

A viable society. A need. An idea.
36,000 professionals. Energy.
Cooperation. Aluminium. Determination.
Pushing boundaries. Respect. Nature.
Courage. 100 years. Thinking ahead.



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Upstream repositioning 2005 - 2010

Torstein Dale Sjøtveit
Head of Primary Metal, Aluminium



Positioning for the future

- Improving operations
- Closing down unsustainable smelters
- World-class smelter in Qatar to meet demand
- World-class alumina refining in Alunorte supports smelting operations

Relentless improvement focus

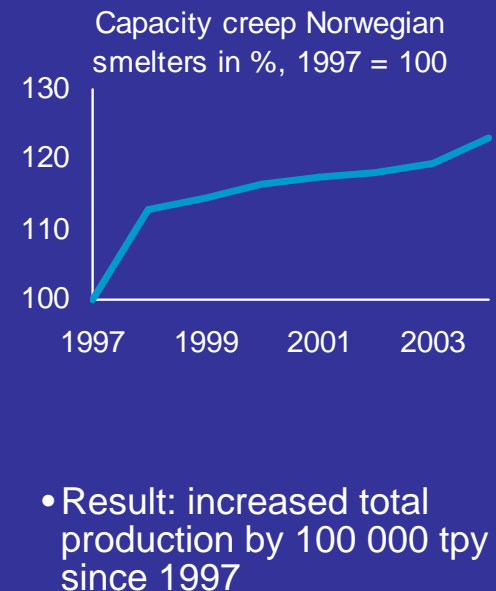
Improvement programs

- Aluimprover to reduce costs of NOK 350 - 400 million in Norwegian smelters
- Rheinwerk improvement program – yearly EBIT effect of € 20 - 30 million
- Kurri-Kurri improvement program to release full potential of smelter technology – yearly EBIT effect of AUD 30 - 40 million within 2010

Continued improvements

- Best practice implementation
- Roadmap for each unit detailing improvement program
- Performance audits to ensure execution

Utilizing technology competence



Productivity improvements at Karmøy smelter

Roadmap established – 15% capacity growth by 2010



- Combination of systematic de-bottlenecking and 'HAL best practices' basis for stepwise productivity improvements
- Increased anode size reducing specific energy consumption and maintaining high, stable current efficiency when increasing potline amperage

Proprietary smelter technologies ensures world-class performance

- CAPEX
 - Low specific investment cost, investments per unit of capacity
- OPEX
 - Low energy consumption
 - High productivity
 - Operation and maintenance friendly cell
- Environment
 - Best available technology to meet all known international environmental requirements





An attractive long-term power contract portfolio

- Primary production's power consumption in 2006 approx 27 TWh
- All primary production covered long-term – except Neuss and partly Søral
- Limited effect on primary production's power costs from increased aluminium price
- One-time effect in Norway (2005 to 2007) and Germany (2005 to 2006) due to renewed contract structure

Restructuring – plant closures

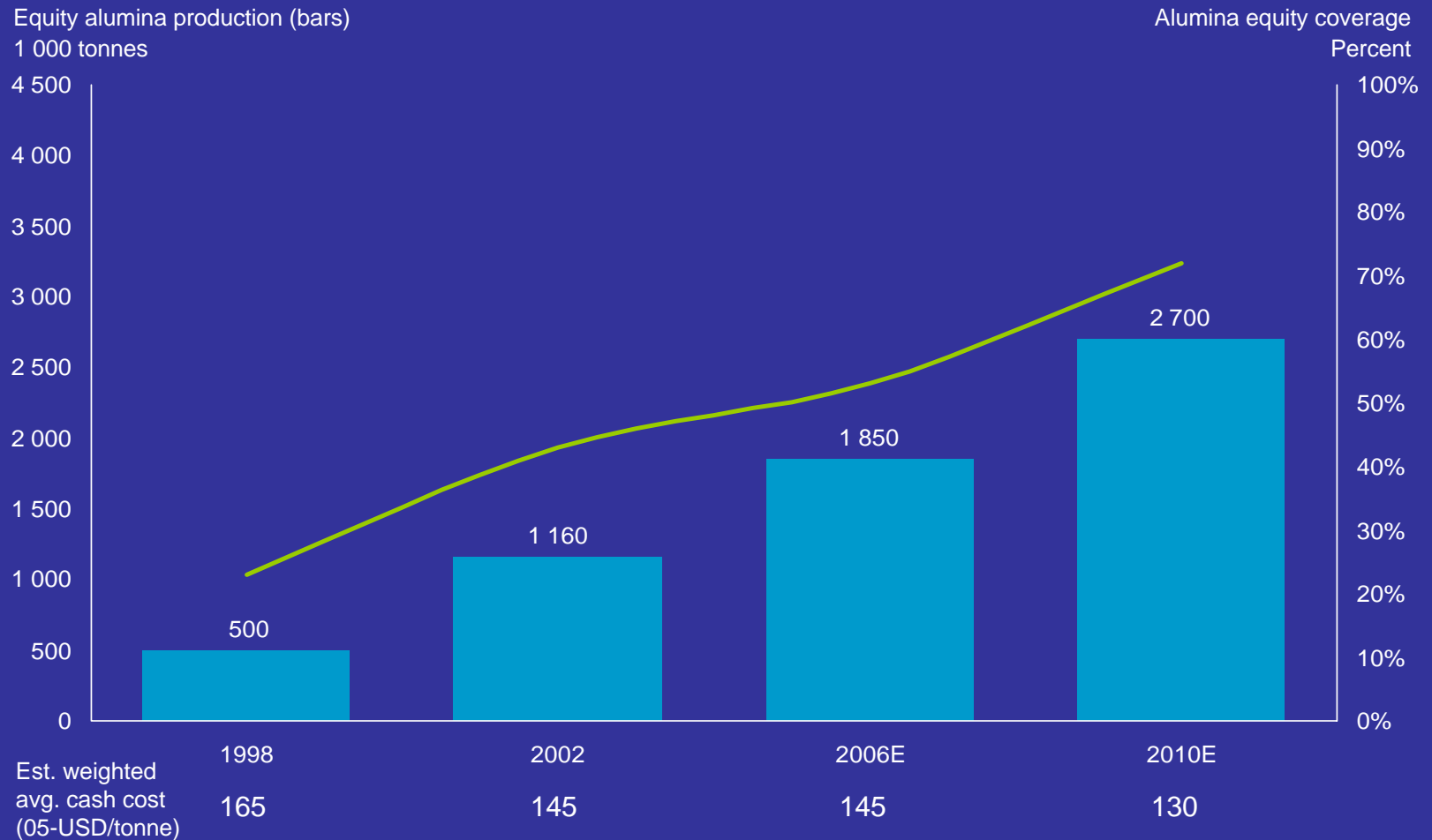
Germany:	-Hamburg*	40 000 t	End of 2005
Cost of energy	-Stade	70 000 t	End of 2006
Norway:	-Høyanger, Søderberg	20 000 t	1Q 2006
Emission legislation and financials	-Årdal, Søderberg	50 000 t	End of 2006
	-Karmøy, Søderberg	<u>120 000 t</u>	End of 2009
		<u>300 000 t</u>	

- Total restructuring costs for the first four units are estimated at close to NOK 1 billion**
- About 1 200 employees are directly affected by the closures**

* Hydro ownership share of 33.3%

** Hamburg, Stade, Høyanger and Årdal

Increased alumina equity coverage at lower cost



Alunorte expansion 3 – a highly competitive project

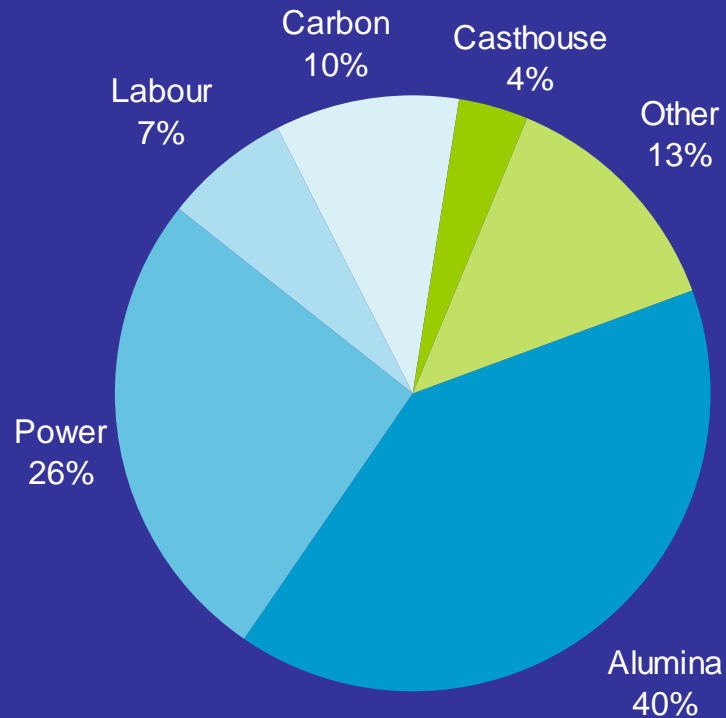
- Total investment: USD 845 million
- Production increase: 1 900 000 mt*
- Hydro's share 34%
- Project completion: late 2008
- Total capacity after expansion: 6 500 000 mt*
- Bauxite supplied by CVRD from its Paragominas mine in Brazil
- World's largest and most modern refinery following the expansion



* Metric tonnes

Alumina and power main smelter cost elements

World average cost structure*



* Source: CRU 2005, site operating cost definition

Regions with competitive energy resources





Qatar – world-class aluminium project

- Capacity stage I: 570 000 tonnes per year
- Energy sourcing through dedicated gas fired power plant
- Alumina sourcing supported by Alunorte III investment
- Technology – Hydro’s proven reduction cell technology
- Expected start-up Q4 2009

Excellent record for project execution

Sunndal IV, Norway

- Planned expansion of 230 000 tpy – realised capacity of 267 000 tpy
- Completed ahead of plan and below budget
- Reached full production in 2004



Alouette, Canada (20% owned)

- Expansion of 300 000 tpy
- Completed ahead of plan and on budget
- Reached full production Q3 2005



Alunorte II, Brazil (34% owned)

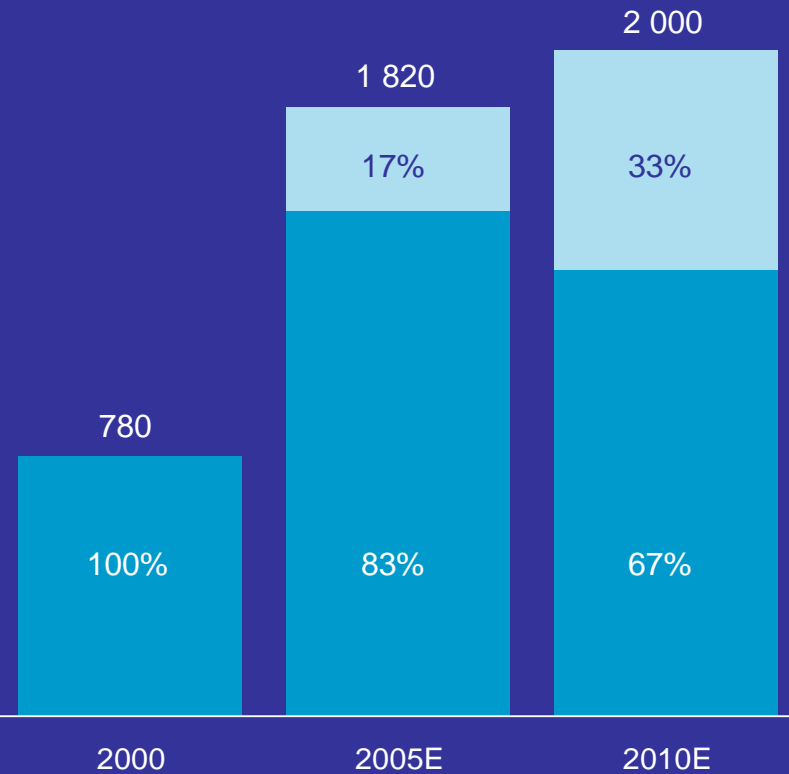
- Total alumina capacity increase 1 800 000 tpy
- Proceeding according to plan and on budget
- Expected start-up Q1/Q2 2006, ramp-up concluded by Q3 2006



An improved smelter portfolio composition

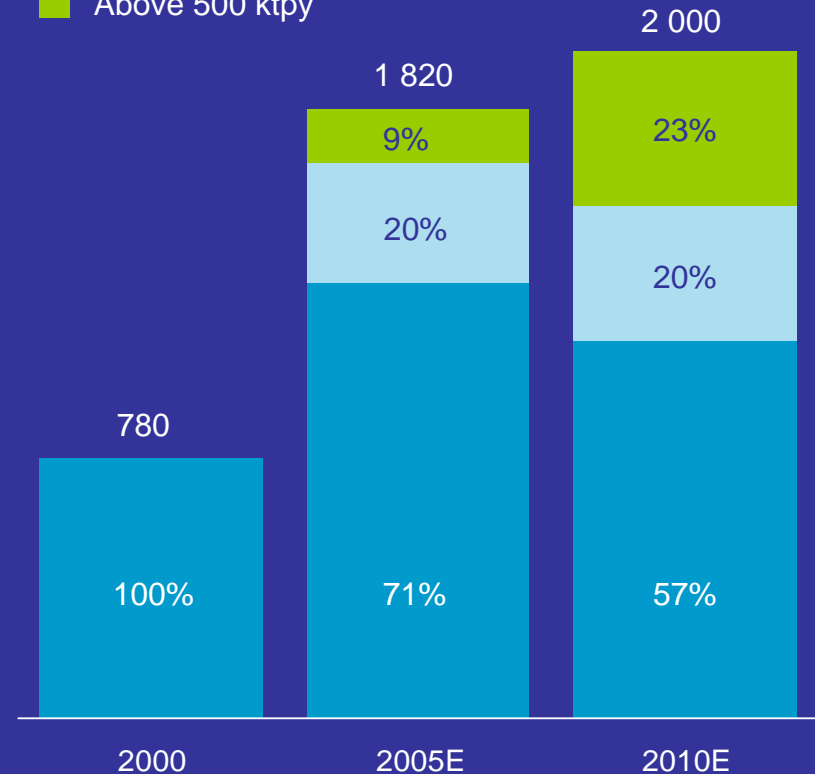
Smelter geography

- Europe
- Outside Europe



Smelter size

- Below 300 ktpy
- Between 300 – 500 ktpy
- Above 500 ktpy

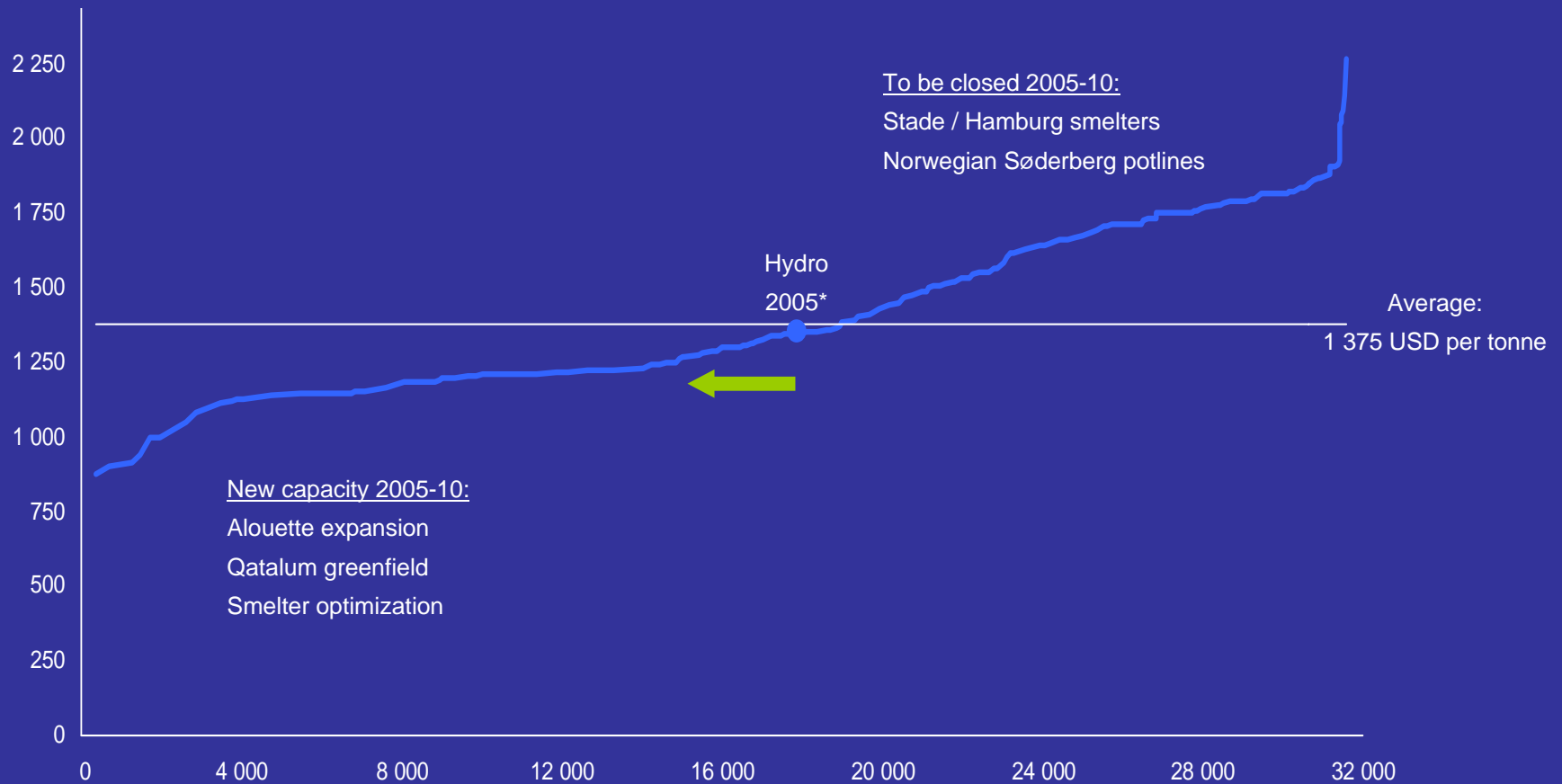


All figures in 1 000 tonnes per year

Improved relative smelter cost position

World production 2005, 1 000 tonnes

Cash cost 2005 (USD/t*)



* Source: CRU (Corporate Operating Cost definition)

Future smelter capacity increases in energy-rich areas with complex frameworks



Hydro is an experienced international project developer

Qatar Fertilizer Company and Qatar Vinyl Company

- More than 36 years of cooperation in Qatar



Angola

- Oil activities off the West African coast started in the mid-90s



Iran

- Business development started in the late-90s and drilling commenced first half 2003





Well positioned upstream business in 2010

- Repositioned attractive smelter portfolio
- Competitive long-term energy supply
- Competitive alumina supply
- Qatalum – World class greenfield smelter
- Attractive project portfolio for future growth

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