



# Results down on volumes and costs, higher realized prices

Q2 2018

# 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.

Svein Richard  
Brandtzæg

President and CEO



# Q2

highlights

- Underlying EBIT of NOK 2 713 million
- Alunorte, Paragominas and Albras producing at 50%, affecting results negatively
- Increased costs, mostly offset by higher realized all-in aluminium and alumina prices
- Downstream results up on volume and margin
- Higher prices and volume increases result from Energy
- *Better* improvement program hit by Brazil situation, not expected to reach 2018 target
- Karmøy Technology Pilot at full production
- 2018 global primary market expected in deficit – continued market uncertainty on US tariffs, Rusal sanctions and Brazil situation

All result explanations versus same quarter previous year

# Current status Brazil-situation

- Alunorte producing at 50% following orders from environmental authorities and court
  - Paragominas and Albras producing at 50%, due to reduced Alunorte production
- Continued dialogue with Government of Pará, including state environmental agency SEMAS, and Ministério Público
- Other legal and political processes ongoing at state and federal level – Hydro cooperating with all relevant authorities to find solutions



# Current status Alunorte

No overflows from bauxite residue deposits, measures implemented at Alunorte

- Report from third-party environmental consultancy SGW Services and report from internal task force confirm:
  - No overflows from bauxite residue deposits
  - No indication of contamination of local communities
  - No indication of any significant or lasting environmental impact to nearby rivers
- Environmental authorities have stated there has not been any overflow from the bauxite residue area
- Measures implemented to ensure continued safe and sound operations at Alunorte
  - Short-term improvements of the water management and treatment systems mostly concluded
  - Investment of NOK 500 million in increasing water treatment capacity by 50% - contracting and fabricating in progress, to be operational early 2019
- Timing for resuming 100% production remains uncertain



# Alunorte and Paragominas operations



## Paragominas

- Temporarily suspended work contracts for 80 employees and terminated 175 contractors

## Alunorte

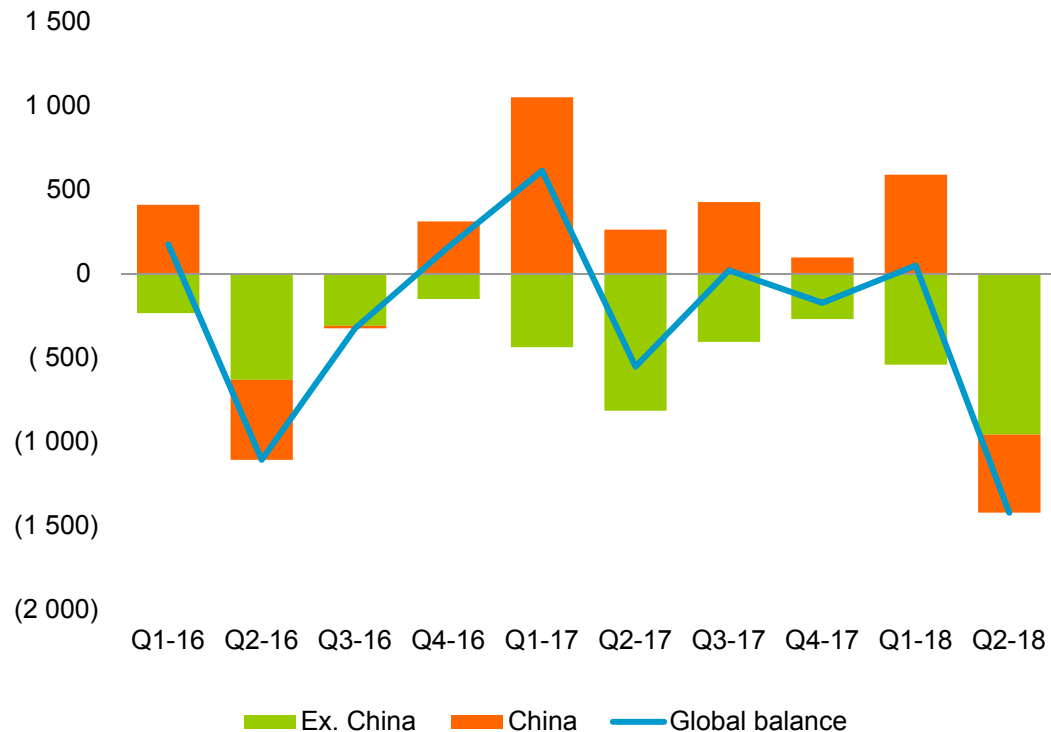
- Currently operating 5 lines, 2 in standby – short ramp-up period
- Assessing to curtail 3 out of 7 lines – increasing operational robustness
  - Will increase ramp-up period
  - Will lead to temporary suspension of work contracts for ~150 employees and termination of ~250 contractors

# Global aluminium market in deficit in Q2 2018

Continued deficit in world outside China, Q2 deficit also in China

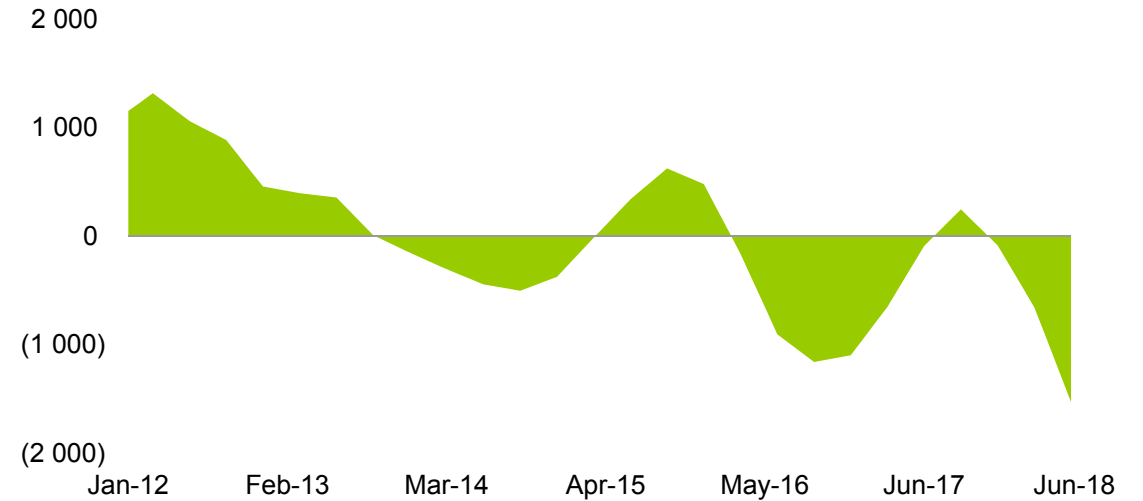
Quarterly market balances, world ex. China and China

1000 mt primary aluminium



Production less demand\*)

1 000 mt primary aluminium



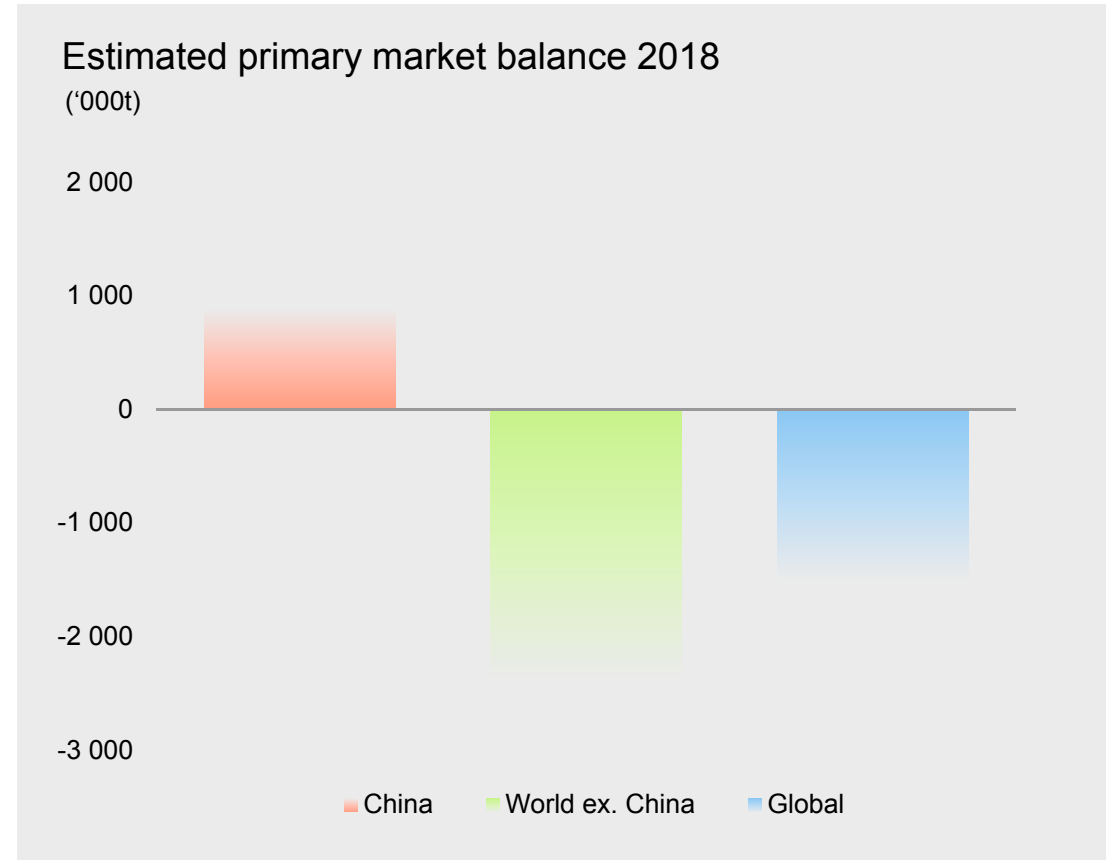
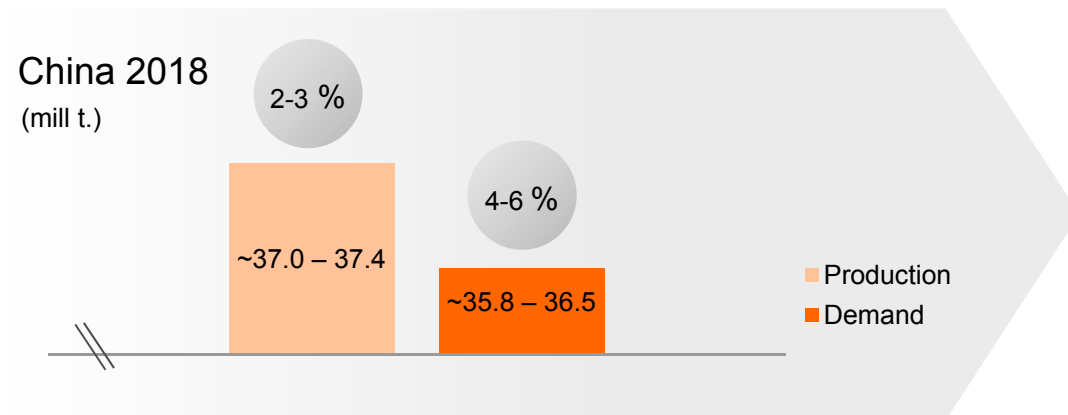
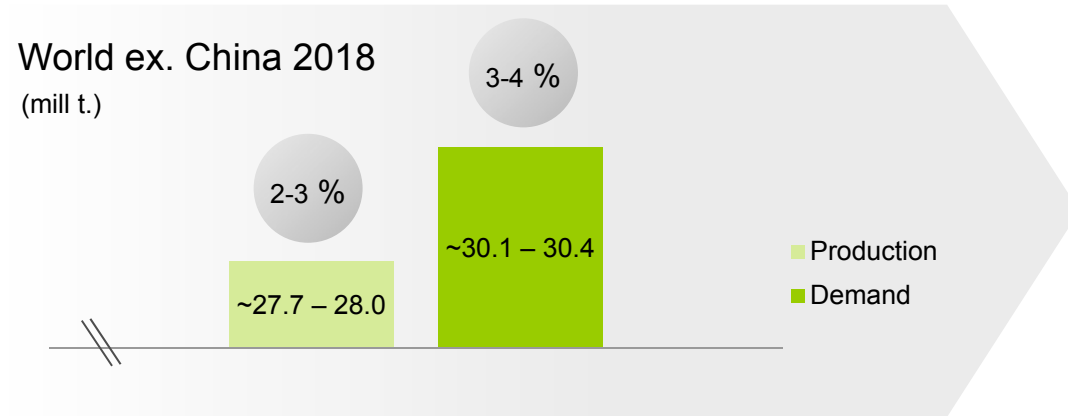
- ~5.0% demand growth Q2-18 vs Q2-17
  - ~6.0% China
  - ~3.7% World ex. China
- 2018 demand growth expected at 4-5%

Source: CRU/Hydro

\* Yearly rolling average of quarterly annualized production less demand



# Primary aluminium market expected in deficit in 2018, continued uncertainty

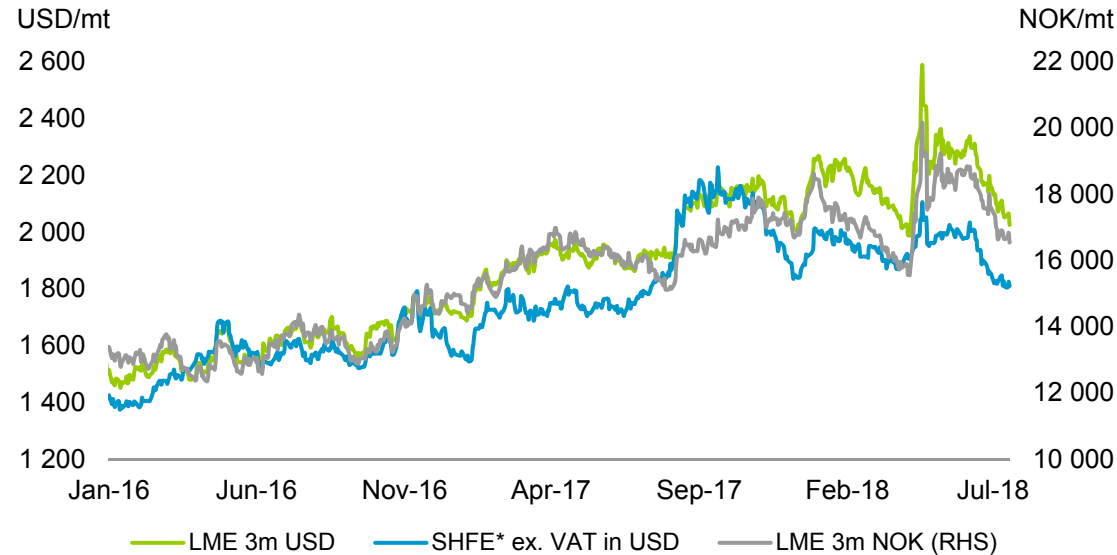


Source: CRU, Hydro analysis

% Growth from 2017 to 2018

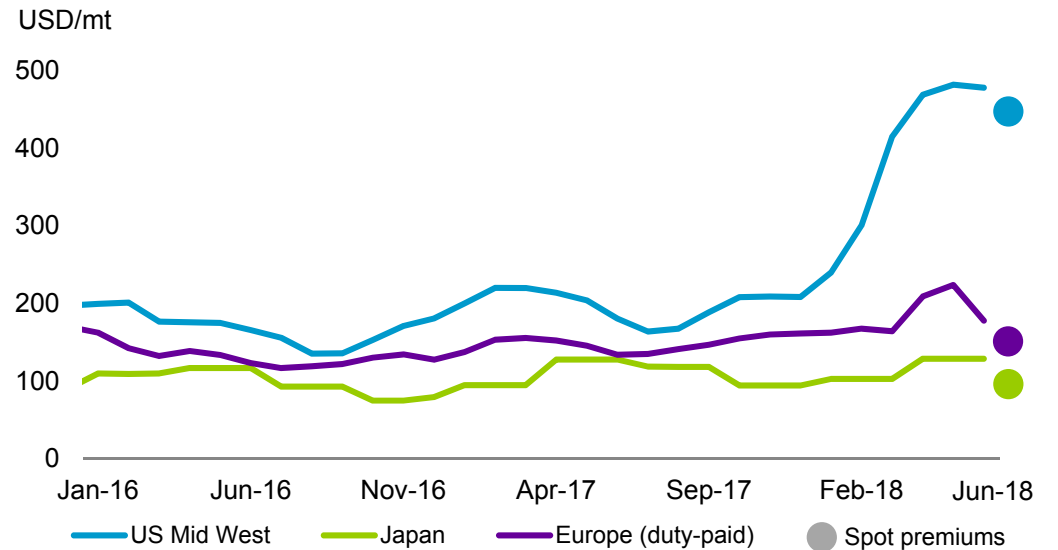
# Average aluminium prices higher in Q2

## LME and SHFE aluminium prices



- High LME volatility during Q2, following announced US sanctions towards Rusal
- Wide price differential between LME and SHFE in Q1, increasing further into Q2
- Gross trade data indicates increased semis export from China in Q2

## Regional standard ingot premiums



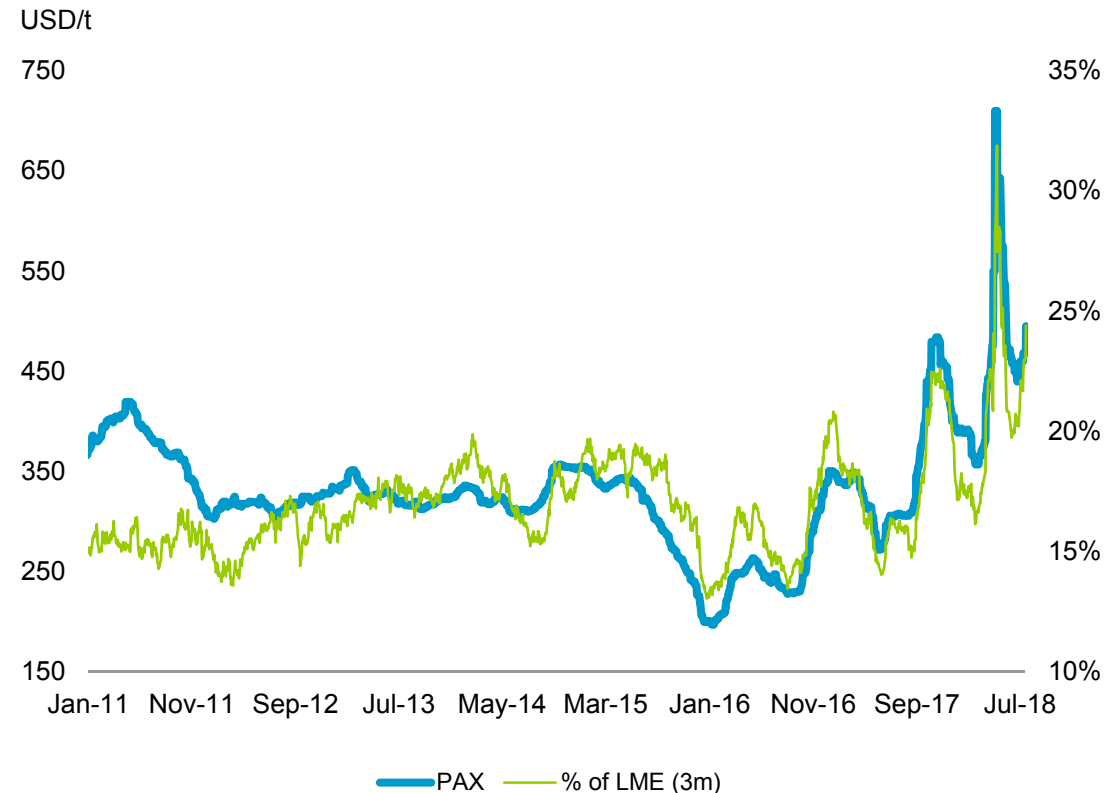
- Significant strengthening US premiums, mainly driven by section 232
- Increasing premiums early in the quarter, following announced Rusal sanctions, coming down towards the end of the quarter

Source: Metal Bulletin, Platts, Thomson Reuters, Hydro analysis  
 \* Shanghai Futures Exchange

# Average alumina prices retreat from peak in April, remain high

Market remains tight outside China due to continued Alunorte 50% supply disruption

## Platts alumina index (PAX)

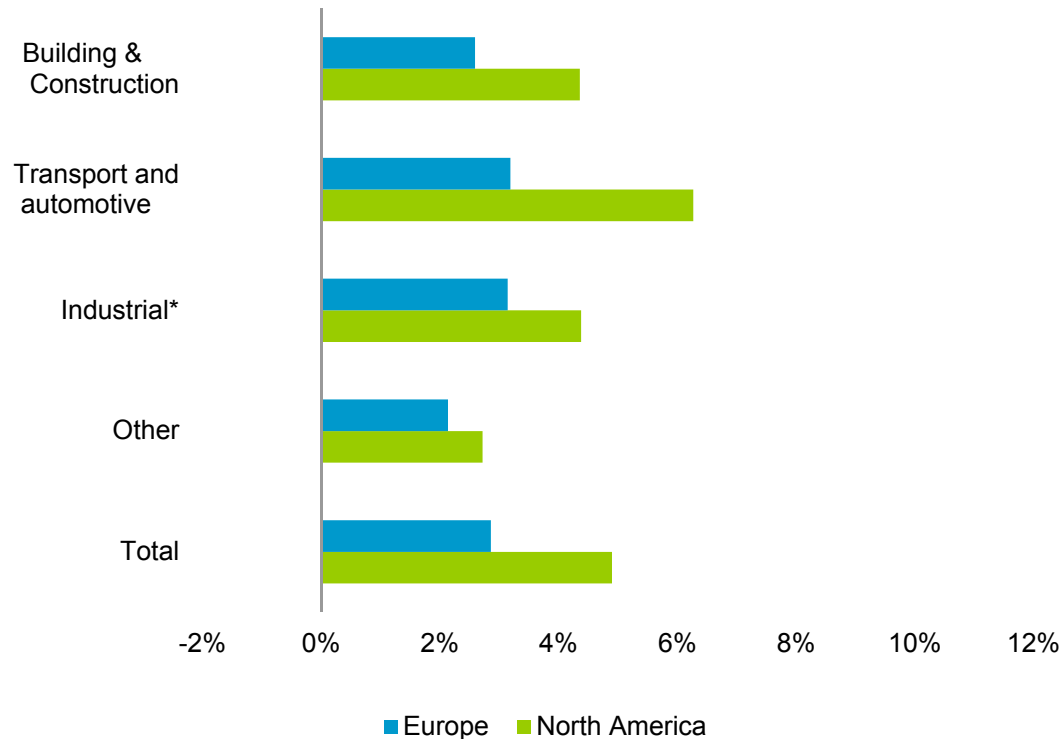


- High price volatility following uncertainty on alumina availability on Rusal sanctions and Alunorte curtailment
- Moderating alumina prices following extended Rusal wind-down period
- Limited alumina capacity available for restarts outside China
- Alumina exports from China during Q2 on price arbitrage, despite challenging logistics
- Hydro active in 3rd party market sourcing alumina, primary plants mostly covered through 2018

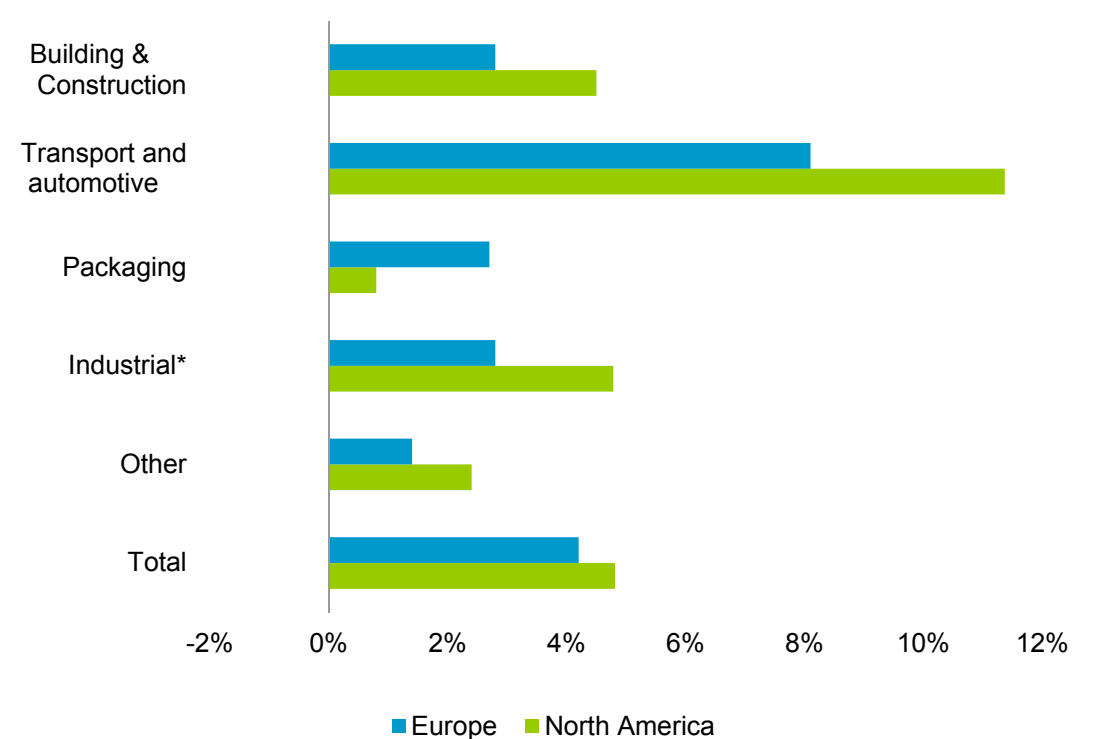
Source: Platts, Bloomberg, CRU, Metal Bulletin

# Solid demand growth expected in key downstream segments

Extrusions – estimated market growth 2018 vs 2017 (%)



Rolled products – estimated market growth 2018 vs 2017 (%)



Source: CRU / Hydro analysis

\* Industrial includes consumer durables, electrical and machinery  
Europe excluding Russia/Turkey

# Imposed trade tariffs and sanctions increase market uncertainty

## Section 232

- US administration imposed tariffs of 10 percent on aluminium imports to the US
  - For EU, Canada and other preliminary exempted countries, the tariff was effective June 1<sup>st</sup>
  - Permanent exemptions only for Argentina (accepted quota) and Australia
- Strong premium in US reflecting tariff increase, long term market effects uncertain
- Hydro expects limited financial and operational impact short-term

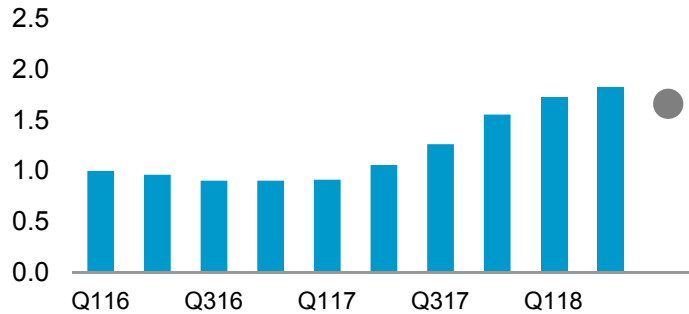
## US sanctions impacting Rusal

- US Department of the Treasury's Office of Foreign Assets Control has issued a sanctions list, which includes Rusal
  - US persons/entities prohibited from transacting with Rusal
  - Non-US persons/entities could face exposure if engaging in "significant transaction" with Rusal
  - Wind down period for doing business with Rusal for both US as well as non-US entities, was extended on April 23 to October 23
- Alumina and metal flows have to a large extent resumed, but there is still uncertainty how the sanctions may be resolved
- Multiple business relations with Rusal throughout value chain - initiating mitigating actions to address the situation
- Hydro does not expect any significant negative short-term impact on its operational and financial performance.

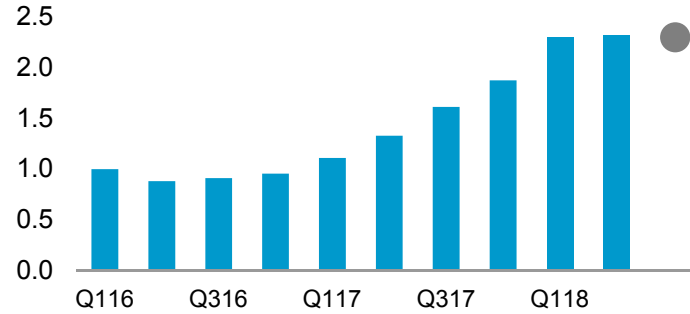


# Continued cost increase for the aluminium industry

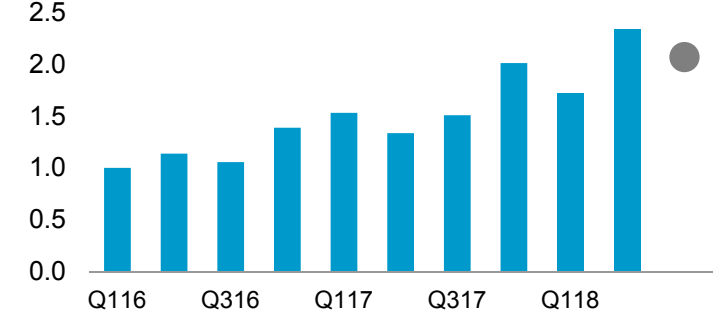
Petroleum coke FOB USG (indexed)



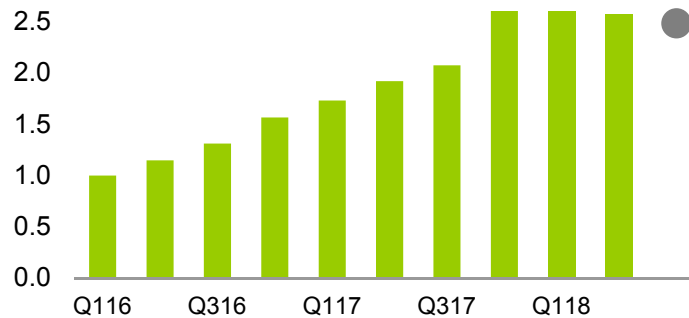
Pitch FOB USG (indexed)



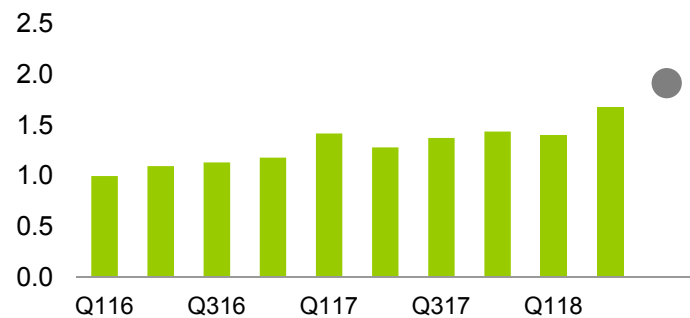
Alumina PAX index (indexed)



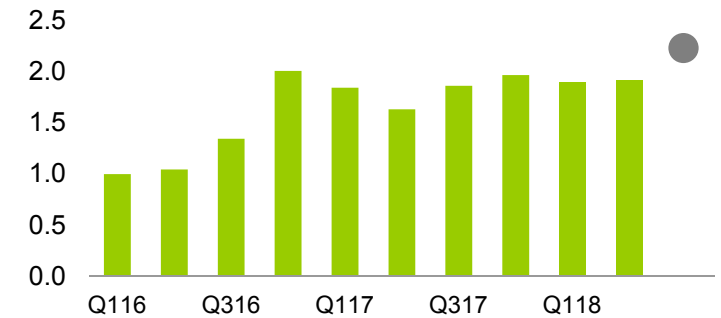
Caustic soda (indexed)



Fuel oil A1 (Indexed)



Steam coal (indexed)



Source: Thomson Reuters, PACE, IHS Markit, Platts, ANP, CRU

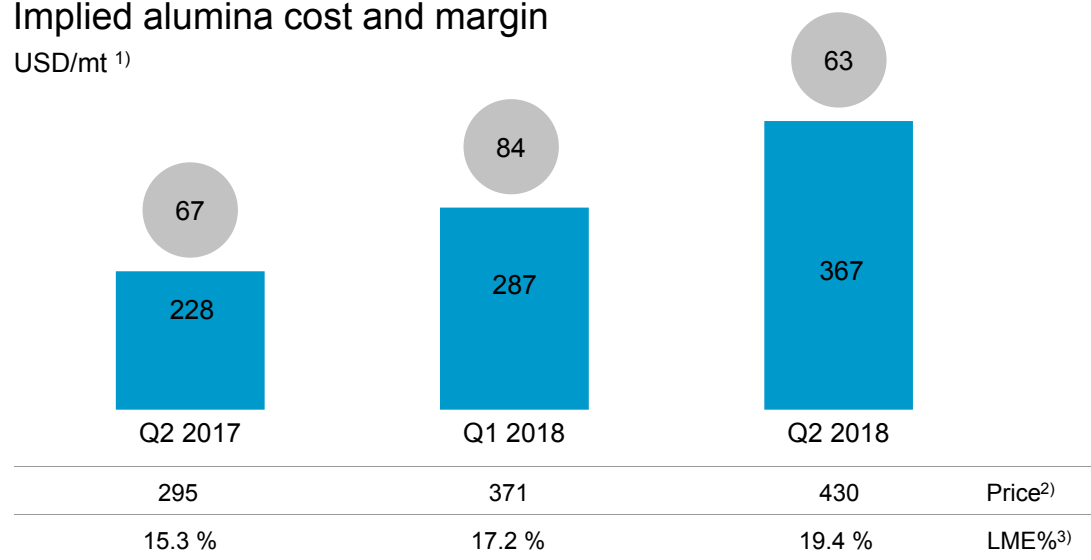
● Indication of current market prices

# Rising upstream costs on raw material costs and reduced production

Additional costs in Bauxite & Alumina following Alunorte production cut

## Implied alumina cost and margin

USD/mt <sup>1)</sup>

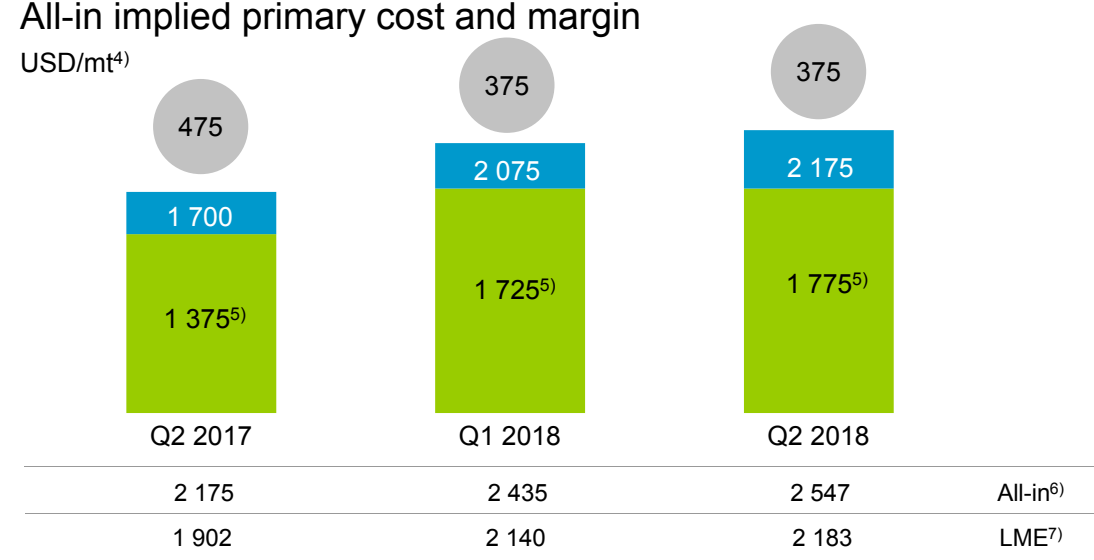


- Implied alumina cost in Q2 affected by:
  - Increased external alumina sourcing costs
  - Increased raw material prices
  - Fixed cost inefficiencies

■ Implied EBITDA cost per mt    ● EBITDA margin per mt

## All-in implied primary cost and margin

USD/mt<sup>4)</sup>



- Implied primary cost in Q2 affected by increased raw material costs:
  - Alumina
  - Power
  - Carbon

■ 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

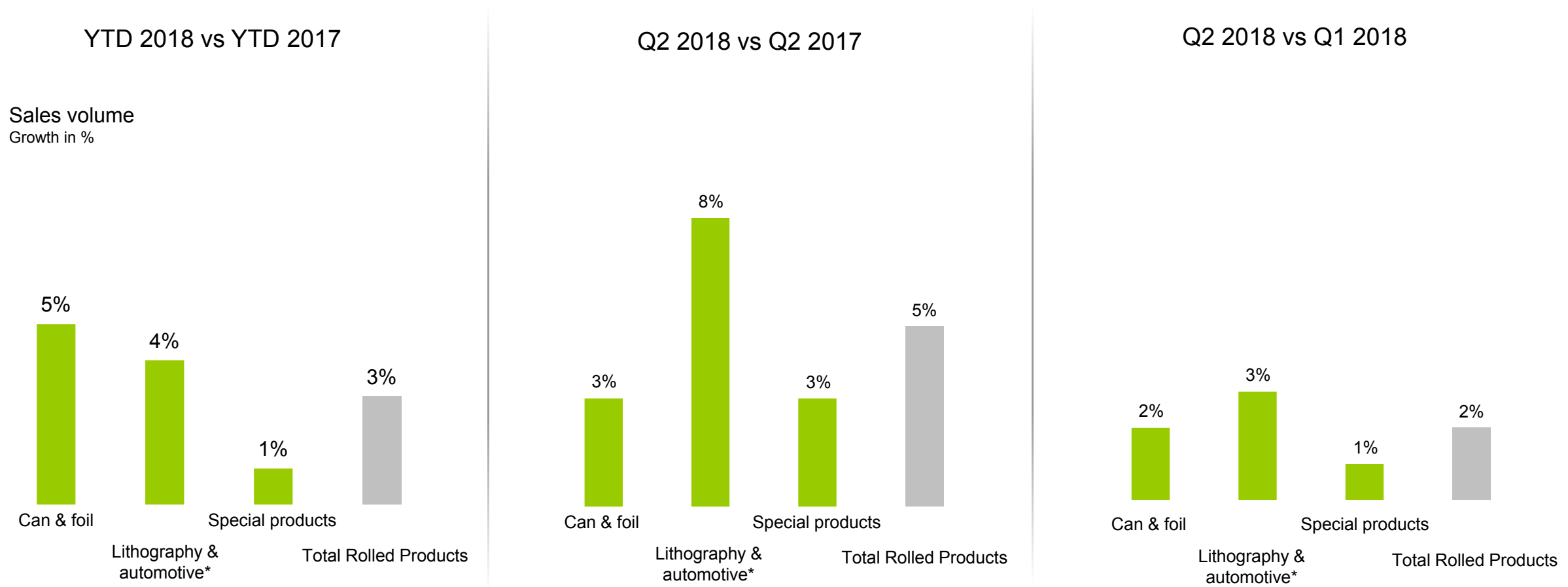
5) Realized LME aluminium price less underlying EBITDA margin, incl Qatalum, per mt primary aluminium produced

6) Realized LME plus realized premiums, including Qatalum

7) Realized LME, including Qatalum

# Rolled Products: Increased sales volumes YTD 2018 vs YTD 2017

Mainly driven by automotive and can



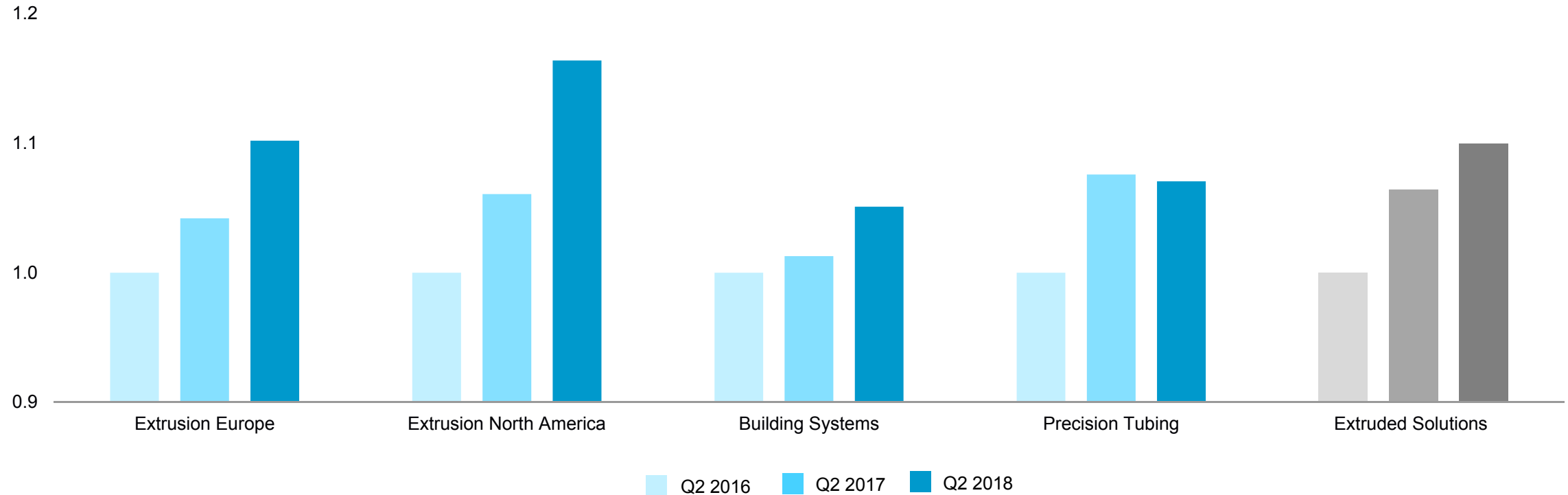
\* Include Body-in-White sales growth of 27% YTD 2018 vs YTD 2017, 33% Q2 2018 vs Q2 2017, 17% Q2 2018 vs Q1 2018



# Extruded Solutions: Continued improvements in net added value

Net added value\* per kg

(NOK\*\*, indexed to Q1 2016)



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

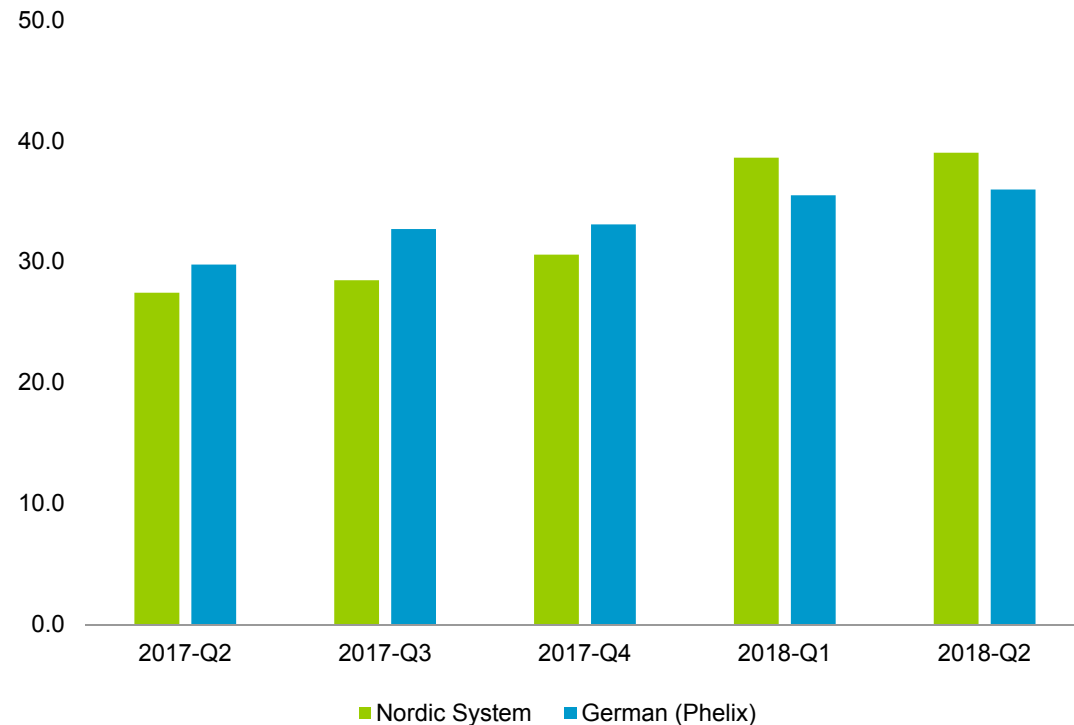
\*\* Translated to NOK based on Q2 2018 currency rates

# Rising power prices on increasing fuel prices and dry weather

Negative hydrological balance lifts Nordic prices above German

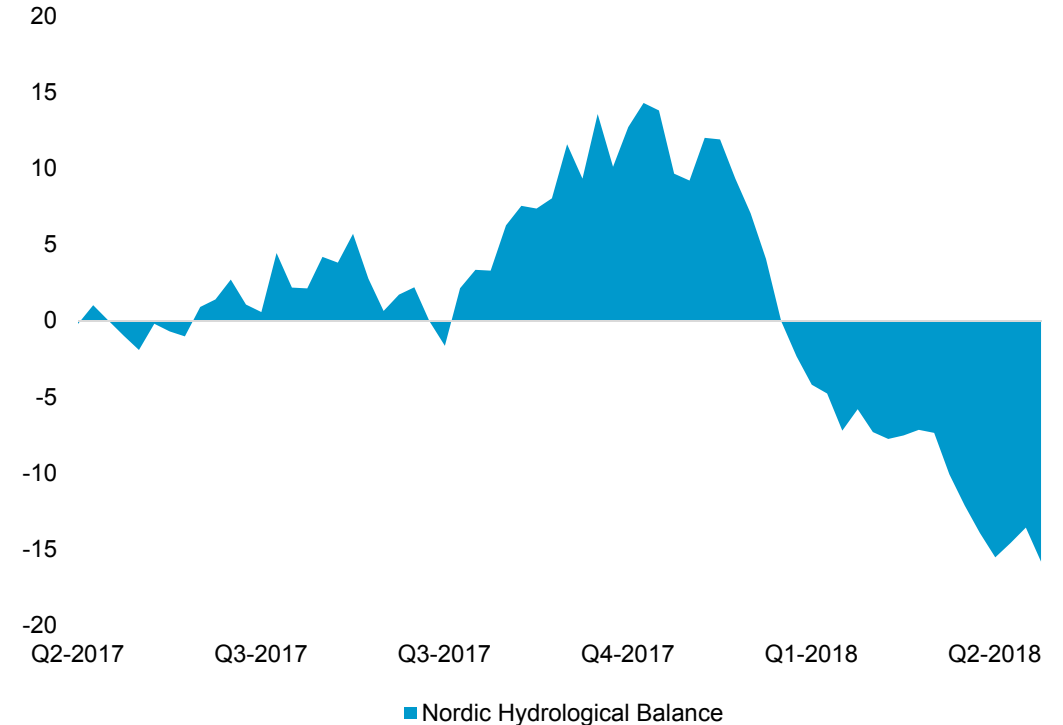
## Nordic System & German power prices

EUR/MWh



## Nordic Hydrological Balance

TWh +/- normal




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.

# Securing long-term competitive power sourcing for smelter portfolio

Wind power good fit with flexible Nordic hydropower

- ~8 TWh/year hydro and wind power contracts signed to source aluminium production in Norway beyond 2021
- ~4.5 TWh/year wind power contracts signed from 2021 and onwards
  - Utilizing wind power to strengthen Hydro's renewables base in Norway
  - Wind power costs has fallen in the Nordics, mainly on technology development and low interest rates
- Wind power supply will be optimized as part of the integrated power portfolio



- 
- A photograph of a large industrial facility, likely an aluminum smelter, with a prominent green steel structure. In the foreground, a worker in a high-visibility yellow and black uniform and a hard hat is walking away from the camera. In the background, other workers in similar gear are visible, and a large orange overhead crane spans the width of the facility. The floor is a light-colored concrete.
- Karmøy Technology Pilot at full production, producing the world's most climate and energy-efficient aluminium
  - Spin-off effects for the existing smelter portfolio



Eivind Kallevik

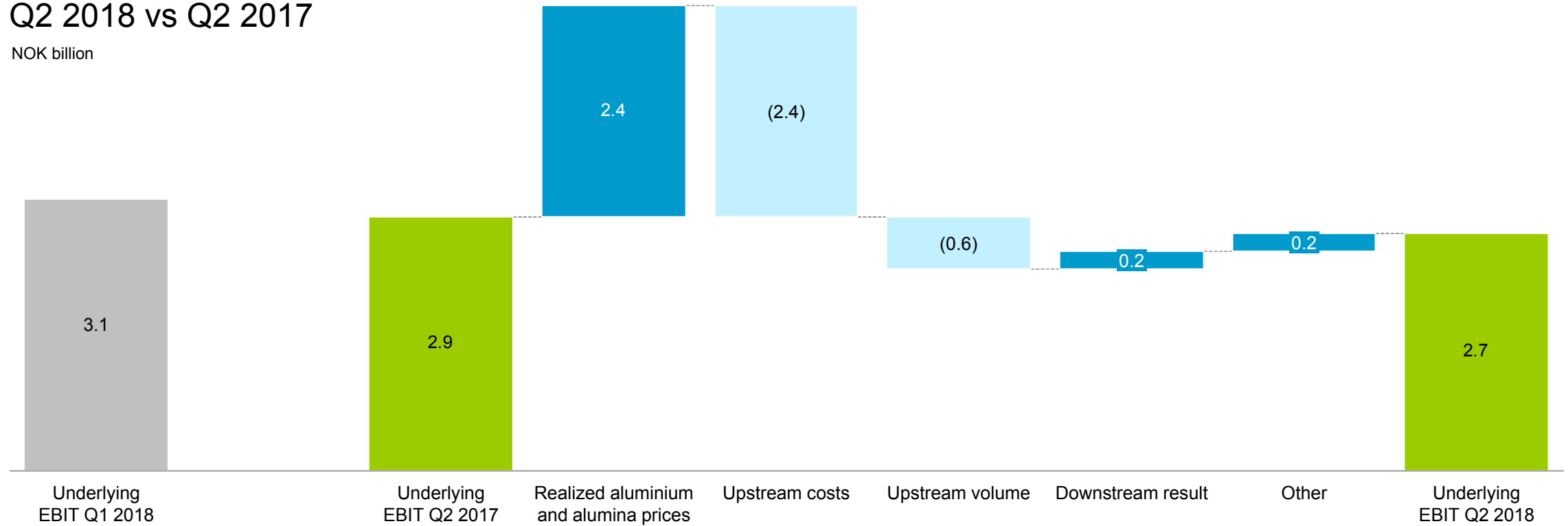


Executive Vice  
President and CFO

# Results down on volumes and costs, higher realized prices

## Q2 2018 vs Q2 2017

NOK billion



# Key financials

Underlying EPS of 1.02 NOK/share

NOK million	Q2 2018	Q2 2017	Q1 2018	First half 2018	First half 2017
Revenue	41 254	24 591	39 971	81 225	47 617
<b>Underlying EBIT</b>	<b>2 713</b>	<b>2 930</b>	<b>3 147</b>	<b>5 859</b>	<b>5 214</b>
Items excluded from underlying EBIT	(274)	(16)	(155)	(428)	(141)
<b>Reported EBIT</b>	<b>2 986</b>	<b>2 946</b>	<b>3 301</b>	<b>6 287</b>	<b>5 356</b>
Financial income (expense)	(441)	(959)	(475)	(916)	(823)
<b>Income (loss) before tax</b>	<b>2 545</b>	<b>1 987</b>	<b>2 826</b>	<b>5 371</b>	<b>4 533</b>
Income taxes	(473)	(424)	(749)	(1 222)	(1 132)
<b>Net income (loss)</b>	<b>2 073</b>	<b>1 562</b>	<b>2 076</b>	<b>4 149</b>	<b>3 401</b>
<b>Underlying net income (loss)</b>	<b>2 096</b>	<b>2 214</b>	<b>2 201</b>	<b>4 298</b>	<b>3 795</b>
Reported EPS, NOK	1.03	0.73	1.02	2.05	1.59
Underlying EPS, NOK	1.02	1.04	1.06	2.07	1.79

# Items excluded from underlying EBIT

Excluded MNOK ~270 in timing effects from underlying EBIT

NOK million	Q2 2018	Q2 2017	Q1 2018	First half 2018	First half 2017
<b>Underlying EBIT</b>	<b>2 713</b>	<b>2 930</b>	<b>3 147</b>	<b>5 859</b>	<b>5 214</b>
Unrealized derivative effects on LME related contracts	306	(92)	114	419	(110)
Unrealized effects on power and raw material contracts	(92)	25	87	(5)	(148)
Metal effect, Rolled Products	60	138	(47)	14	424
Items excluded in equity accounted investments (Sapa)	-	(56)	-	-	(25)
<b>Reported EBIT</b>	<b>2 986</b>	<b>2 946</b>	<b>3 301</b>	<b>6 287</b>	<b>5 356</b>



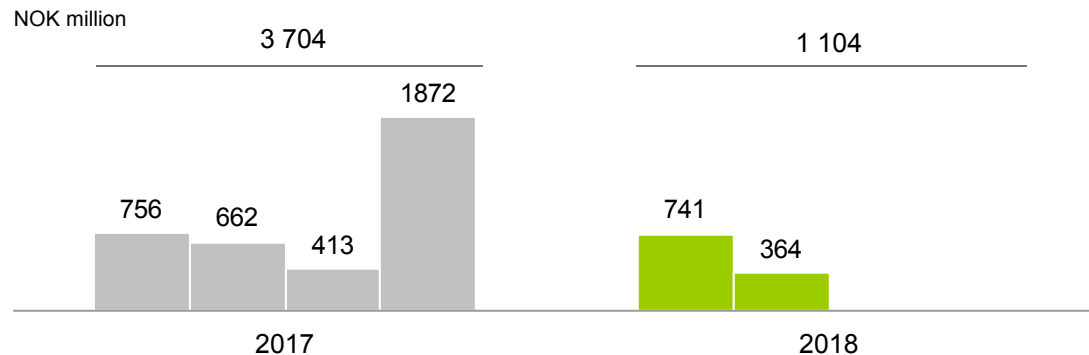
# Bauxite & Alumina

Increased raw material costs and reduced output, partly offset by higher alumina prices

Key figures	Q2 2018	Q2 2017	Q1 2018
Alumina production, kmt	829	1 576	1 277
Total alumina sales, kmt	1 842	2 196	2 071
Realized alumina price, USD/mt	430	295	371
Implied alumina cost, USD/mt	367	228	287
Bauxite production, kmt	1 348	2 943	2 326
Underlying EBITDA, NOK million	937	1 248	1 370
Underlying EBIT, NOK million	364	662	741



## Underlying EBIT



## Results Q2 18 vs Q2 17

- Results negatively impacted by production restrictions at Alunorte and Paragominas
- Higher raw material costs
- Higher realized alumina prices

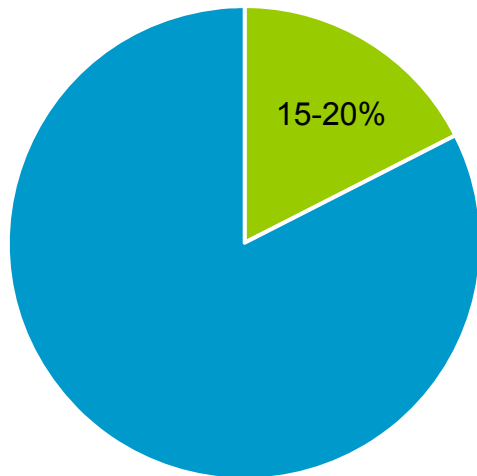
## Outlook Q3 18

- Alunorte and Paragominas production 50% curtailed
- Increased raw material costs

# Impact on cost due to Alunorte and Paragominas 50% curtailed

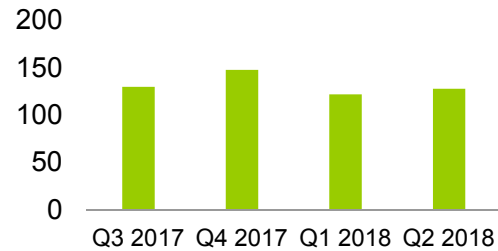
## Alunorte

Alunorte cost split

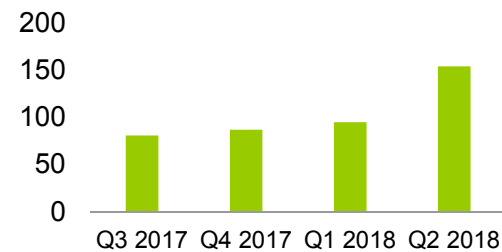


- Fixed costs
- Variable costs

Fixed cost in BRL

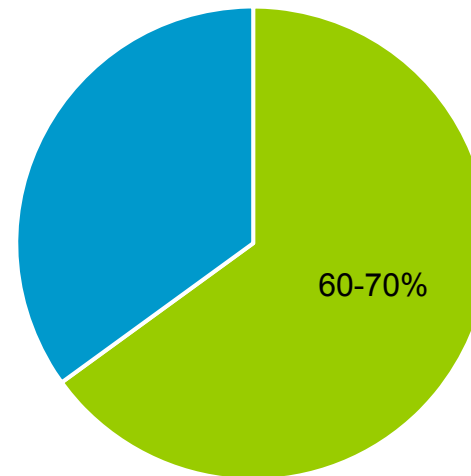


Fixed cost per mt in BRL



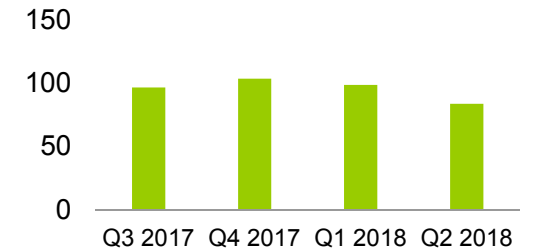
## Paragominas

Paragominas cost split

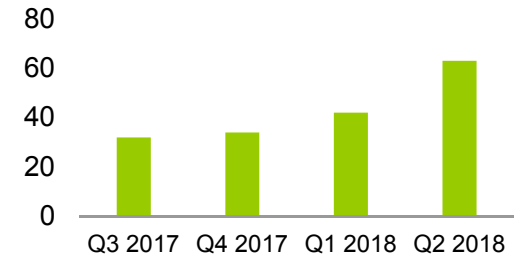


- Fixed costs
- Variable costs

Fixed cost in BRL



Fixed cost per mt in BRL



# Primary Metal

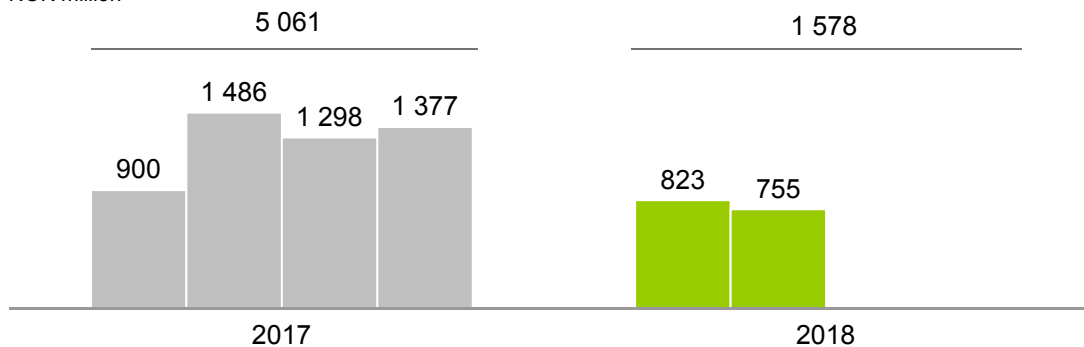
Results down on increased costs, partly offset by increased realized aluminum prices

Key figures	Q2 2018	Q2 2017	Q1 2018
Primary aluminium production, kmt	492	523	514
Total sales, kmt	549	579	578
Realized LME price, USD/mt	2 183	1 902	2 140
Realized LME price, NOK/mt	17 292	16 265	16 929
Realized premium, USD/mt	364	273	295
Implied all-in primary cost, USD/mt *	2 175	1 700	2 075
Underlying EBITDA, NOK million	1 309	1 991	1 349
Underlying EBIT, NOK million	755	1 486	823



## Underlying EBIT

NOK million



## Results Q2 18 vs Q2 17

- Higher realized aluminium prices
- Increased alumina, energy, carbon and fixed costs
- Negative impact from strengthening NOK vs USD
- Reduced volumes on Albras curtailment

## Outlook Q3 18

- ~ 60% of primary production for Q3 priced at USD ~2 275 per mt\*\*
- ~ 65% of premiums affecting Q2 booked at USD ~410 per mt\*\*
  - Q3 realized premium expected in the range of 350-400 USD/mt
- Alumina costs realized with a 2-3 months lag
- Albras curtailed 50%

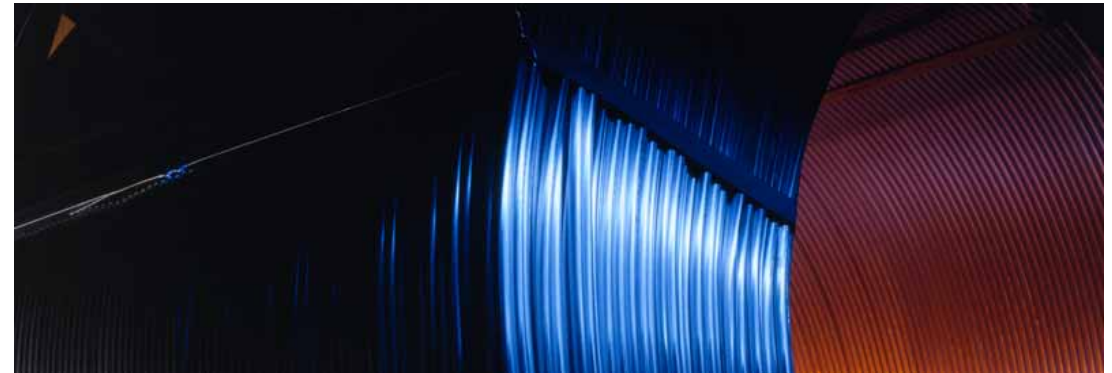
\* Realized all-in aluminium price minus underlying EBITDA margin, including Qatalum, per mt aluminium sold.

\*\* Including Qatalum volumes

# Metal Markets

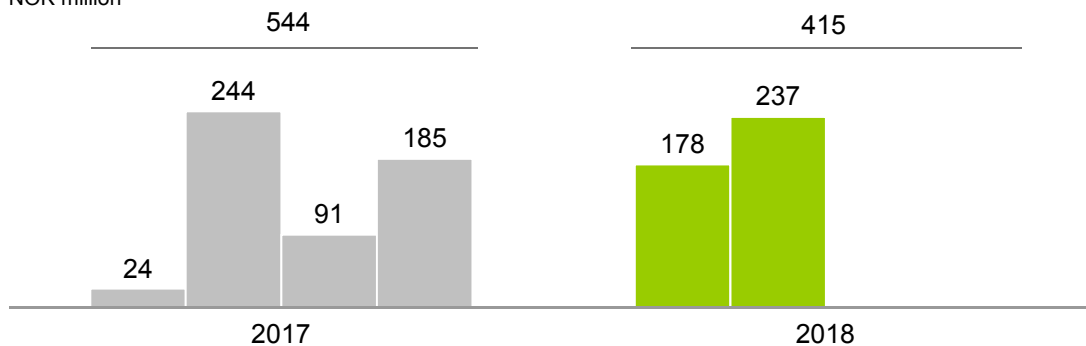
Increased results from remelters and commercial activities

Key figures	Q2 2018	Q2 2017	Q1 2018
Remelt production, kmt	153	152	150
Metal products sales, kmt*	746	759	745
Underlying EBITDA, NOK million	262	268	201
Underlying EBIT excl currency and inventory valuation effects, NOK million	224	152	139
Underlying EBIT, NOK million	237	244	178



## Underlying EBIT

NOK million



## Results Q2 18 vs Q2 17

- Increased sales volumes and margins from remelters
- Higher results from sourcing and trading activities
- NOK 14 million positive currency and inventory valuation effects vs positive NOK 92 million in Q2 17

## Outlook Q3 18

- Volatile trading and currency effects

\* Includes external and internal sales from primary casthouse operations, remelters and third-party metal sources.

# Rolled Products

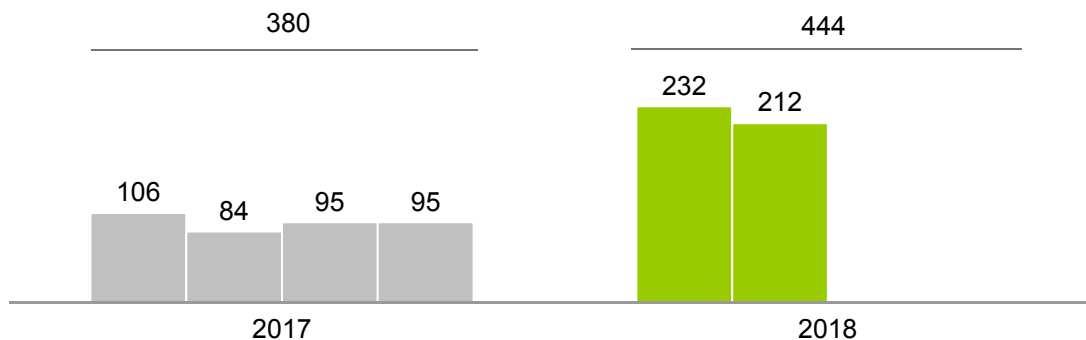
Higher margins and sales volumes, improved Neuss result

Key figures	Q2 2018	Q2 2017	Q1 2018
External sales volumes, kmt	251	239	245
Underlying EBITDA, NOK million	438	297	456
Underlying EBIT, NOK million	212	84	232



## Underlying EBIT

NOK million



## Results Q2 18 vs Q2 17

- Improved operational performance leading to improved volumes and margins
- Improved Neuss result on aluminium prices and improved power contract, partly offset by raw material prices

## Outlook Q3 18

- Positive market conditions to continue into Q3
- Neuss results driven by all-in metal and raw material price development

# Extruded Solutions

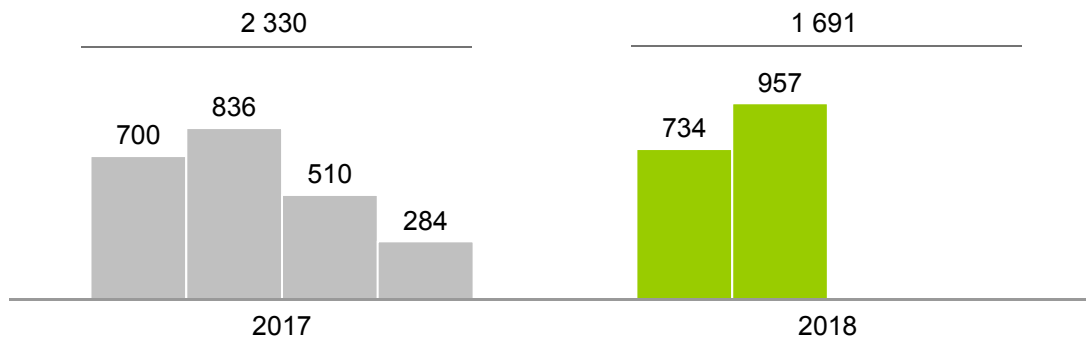
Results up on improved volumes and margins

Key figures	Q2 2018	Q2 2017	Q1 2018
External sales volumes, kmt	373	359	362
Underlying EBITDA, NOK million	1 383	1 252	1 155
Underlying EBIT, NOK million	957	836	734



## Underlying EBIT\*

NOK million



## Results Q2 18 vs Q2 17

- Improved margins
- Increased sales volumes
- Positive impact from increasing Midwest premium
- Depreciation in Extruded Solutions up ~MNOK 300 per year compared to “old Sapa” due to transactional effects, mainly excess value depreciation

## Outlook Q3 18

- Positive market conditions to continue into Q3

\* Pro-forma figures for Q1-Q3 2017

# Energy

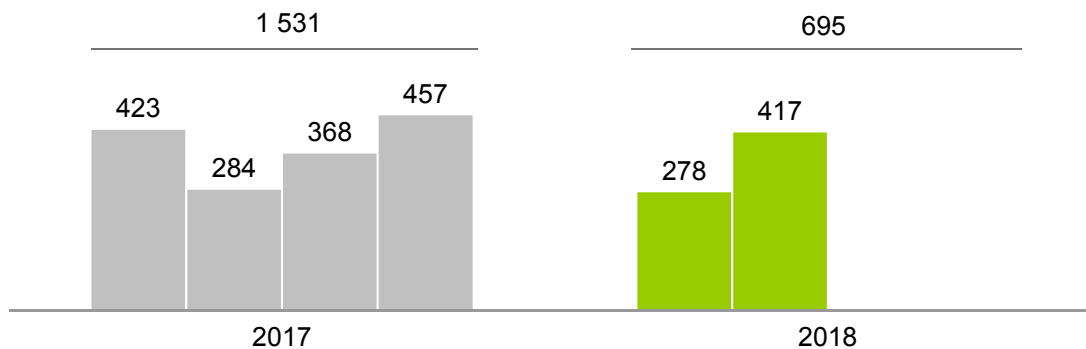
Results up on higher power production and prices

Key figures	Q2 2018	Q2 2017	Q1 2018
Power production, GWh	2 550	2 369	2 433
Net spot sales, GWh	961	996	763
Southwest Norway spot price (NO2), NOK/MWh	369	252	361
Underlying EBITDA, NOK million	479	337	339
Underlying EBIT, NOK million	417	284	278



## Underlying EBIT

NOK million



## Results Q2 18 vs Q2 17

- Significantly higher power prices
- Higher power production
- Improved commercial results
- Negative effects from repricing of internal power contract with Rolled Products

## Outlook Q3 18

- Price and volume uncertainty

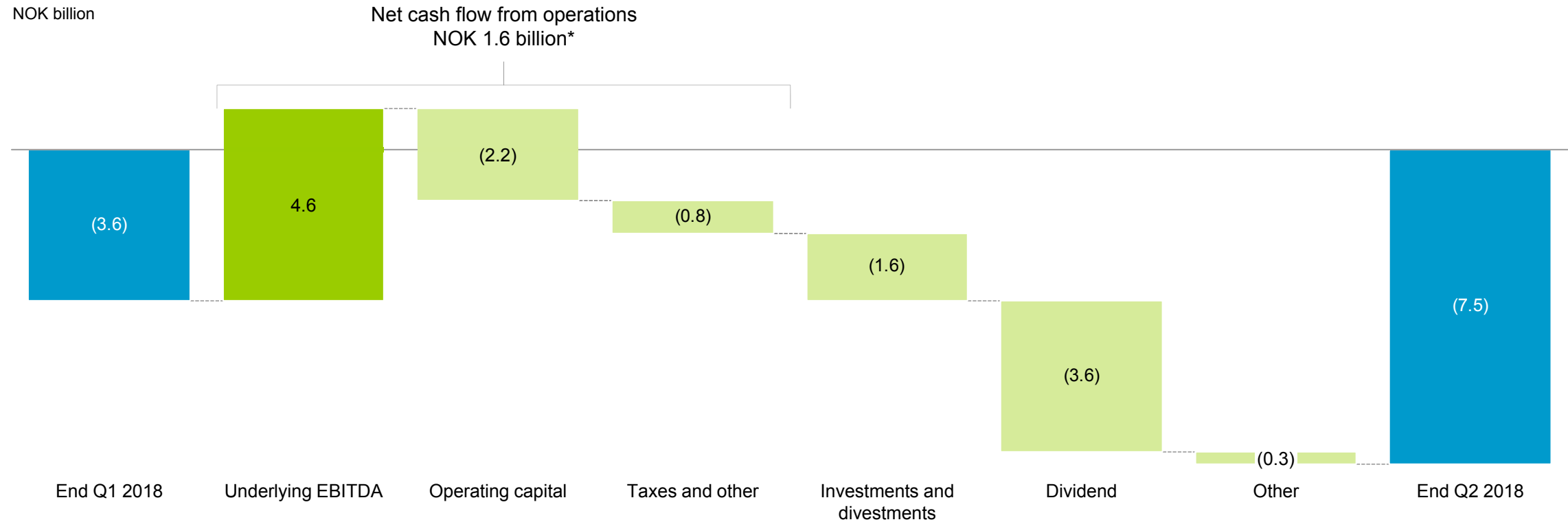
# Other and Eliminations



Other and Eliminations, Underlying EBIT, NOK million	Q2 2018	Q2 2017	Q1 2018
Sapa JV		329	
Other	(156)	(71)	(207)
Eliminations	(74)	(88)	368
<b>Other and Eliminations</b>	<b>(229)</b>	<b>170</b>	<b>161</b>



# Net debt development Q2 2018



\* Net cash provided by operating activities from cash flow statement, less change in restricted cash of ~(-0.1) BNOK

# Adjusted net debt up in Q2

NOK billion	Jun 30 2018	Mar 31 2018	Dec 31 2017
Cash and cash equivalents	5.7	9.4	11.8
Short-term investments	1.1	1.0	1.3
Short-term debt	(5.0)	(5.3)	(8.2)
Long-term debt	(9.4)	(8.7)	(9.0)
<b>Net cash/(debt)</b>	<b>(7.5)</b>	<b>(3.6)</b>	<b>(4.1)</b>
Net pension liability at fair value, net of expected tax benefit	(7.0)	(7.5)	(7.9)
Other adjustments <sup>1)</sup>	(5.7)	(5.8)	(6.0)
<b>Adjusted net debt ex. EAI</b>	<b>(20.2)</b>	<b>(16.9)</b>	<b>(18.0)</b>
Net debt in EAI	(5.7)	(5.7)	(5.8)
<b>Adjusted net debt incl. EAI</b>	<b>(25.9)</b>	<b>(22.6)</b>	<b>(23.8)</b>



1) Operating lease commitments and other obligations



## 2018 priorities

- Safety first
- Resuming production at Alunorte, Paragominas and Albras
- Value-creating integration
- Project execution



Additional  
information

# Prudent financial framework

Managing industry cyclicality, driving long-term shareholder value

## Lifting cash flow potential

Improving efficiency, strengthening margins

Improvement efforts

- 5.9 BNOK 2009-2016
- 0.4 BNOK 2017
- 1.2 BNOK 2018-2019E <sup>1)</sup>

Managing working capital

## Financial strength and flexibility

Investment grade credit rating

Financial ratio targets over the cycle

- FFO/aND <sup>2)</sup> > 40%
- aND/E <sup>3)</sup> < 55%

Strong liquidity

## Disciplined capital allocation

Long-term sustaining capex below depreciation

- 5.5 – 6.0 BNOK per year

Total capex incl. growth

- 2017 BNOK 7.9<sup>4)</sup>

Selective value-add growth

Attractive organic growth prospects and M&A optionality

## Reliable shareholder remuneration policy

Sector competitive TSR

1.75 NOK/share dividend for 2017

Dividend policy

- 40% payout ratio of Net income over the cycle
- Dividend 1.25 NOK/share to be considered as floor

Special dividends and share buybacks in the toolbox

## Effective risk management

Volatility mitigated by strong balance sheet and relative positioning

Hedging policy

- Operational LME and currency hedging
- Limited financial hedging

Diversified business

1) Real 2015 terms

2) Funds from operations / adjusted net debt

3) Adjusted net debt / Equity

4) With Karmøy Technology Pilot net investment, after ENOVA support and including Extruded Solution for the full year

# Hydro's aspiration underpinned by firm financial targets

Medium and long-term

	Ambition	Timeframe	Q4 2017 status
<i>Better</i> improvement ambition	3.0 BNOK	2016-2019	1.8 BNOK 2017
Long-term sustaining capex	~ 5.5 - 6.0 BNOK	Over the cycle	5.7 BNOK 2017
Dividend payout ratio	40% of net income	Over the cycle	~70% <sup>1)</sup> 2013-2017
FFO/adjusted net debt <sup>2)</sup>	> 40%	Over the cycle	68% 2017 <sup>3)</sup>
Adjusted net debt/Equity	< 55%	Over the cycle	26% 2017
ROaCE	Competitive <sup>4)</sup>	Over the cycle	9.6% <sup>3,5)</sup> 2017

*Better Bigger Greener*

1) Payout ratio 5 year average – dividend per share divided by earnings per share from continuing operations for the last 5 years  
 2) FFO – funds from operations  
 3) Extruded Solutions reflected as 50% equity accounted investment Q1-Q3 2017 and fully consolidated in Q4 2017  
 4) Measured against a relevant peer group  
 5) Underlying return on average capital employed after tax (ROaCE)

# 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 communicated since Q4 2016
  - Share buybacks and extraordinary dividends as supplement in periods with strong financials and outlook
  - 2017 dividend 1.75 NOK/share, up from 1.25 NOK/share 2016
  - Five-year average ordinary pay-out ratio 2013-2017 of ~70%
- 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 5.7 billion in cash and cash equivalents, end-Q2 2018
  - USD 1.7 billion in multi-currency revolving credit facility maturing in 2020

# Hedging policy

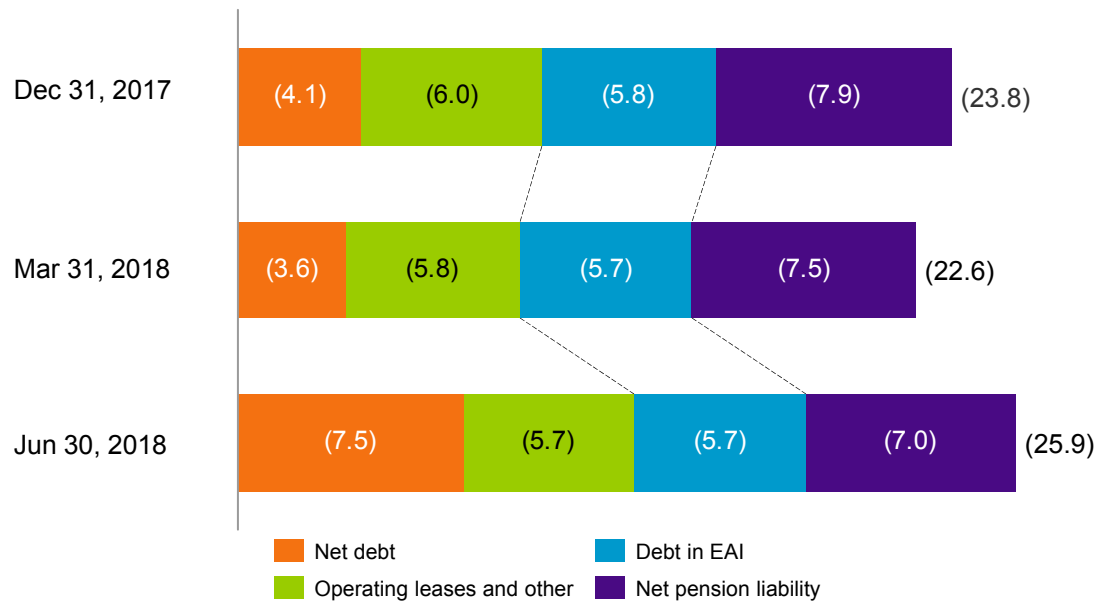
- Hedging strategy
  - Fluctuating with the market: primarily exposed to LME and USD
  - Volatility mitigated by strong balance sheet
  - Strengthening relative position to ensure competitiveness
- Diversified business
  - Upstream cyclicality balanced with more stable earnings downstream
  - Exposed 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

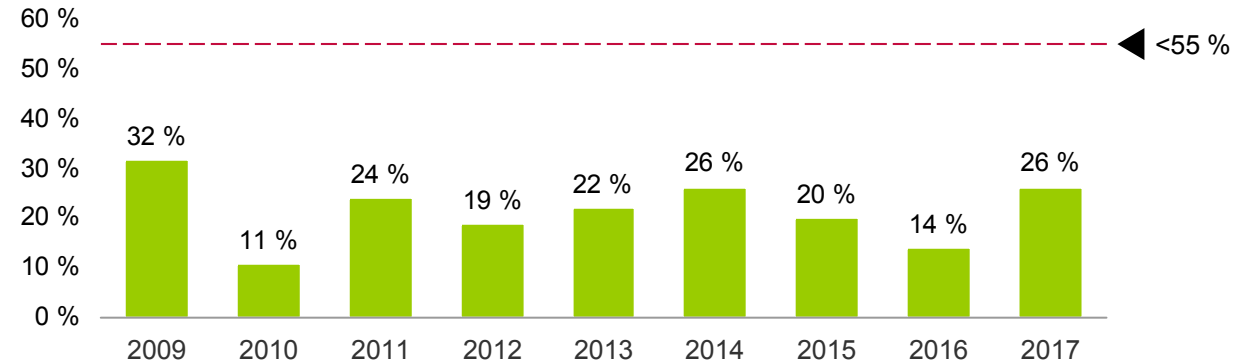
Funds from operations determine the balance sheet structure

## Adjusted net debt

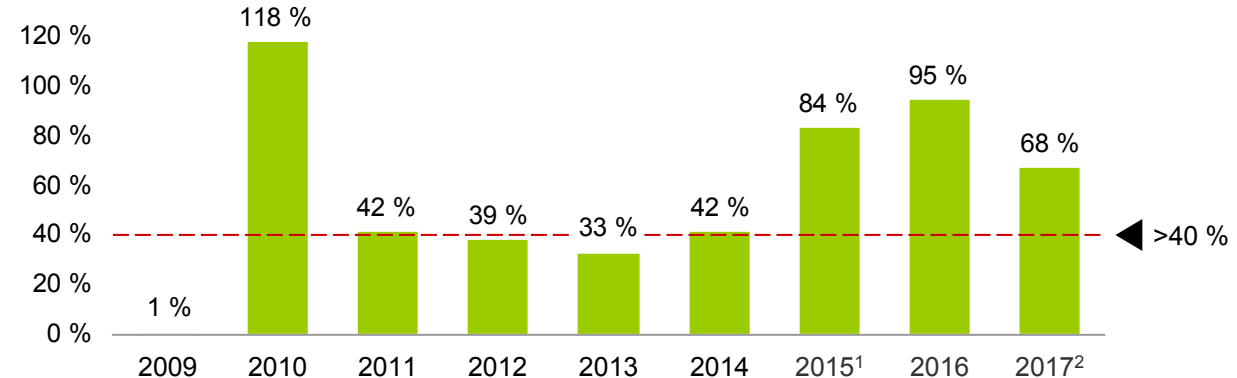
NOK billion



## Adjusted net debt / Equity



## Funds from operations / Adjusted net debt



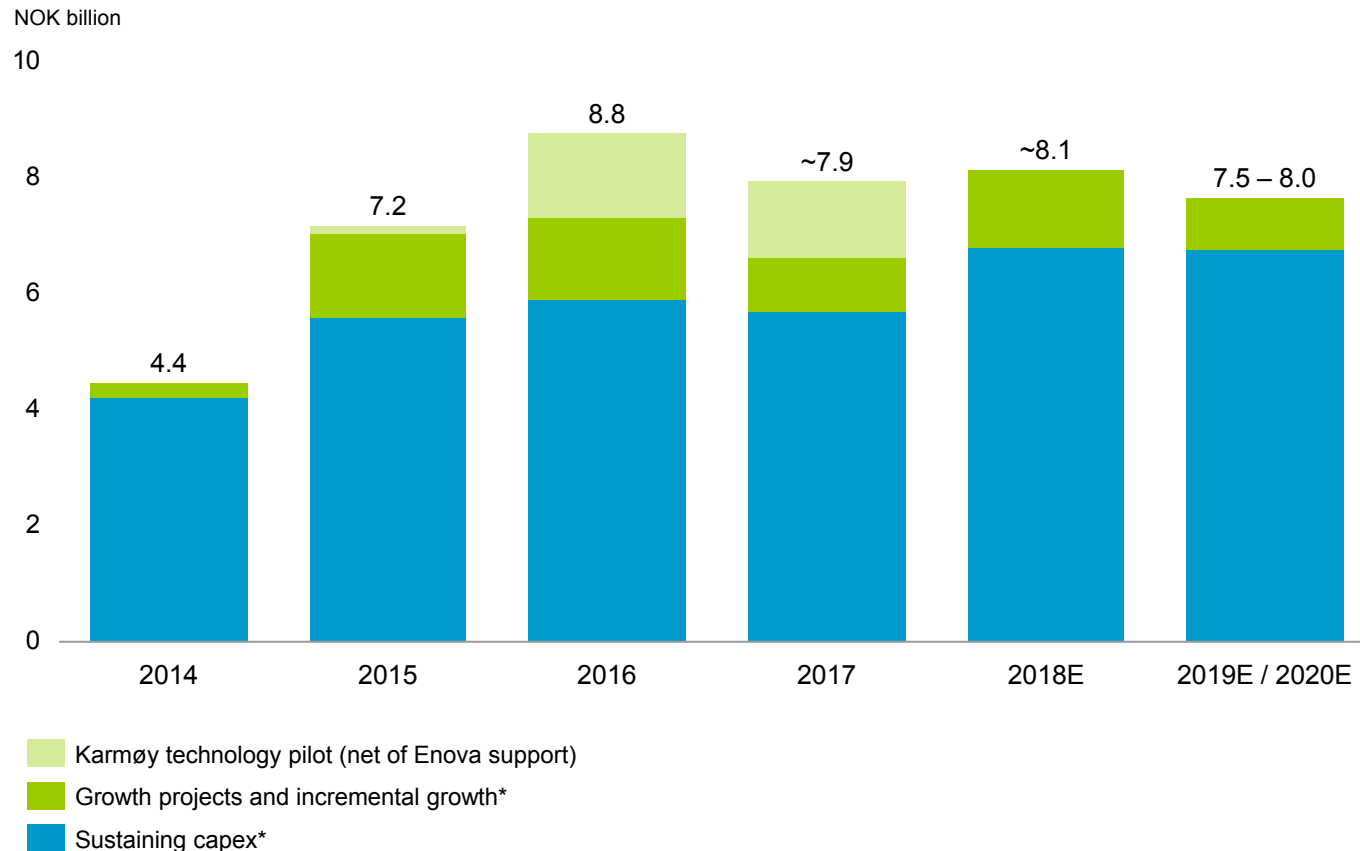
1) 2015 FFO/aND ratio has been restated due to change of definition

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



# Growth capex focused on high-grading, recycling and technology

Majority of sustaining capex allocated upstream



- Sustaining projects for 2018-2020:
  - Bauxite residue disposal area
  - Opening of new bauxite mining area
  - Pipeline replacement
  - Primary rectifiers and asset integrity Albras
  - Smelter relining
- Ongoing organic growth projects:
  - Productivity improvements across the portfolio
- Karmøy technology pilot 2015-2018:
  - Gross investment 4.3 BNOK
  - Of which Enova support 1.6 BNOK
  - Net investment 2.7 BNOK
- Capex related to specific growth projects will be announced when decision is made\*\*

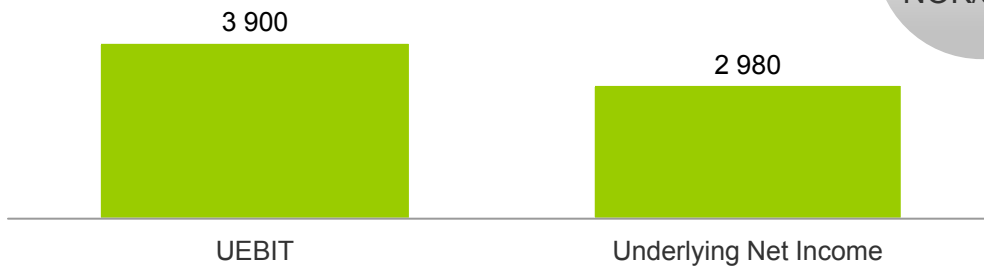
\* Includes Extruded Solutions

\*\* Capex estimates 2018-2020 does not include NOK 1.3 billion related to the announced Husnes restart, NOK ~2.7 billion Isal acquisition and NOK 0.5 billion upgrade of Alunorte water treatment plant

# Significant exposure to commodity and currency fluctuations

## Aluminium price sensitivity +10%

NOK million



## Currency sensitivities +10%

*Sustainable effect:*

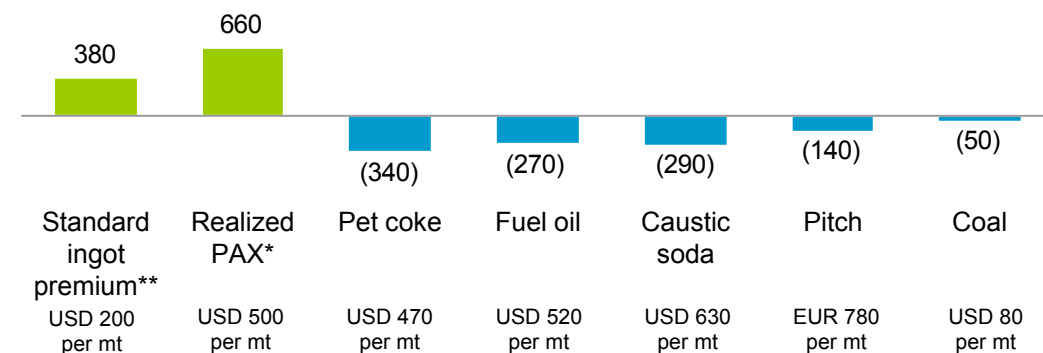
NOK million	USD	BRL	EUR
UEBIT	3 940	(1 060)	(250)

*One-off reevaluation effect:*

Financial items	(40)	600	(2 390)
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## Other commodity prices, sensitivity +10%\*

NOK million



- Annual sensitivities based on normal annual business volumes, LME USD 2 180 per mt, fuel oil USD 520 per mt, petroleum coke USD 470 per mt, caustic soda USD 630 per mt, coal USD 80 per mt, USD/NOK 7.90, BRL/NOK 2.20, EUR/NOK 9.60
- 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

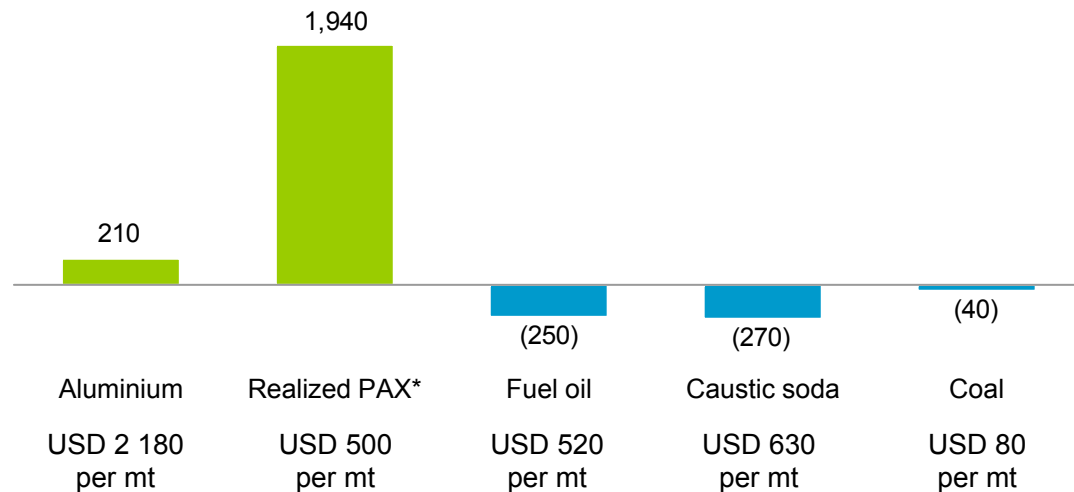
\* 2018 Platts alumina index exposure

\*\* 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	1 630	(720)	-

## Revenue impact

- ~14% of 3-month LME price per tonne alumina
  - ~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*

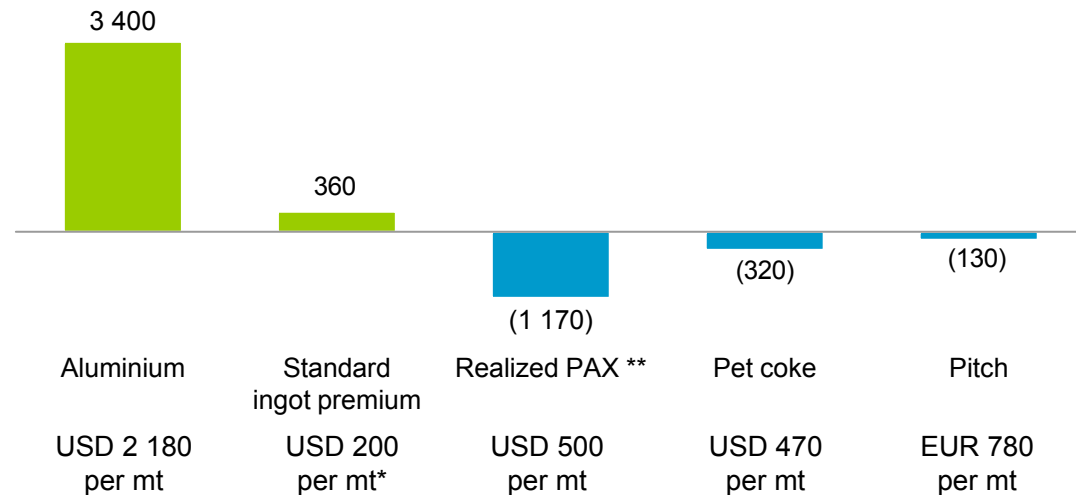
- ~0.12 tonnes coal per tonne alumina, Platts prices, one year volume contracts, weekly per shipment pricing
- ~0.11 tonnes heavy fuel oil per tonne alumina, prices set by ANP/Petrobras in Brazil, weekly pricing (ANP) or anytime (Petrobras)
- Increased use of coal as energy source in Alunorte

\* 2018 Platts alumina index exposure  
 Currency rates used: USD/NOK 7.90, BRL/NOK 2.20, EUR/NOK 9.60

# Primary Metal sensitivities

## Annual sensitivities on underlying EBIT if +10% in price

NOK million



## Currency sensitivities +10%

NOK million	USD	BRL	EUR
UEBIT	1 900	(260)	(260)

## 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

\* Europe duty paid

\*\*2018 Platts alumina index exposure

Currency rates used: USD/NOK 7.90, BRL/NOK 2.20, EUR/NOK 9.60

# Items excluded from underlying results - 2018

NOK million (+=loss/(-)=gain)		Q2 2018	Q1 2018
<b>Total impact</b>	<b>Bauxite &amp; alumina</b>	-	-
Unrealized derivative effects on LME related contracts	Primary metal	(41)	(114)
Unrealized effects on power contracts	Primary metal	20	20
Significant rationalization charges and closure costs	Primary metal	-	-
<b>Total impact</b>	<b>Primary metal</b>	<b>(21)</b>	<b>(94)</b>
Unrealized derivative effects on LME related contracts	Metal markets	(32)	(128)
<b>Total impact</b>	<b>Metal markets</b>	<b>(32)</b>	<b>(128)</b>
Unrealized derivative effects on LME related contracts	Rolled products	(82)	108
Metal effect	Rolled products	(60)	47
(Gains)/losses on divestments	Rolled products	-	-
<b>Total impact</b>	<b>Rolled products</b>	<b>(142)</b>	<b>154</b>
Unrealized derivative effects on LME related contracts	Extruded Solutions	(151)	47
<b>Total impact</b>	<b>Extruded Solutions</b>	<b>(151)</b>	<b>47</b>
<b>Total impact</b>	<b>Energy</b>	-	-
Unrealized derivative effects on power contracts	Other and eliminations	72	(107)
Unrealized derivative effects on LME related contracts	Other and eliminations	1	(26)
Impairment charges	Other and eliminations	-	-
(Gains)/losses on divestments	Other and eliminations	-	-
Other effects	Other and eliminations	-	-
<b>Total impact</b>	<b>Other and eliminations</b>	<b>73</b>	<b>(134)</b>
<b>Items excluded from underlying EBIT</b>	<b>Hydro</b>	<b>(274)</b>	<b>(155)</b>
Net foreign exchange (gain)/loss	Hydro	306	333
<b>Items excluded from underlying income (loss) before tax</b>	<b>Hydro</b>	<b>32</b>	<b>178</b>
Calculated income tax effect	Hydro	(8)	(54)
Other adjustments to net income	Hydro	-	-
<b>Items excluded from underlying net income (loss)</b>	<b>Hydro</b>	<b>24</b>	<b>125</b>

# Operating segment information

## Underlying EBIT

NOK million	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Year 2016	Year 2017
Bauxite & Alumina	189	174	153	711	756	662	413	1 872	741	364	1 227	3 704
Primary Metal	318	702	637	601	900	1 486	1 298	1 377	823	755	2 258	5 061
Metal Markets	167	75	117	152	24	244	91	185	178	237	510	544
Rolled Products	248	242	211	6	106	84	95	95	232	212	708	380
Extruded Solutions	183	270	157	167	281	329	209	284	734	957	777	1 103
Energy	398	301	285	359	423	284	368	457	278	417	1 343	1 531
Other and Eliminations	(2)	(145)	(83)	(167)	(207)	(159)	(28)	(715)	161	(229)	(397)	(1 108)
<b>Total</b>	<b>1 501</b>	<b>1 618</b>	<b>1 477</b>	<b>1 829</b>	<b>2 284</b>	<b>2 930</b>	<b>2 446</b>	<b>3 555</b>	<b>3 147</b>	<b>2 713</b>	<b>6 425</b>	<b>11 215</b>

## Underlying EBITDA

NOK million	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Year 2016	Year 2017
Bauxite & Alumina	640	659	664	1 258	1 334	1 248	1 057	2 551	1 370	937	3 221	6 190
Primary Metal	792	1 186	1 125	1 068	1 392	1 991	1 795	1 900	1 349	1 309	4 172	7 078
Metal Markets	191	98	141	175	47	268	114	209	201	262	604	638
Rolled Products	446	432	407	222	307	297	312	325	456	438	1 507	1 240
Extruded Solutions	183	270	157	167	281	329	209	728	1 155	1 383	777	1 547
Energy	453	352	336	412	476	337	424	519	339	479	1 553	1 757
Other and Eliminations	12	(134)	(76)	(160)	(200)	(151)	(21)	(708)	169	(223)	(359)	(1 081)
<b>Total</b>	<b>2 716</b>	<b>2 862</b>	<b>2 753</b>	<b>3 143</b>	<b>3 637</b>	<b>4 319</b>	<b>3 889</b>	<b>5 524</b>	<b>5 038</b>	<b>4 586</b>	<b>11 474</b>	<b>17 369</b>

Extruded Solutions reflected as 50% equity accounted investment Q1 2016-Q3 2017 and fully consolidated in Q4 2017

# Operating segment information

## EBIT

NOK million	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Year 2016	Year 2017
Bauxite & Alumina	189	174	153	680	756	662	413	1 872	741	364	1 196	3 704
Primary Metal	408	668	591	619	797	1 538	1 282	1 112	917	776	2 285	4 729
Metal Markets	235	91	131	172	(13)	282	59	158	305	270	629	485
Rolled Products	179	428	255	91	450	84	(22)	-	78	353	953	512
Extruded Solutions	209	319	172	190	313	273	215	1 722	687	1 109	889	2 522
Energy	394	291	295	364	423	284	368	457	278	417	1 343	1 531
Other and Eliminations	79	8	(220)	(151)	(316)	(176)	7	(810)	295	(303)	(285)	(1 295)
<b>Total</b>	<b>1 693</b>	<b>1 978</b>	<b>1 376</b>	<b>1 964</b>	<b>2 410</b>	<b>2 946</b>	<b>2 323</b>	<b>4 511</b>	<b>3 301</b>	<b>2 986</b>	<b>7 011</b>	<b>12 189</b>

## EBITDA

NOK million	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Year 2016	Year 2017
Bauxite & Alumina	640	659	664	1 513	1 334	1 248	1 057	2 551	1 370	937	3 475	6 190
Primary Metal	882	1 152	1 079	1 086	1 289	2 043	1 779	1 635	1 443	1 330	4 199	6 747
Metal Markets	259	114	154	195	9	306	82	182	329	295	723	579
Rolled Products	376	618	451	307	651	296	196	230	302	580	1 752	1 372
Extruded Solutions	209	319	172	190	313	273	215	2 166	1 108	1 534	889	2 966
Energy	450	341	346	416	476	337	424	519	339	479	1 553	1 757
Other and Eliminations	92	19	(74)	(143)	(310)	(168)	13	(803)	302	(296)	(107)	(1 268)
<b>Total</b>	<b>2 908</b>	<b>3 222</b>	<b>2 792</b>	<b>3 563</b>	<b>3 762</b>	<b>4 335</b>	<b>3 766</b>	<b>6 481</b>	<b>5 193</b>	<b>4 860</b>	<b>12 485</b>	<b>18 344</b>

Extruded Solutions reflected as 50% equity accounted investment Q1 2016-Q3 2017 and fully consolidated in Q4 2017

# Operating segment information

## Total revenue

NOK million	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Year 2016	Year 2017
Bauxite & Alumina	4 212	4 572	4 925	5 834	5 911	5 858	5 612	8 040	6 309	6 877	19 543	25 421
Primary Metal	7 694	8 006	7 900	7 262	8 641	9 575	8 958	9 291	10 170	10 083	30 862	36 466
Metal Markets	11 248	11 239	10 649	10 117	12 149	13 604	11 862	12 991	13 898	14 205	43 254	50 606
Rolled Products	5 737	5 985	5 648	5 262	6 277	6 569	6 435	6 434	6 797	7 145	22 632	25 715
Extruded Solutions	-	-	-	-	-	-	-	14 153	15 911	16 980	-	14 153
Energy	1 620	1 670	1 576	2 314	1 955	1 750	1 831	2 169	1 762	2 163	7 180	7 705
Other and Eliminations	(10 373)	(11 080)	(10 525)	(9 539)	(11 906)	(12 765)	(11 900)	(14 276)	(14 877)	(16 198)	(41 517)	(50 847)
<b>Total</b>	<b>20 138</b>	<b>20 391</b>	<b>20 174</b>	<b>21 250</b>	<b>23 026</b>	<b>24 591</b>	<b>22 799</b>	<b>38 803</b>	<b>39 971</b>	<b>41 254</b>	<b>81 953</b>	<b>109 220</b>

## External revenue

NOK million	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Year 2016	Year 2017
Bauxite & Alumina	2 443	2 699	2 997	3 921	3 382	3 417	3 293	5 095	3 509	3 640	12 059	15 188
Primary Metal	1 175	1 312	1 459	1 582	1 700	1 944	1 865	2 068	2 018	1 993	5 529	7 578
Metal Markets	10 133	10 169	9 678	9 440	11 094	12 080	10 675	10 414	10 901	10 905	39 420	44 264
Rolled Products	5 795	5 831	5 637	5 205	6 153	6 629	6 380	6 375	6 870	7 011	22 469	25 538
Extruded Solutions	-	-	-	-	-	-	-	14 083	15 932	16 877	-	14 083
Energy	575	364	394	1 093	687	514	582	767	738	823	2 426	2 550
Other and Eliminations	17	15	8	10	9	6	3	-	4	6	50	18
<b>Total</b>	<b>20 138</b>	<b>20 391</b>	<b>20 174</b>	<b>21 250</b>	<b>23 026</b>	<b>24 591</b>	<b>22 799</b>	<b>38 803</b>	<b>39 971</b>	<b>41 254</b>	<b>81 953</b>	<b>109 220</b>



# Operating segment information

## Internal revenue

NOK million	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Year 2016	Year 2017
Bauxite & Alumina	1 769	1 873	1 929	1 914	2 528	2 441	2 320	2 944	2 800	3 237	7 484	10 234
Primary Metal	6 519	6 693	6 441	5 680	6 941	7 631	7 093	7 223	8 152	8 090	25 333	28 888
Metal Markets	1 116	1 070	971	677	1 054	1 523	1 187	2 577	2 997	3 301	3 834	6 341
Rolled Products	(58)	153	11	57	124	(61)	55	59	(72)	134	163	178
Extruded Solutions	-	-	-	-	-	-	-	70	(21)	103	-	70
Energy	1 044	1 306	1 182	1 221	1 267	1 236	1 249	1 403	1 024	1 340	4 753	5 155
Other and Eliminations	(10 390)	(11 095)	(10 533)	(9 549)	(11 915)	(12 772)	(11 903)	(14 276)	(14 881)	(16 204)	(41 567)	(50 865)
<b>Total</b>	-	-	-	-	-	-	-	-	-	-	-	-

## Share of profit /(loss) in equity accounted investments

NOK million	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Year 2016	Year 2017
Bauxite & Alumina	-	-	-	-	-	-	-	-	-	-	-	-
Primary Metal	(37)	10	74	48	98	231	159	258	210	280	96	745
Metal Markets	-	-	-	-	-	-	-	-	-	-	-	-
Rolled Products	-	-	-	-	-	-	-	-	-	-	-	-
Extruded Solutions	209	319	172	190	313	273	215	12	17	11	889	812
Energy	-	-	-	-	-	-	-	(7)	(10)	(11)	-	(7)
Other and Eliminations	(3)	(6)	10	(1)	(1)	(13)	(3)	(7)	3	5	-	(24)
<b>Total</b>	<b>170</b>	<b>323</b>	<b>256</b>	<b>236</b>	<b>409</b>	<b>491</b>	<b>371</b>	<b>256</b>	<b>221</b>	<b>286</b>	<b>985</b>	<b>1 527</b>

# Operating segment information

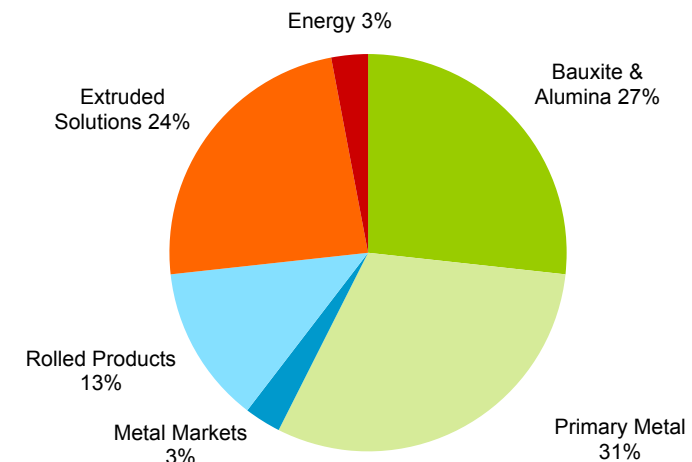
## Return on average capital employed\* (ROaCE)

	Reported ROaCE						Underlying ROaCE					
	2017	2016	2015	2014	2013	2012	2017	2016	2015	2014	2013	2012
Bauxite & Alumina	8.5%	2.7 %	5.3 %	(0.1) %	(2.5) %	(1.5) %	8.5%	2.8 %	5.3 %	(0.1) %	(2.2) %	(1.6) %
Primary Metal	11.8%	5.2 %	10.7 %	10.4 %	2.3 %	(3.1) %	12.6%	5.2 %	11.0 %	10.4 %	3.9 %	0.4 %
Metal Markets	18.6%	19.6 %	5.4 %	21.9 %	22.3 %	4.3 %	20.8%	15.9 %	11.4 %	19.4 %	19.9 %	6.6 %
Rolled Products	3.2%	6.2 %	1.1 %	8.6 %	0.7 %	6.7 %	2.4%	4.6 %	7.8 %	5.3 %	5.2 %	5.3 %
Extruded Solutions**	13.4%						6.6%					
Energy	17.5%	18.1 %	17.2 %	17.4 %	36.1 %	23.0 %	17.5%	18.1 %	17.3 %	17.4 %	36.1 %	23.2 %
<b>Hydro Group</b>	<b>11.2%</b>	<b>6.5 %</b>	<b>7.5 %</b>	<b>4.9 %</b>	<b>1.1 %</b>	<b>(0.5) %</b>	<b>9.6%</b>	<b>5.1 %</b>	<b>9.2 %</b>	<b>5.2 %</b>	<b>2.3 %</b>	<b>0.9 %</b>

## Capital employed – upstream focus

NOK million	Jun 30, 2018
Bauxite & Alumina	27 538
Primary Metal	31 495
Metal Markets	2 621
Rolled Products	12 995
Extruded Solutions	24 748
Energy	3 073
Other and Eliminations	(7 780)
<b>Total</b>	<b>94 689</b>

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



\* ROaCE at business area level is calculated using 25% tax rate for 2017 (30% tax rate applied for prior years). For Energy, 65% tax rate is used for 2017, 60% for 2016 and 55% for prior years

\*\* Extruded Solutions reflected as 50% equity accounted investment Q1-Q3 2017 and fully consolidated in Q4 2017

# Operating segment information

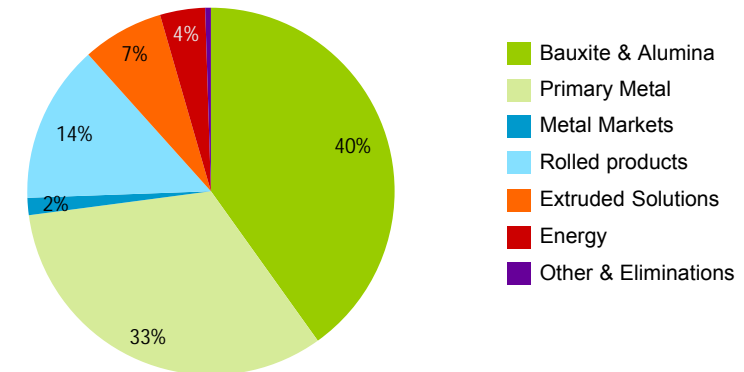
## Depreciation, amortization and impairment

NOK million	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Year 2016	Year 2017
Bauxite & Alumina	451	485	511	833	577	586	644	679	630	573	2 279	2 486
Primary Metal	474	484	488	467	492	505	504	526	546	575	1 913	2 026
Metal Markets	24	24	24	23	23	24	24	24	24	25	94	95
Rolled Products	197	189	196	216	201	212	217	230	223	227	799	860
Extruded Solutions								444	421	425		444
Energy	55	51	51	53	53	54	56	60	58	59	210	223
Other and Eliminations	13	11	146	8	6	7	7	7	7	7	178	28
<b>Total</b>	<b>1 215</b>	<b>1 244</b>	<b>1 416</b>	<b>1 599</b>	<b>1 352</b>	<b>1 389</b>	<b>1 450</b>	<b>1 970</b>	<b>1 909</b>	<b>1 891</b>	<b>5 474</b>	<b>6 162</b>

## Indicative depreciation currency exposure by business area

Percent	USD	EUR	BRL	NOK & Other
Bauxite & Alumina			100%	
Primary Metal	20%		25%	55%
Metal Markets	30%	50%		20%
Rolled Products		90%		10%
Extruded Solutions	30%	40%		30%
Energy				100%
Other & Eliminations				100%

## Depreciation by business area 2017, 6.2 BNOK



# Income statements

NOK million	Q2 2018	Q2 2017	Q1 2018	First half 2018	First half 2017
Revenue	41 254	24 591	39 971	81 225	47 617
Share of the profit (loss) in equity accounted investments	286	491	221	506	900
Other income, net	184	184	155	339	348
<b>Total revenue and income</b>	<b>41 724</b>	<b>25 266</b>	<b>40 346</b>	<b>82 070</b>	<b>48 865</b>
Raw material and energy expense	26 496	15 848	25 196	51 692	30 669
Employee benefit expense	5 828	2 677	5 772	11 600	5 291
Depreciation, amortization and impairment	1 891	1 389	1 909	3 799	2 741
Other expenses	4 524	2 406	4 168	8 692	4 808
<b>Earnings before financial items and tax (EBIT)</b>	<b>2 986</b>	<b>2 946</b>	<b>3 301</b>	<b>6 287</b>	<b>5 356</b>
Financial income	89	134	58	147	238
Financial expense	(530)	(1 093)	(533)	(1 063)	(1 061)
Income (loss) before tax	2 545	1 987	2 826	5 371	4 533
Income taxes	(473)	(424)	(749)	(1 222)	(1 132)
<b>Net income (loss)</b>	<b>2 073</b>	<b>1 562</b>	<b>2 076</b>	<b>4 149</b>	<b>3 401</b>
Net income (loss) attributable to non-controlling interests	(35)	78	(14)	(49)	154
Net income (loss) attributable to Hydro shareholders	2 108	1 484	2 091	4 199	3 247
<b>Earnings per share attributable to Hydro shareholders</b>	<b>1.03</b>	<b>0.73</b>	<b>1.02</b>	<b>2.05</b>	<b>1.59</b>

NOK million	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Year 2016	Year 2017
Net income (loss)	2 382	2 077	1 119	1 008	1 838	1 562	2 184	3 600	2 076	2 073	6 586	9 184
<b>Underlying net income (loss)</b>	<b>822</b>	<b>1 126</b>	<b>958</b>	<b>968</b>	<b>1 580</b>	<b>2 214</b>	<b>1 785</b>	<b>2 816</b>	<b>2 201</b>	<b>2 096</b>	<b>3 875</b>	<b>8 396</b>
Earnings per share	1.12	0.95	0.53	0.52	0.86	0.73	1.00	1.71	1.02	1.03	3.13	4.30
<b>Underlying earnings per share</b>	<b>0.39</b>	<b>0.52</b>	<b>0.46</b>	<b>0.48</b>	<b>0.75</b>	<b>1.04</b>	<b>0.82</b>	<b>1.33</b>	<b>1.06</b>	<b>1.02</b>	<b>1.84</b>	<b>3.95</b>

# Balance sheets

NOK million	Jun 30 2018	Mar 31 2018	Dec 31 2017*	Sep 30 2017	Jun 30 2017	Mar 31 2017
Cash and cash equivalents	5 682	9 371	11 828	17 853	7 993	8 333
Short-term investments	1 136	1 031	1 311	1 985	4 896	4 403
Accounts receivable	23 442	22 785	19 983	13 156	13 465	12 851
Inventories	22 337	20 626	20 711	13 585	12 940	12 557
Other current assets	978	818	798	255	290	301
Property, plant and equipment	66 683	69 945	72 933	56 500	57 610	59 627
Intangible assets	11 660	12 133	12 712	5 427	5 577	5 919
Investments accounted for using the equity method	11 140	10 551	11 221	18 178	18 800	19 937
Prepaid pension	6 322	5 933	5 750	5 296	5 018	4 718
Other non-current assets	5 780	5 588	6 028	5 322	5 252	5 630
<b>Total assets</b>	<b>155 159</b>	<b>158 781</b>	<b>163 273</b>	<b>137 557</b>	<b>131 840</b>	<b>134 276</b>
Bank-loans and other interest-bearing short-term debt	4 969	5 269	8 245	9 065	3 741	3 481
Trade and other payables	21 351	20 621	19 571	10 347	10 472	10 224
Other current liabilities	4 976	4 852	5 521	3 542	2 911	3 337
Long-term debt	9 377	8 746	9 012	3 077	3 183	3 373
Provisions	5 532	5 652	5 828	4 507	4 452	4 526
Pension liabilities	14 665	14 911	15 118	12 808	12 997	12 804
Deferred tax liabilities	3 456	3 522	3 501	2 621	2 566	2 567
Other non-current liabilities	3 673	4 084	4 269	3 691	3 955	3 174
Equity attributable to Hydro shareholders	82 676	86 233	87 032	82 685	82 343	84 952
Non-controlling interests	4 486	4 891	5 178	5 216	5 219	5 838
<b>Total liabilities and equity</b>	<b>155 159</b>	<b>158 781</b>	<b>163 273</b>	<b>137 557</b>	<b>131 840</b>	<b>134 276</b>

\* Restated

# Operational data

Bauxite & Alumina	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Year 2016	Year 2017
Alumina production (kmt)	1 517	1 554	1 635	1 635	1 523	1 576	1 605	1 693	1 277	829	6 341	6 397
Sourced alumina (kmt)	531	615	512	883	600	645	667	610	900	985	2 541	2 522
Total alumina sales (kmt)	2 073	2 078	2 221	2 472	2 129	2 196	2 251	2 344	2 071	1 842	8 843	8 920
Realized alumina price (USD) <sup>1)</sup>	219	240	240	257	309	295	297	398	371	430	240	326
Implied alumina cost (USD) <sup>2)</sup>	183	201	204	197	235	228	237	265	287	367	197	242
Bauxite production (kmt) <sup>3)</sup>	2 682	2 609	2 777	3 063	2 400	2 943	3 043	3 049	2 326	1 348	11 132	11 435
Sourced bauxite (kmt) <sup>4)</sup>	1 924	2 233	2 108	2 235	1 675	1 809	2 013	2 103	1 317	1 250	8 499	7 601
Underlying EBITDA margin <sup>11)</sup>	15.2%	14.4%	13.5%	21.6%	22.6%	21.3%	18.8%	31.7%	21.7%	13.6%	16.5%	24.3%

Primary Metal <sup>5)</sup>	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Year 2016	Year 2017
Realized aluminium price LME, USD/mt	1 497	1 546	1 612	1 647	1 757	1 902	1 921	2 092	2 140	2 183	1 574	1 915
Realized aluminium price LME, NOK/mt <sup>7)</sup>	12 950	12 826	13 375	13 659	14 798	16 265	15 496	17 066	16 929	17 292	13 193	15 888
Realized premium above LME, USD/mt <sup>6)</sup>	288	270	251	240	266	273	261	259	295	364	263	265
Realized premium above LME, NOK/mt <sup>6)7)</sup>	2 488	2 243	2 082	1 993	2 236	2 330	2 106	2 116	2 335	2 881	2 201	2 197
Realized NOK/USD exchange rate <sup>7)</sup>	8.65	8.30	8.30	8.29	8.42	8.55	8.07	8.16	7.91	7.92	8.38	8.30
Implied primary cost (USD) <sup>8)</sup>	1 225	1 175	1 275	1 325	1 350	1 375	1 425	1 575	1 725	1 775	1 250	1 425
Implied all-in primary cost (USD) <sup>9)</sup>	1 550	1 500	1 550	1 550	1 675	1 700	1 725	1 850	2 075	2 175	1 550	1 725
Primary aluminium production, kmt	514	518	526	526	516	523	527	528	514	492	2 085	2 094
Casthouse production, kmt	534	547	541	523	521	551	548	550	531	523	2 146	2 169
Total sales, kmt <sup>10)</sup>	552	596	573	528	577	579	568	554	578	549	2 248	2 278
Underlying EBITDA margin <sup>11)</sup>	10.3%	14.8%	14.2%	14.7%	16.1%	20.8%	20.0%	20.4%	13.3%	13.0%	13.5%	19.4%

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 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Year 2016	Year 2017
Remelt production (1 000 mt)	144	146	125	133	143	152	136	137	150	153	548	568
Third-party Metal Products sales (1 000 mt)	72	74	78	80	79	80	74	86	70	77	304	319
Metal Products sales excl. ingot trading (1 000 mt) <sup>1)</sup>	736	777	720	660	735	759	707	720	745	746	2 893	2 921
Hereof external sales excl. ingot trading (1 000 mt)	664	694	652	616	672	675	639	589	580	563	2 627	2 575
External revenue (NOK million)	10 133	10 169	9 678	9 440	11 094	12 080	10 675	10 414	10 901	10 905	39 420	44 264

Rolled Products	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Year 2016	Year 2017
Rolled Products external shipments (1 000 mt)	229	238	231	213	241	239	236	224	245	251	911	940
Rolled Products – Underlying EBIT per mt, NOK	1 086	1 017	914	29	442	351	400	424	949	844	777	404
Underlying EBITDA margin <sup>2)</sup>	7.8%	7.2%	7.2%	4.2%	4.9%	4.5%	4.8%	5.0%	6.7%	6.1%	6.7%	4.8 %

Extruded Solutions <sup>3)</sup>	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Year 2016	Year 2017
Extruded Solutions external shipments (1 000 mt)				310	355	359	339	318	362	373	1 365	1 372
Extruded Solutions – Pro-forma underlying EBIT per mt, NOK				829	1 973	2 328	1 505	893	2 028	2 566	1 381	1 699
Underlying EBITDA margin <sup>2)</sup>				5.3%	7.7%	8.2%	6.5%	5.2%	7.3%	8.1%	6.6%	6.9%

Energy	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Year 2016	Year 2017
Power production, GWh	3 160	2 674	2 946	2 551	2 869	2 369	2 509	3 089	2 433	2 550	11 332	10 835
Net spot sales, GWh	1 795	1 393	1 699	1 176	1 409	996	1 168	1 633	763	961	6 063	5 206
Nordic spot electricity price, NOK/MWh	229	223	235	311	280	257	266	294	372	373	250	274
Southern Norway spot electricity price (NO2), NOK/MWh	212	213	212	296	278	252	258	287	361	369	233	269
Underlying EBITDA margin <sup>2)</sup>	28.0%	21.1%	21.3%	17.8%	24.4%	19.3%	23.1%	23.9 %	19.2%	22.2%	21.6%	22.8%

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

2) Underlying EBITDA divided by total revenues

3) Q4 2016, FY 2017 and historical operational data based on pro forma figures

# Pro forma information

## Summary consolidated underlying financial and operating results

NOK million	Q2 2018	Q2 2017	Q1 2018	2017	2016
Revenue	41 254	38 534	39 971	148 920	130 630
EBIT	2 986	3 372	3 301	11 927	8 229
Items excluded from underlying EBIT	(274)	52	(155)	510	(698)
Underlying EBIT	2 713	3 424	3 147	12 437	7 531
EBITDA	4 860	5 176	5 193	19 294	15 331
Underlying EBITDA	4 586	5 228	5 038	19 786	14 633

## Extruded Solutions

NOK million	Q2 2018	Q2 2017	Q1 2018	2017	2016
Revenue	16 980	15 310	15 911	57 769	53 327
EBIT	1 109	703	687	2 265	2 109
Items excluded from underlying EBIT	(151)	133	47	65	(224)
Underlying EBIT*	957	836	734	2 330	1 885
EBITDA	1 534	1 119	1 108	3 917	3 739
Underlying EBITDA	1 383	1 252	1 155	3 982	3 516
Sales volumes to external market (kmt)	373	359	362	1 372	1 365

\* Underlying EBIT includes certain effects of the acquisition such as increased depreciation and amortization following fair value adjustment related to long-lived assets.



# Extruded Solutions, information by business area

Historical Sapa information (100% basis) Q1 2016 – Q3 2017 and FY 2015-16  
Extruded Solutions, fully consolidated in Hydro in 2018 and Q4 2017\*

Precision Tubing	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	2016		Q4 2017	Q1 2018	Q2 2018
Volume (kmt)	37	40	37	35	36	38	36	150		35	37	41
Operating revenues (NOKm)	1 620	1 664	1 549	1 543	1 651	1 734	1 601	6 376		1 645	1 700	1 910
Underlying EBITDA (NOKm)	144	169	135	161	180	193	157	608		138	168	120
Underlying EBIT (NOKm)	86	112	76	103	123	136	97	376		66	103	55

Building Systems	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	2016		Q4 2017	Q1 2018	Q2 2018
Volume (kmt)	19	21	18	19	20	21	19	77		19	20	21
Operating revenues (NOKm)	1 869	1 939	1 680	1 685	1 830	2 044	1 765	7 173		1 960	2 057	2 124
Underlying EBITDA (NOKm)	110	210	104	109	155	219	118	533		137	167	198
Underlying EBIT (NOKm)	75	166	67	74	119	183	85	381		85	116	146

Other and eliminations	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	2016		Q4 2017	Q1 2018	Q2 2018
Underlying EBITDA (NOKm)	(116)	(33)	(64)	(37)	(63)	(43)	(41)	(249)		(35)	(45)	(46)
Underlying EBIT (NOKm)	(127)	(41)	(69)	(28)	(69)	(49)	(42)	(266)		(45)	(55)	(58)

Extrusion Europe	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	2016		Q4 2017	Q1 2018	Q2 2018
Volume (kmt)	148	157	142	130	154	155	142	577		134	159	160
Operating revenues (NOKm)	5 366	5 468	4 932	4 565	5 553	5 999	5 460	20 331		5 541	6 600	6 664
Underlying EBITDA (NOKm)	349	425	276	221	390	416	290	1 271		240	417	504
Underlying EBIT (NOKm)	223	304	154	97	274	292	164	778		59	246	333

Extrusion North America	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	2016		Q4 2017	Q1 2018	Q2 2018
Volume (kmt)	150	155	149	131	150	151	148	585		134	152	157
Operating revenues (NOKm)	5 265	5 234	5 183	4 617	5 514	5 753	5 369	20 299		5 211	5 882	6 519
Underlying EBITDA (NOKm)	414	362	361	199	437	466	390	1 335		248	448	606
Underlying EBIT (NOKm)	315	263	260	89	330	353	284	927		119	325	481

\* 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".

# Historical information for Sapa

## Sapa JV (100 % basis), underlying (unaudited)

NOK million, except sales volumes	Q1 2014	Q2 2014	Q3 2014	Q4 2014	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Year 2015	Year 2016
Sales volume (1000 mt)	359	367	350	322	353	358	341	312	349	366	340	310	355	359	339	1 363	1 365
Revenues*	11 311	11 496	11 561	11 842	14 051	14 484	13 895	12 821	13 905	14 071	13 140	12 210	14 323	15 309	13 983	55 252	53 327
Underlying EBITDA	440	641	492	343	705	799	734	491	901	1 132	812	653	1 100	1 252	912	2 729	3 498
Underlying EBIT	155	350	201	(55)	392	483	404	128	571	804	487	335	778	914	588	1 407	2 197
Underlying net income (loss)	69	263	110	(44)	238	291	240	139	365	540	315	334	562	658	419	907	1 553

## Sapa JV (100 % basis), reported (unaudited)

NOK million	Q1 2014	Q2 2014	Q3 2014	Q4 2014	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Year 2015	Year 2016
Reported EBIT	(3)	168	198	(679)	201	65	174	88	655	920	497	350	856	781	604	528	2 420
Reported net income (loss)	(103)	89	107	(719)	89	14	109	34	418	639	344	379	625	545	430	246	1 779

## Sapa JV (100 % basis), reconciliation between reported and underlying EBIT (unaudited)

NOK million, except sales volumes	Q1 2014	Q2 2014	Q3 2014	Q4 2014	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Year 2015	Year 2016
<b>Reported EBIT</b>	<b>(3)</b>	<b>168</b>	<b>198</b>	<b>(679)</b>	<b>201</b>	<b>65</b>	<b>174</b>	<b>88</b>	<b>655</b>	<b>920</b>	<b>497</b>	<b>350</b>	<b>856</b>	<b>781</b>	<b>604</b>	<b>528</b>	<b>2 420</b>
Items excluded from EBIT:																	
Unrealized derivative effects	73	36	66	(79)	(145)	(158)	(95)	208	83	116	51	82	78	(133)	15	(189)	333
Restructuring cost and other items	(231)	(218)	(70)	(546)	(47)	(260)	(135)	(249)	-	-	(42)	(67)	-	-	-	(690)	(109)
Total items excluded from EBIT**	(159)	(182)	(4)	(624)	(191)	(418)	(230)	(41)	83	116	9	15	78	(133)	15	(879)	223
<b>Underlying EBIT</b>	<b>155</b>	<b>350</b>	<b>201</b>	<b>(55)</b>	<b>392</b>	<b>483</b>	<b>404</b>	<b>128</b>	<b>571</b>	<b>804</b>	<b>487</b>	<b>335</b>	<b>778</b>	<b>914</b>	<b>588</b>	<b>1 407</b>	<b>2 197</b>

\* Historical revenues have been reclassified

\*\* Negative figures represent a net cost to be added to get from reported EBIT to Underlying EBIT

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