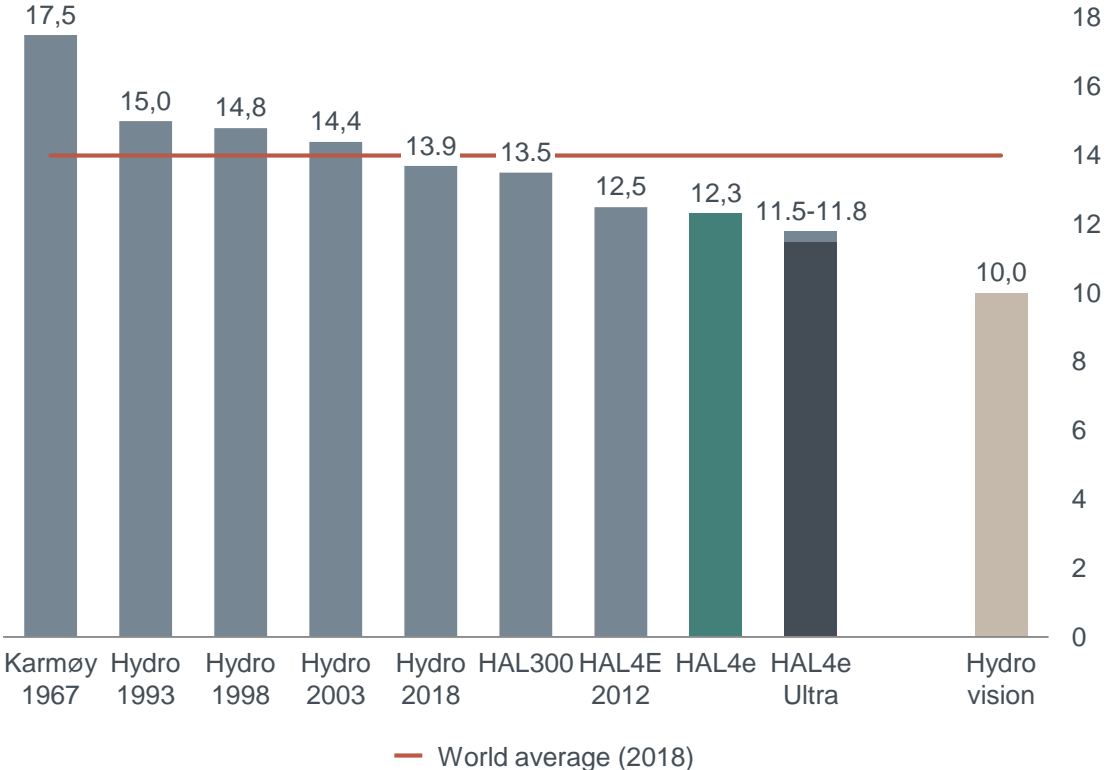
Low carbon footprint due to renewable energy base and industry lowest energy consumption



Total emissions, in tonne CO2/t al



Energy consumption in Hydro smelters¹⁾, kwh/kg al

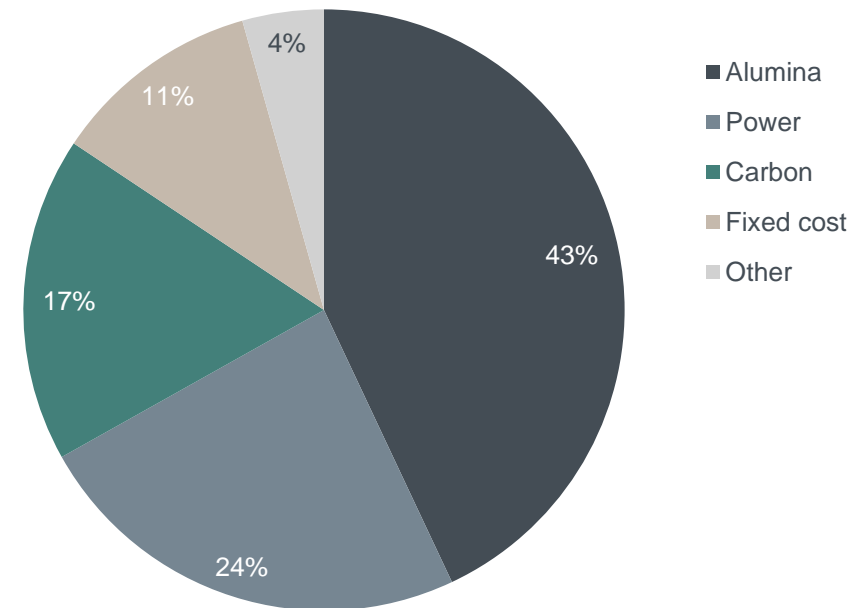


Source: CRU and Hydro analysis
 1) Hydro's consolidated share

Competitive primary aluminium cash cost

- Primary aluminium cash cost 2018
 - All-in implied primary aluminium cash cost¹⁾ USD 2 175 per mt
 - LME implied primary aluminium cash cost²⁾ USD 1 825 per mt
- Alumina
 - Alumina prices for 2018 heavily affected by Alunorte curtailment
 - Alumina from both internal and external sources
 - Purchases based on alumina index ~80%⁴⁾
 - Purchased based on LME link ~20%
- Power
 - Long-term contracts
 - 2/3 of power need from renewable power
 - Contracts with a mix of indexations; inflation, LME, coal, fixed
- Carbon
 - 2-3 year contracts for petroleum coke and pitch, quarterly pricing
- Fixed costs
 - Maintenance, labor, services and other
- Other
 - Other direct costs and relining

Liquid aluminium cash cost 2018³⁾



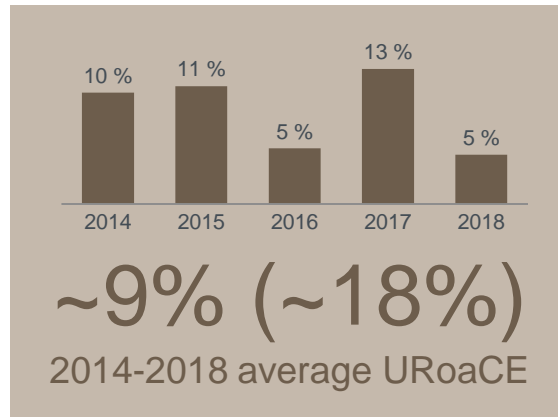
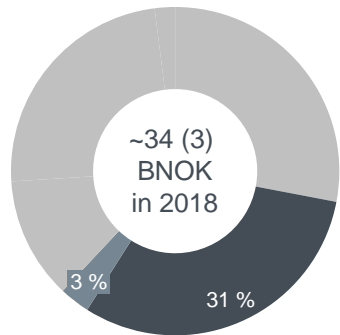
1) Realized LME aluminium price minus underlying EBITDA margin, including Qatalum, per mt primary aluminium sold
2) Realized LME aluminium price minus underlying EBITDA margin, including Qatalum, per mt primary aluminium produced
3) Pie chart based on cost of producing liquid aluminium, not directly comparable to the LME or All-in implied primary aluminium cash cost
4) More alumina purchases on indexes due to Alunorte curtailment

Capital return dashboard for Primary Metal & Metal Markets



Returns below the cost of capital mainly reflecting challenging markets and the Alunorte situation. Good returns in recycling

Capital employed in PM (MM)



URoCE > CoC

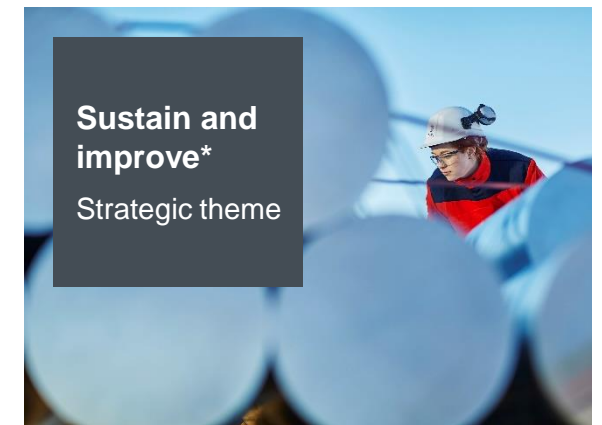
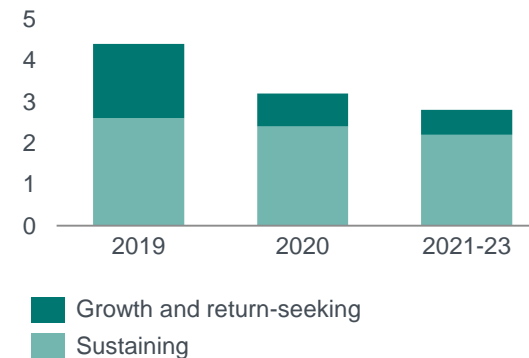
10%-11%
(7-8%)
Nominal long-term
cost of capital

1.6 BNOK
on EBIT by 2023 in
improvement potential

Key initiatives to
reduce NOC

- Reduction in alumina and ingot inventories (safety stocks)

Capex, BNOK



* Creep and recycling with high profitability

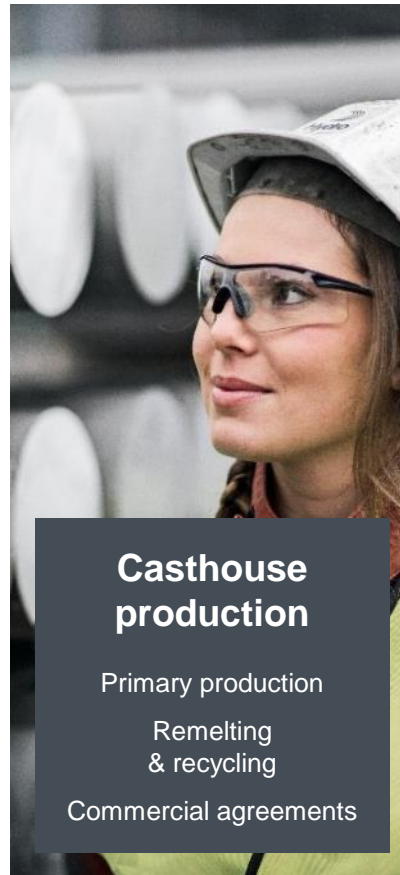


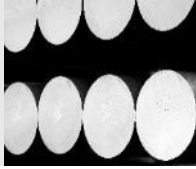




Metal Markets

Strong position in value-added casthouse products

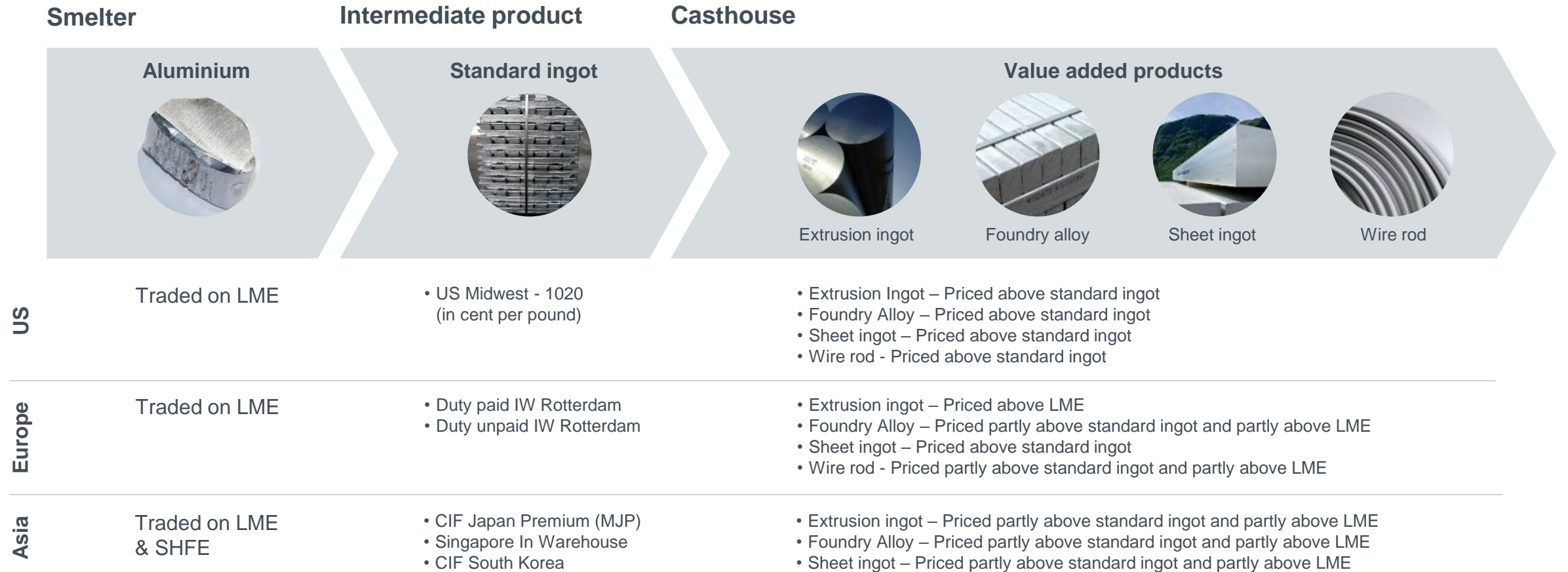


- Capitalizing on value-added casthouse products portfolio
- Extensive multi-sourcing system including fully- and part-owned primary casthouses and stand-alone remelters
- Flexible sourcing system enabling rapid and cost effective volume adjustments
- Value creation from margin management based on commercial expertise and risk management competence
- Strong market positions in Europe, US and Asia



<p>Extrusion ingot</p> <p>1.6 million mt</p>		<p>Leading global position</p> <p>Unique primary and recycling capacity network</p>
<p>Foundry alloys</p> <p>0.5 million mt</p>		<p>Leading global position</p> <p>Strong capabilities in all automotive segments</p>
<p>Sheet ingot</p> <p>0.3 million mt</p>		<p>Leading European position</p> <p>Well positioned to capture automotive growth</p>
<p>Wire rod</p> <p>0.1 million mt</p>		<p>Leading European position</p> <p>Market attractively supported by copper substitution</p>
<p>Standard ingot</p> <p>0.4 million mt</p>		<p>Leading global position</p> <p>Global flow optimization through key positions</p>

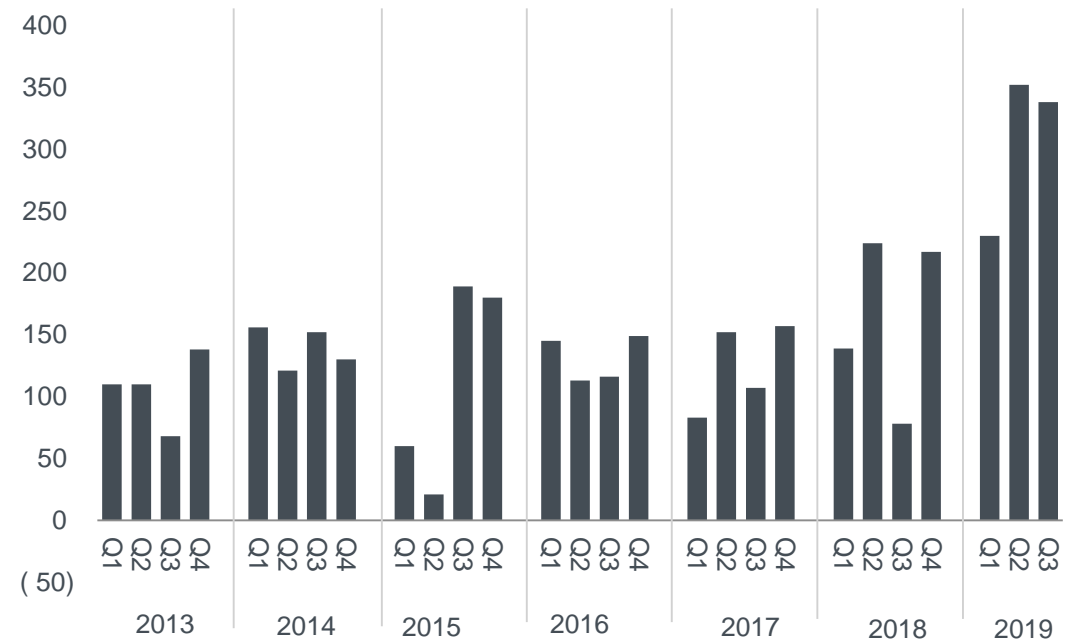
Pricing of value-added products



Metal Markets earnings drivers

- Remelters
 - Revenue impact – volume and product premiums above LME
 - Cost impact
 - Scrap and standard ingot premiums above LME
 - Raw material mix
 - Freight cost – proximity to market
 - Energy consumption and prices
- Other main businesses
 - Physical and LME trading
 - Third-party products
- Results influenced by currency fluctuations and inventory valuation effects
- Underlying EBIT ex. currency and inventory valuation effects at around 500 MNOK per year

Underlying EBIT excluding currency effects and inventory valuation effect, NOK million¹⁾



1) Underlying EBIT ex. currency and ingot inventory valuation effect have been restated for 2013 and 2014



Rolled Products

Rolled Products - strong European production base and global sales force

- ~1 million tonnes of flat rolled products per year
- Unique integrated aluminium cluster
 - Neuss
 - Alunorf
 - Grevenbroich
- Casthouse network and integrated recycling capacity
- Strong customer satisfaction on quality
- However, unsatisfactory returns over latest years – performance turn-around required



● Rolling mill ● Sales Office ● Smelter ● R&D centre

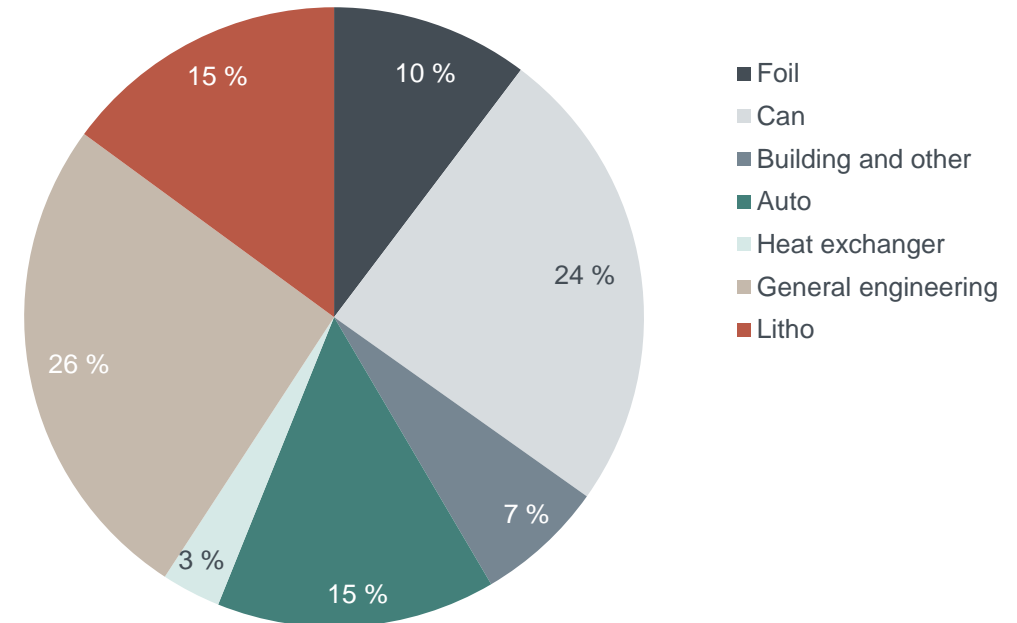


Major flat rolled products producer in Europe






- World leader in high-end products foil and litho
 - Alunorf (JV 50%) – world's largest rolling mill
 - Grevenbroich plant – world's largest multi-product finishing mill
- High-grading product portfolio
 - Margin management and cash generation
 - Portfolio adjustment towards higher margins
- Capitalize on automotive market growth
 - Investment in new automotive body-in-white capacity
 - Ramp-up ongoing
- Strengthen recycling position
 - Investment in new Used Beverage Can (UBC) recycling line
 - Production started beginning of 2016, ramp-up ongoing
 - Targeting stable output at 40 000 mt run-rate by end 2019

External sales in tonnages 2018

Total 951 kT



Several attractive segments within rolling industry – Hydro targets to shift portfolio towards auto and can

	Cans	Automotive	General Engineering	Lithographic sheet	Packaging foil
					
	Aluminium can body stock & can ends for production of alum. beverage cans	Rolled aluminium for chassis, body and component applications	Solutions for buildings and for general engineering applications	Lithographic strip for offset printing plates used for printed media	Broad variety of products from aluminium foil to solid containers
Exposure 2018	24%	15%	36%	15%	10%
Indicative segment attractiveness*	● High	● High	● Low to High	● Medium	● Low
Recycling friendliness	● High	● Medium	● Medium	● Low	● Low
Targeted exposure 2023	29%	21%	31%	11%	7%

*Based on expected growth, competitive landscape, returns and margins

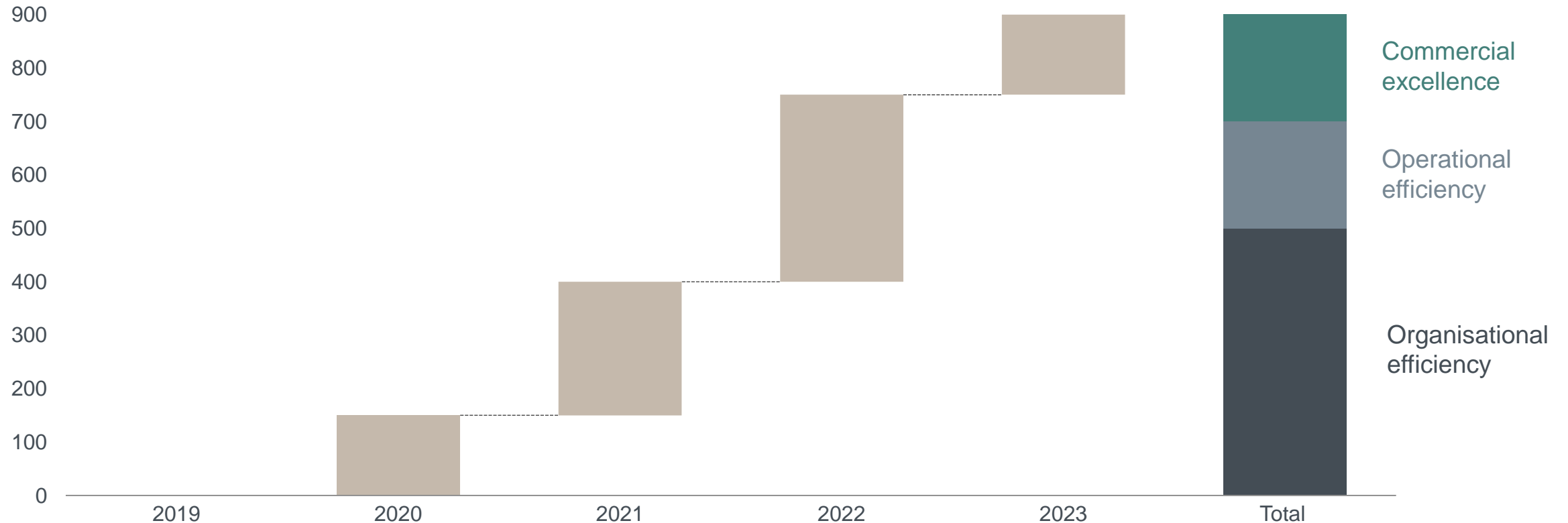
Restructuring and improvement initiatives in Rolled Products



Targeting BNOK 0.9 improvements 2023 vs 2018,
more than 40% to be realised by 2021

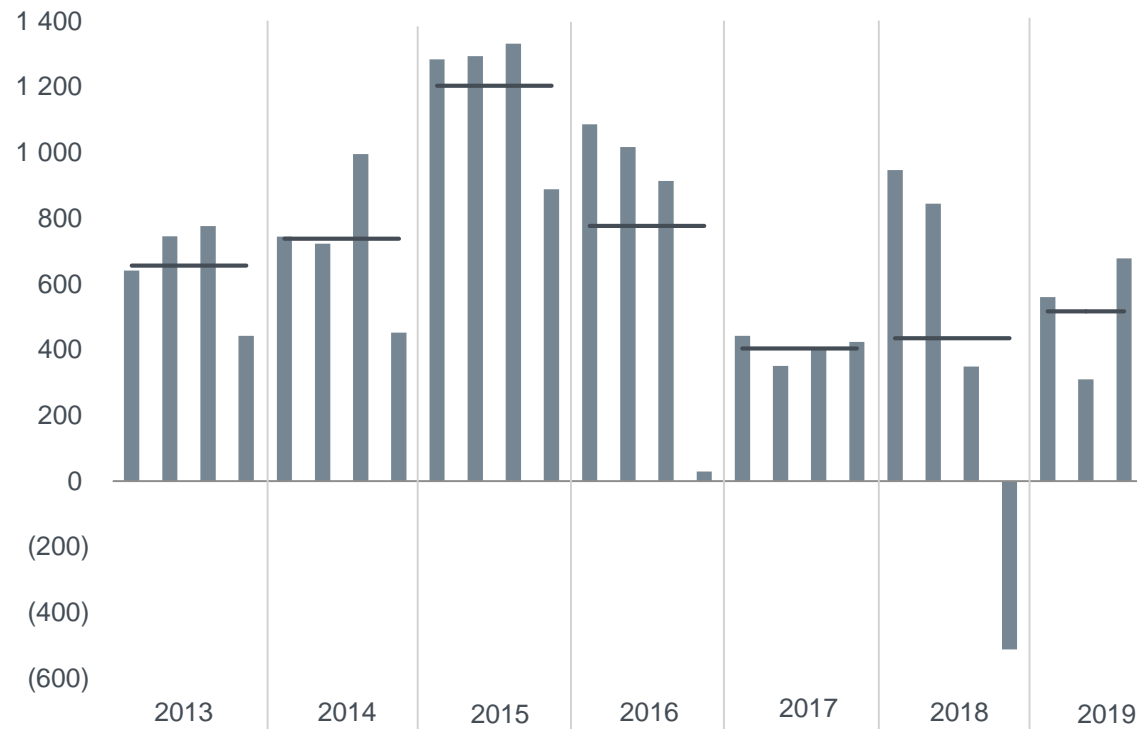
Rolled Products improvements per year and category

In MNOK



Rolled Products earnings drivers

Underlying EBIT per tonne, NOK

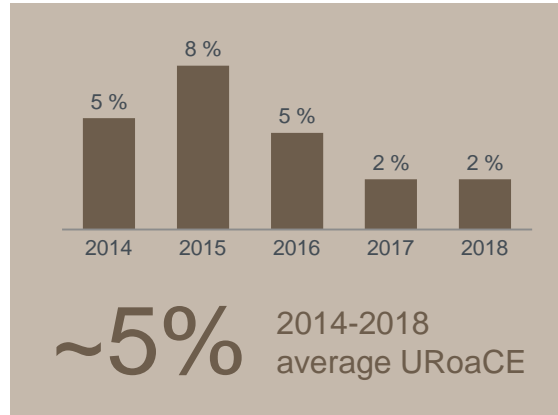
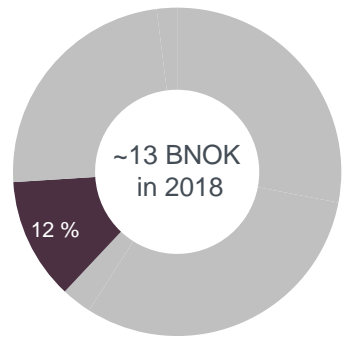


- Contract structure
 - Margin business based on conversion price
 - LME element passed on to customers
 - Range from spot contracts to multi-year contracts
- High share of fixed costs - volume sensitive
- Annual seasonality driven by maintenance and customer activity
 - Q4 typically the weakest quarter of the year
- Preferred supplier market position in high-end products

Capital return dashboard for Rolled Products

Returns below the cost of capital due to continuous margin pressure and operational challenges

Capital employed in RP



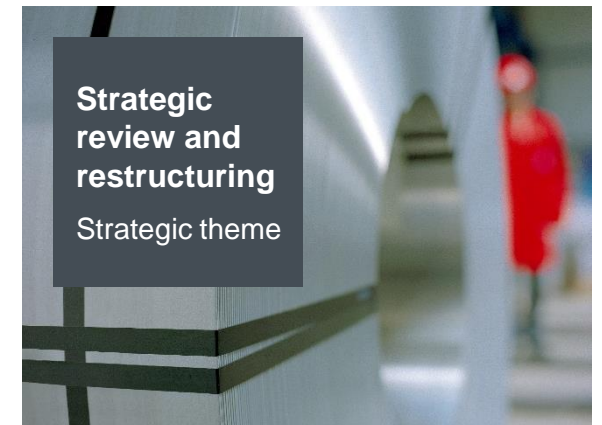
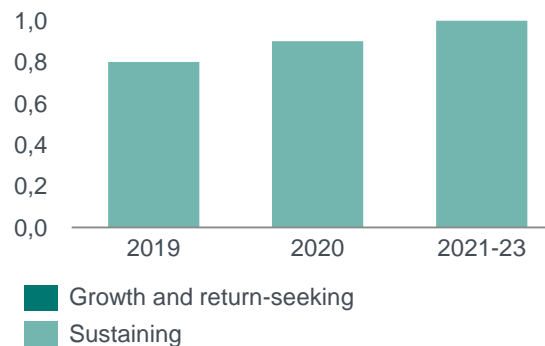
URoaCE > CoC

7-8%
Nominal long-term cost of capital¹⁾

0.9 BNOK
on EBIT by 2023 in improvement potential

0.9 BNOK
in NOC release from 2018 to 2021
Optimize material flow from raw materials to finished goods

Capex²⁾, BNOK



1) Relevant for the rolling business. CoC for the Neuss smelter in line with 10-11% for the upstream business
2) Excluding limited capital expenditures related to the manning reduction.



Extruded Solutions

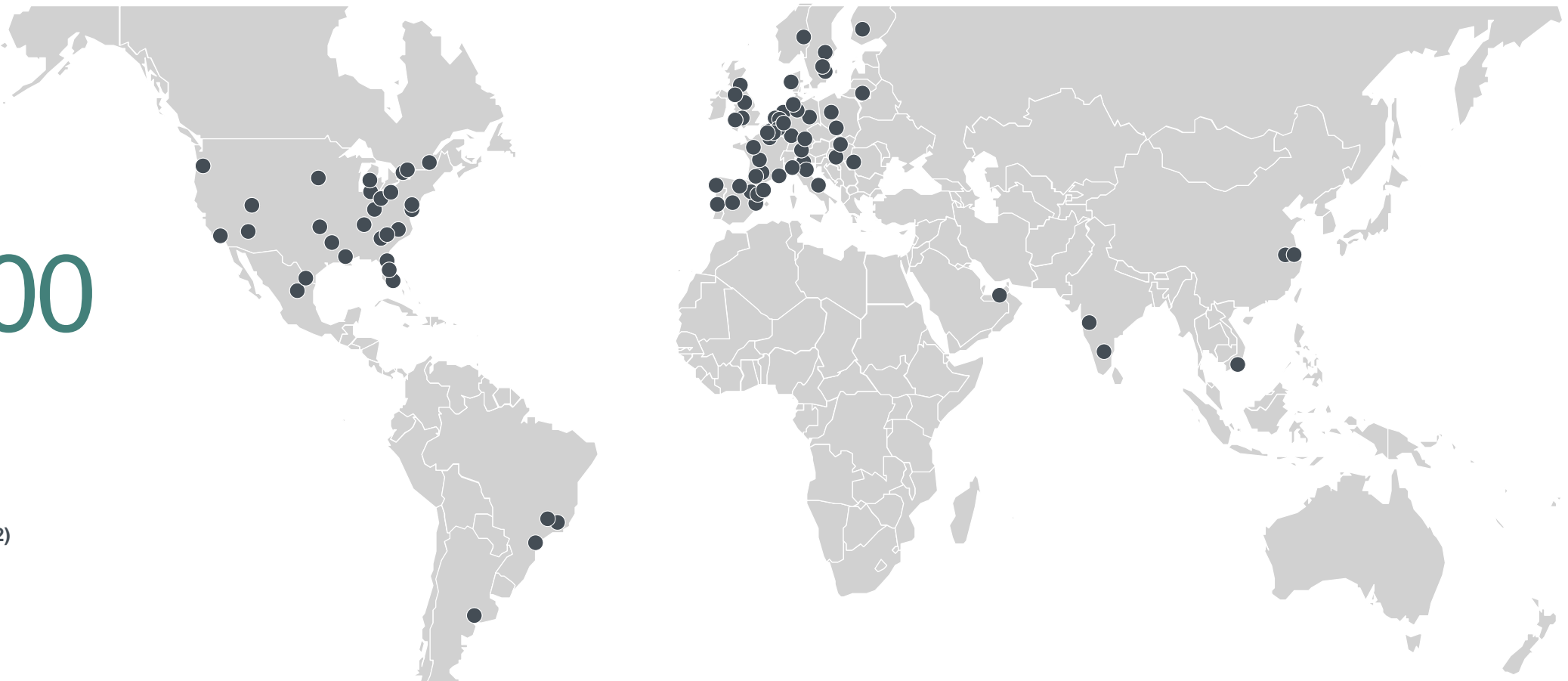
Extruded Solutions – #1 in the global aluminium extrusion industry



Present in
~40
countries

22 400
people ¹⁾

1.4
Million mt sales²⁾



1) As of end-2016
2) 2018

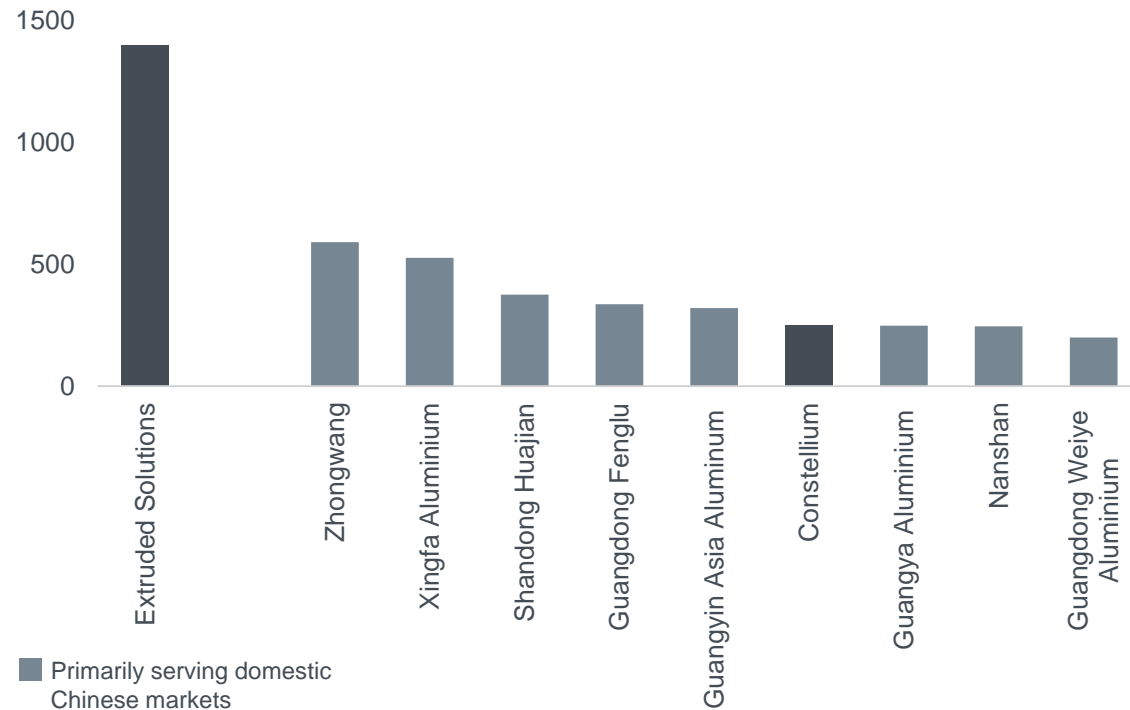
The global extrusion champion – worldwide reach, local presence



Clear leader in a fragmented industry where closeness to customers and markets are key success factors

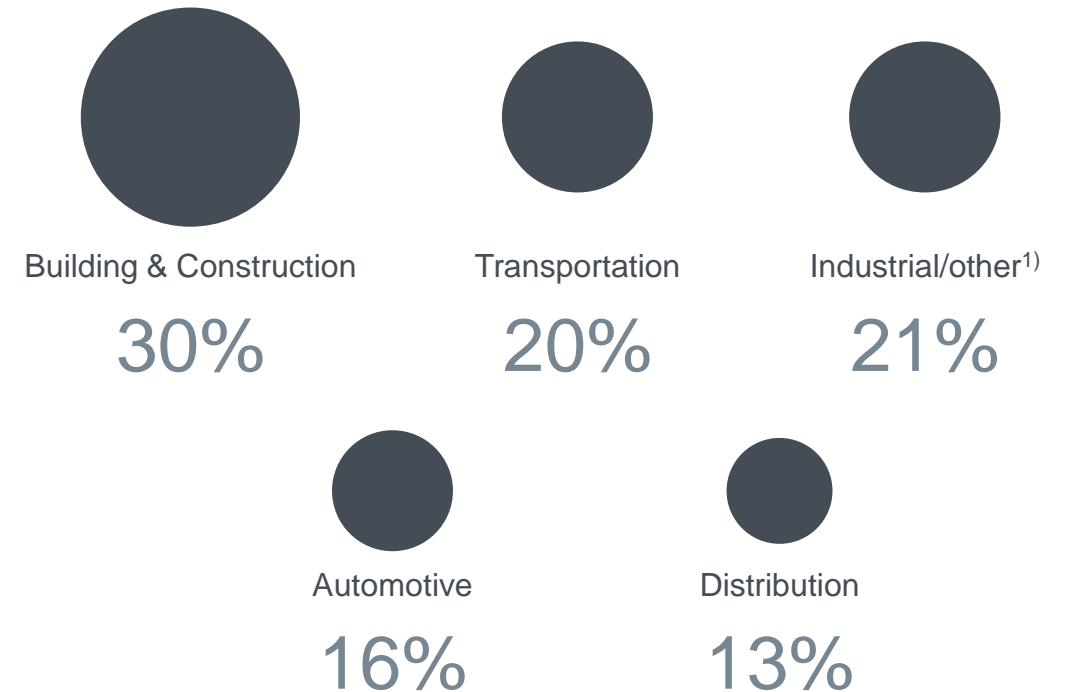
Unrivalled position as #1 extrusions provider globally

Extrusion sales volume (2018), in thousand mt



Customers in diversified end-markets

(Share of Extruded Solutions sales volumes in 2018)



Source: CRU
* Including HVAC&R, Heating, ventilation, air conditioning and refrigeration

Organized in four business units to maximize synergies across units

22,700 highly competent people across the world, total turnover of BNOK 64

Extrusion Europe



- Market leader focusing on value-added products
- 20% market share
- 40 locations, 9,700 people

Revenue **BNOK 24.9**
EBIT **BNOK 0.7**

Extrusion North America



- Uniquely positioned as the only coast-to-coast supplier
- 24% market share
- 23 locations, 6,400 people

Revenue **BNOK 25.0**
EBIT **BNOK 1.3**

Precision Tubing



- Technology leader in selected market niches
- 35% market share globally
- 17 locations, 3,500 people

Revenue **BNOK 7.2**
EBIT **BNOK 0.2**

Building Systems

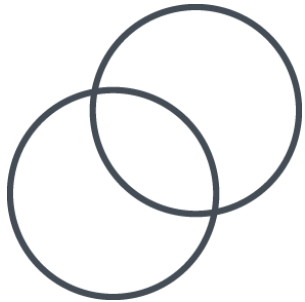


- Leading European player with multi-brand portfolio
- 20% market share in Europe
- Presence in 29 countries, 2,900 people

Revenue **BNOK 8.1**
EBIT **BNOK 0.4**

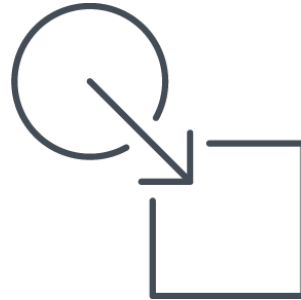
Successful value-over-volume strategy

Targeting the high-tech, high-competence segments of extrusion



Simplify and collaborate

Simplification drive to increase focus, reduce complexity and cost



Deliver value-added to our customers at a reasonable cost

Higher share of value-added solutions to customers through commercial excellence and innovation



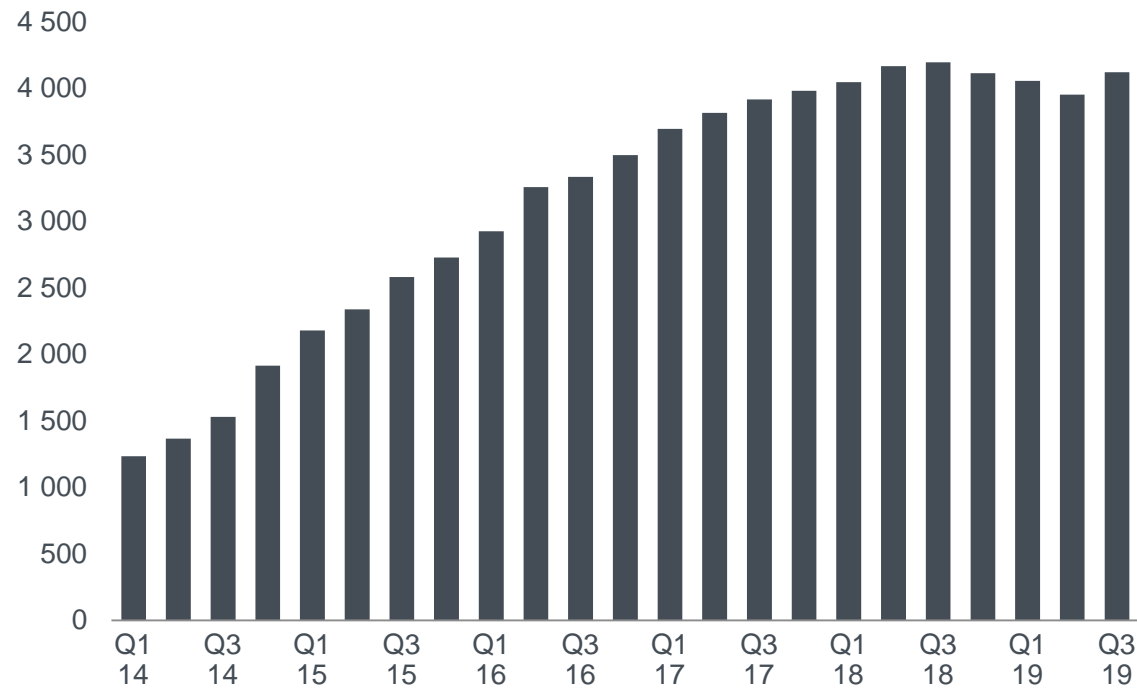
Grow to lift margins and profitability

Lifting margins and creating more customer value through selective growth

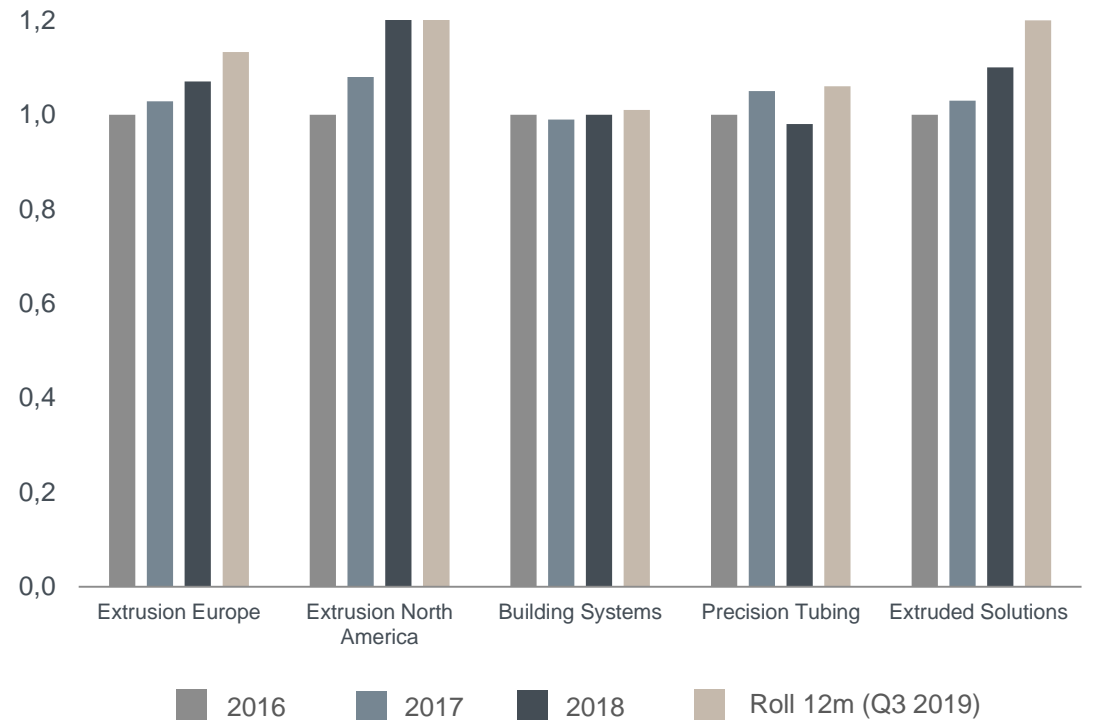
Proven track-record of value creation with further potential



Last 12 months underlying EBITDA
in MNOK



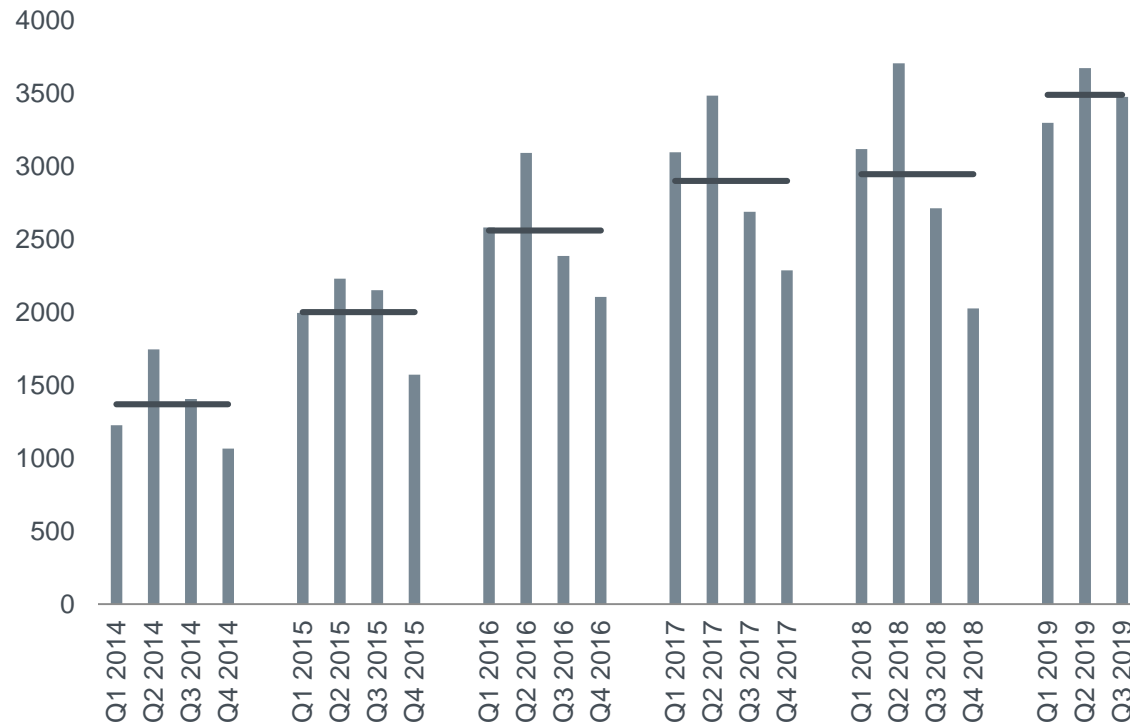
Direct contribution* per kg
(NOK**, indexed to 2016)



*Direct Contribution: calculated as operating revenues less cost of material, including freight costs out, less process variable costs and direct labor costs
 ** Translated to NOK based on 2016 currency rates

Extruded Solutions earnings drivers

Underlying EBITDA per tonne¹⁾, NOK



- Extruded Solutions aims to deliver minimum 10% average annual underlying EBIT growth over the next three years²⁾
- Contract structure
 - Margin business based on conversion price
 - LME element passed on to customers
 - Mostly short-term contract, typically ranging from spot to 12 months, few longer term contracts with floating price or hedging in place
- High share of variable costs – high level of flexibility
- Annual seasonality driven by maintenance and customer activity
 - Stronger Q1 and Q2, weaker Q3 and Q4
- Strong focus on increasing value add to customers
- Preferred supplier market position in high-end products

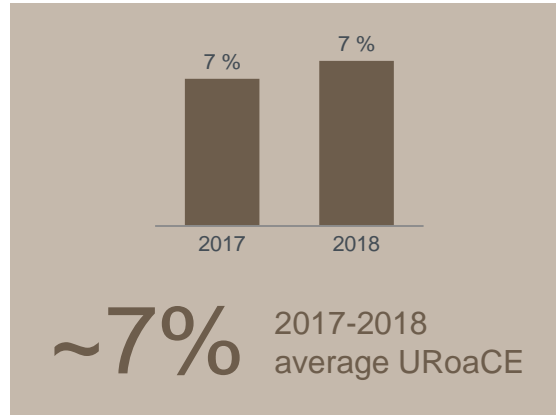
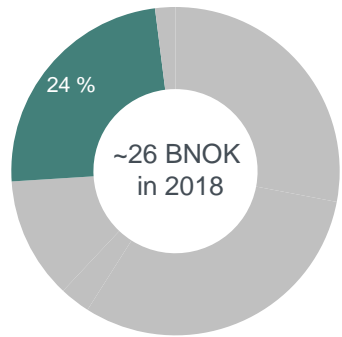
1) Pro-forma figures

2) Ambition includes smaller bolt-on acquisitions with capex frames for the coming years in line with 2018

Capital return dashboard for Extruded Solutions

Returns in line with the cost of capital reflecting leading market positions and value-over-volume strategy

Capital employed in ES



URoaCE > CoC

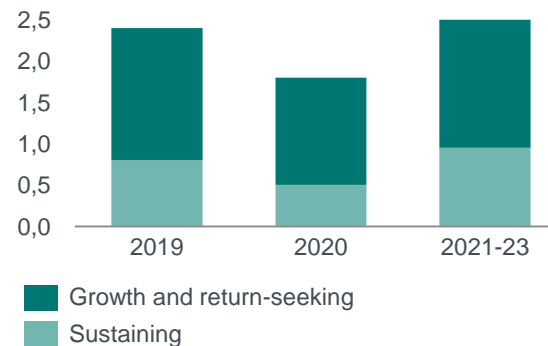
7-8%
Nominal long-term cost of capital

1.0 BNOK
on EBIT by 2023 in improvement potential

Key initiatives to reduce NOC

- Reduction in safety billett stocks

Capex, BNOK





Additional information

Driving long-term shareholder value

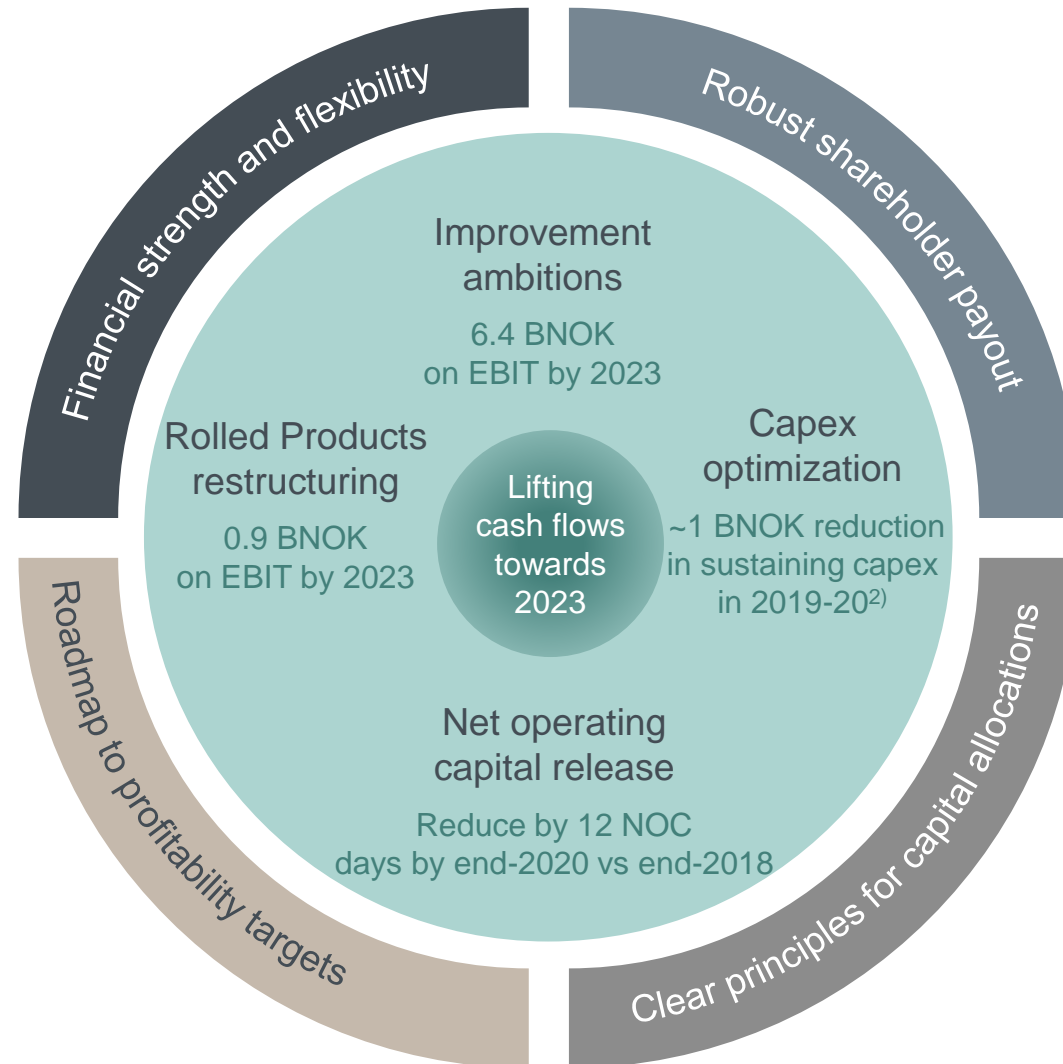


Financial strength and flexibility

- Maintain investment grade credit rating
 - Curently BBB (S&P), Baa2 (Moody's¹⁾)
- Balance sheet ratio targets over the cycle:
 - Funds from operations to adjusted net debt > 40%
 - Adjusted net debt to equity < 55%
- Strong liquidity

Roadmap to profitability targets

- URoaCE > 10% over the cycle for Hydro group
- URoaCE > CoC for business areas over the cycle
- Differentiated return requirements by and within business areas



Robust shareholder payout

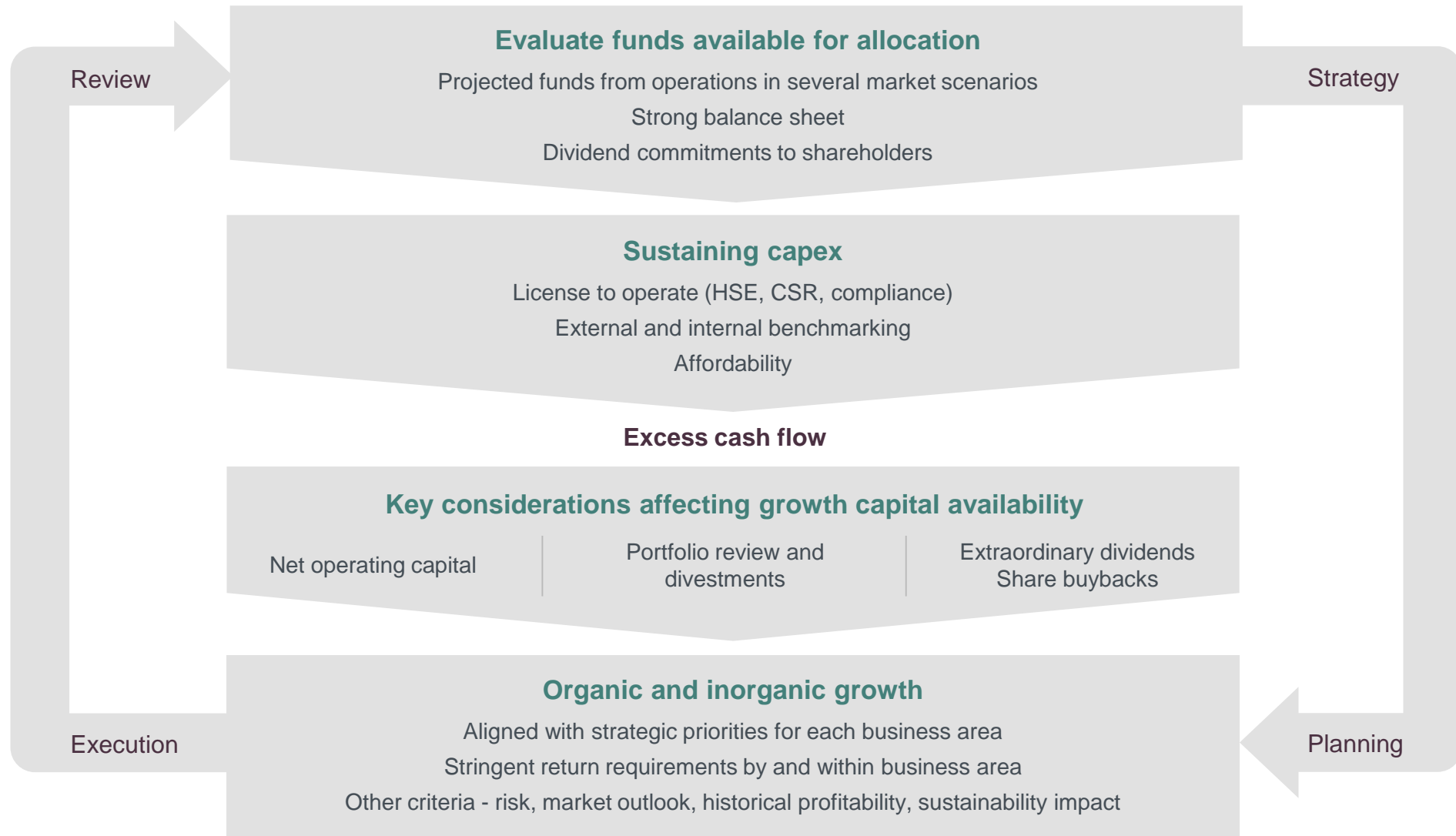
- 40% payout ratio of Net Income over the cycle
- Dividend floor of 1.25 NOK/share
- Supplementary share buybacks or extraordinary dividends

Clear principles for capital allocation

- Capital allocation in line with strategic priorities and return requirements by business area
- Competitive and affordable sustaining capex
- Strict prioritization, continuous review and reallocation

1) Moody's revised Hydro's credit rating outlook from stable to negative on March 28, 2019
 2) Compared to CMD 2018

Clear principles for capital allocation



Shareholder and financial policy

- Hydro aims to give its shareholders competitive returns compared to alternative investments in comparable companies
- Dividend policy
 - Average ordinary payout ratio: 40% of reported net income over the cycle
 - 1.25 NOK/share to be considered as a floor, as of Q4 2016
 - Share buybacks and extraordinary dividends as supplement in periods with strong financials and outlook
 - 2018 dividend 1.25 NOK/share, vs. 1.75 NOK/share in 2017
 - Five-year average ordinary pay-out ratio 2014-2018 of ~57%
- Maintain investment-grade credit rating
 - Currently: BBB stable (S&P) & Baa2 stable (Moody's)
 - Competitive access to capital is important for Hydro's business model (counterparty risk and partnerships)
- Financial ratios over the business cycle
 - Funds from operations to adjusted net debt > 40%
 - Adjusted net debt to equity < 55%
- Strong liquidity
 - NOK 10.6 billion in cash and cash equivalents, end-Q3 2019
 - USD 1.7 billion in multi-currency revolving credit facility maturing in 2020

Hedging policy



- Hedging strategy
 - Fluctuating with the market: primarily exposed to LME and USD
 - Volatility mitigated by strong balance sheet
 - Strengthening relative position to ensure competitiveness
- Diversified business
 - Upstream cyclicalities balanced with more stable earnings downstream
 - Exposed to different markets and cycles
- Bauxite & Alumina
 - Currency exposure, mainly USD and BRL
 - Exposed to LME and Platts alumina index prices
- Primary Metal
 - Operational LME hedging - one-month forward sales
 - Currency exposure, mainly USD, NOK and BRL
- Metal Markets, Rolled Products
 - Operational LME and currency hedging to secure margin
- Flexibility to hedge LME or currency in certain cases

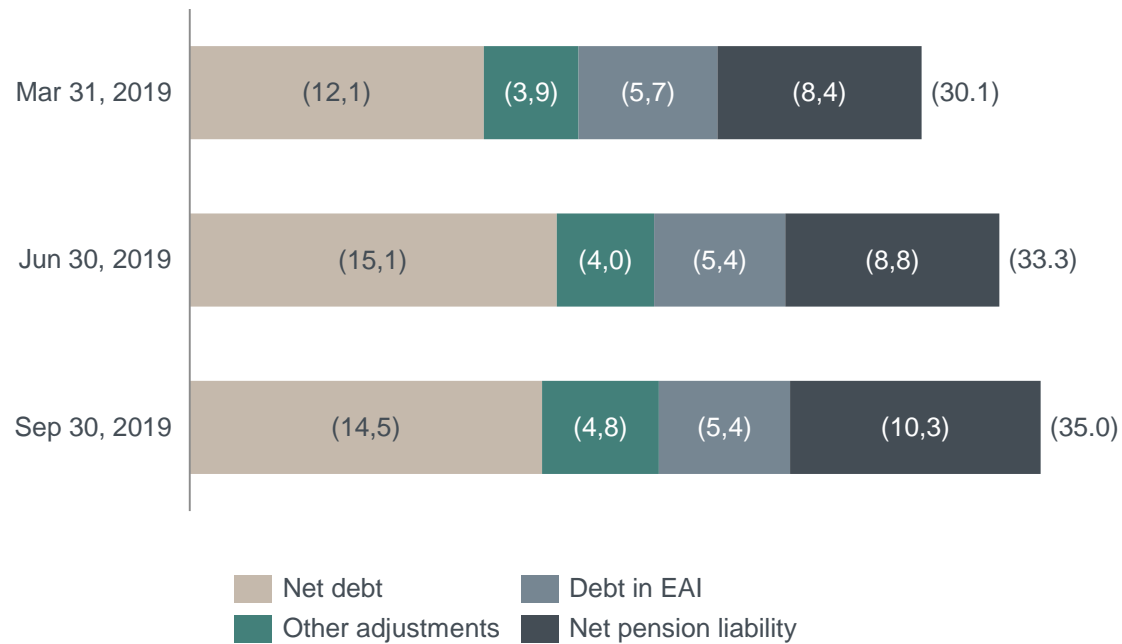
Maintaining a solid balance sheet and investment-grade credit rating



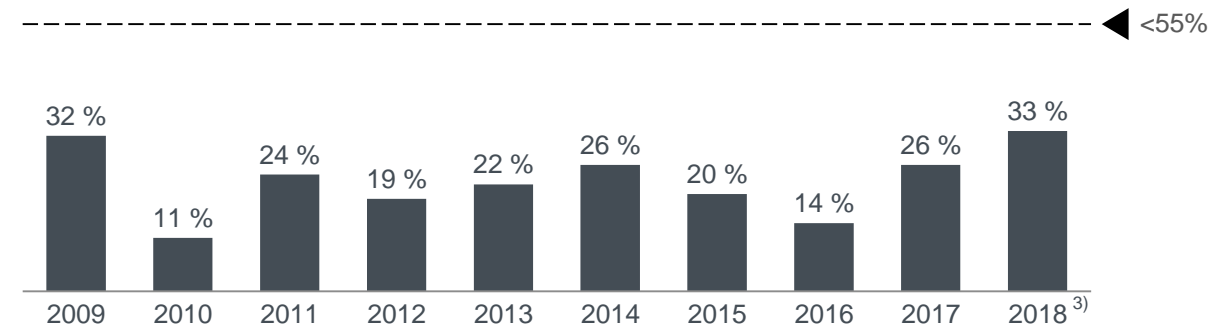
Funds from operations determine the balance sheet structure

Adjusted net debt

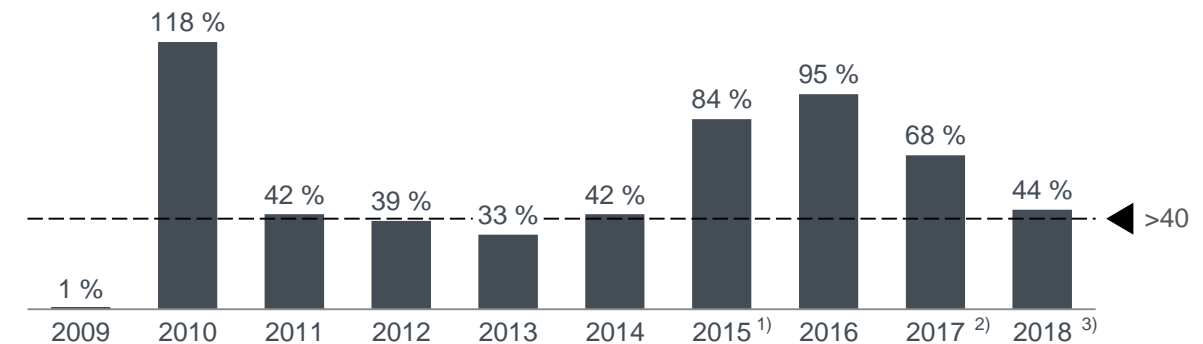
BNOK



Adjusted net debt / Equity



Funds from operations / Adjusted net debt



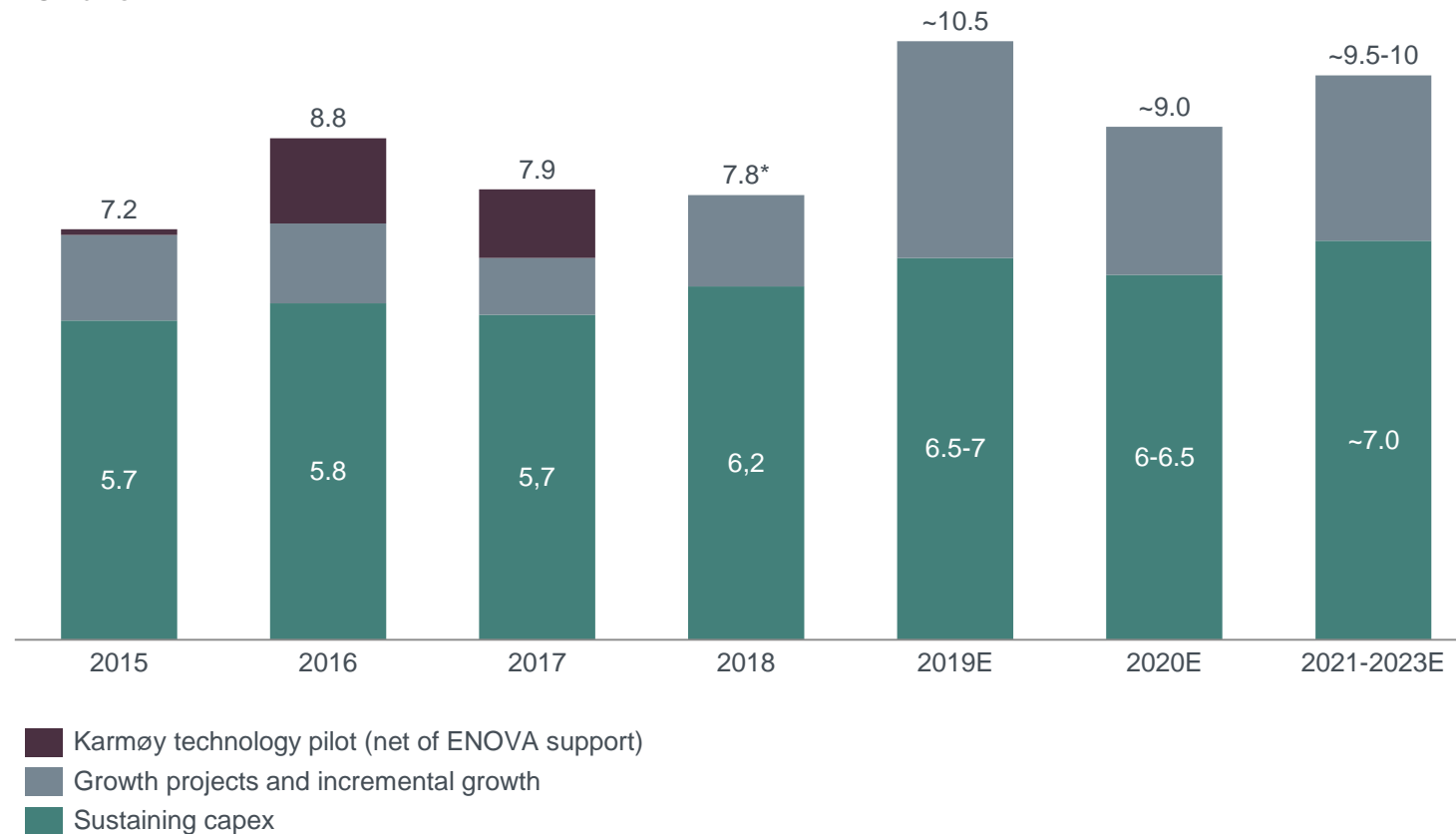
1) 2015 FFO/aND ratio has been restated due to change of definition
 2) Extruded Solutions reflected as 50% equity accounted investment Q1-Q3 2017 and fully consolidated in Q4 2017

Project pipeline to be based on updated capital allocation framework and strategic priorities



Majority of sustaining capex allocated upstream

NOK billion



Main sustaining projects

- Alunorte robustness
- Pipeline replacement in B&A
- Smelter relining and asset integrity in PM
- Paragominas new mine area (from 2022)

Main growth and return-seeking projects

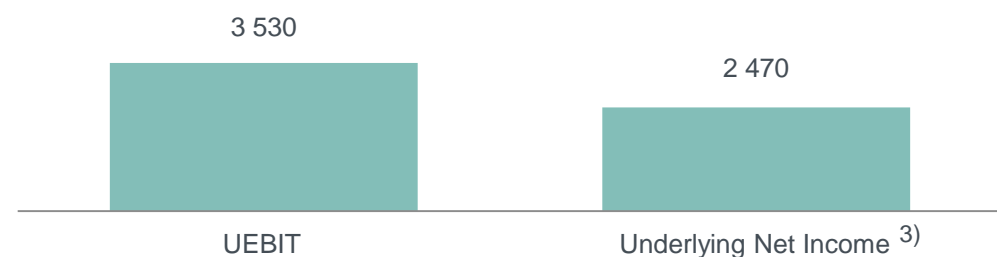
- Husnes restart and upgrade
- Automation, process control and efficiency in PM
- Selected customer-driven growth in ES
- Energy wind and battery storage
- Fuel switch project in B&A

*Excluding the Pis/Cofins adjustments in Brazil in 2018. Including the adjustment, 2018 capex amounted to BNOK 7.0
 Capex including Extruded Solutions
 Growth and return-seeking capex guidance only includes capex necessary for delivering on targeted improvement ambitions

Significant exposure to commodity and currency fluctuations

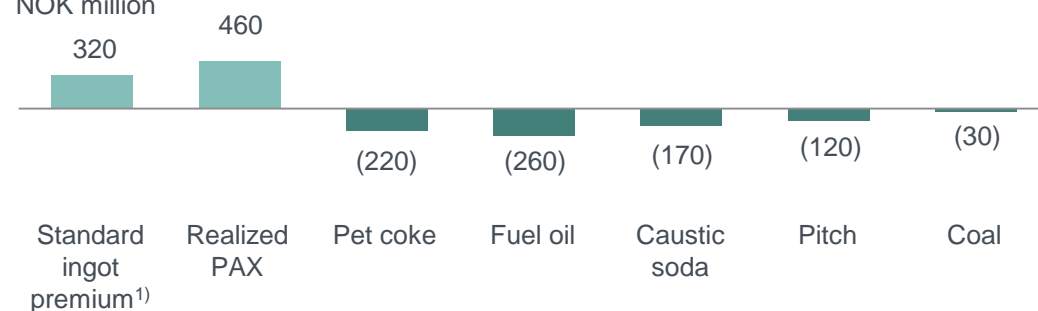
Aluminium price sensitivity +10%

NOK million



Other commodity prices, sensitivity +10% ¹⁾

NOK million



Currency sensitivities +10%

Sustainable effect:

NOK million	USD	BRL	EUR
UEBIT	3 600	(1 060)	(240)

One-off reevaluation effect:

Financial items	-	820	(3 470)
-----------------	---	-----	---------

- Annual sensitivities based on normal annual business volumes (incl. 100% production at Alunorte, Paragominas and Albras) and Q319 realized prices as a starting point LME USD 1 780 per mt, standard ingot premium 150 USD/mt, PAX 315 USD/mt, fuel oil USD 450 per mt, petroleum coke USD 275 per mt, pitch 675 USD/t, caustic soda USD 330 per mt, coal USD 45 per mt, USD/NOK 8.8, BRL/NOK 2.2, EUR/NOK 9.9
- Aluminium price sensitivity is net of aluminium price indexed costs and excluding unrealized effects related to operational hedging
- BRL sensitivity calculated on a long-term basis with fuel oil assumed in USD. In the short-term, fuel oil is BRL-denominated
- Excludes effects of priced contracts in currencies different from underlying currency exposure (transaction exposure)
- Currency sensitivity on financial items includes effects from intercompany positions
- 2018 Platts alumina index (PAX) exposure used
- U NI sensitivity calculated as U EBIT sensitivity after 30% tax

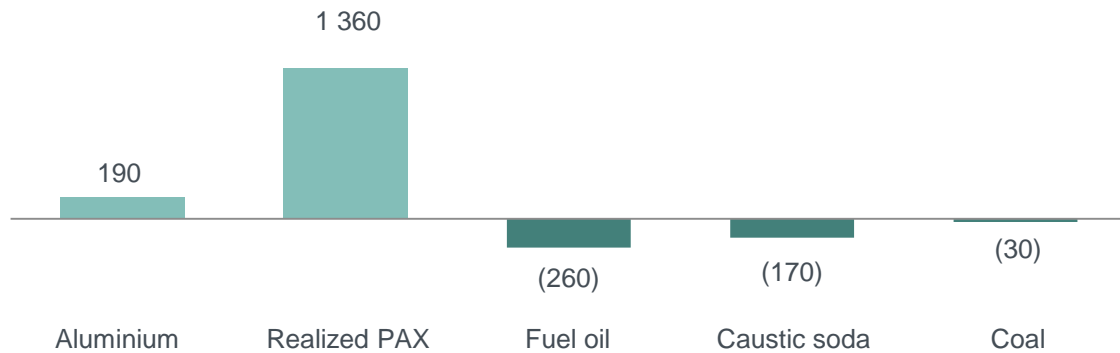
1) Europe duty paid

Bauxite & Alumina sensitivities



Annual sensitivities on underlying EBIT if +10% in price

NOK million



Currency sensitivities +10%

NOK million	USD	BRL	EUR
UEBIT	1 190	(720)	-

Revenue impact

- ~14% of 3-month LME price per tonne alumina with one month lag
- Realized alumina price lags PAX by one month

Cost impact

Bauxite

- ~2.45 tonnes bauxite per tonne alumina
- Pricing partly LME-linked

Caustic soda

- ~0.1 tonnes per tonne alumina
- Prices based on IHS Chemical, pricing mainly monthly per shipment

Energy

- ~0.12 tonnes coal per tonne alumina, Platts prices, one year volume contracts, weekly per shipment pricing
- ~0.11 tonnes heavy fuel oil per tonne alumina, prices set by ANP/Petrobras in Brazil, weekly pricing (ANP) or anytime (Petrobras)
- Increased use of coal as energy source in Alunorte

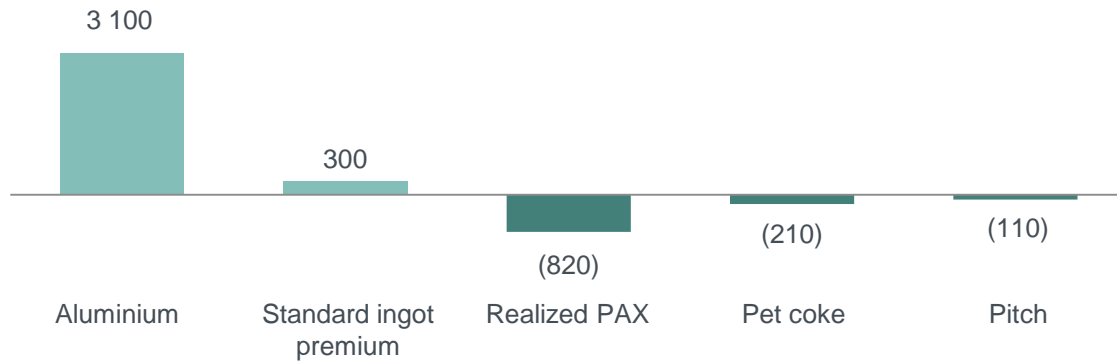
Annual sensitivities based on normal annual business volumes (incl. 100% production at Alunorte, Paragominas and Albras) and Q319 realized prices as a starting point LME USD 1 780 per mt, standard ingot premium 150 USD/mt, PAX 315 USD/mt, fuel oil USD 450 per mt, petroleum coke USD 275 per mt, pitch 675 USD/t, caustic soda USD 330 per mt, coal USD 45 per mt, USD/NOK 8.8, BRL/NOK 2.2, EUR/NOK 9.9
BRL sensitivity calculated on a long-term basis with fuel oil assumed in USD. In the short-term, fuel oil is BRL-denominated. 2018 Platts alumina index (PAX) exposure used

Primary Metal sensitivities



Annual sensitivities on underlying EBIT if +10% in price

NOK million



Currency sensitivities +10%

NOK million	USD	BRL	EUR
UEBIT	2 000	(340)	(250)

Revenue impact

- Realized price lags LME spot by ~1-2 months
- Realized premium lags market premium by ~2-3 months

Cost impact

Alumina

- ~1.9 tonnes per tonne aluminium
- ~14.5% of 3-month LME price per tonne alumina, increasing volumes priced on Platts index
- ~ 2-3 months lag

Carbon

- ~0.40 tonnes petroleum coke per tonne aluminium, Pace Jacobs Consultancy, 2-3 year volume contracts, quarterly or half yearly pricing
- ~0.08 tonnes pitch per tonne aluminium, CRU, 2-3 year volume contracts, quarterly pricing

Power

- 13.9 MWh per tonne aluminium
- Long-term power contracts with indexations

Items excluded from underlying results - 2019



NOK million (+=loss/)=gain)		Q1 2019	Q2 2019	Q3 2019
Alunorte agreements - provision	Bauxite & Alumina	35	14	30
Total impact	Bauxite & Alumina	35	14	30
Unrealized derivative effects on LME related contracts	Primary Metal	122	(15)	(27)
Unrealized effects on power contracts	Primary Metal	27	(35)	(42)
Total impact	Primary Metal	149	(50)	(69)
Unrealized derivative effects on LME related contracts	Metal Markets	222	(62)	(19)
Total impact	Metal Markets	222	(62)	(19)
Unrealized derivative effects on LME related contracts	Rolled Products	(77)	60	(24)
Metal effect	Rolled Products	267	3	123
Significant rationalization charges and closure costs	Rolled Products	-	-	1 145
Other effects	Rolled Products	-	-	(99)
Total impact	Rolled Products	191	63	1 145
Unrealized derivative effects on LME related contracts	Extruded Solutions	(77)	27	(44)
Impairment charges	Extruded Solutions	-	28	95
Significant rationalization charges and closure costs	Extruded Solutions	-	200	61
Pension	Extruded Solutions	-	-	(62)
Transaction related effects	Extruded Solutions	-	35	-
Other effects	Extruded Solutions	26	-	59
Total impact	Extruded Solutions	(51)	289	109
Unrealized derivative effects on power contracts	Energy	6	2	1
Other effects	Energy	-	-	(42)
Total impact	Energy	6	2	(41)
Unrealized derivative effects on power contracts	Other and eliminations	(21)	(39)	(5)
Unrealized derivative effects on LME related contracts	Other and eliminations	10	1	(7)
Total impact	Other and eliminations	(11)	(39)	(12)
Items excluded from underlying EBIT	Hydro	539	219	1 144
Net foreign exchange (gain)/loss	Hydro	(208)	451	1 403
Items excluded from underlying income (loss) before tax	Hydro	331	670	2 547
Calculated income tax effect	Hydro	(83)	(198)	(550)
Items excluded from underlying net income (loss)	Hydro	248	472	1 996

Items excluded from underlying results - 2018



NOK million (+=loss/)=gain)		Q1 2018	Q2 2018	Q3 2018	Q4 2018	Year 2018
Alunorte agreements - provision	Bauxite & Alumina	-	-	519	-	519
Total impact	Bauxite & Alumina	-	-	519	-	519
Unrealized derivative effects on LME related contracts	Primary Metal	(114)	(41)	101	(89)	(143)
Unrealized effects on power contracts	Primary Metal	20	20	(194)	(64)	(218)
Total impact	Primary Metal	(94)	(21)	(93)	(153)	(361)
Unrealized derivative effects on LME related contracts	Metal Markets	(128)	(32)	104	(144)	(200)
Total impact	Metal Markets	(128)	(32)	104	(144)	(200)
Unrealized derivative effects on LME related contracts	Rolled Products	108	(82)	11	74	111
Metal effect	Rolled Products	47	(60)	(153)	93	(73)
Significant rationalization charges and closure costs	Rolled Products	-	-	-	39	39
Total impact	Rolled Products	154	(142)	(141)	206	77
Unrealized derivative effects on LME related contracts	Extruded Solutions	47	(151)	211	192	299
Significant rationalization charges and closure costs	Extruded Solutions	-	-	-	40	40
Pension	Extruded Solutions	-	-	-	40	40
Other effects	Extruded Solutions	-	-	-	237	237
Total impact	Extruded Solutions	47	(151)	211	509	616
Unrealized derivative effects on power contracts	Energy	-	-	-	(7)	(7)
Total impact	Energy	-	-	-	(7)	(7)
Unrealized derivative effects on power contracts	Other and eliminations	(107)	72	11	(11)	(36)
Unrealized derivative effects on LME related contracts	Other and eliminations	(26)	1	8	(11)	(27)
Other effects	Other and eliminations	-	-	-	(34)	(34)
Total impact	Other and eliminations	(134)	73	19	(56)	(97)
Items excluded from underlying EBIT	Hydro	(155)	(274)	620	356	547
Net foreign exchange (gain)/loss	Hydro	333	306	257	408	1 303
Items excluded from underlying income (loss) before tax	Hydro	178	32	877	764	1 851
Calculated income tax effect	Hydro	(54)	(8)	(105)	(188)	(355)
Items excluded from underlying net income (loss)	Hydro	125	24	772	575	1 495

Operating segment information



Underlying EBIT

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	756	662	413	1 872	741	364	685	493	153	415	481	3 704	2 282
Primary Metal	900	1 486	1 298	1 377	823	755	861	(677)	(771)	(604)	(39)	5 061	1 762
Metal Markets	24	244	91	185	178	237	(3)	275	190	299	362	544	686
Rolled Products	106	84	95	95	232	212	82	(113)	138	75	166	380	413
Extruded Solutions	281	329	209	284	734	957	497	202	593	772	559	1 103	2 390
Energy	423	284	368	457	278	417	652	500	517	176	254	1 531	1 846
Other and Eliminations	(207)	(159)	(28)	(715)	161	(229)	(97)	(145)	(261)	(258)	(417)	(1 108)	(310)
Total	2 284	2 930	2 446	3 555	3 147	2 713	2 676	534	559	875	1 366	11 215	9 069

Underlying EBITDA

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	1 334	1 248	1 057	2 551	1 370	937	1 193	877	758	1 004	1 071	6 190	4 377
Primary Metal	1 392	1 991	1 795	1 900	1 349	1 309	1 424	(176)	(180)	(27)	550	7 078	3 906
Metal Markets	47	268	114	209	201	262	22	301	219	328	395	638	786
Rolled Products	307	297	312	325	456	438	314	133	384	326	430	1 240	1 340
Extruded Solutions	281	329	209	728	1 155	1 383	931	645	1 099	1 279	1 099	1 547	4 114
Energy	476	337	424	519	339	479	716	566	583	242	319	1 757	2 100
Other and Eliminations	(200)	(151)	(21)	(708)	169	(223)	(90)	(135)	(231)	(224)	(385)	(1 081)	(280)
Total	3 637	4 319	3 889	5 524	5 038	4 586	4 510	2 210	2 633	2 928	3 479	17 369	16 344

Operating segment information



EBIT

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	756	662	413	1 872	741	364	166	493	118	401	450	3 704	1 763
Primary Metal	797	1 538	1 282	1 112	917	776	954	(524)	(919)	(554)	30	4 729	2 123
Metal Markets	(13)	282	59	158	305	270	(107)	419	(31)	361	381	485	886
Rolled Products	450	84	(22)	-	78	353	223	(319)	(53)	12	(978)	512	336
Extruded Solutions	313	273	215	1 722	687	1 109	286	(307)	644	483	449	2 522	1 774
Energy	423	284	368	457	278	417	652	507	510	174	295	1 531	1 853
Other and Eliminations	(316)	(176)	7	(810)	295	(303)	(117)	(89)	(249)	(220)	(405)	(1 295)	(214)
Total	2 410	2 946	2 323	4 511	3 301	2 986	2 057	178	20	656	222	12 189	8 522

EBITDA

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	1 334	1 248	1 057	2 551	1 370	937	674	877	724	989	1 040	6 190	3 858
Primary Metal	1 289	2 043	1 779	1 635	1 443	1 330	1 517	(23)	(328)	23	619	6 747	4 267
Metal Markets	9	306	82	182	329	295	(82)	445	(2)	390	414	579	986
Rolled Products	651	296	196	230	302	580	455	(73)	194	263	(715)	1 372	1 263
Extruded Solutions	313	273	215	2 166	1 108	1 534	720	136	1 150	1 017	1 085	2 966	3 498
Energy	476	337	424	519	339	479	716	573	576	240	361	1 757	2 107
Other and Eliminations	(310)	(168)	13	(803)	302	(296)	(110)	(80)	(219)	(186)	(373)	(1 268)	(183)
Total	3 762	4 335	3 766	6 481	5 193	4 860	3 890	1 854	2 094	2 737	2 430	18 344	15 796

Operating segment information



Total revenue

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	5 911	5 858	5 612	8 040	6 309	6 877	6 749	8 613	4 866	5 745	6 211	25 421	28 548
Primary Metal	8 641	9 575	8 958	9 291	10 170	10 083	9 984	9 196	9 023	8 937	8 718	36 466	39 434
Metal Markets	12 149	13 604	11 862	12 991	13 898	14 205	13 230	12 903	12 959	13 301	12 326	50 606	54 237
Rolled Products	6 277	6 569	6 435	6 434	6 797	7 145	6 791	6 223	6 844	6 623	6 672	25 715	26 955
Extruded Solutions				14 153	15 911	16 980	15 976	15 218	16 013	17 270	15 233	14 153	64 085
Energy	1 955	1 750	1 831	2 169	1 762	2 163	2 488	2 267	2 261	1 815	1 990	7 705	8 681
Other and Eliminations	(11 906)	(12 765)	(11 900)	(14 276)	(14 877)	(16 198)	(15 452)	(16 034)	(14 382)	(14 515)	(13 633)	(50 847)	(62 562)
Total	23 026	24 591	22 799	38 803	39 971	41 254	39 766	38 386	37 583	39 176	37 517	109 220	159 377

External revenue

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	3 382	3 417	3 293	5 095	3 509	3 640	3 016	4 232	2 370	2 692	3 684	15 188	14 396
Primary Metal	1 700	1 944	1 865	2 068	2 018	1 993	2 312	1 505	1 390	1 457	1 642	7 578	7 829
Metal Markets	11 094	12 080	10 675	10 414	10 901	10 905	10 575	10 121	10 139	10 577	9 742	44 264	42 502
Rolled Products	6 153	6 629	6 380	6 375	6 870	7 011	6 773	6 287	6 777	6 654	6 639	25 538	26 940
Extruded Solutions				14 083	15 932	16 877	15 934	15 280	15 924	17 271	15 214	14 083	64 023
Energy	687	514	582	767	738	823	1 151	961	983	519	594	2 550	3 673
Other and Eliminations	9	6	3	-	4	6	5	(1)	-	5	1	18	14
Total	23 026	24 591	22 799	38 803	39 971	41 254	39 766	38 386	37 583	39 176	37 517	109 220	159 377

Operating segment information



Internal revenue

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	2 528	2 441	2 320	2 944	2 800	3 237	3 733	4 381	2 496	3 052	2 527	10 234	14 152
Primary Metal	6 941	7 631	7 093	7 223	8 152	8 090	7 672	7 691	7 633	7 480	7 075	28 888	31 605
Metal Markets	1 054	1 523	1 187	2 577	2 997	3 301	2 656	2 781	2 820	2 724	2 584	6 341	11 735
Rolled Products	124	(61)	55	59	(72)	134	18	(64)	66	(31)	33	178	15
Extruded Solutions				70	(21)	103	42	(62)	89	(1)	18	70	61
Energy	1 267	1 236	1 249	1 403	1 024	1 340	1 337	1 306	1 278	1 296	1 382	5 155	5 007
Other and Eliminations	(11 915)	(12 772)	(11 903)	(14 276)	(14 881)	(16 204)	(15 457)	(16 033)	(14 382)	(14 520)	(13 620)	(50 865)	(62 576)
Total	-	-	-	-	-	-	-	-	-	-	-	-	-

Share of profit /(loss) in equity accounted investments

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	-	-	-	-	-	-	-	-	-	-	-	-	-
Primary Metal	98	231	159	258	210	280	238	(5)	32	24	150	745	722
Metal Markets	-	-	-	-	-	-	-	-	-	-	-	-	-
Rolled Products	-	-	-	-	-	-	-	-	-	-	-	-	-
Extruded Solutions	313	273	215	12	17	11	14	10	12	5	-	812	53
Energy	-	-	-	(7)	(10)	(11)	(4)	(11)	(9)	(9)	(4)	(7)	(35)
Other and Eliminations	(1)	(13)	(3)	(7)	3	5	(20)	35	(32)	27	(23)	(24)	24
Total	409	491	371	256	221	286	229	30	3	47	123	1 527	765

Operating segment information

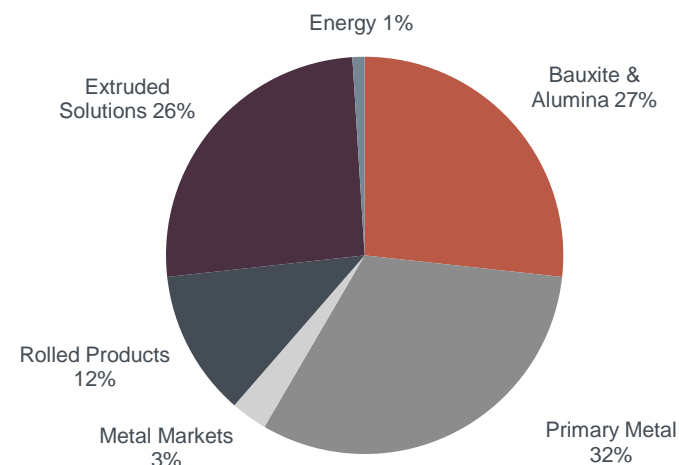


Return on average capital employed ¹⁾ (RoaCE)

	Reported RoaCE							Underlying RoaCE						
	2018	2017	2016	2015	2014	2013	2012	2018	2017	2016	2015	2014	2013	2012
Bauxite & Alumina	4.3%	8.5%	2.7 %	5.3 %	(0.1) %	(2.5) %	(1.5) %	5.5%	8.5%	2.8 %	5.3 %	(0.1) %	(2.2) %	(1.6) %
Primary Metal	5.4%	11.8%	5.2 %	10.7 %	10.4 %	2.3 %	(3.1) %	4.6%	12.6%	5.2 %	11.0 %	10.4 %	3.9 %	0.4 %
Metal Markets	26.6%	18.6%	19.6 %	5.4 %	21.9 %	22.3 %	4.3 %	20.6%	20.9%	15.9 %	11.4 %	19.4 %	19.9 %	6.6 %
Rolled Products	1.9%	3.2%	6.2 %	1.1 %	8.6 %	0.7 %	6.7 %	2.4%	2.4%	4.6 %	7.8 %	5.3 %	5.2 %	5.3 %
Extruded Solutions ²⁾	5.4%	13.4%						7.2%	6.6%					
Energy	20.6%	17.5%	18.1 %	17.2 %	17.4 %	36.1 %	23.0 %	20.5%	17.5%	18.1 %	17.3 %	17.4 %	36.1 %	23.2 %
Hydro Group	5.8%	11.2%	6.5 %	7.5 %	4.9 %	1.1 %	(0.5) %	6.4%	9.6%	5.1 %	9.2 %	5.2 %	2.3 %	0.9 %

Capital employed – upstream focus

NOK million	Sep 30, 2019
Bauxite & Alumina	28 722
Primary Metal	34 625
Metal Markets	2 704
Rolled Products	12 443
Extruded Solutions	27 577
Energy	968
Other and Eliminations	(7 845)
Total	99 195



Graph excludes BNOK (7.8) in capital employed in Other and Eliminations

1) RoaCE at business area level is calculated using 25% tax rate (30% tax rate applied for years prior to 2017). For Energy, 70% tax rate is used for 2018, 65% for 2017, 60% for 2016 and 55% for prior years. 2018 RoaCE has been restated due to the implementation of IFRS16 Leases.

2) Extruded Solutions reflected as 50% equity accounted investment Q1-Q3 2017 and fully consolidated from Q4 2017

Operating segment information



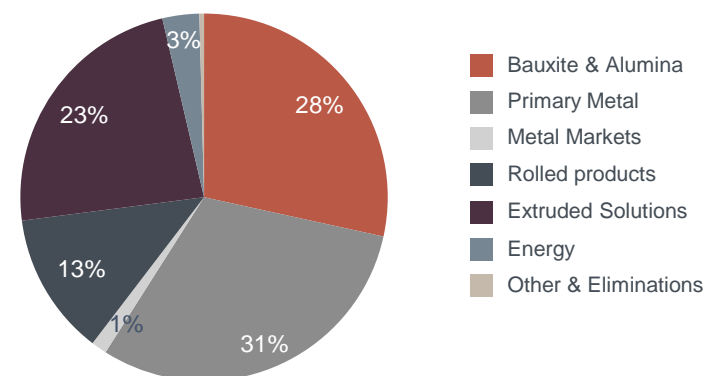
Depreciation, amortization and impairment

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	577	586	644	679	630	573	509	384	605	589	590	2 486	2 095
Primary Metal	492	505	504	526	546	575	583	548	619	605	616	2 026	2 253
Metal Markets	23	24	24	24	24	25	25	26	29	29	33	95	101
Rolled Products	201	212	217	230	223	227	231	246	247	251	264	860	927
Extruded Solutions				444	421	425	434	443	506	535	639	444	1 723
Energy	53	54	56	60	58	59	61	63	62	62	62	223	239
Other and Eliminations	6	7	7	7	7	7	7	10	30	34	32	28	30
Total	1 352	1 389	1 450	1 970	1 909	1 891	1 851	1 719	2 098	2 105	2 236	6 162	7 369

Indicative depreciation currency exposure by business area

Percent	USD	EUR	BRL	NOK & Other
Bauxite & Alumina			100%	
Primary Metal	20%		20%	60%
Metal Markets	30%	50%		20%
Rolled Products		90%		10%
Extruded Solutions	30%	40%		30%
Energy				100%
Other & Eliminations		10%		90%

Depreciation by business area 2018, 7.4 BNOK



Income statements



NOK million	Q3 2019	Q3 2018	Q2 2019	First nine months 2019	First nine months 2018	Year 2018
Revenue	37 517	37 766	39 176	114 276	120 991	159 377
Share of the profit (loss) in equity accounted investments	123	229	47	173	735	765
Other income, net	268	169	139	590	508	772
Total revenue and income	37 908	40 163	39 362	115 040	122 233	160 913
Raw material and energy expense	24 090	25 667	25 920	75 146	77 359	102 523
Employee benefit expense	6 728	5 650	6 192	18 943	17 250	23 176
Depreciation, amortization and impairment	2 236	1 851	2 105	6 440	5 650	7 369
Other expenses	4 632	4 939	4 488	13 613	13 631	19 324
Earnings before financial items and tax (EBIT)	222	2 057	656	898	8 344	8 522
Financial income	72	64	90	225	211	255
Financial expense	(1 700)	(486)	(754)	(2 512)	(1 549)	(2 315)
Income (loss) before tax	(1 407)	1 634	(8)	(1 389)	7 005	6 462
Income taxes	16	(710)	(183)	(316)	(1 931)	(2 139)
Net income (loss)	(1 390)	925	(190)	(1 705)	5 074	4 323
Net income (loss) attributable to non-controlling interests	(131)	174	(105)	(370)	124	67
Net income (loss) attributable to Hydro shareholders	(1 259)	751	(85)	(1 335)	4 949	4 256
Earnings per share attributable to Hydro shareholders	(0.62)	0.37	(0.04)	(0.65)	2.42	2.08

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Net income (loss)	1 838	1 562	2 184	3 600	2 076	2 073	925	(750)	(124)	(190)	(1 390)	9 184	4 323
Underlying net income (loss)	1 580	2 214	1 785	2 816	2 201	2 096	1 696	(175)	124	281	606	8 396	5 819
Earnings per share	0.86	0.73	1.00	1.71	1.02	1.03	0.37	(0.34)	0	(0.04)	(0.62)	4.30	2.08
Underlying earnings per share	0.75	1.04	0.82	1.33	1.06	1.02	0.74	(0.06)	0.13	0.19	0.33	3.95	2.75

Balance sheets



NOK million	Sep 30, 2019	Jun 30, 2019	Mar 31, 2019	Dec 31 2018 ¹⁾	Sep 30 2018	Jun 30 2018	Mar 31 2018
Cash and cash equivalents	10 581	10 590	6 099	5 995	6 846	5 682	9 371
Short-term investments	929	1 090	1 274	975	1 176	1 136	1 031
Accounts receivable	23 007	23 186	23 542	20 744	21 727	23 442	22 785
Inventories	21 679	22 718	25 004	26 483	23 916	22 337	20 626
Other current assets	700	471	349	801	738	978	818
Property, plant and equipment	74 025	73 193	72 882	74 369	66 251	66 683	69 945
Intangible assets	11 695	11 485	11 133	11 443	10 695	11 660	12 133
Investments accounted for using the equity method	11 809	10 936	11 349	11 570	11 094	11 140	10 551
Prepaid pension	5 721	5 986	5 854	5 162	6 857	6 322	5 933
Other non-current assets	6 877	7 322	7 157	7 385	5 962	5 780	5 588
Total assets	167 025	166 978	164 644	164 928	155 261	155 159	158 781
Bank-loans and other interest-bearing short-term debt	6 074	8 177	8 913	9 373	6 607	4 969	5 269
Trade and other payables	19 716	21 014	22 146	20 381	19 906	21 351	20 621
Other current liabilities	4 095	3 688	4 674	6 062	5 897	4 976	4 852
Long-term debt	19 985	18 620	10 559	9 342	7 886	9 377	8 746
Provisions	6 283	5 577	5 673	5 588	5 358	5 532	5 652
Pension liabilities	17 879	16 646	15 981	15 648	14 416	14 665	14 911
Deferred tax liabilities	2 911	3 123	3 052	3 031	3 952	3 456	3 522
Other non-current liabilities	5 435	4 536	4 252	4 746	3 756	3 673	4 084
Equity attributable to Hydro shareholders	80 275	81 143	84 692	85 820	83 012	82 676	86 233
Non-controlling interests	4 371	4 452	4 703	4 936	4 472	4 486	4 891
Total liabilities and equity	167 025	166 978	164 644	164 928	155 261	155 159	158 781

Operational data



Bauxite & Alumina	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Alumina production (kmt)	1 523	1 576	1 605	1 693	1 277	829	821	786	805	932	1 320	6 397	3 712
Sourced alumina (kmt)	600	645	667	610	900	985	907	1 163	711	704	660	2 522	3 954
Total alumina sales (kmt)	2 129	2 196	2 251	2 344	2 071	1 842	1 711	1 983	1 423	1 668	2 124	8 920	7 607
Realized alumina price (USD) ¹⁾	309	295	297	398	371	430	460	463	373	365	310	326	429
Implied alumina cost (USD) ²⁾	235	228	237	265	287	367	376	409	311	296	253	242	358
Bauxite production (kmt) ³⁾	2 400	2 943	3 043	3 049	2 326	1 348	1 286	1 254	1 361	1 624	2 152	11 435	6 214
Sourced bauxite (kmt) ⁴⁾	1 675	1 809	2 013	2 103	1 317	1 250	905	1 730	1 029	1 315	1 563	7 601	5 202
Underlying EBITDA margin ¹¹⁾	22.6%	21.3%	18.8%	31.7%	21.7%	13.6%	17.7%	10.2%	15.6%	17.5%	17.2%	24.3%	15.3%

Primary Metal ⁵⁾	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Realized aluminium price LME, USD/mt	1 757	1 902	1 921	2 092	2 140	2 183	2 194	2 041	1 912	1 858	1 784	1 915	2 140
Realized aluminium price LME, NOK/mt ⁷⁾	14 798	16 265	15 496	17 066	16 929	17 292	17 905	17 038	16 291	15 959	15 732	15 888	17 282
Realized premium above LME, USD/mt ⁶⁾	266	273	261	259	295	364	367	362	344	326	305	265	346
Realized premium above LME, NOK/mt ⁶⁾⁷⁾	2 236	2 330	2 106	2 116	2 335	2 881	2 999	3 025	2 935	2 802	2 688	2 197	2 791
Realized NOK/USD exchange rate ⁷⁾	8.42	8.55	8.07	8.16	7.91	7.92	8.16	8.35	8.52	8.59	8.82	8.30	8.08
Implied primary cost (USD) ⁸⁾	1 350	1 375	1 425	1 575	1 725	1 775	1 750	2 000	1 850	1 775	1 600	1 425	1 825
Implied all-in primary cost (USD) ⁹⁾	1 675	1 700	1 725	1 850	2 075	2 175	2 150	2 350	2 200	2 100	1 900	1 725	2 175
Primary aluminium production, kmt	516	523	527	528	514	492	497	490	485	486	522	2 094	1 993
Casthouse production, kmt	521	551	548	550	531	523	507	496	473	477	509	2 169	2 058
Total sales, kmt ¹⁰⁾	577	579	568	554	578	549	516	503	534	527	537	2 278	2 145
Underlying EBITDA margin ¹¹⁾	16.1%	20.8%	20.0%	20.4%	13.3%	13.0%	14.3%	(1.9)%	(2.0)%	(0.3)%	6.3%	19.4%	9.9%

1) Weighted average of own production and third party contracts, excluding hedge results. The majority of the alumina is sold linked to either the LME prices or alumina index with a one month delay. Sourced alumina volumes have been re-calculated, with Q1 2018 being adjusted accordingly.

2) Implied alumina cost (based on EBITDA and sales volume) replaces previous apparent alumina cash cost

3) Paragominas production, on wet basis

4) 40 percent MRN offtake from Vale and 5 percent Hydro share on wet basis

5) Operating and financial information includes Hydro's proportionate share of production and sales volumes in equity accounted investments. Realized prices, premiums and exchange rates exclude equity accounted investments

6) Average realized premium above LME for casthouse sales from Primary Metal.

7) Including strategic hedges /hedge accounting applied

8) Realized LME price minus Underlying EBITDA margin (incl. Qatalum) per mt primary aluminium produced. Includes net earnings from primary casthouses

9) Realized all-in price minus Underlying EBITDA margin (incl. Qatalum) per mt primary aluminium sold. Includes net earnings from primary casthouses

10) Total sales replaces previous casthouse sales due to change of definition

11) Underlying EBITDA divided by total revenues

Operational data



Metal Markets	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Remelt production (1 000 mt)	143	152	136	137	150	153	126	135	131	139	125	568	563
Third-party Metal Products sales (1 000 mt)	79	80	74	86	70	77	83	73	70	83	82	319	304
Metal Products sales excl. ingot trading (1 000 mt) ¹⁾	735	759	707	720	745	746	685	682	683	707	662	2 921	2 859
Hereof external sales excl. ingot trading (1 000 mt)	672	675	639	589	580	563	543	532	539	556	517	2 575	2 217
External revenue (NOK million)	11 094	12 080	10 675	10 414	10 901	10 905	10 575	10 121	10 139	10 577	9 742	44 264	42 502
Rolled Products	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Rolled Products external shipments (1 000 mt)	241	239	236	224	245	251	235	220	246	242	245	940	951
Rolled Products – Underlying EBIT per mt, NOK	442	351	400	424	949	844	349	(512)	560	309	678	404	435
Underlying EBITDA margin ²⁾	4.9%	4.5%	4.8%	5.0%	6.7%	6.1%	4.6%	2.1%	5.6%	4.9%	6.4%	4.8 %	5.0%
Extruded Solutions³⁾	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Extruded Solutions external shipments (1 000 mt)	355	359	339	318	362	373	343	318	333	348	316	1 372	1 396
Extruded Solutions – Pro-forma underlying EBIT per mt, NOK	1 973	2 328	1 505	893	2 028	2 566	1 449	635	1 781	2 219	1 769	1 699	1 712
Underlying EBITDA margin ²⁾	7.7%	8.2%	6.5%	5.2%	7.3%	8.1%	5.8%	4.2%	6.9%	7.4%	7.2%	6.9%	6.4%
Energy	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Power production, GWh	2 869	2 369	2 509	3 089	2 433	2 550	2 888	2 822	2 553	1 993	2 273	10 835	10 693
Net spot sales, GWh	1 409	996	1 168	1 633	763	961	1 315	1 166	770	289	582	5 206	4 204
Nordic spot electricity price, NOK/MWh	280	257	266	294	372	373	484	460	457	346	342	274	423
Southern Norway spot electricity price (NO2), NOK/MWh	278	252	258	287	361	369	475	455	468	360	328	269	415
Underlying EBITDA margin ²⁾	24.4%	19.3%	23.1%	23.9 %	19.2%	22.2%	28.8%	24.9%	25.8%	13.4%	16.0%	22.8%	24.2%

1) Includes external and internal sales from primary casthouse operations, remelters and third party Metal sources

2) Underlying EBITDA divided by total revenues

3) FY 2017 and historical operational data based on pro forma figures

Extruded Solutions, information by business area



Historical Sapa information (100% basis) Q1 2017 – Q3 2017
Extruded Solutions, fully consolidated in Hydro since Q4 2017 ¹⁾

Precision Tubing	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	2018	Q1 2019	Q2 2019	Q3 2019
Volume (kmt)	36	38	36	35	37	41	41	38	157	34	36	34
Operating revenues (NOKm)	1 651	1 734	1 601	1 645	1 700	1 910	1 873	1 722	7 205	1 623	1 788	1 540
Underlying EBITDA (NOKm)	180	193	157	138	168	120	121	98	507	86	146	140
Underlying EBIT (NOKm)	123	136	97	66	103	55	50	30	237	18	87	74

Building Systems	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	2018	Q1 2019	Q2 2019	Q3 2019
Volume (kmt)	20	21	19	19	20	21	18	19	78	18	22	19
Operating revenues (NOKm)	1 830	2 044	1 765	1 960	2 057	2 124	1 919	2 045	8 145	1 973	2 328	2 104
Underlying EBITDA (NOKm)	155	219	118	137	167	198	130	155	650	104	233	189
Underlying EBIT (NOKm)	119	183	85	85	116	146	70	99	430	22	143	79

Other and eliminations	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	2018	Q1 2019	Q2 2019	Q3 2019
Underlying EBITDA (NOKm)	(63)	(43)	(41)	(35)	(45)	(46)	(21)	(118)	(230)	(56)	(96)	24
Underlying EBIT (NOKm)	(69)	(49)	(42)	(45)	(55)	(58)	(35)	(130)	(278)	(58)	(99)	21

Extrusion Europe	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	2018	Q1 2019	Q2 2019	Q3 2019
Volume (kmt)	154	155	142	134	159	160	138	129	586	139	142	120
Operating revenues (NOKm)	5 553	5 999	5 460	5 541	6 600	6 664	5 867	5 719	24 850	6 328	6 461	5 579
Underlying EBITDA (NOKm)	390	416	290	240	417	504	263	201	1 385	346	348	215
Underlying EBIT (NOKm)	274	292	164	59	246	333	98	27	705	141	144	6

Extrusion North America	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	2018	Q1 2019	Q2 2019	Q3 2019
Volume (kmt)	150	151	148	134	152	157	152	137	598	146	148	142
Operating revenues (NOKm)	5 514	5 753	5 369	5 211	5 882	6 519	6 541	6 091	25 033	6 306	7 053	6 267
Underlying EBITDA (NOKm)	437	466	390	248	448	606	439	310	1 802	619	648	532
Underlying EBIT (NOKm)	330	353	284	119	325	481	314	176	1 295	469	498	378

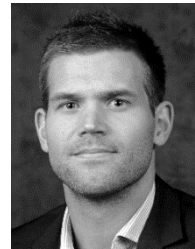
1) Includes certain effects of the acquisition such as increased depreciation and amortization following fair value adjustments related to long-lived assets. Estimate increased depreciation of around MNOK 300 per annum for Extruded Solutions vs "old Sapa".

Next events

Fourth quarter results February 7, 2020

For more information see
www.hydro.com/ir

Investor Relations in Hydro



Stian Hasle

Head of Investor Relations

t: +47 97736022

e: stian.hasle@hydro.com



Olena Lepikhina

Investor Relations Officer

t: +47 96853035

e: olena.lepikhina@hydro.com



Aud Helen Halvorsen

Investor Relations Assistant

t: +47 95182741

e: aud.helen.halvorsen@hydro.com



Hydro

We are aluminium

