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Strategy and Business Development



## Market update

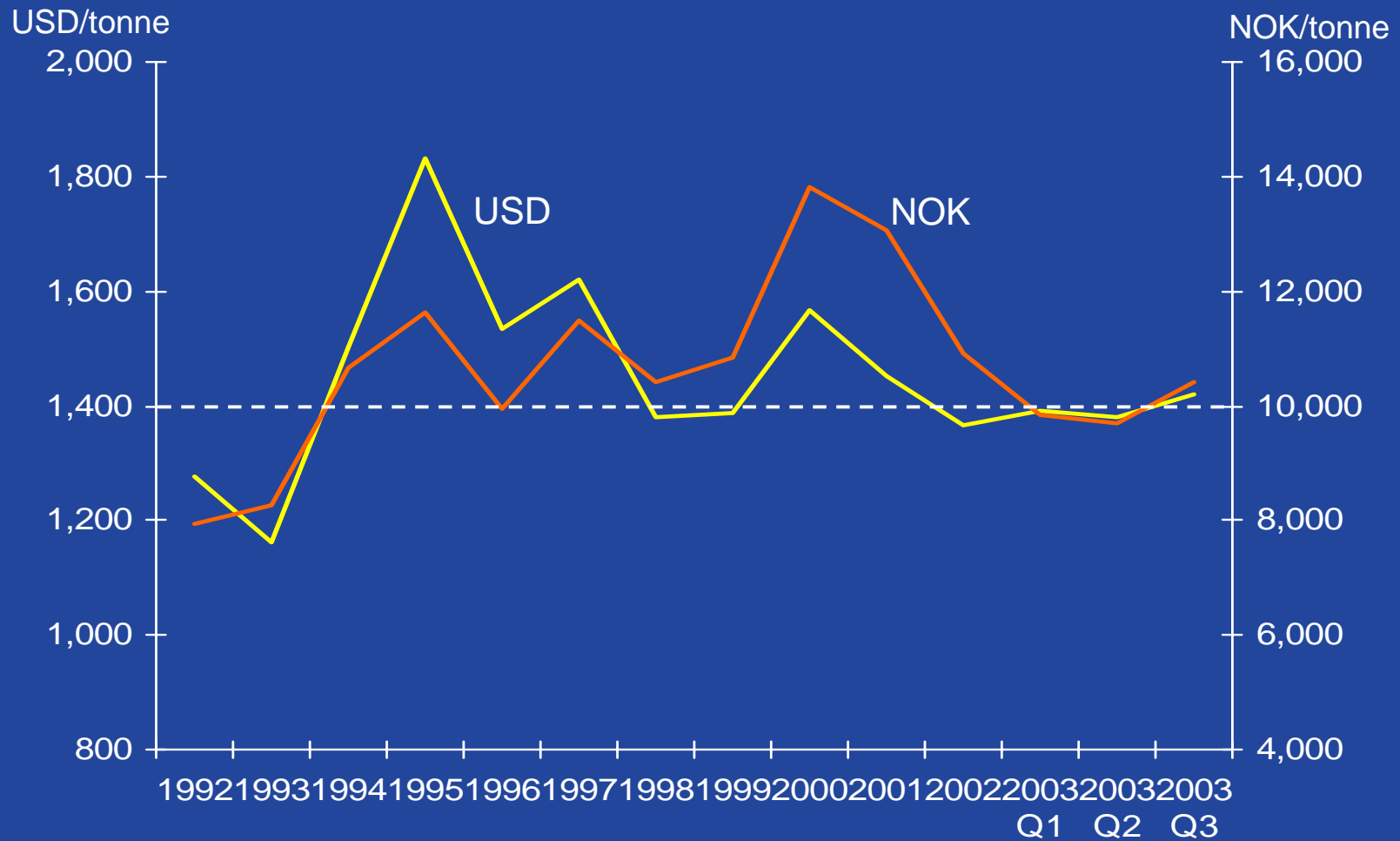
**Capital Markets Day**

December 12, 2003

# Presentation outline

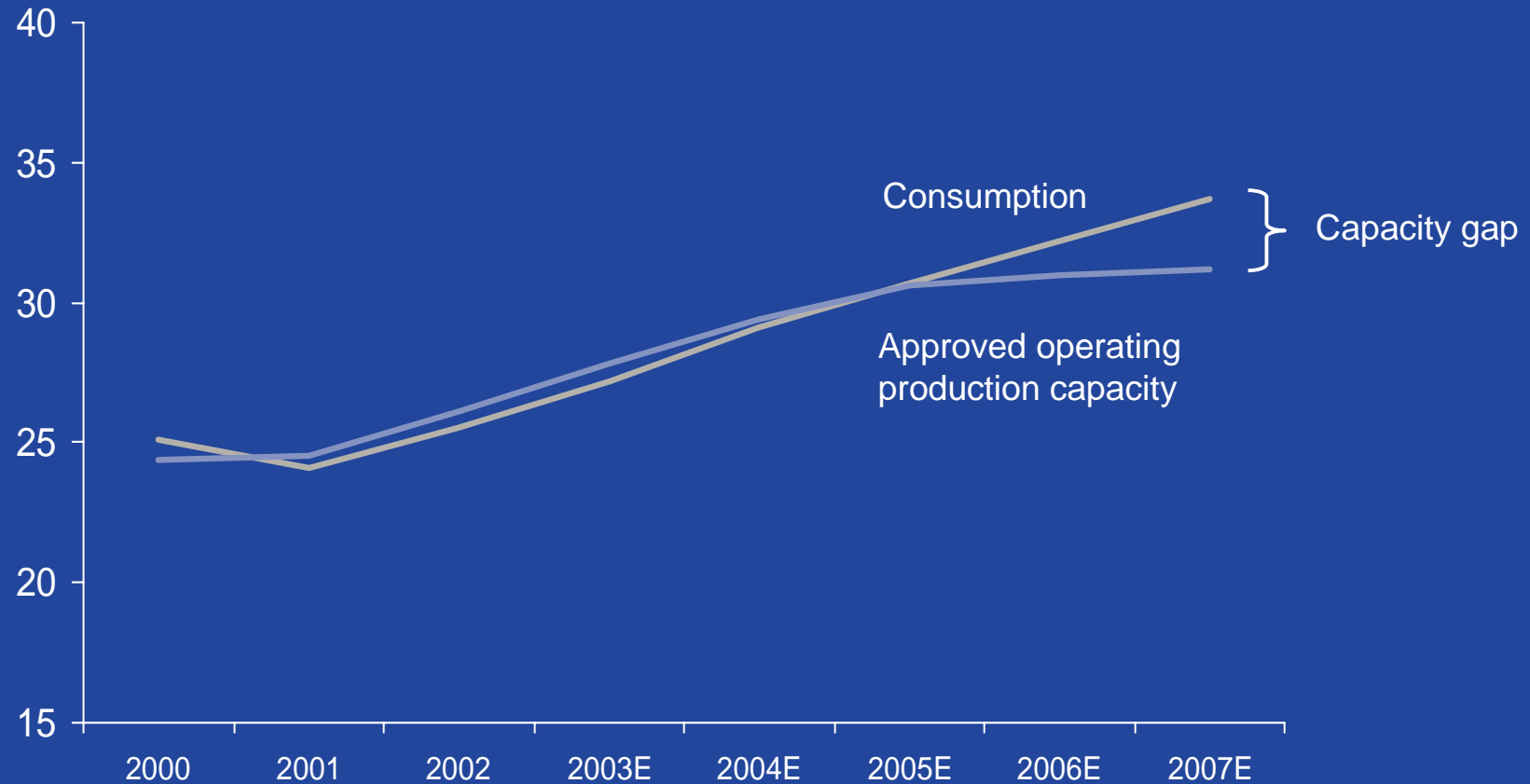
- Primary balance better than expected for 2003
- Strong global demand growth going forward
- Supply side – growth in energy rich pockets and China
- Downstream structure
- Application areas – drivers for growth
- Hydro's exposure to different end-use segments
  - Differentiation - benefits

# LME-price



# Global Primary metal balance 2000 – 2007

Million tonnes

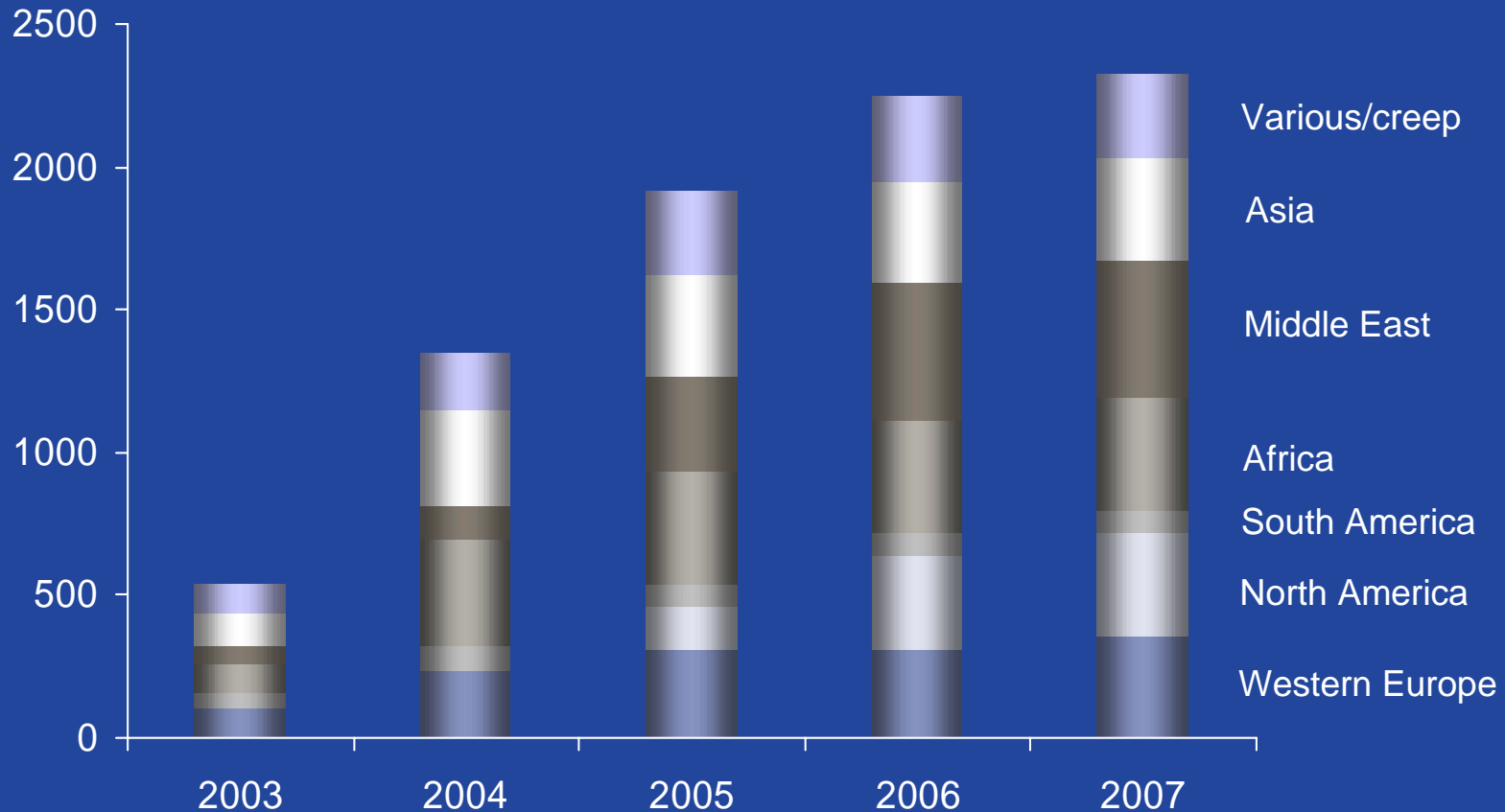


Average global demand growth rate: 4 % (2000-2005); 4.5 % (2006-2007)

Sources: Brook Hunt, CRU, Hydro Aluminium

# Assumptions on primary production capacity – additional approved Western World capacity

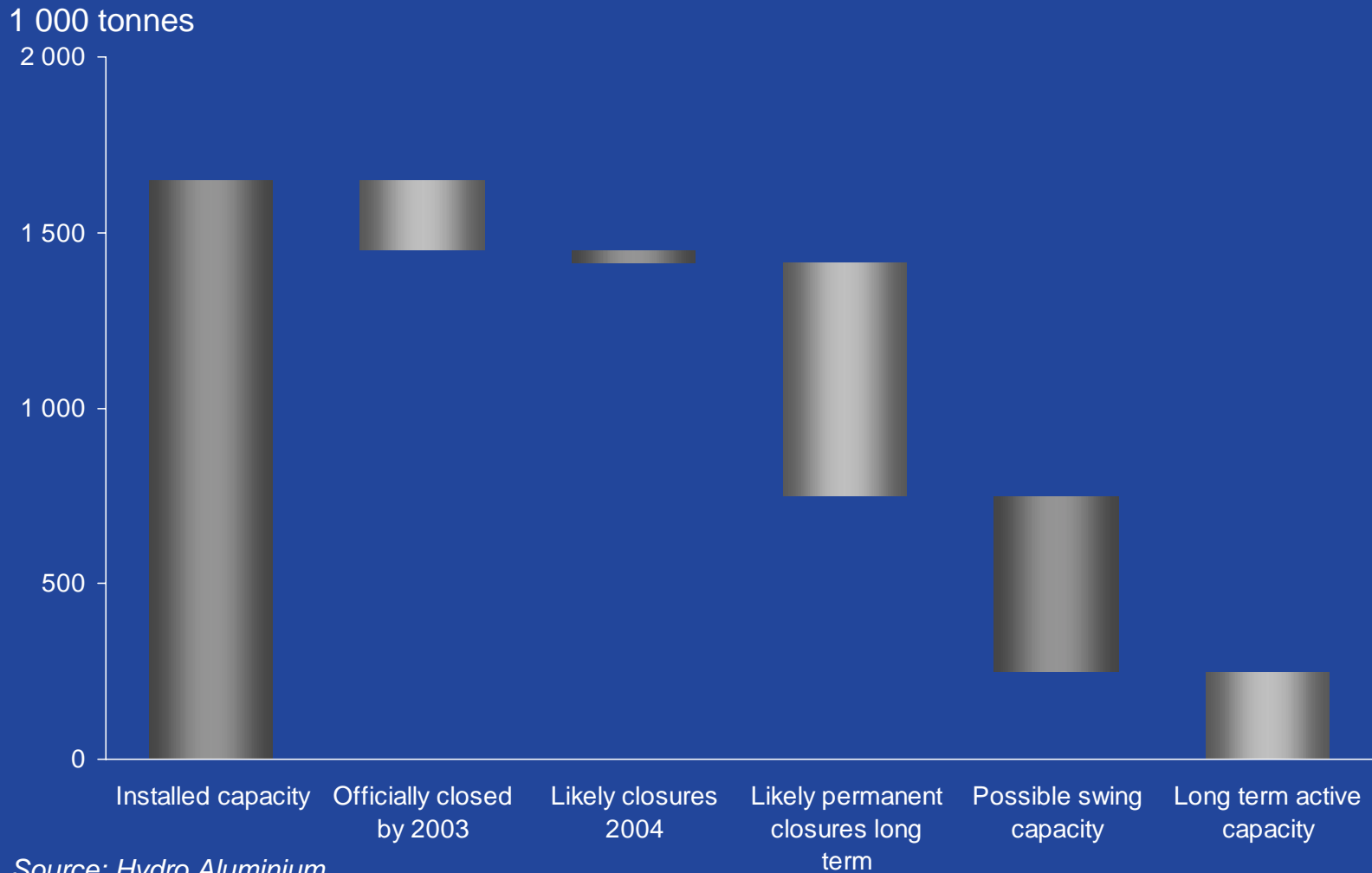
1 000 tonnes



Source: Hydro Aluminium

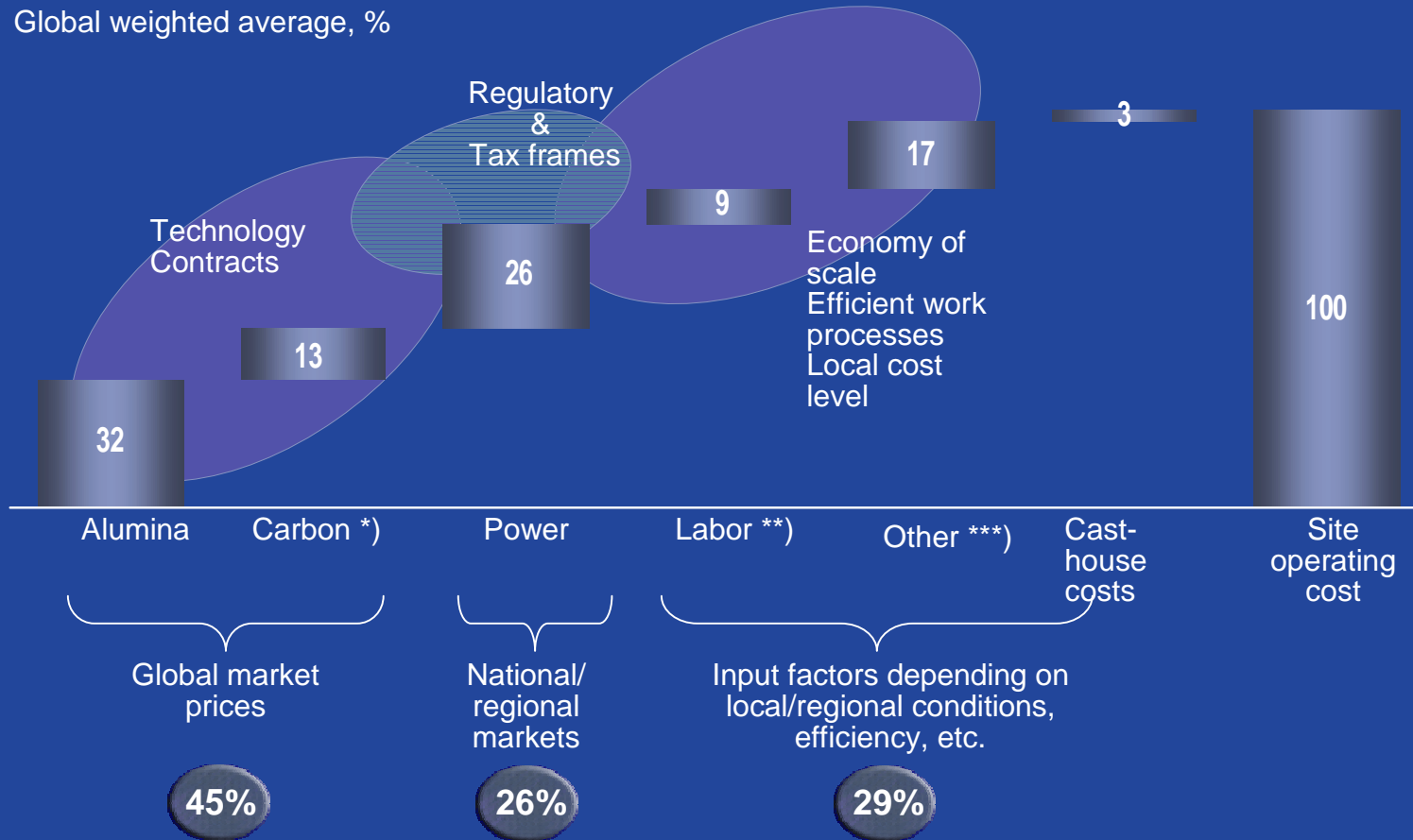


# Detailed assumptions on primary production capacity – US North West



# Average site operating cost position

Global weighted average, %



\* Raw materials and bake furnace fuel costs

\*\* Includes carbon plant, potroom and maintenance labor costs

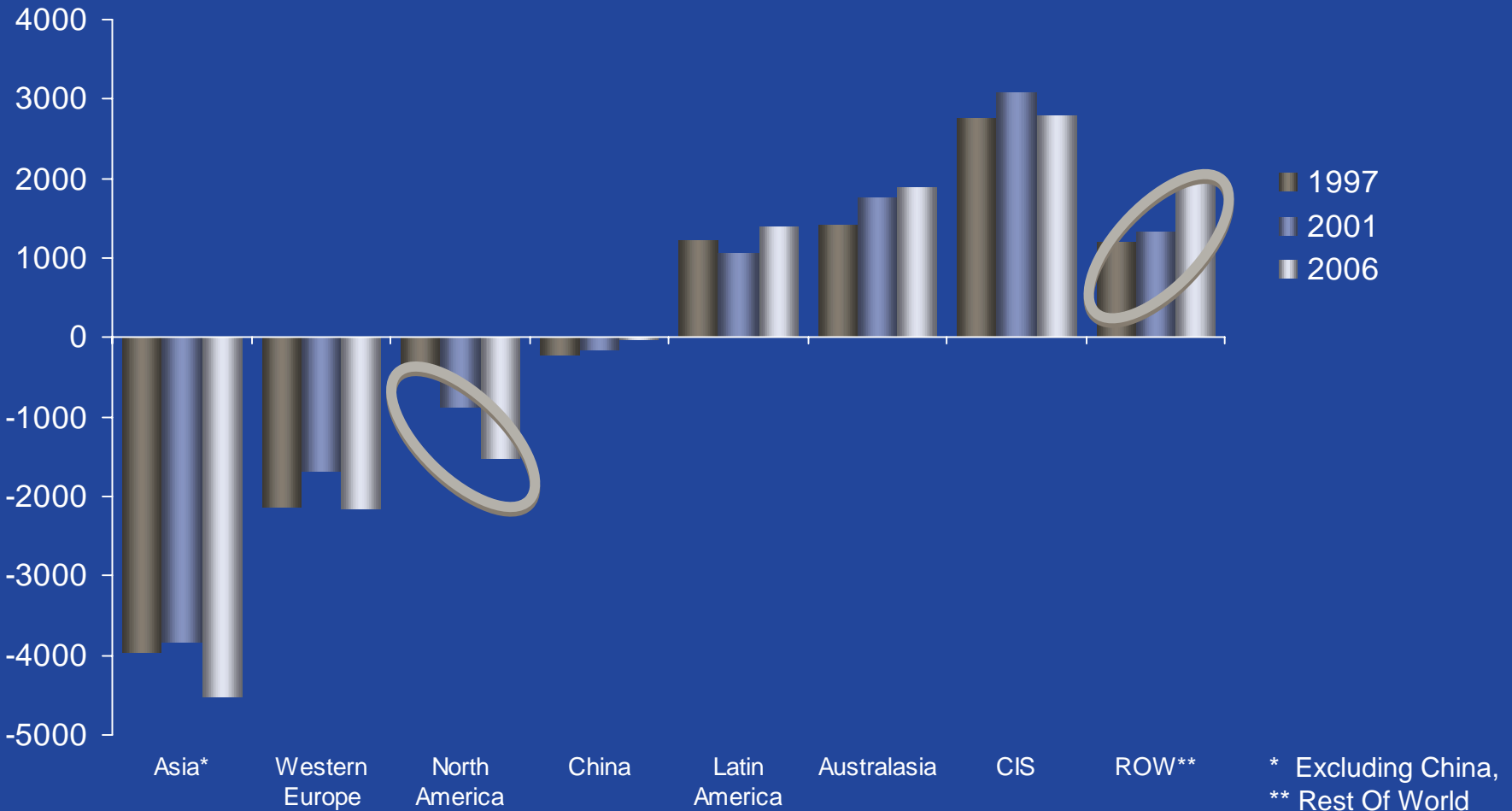
\*\*\* Relining cost, capital replacement cost, administrative cost

Source: CRU



# Global market structure – primary metal balance per region

1 000 tonnes



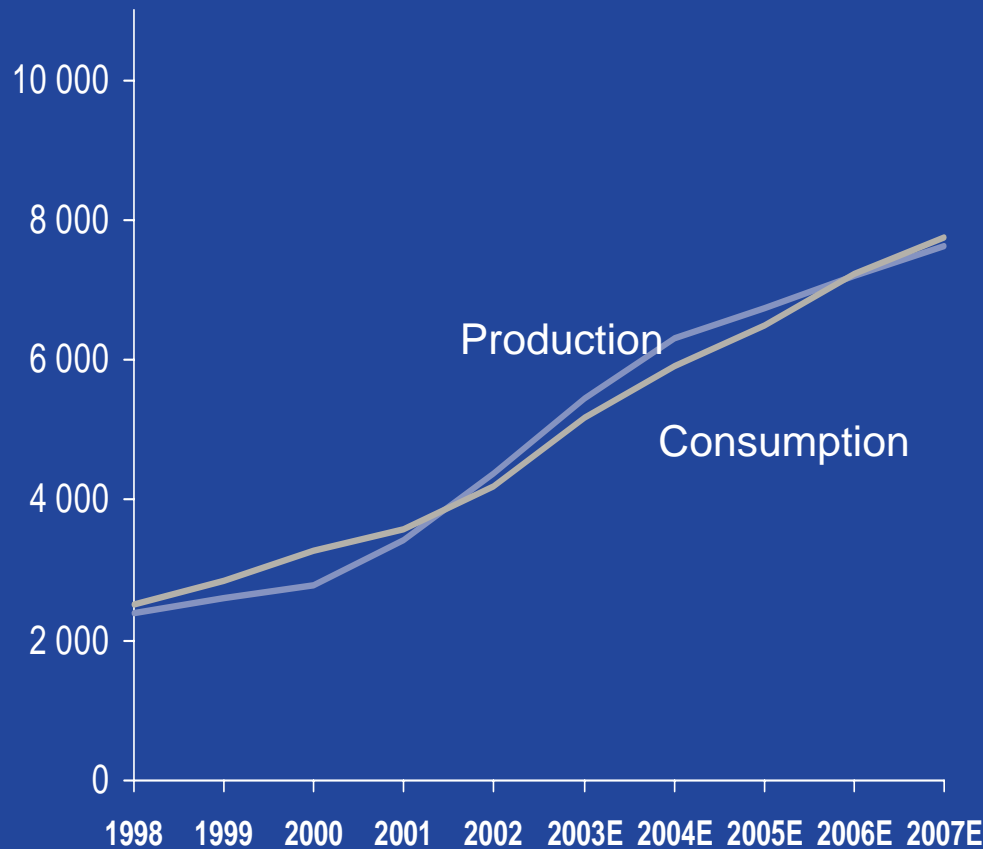
Source: CRU





# China – primary metal balance

1 000 tonnes



Source: CRU, Hydro Aluminium

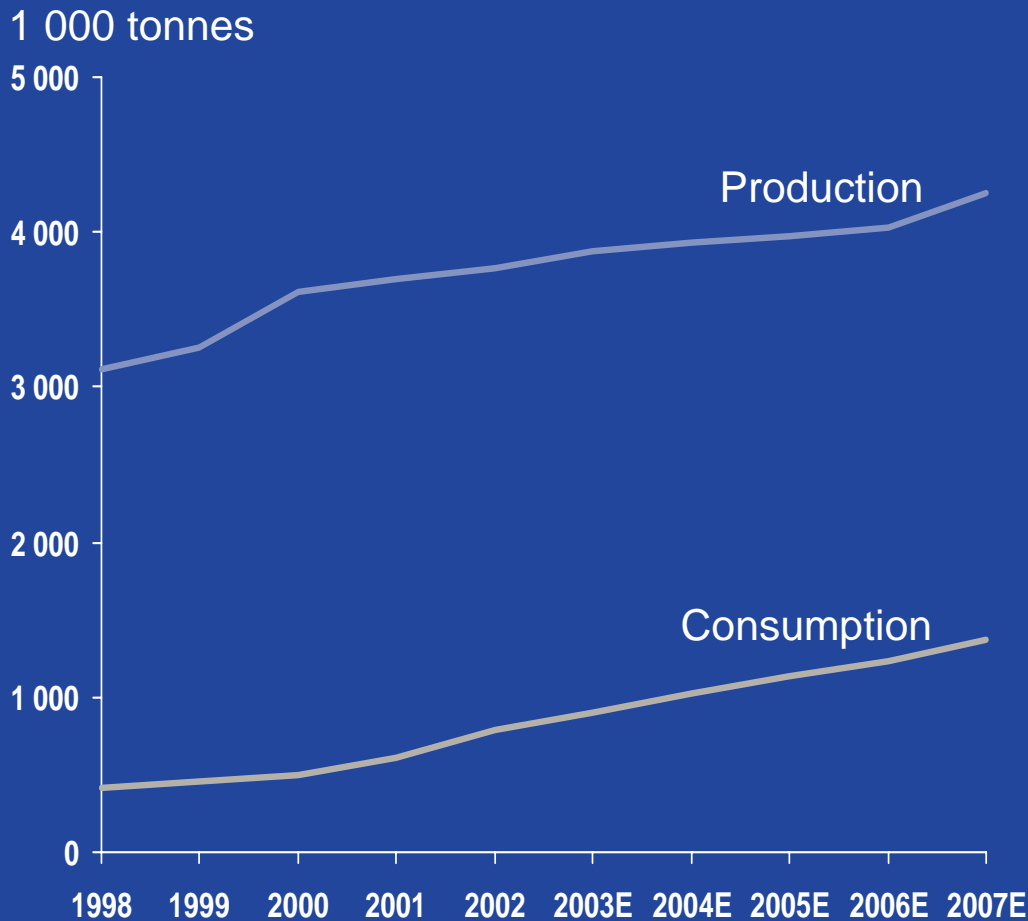
## Supply growth drivers:

- High growth in domestic consumption
- Import duties protecting domestic suppliers (primary and downstream)
- Low labor cost and investment per tonne
- Support to local industries provided by regional authorities

## Main challenges:

- Alumina deficit
- Energy deficit in some provinces – high prices
- Distance to main export markets
- Small plants/Søderberg – environmental issues
- Financing

# CIS – primary metal balance



Source: CRU

## Supply growth drivers:

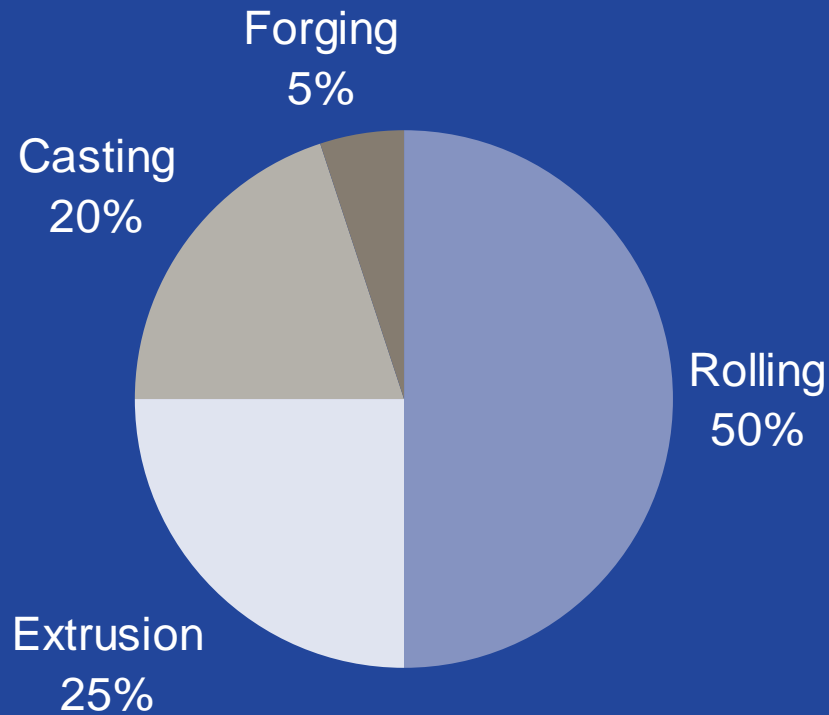
- Abundant energy at low cost
- Low labor costs
- Regional authorities fostering positive environment to attract and maintain industrial activity
- Relative proximity to high potential markets

## Main challenges:

- Alumina deficit
- Distance to markets and sources of raw materials
- Health, environmental and safety issues
- Large proportion of old and idle assets; need to upgrade technology
- Low productivity
- Financing
- Uncertain business climate



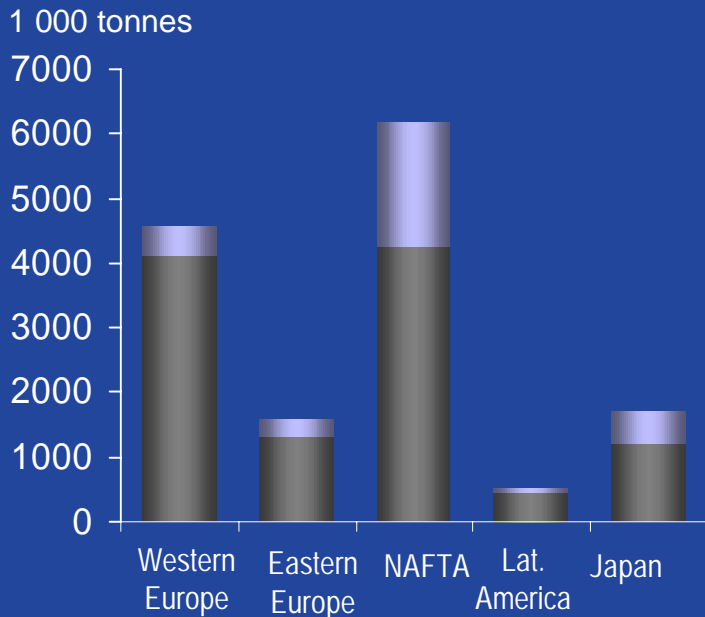
# Total consumption Western World Rolling Products main process chain



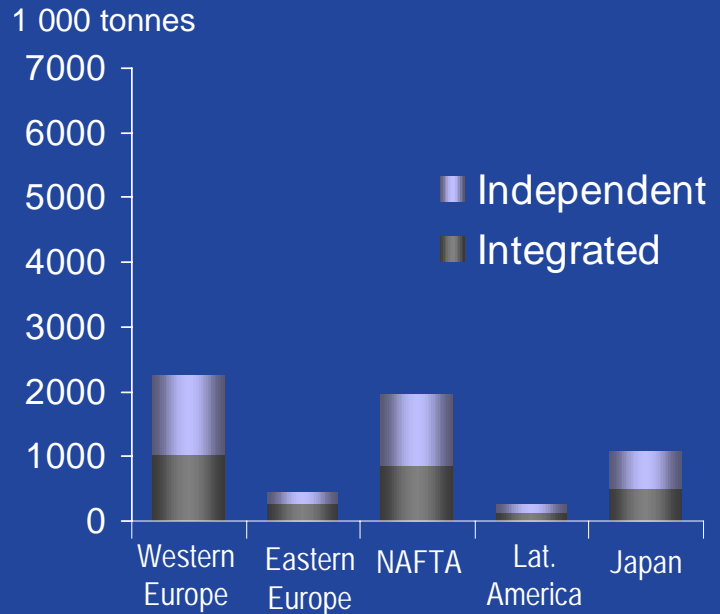
Approx. figures, 2001

# Process chain – the level of integration varies

Degree of Rolling integration, 80%



Degree of Extrusion integration, 50%

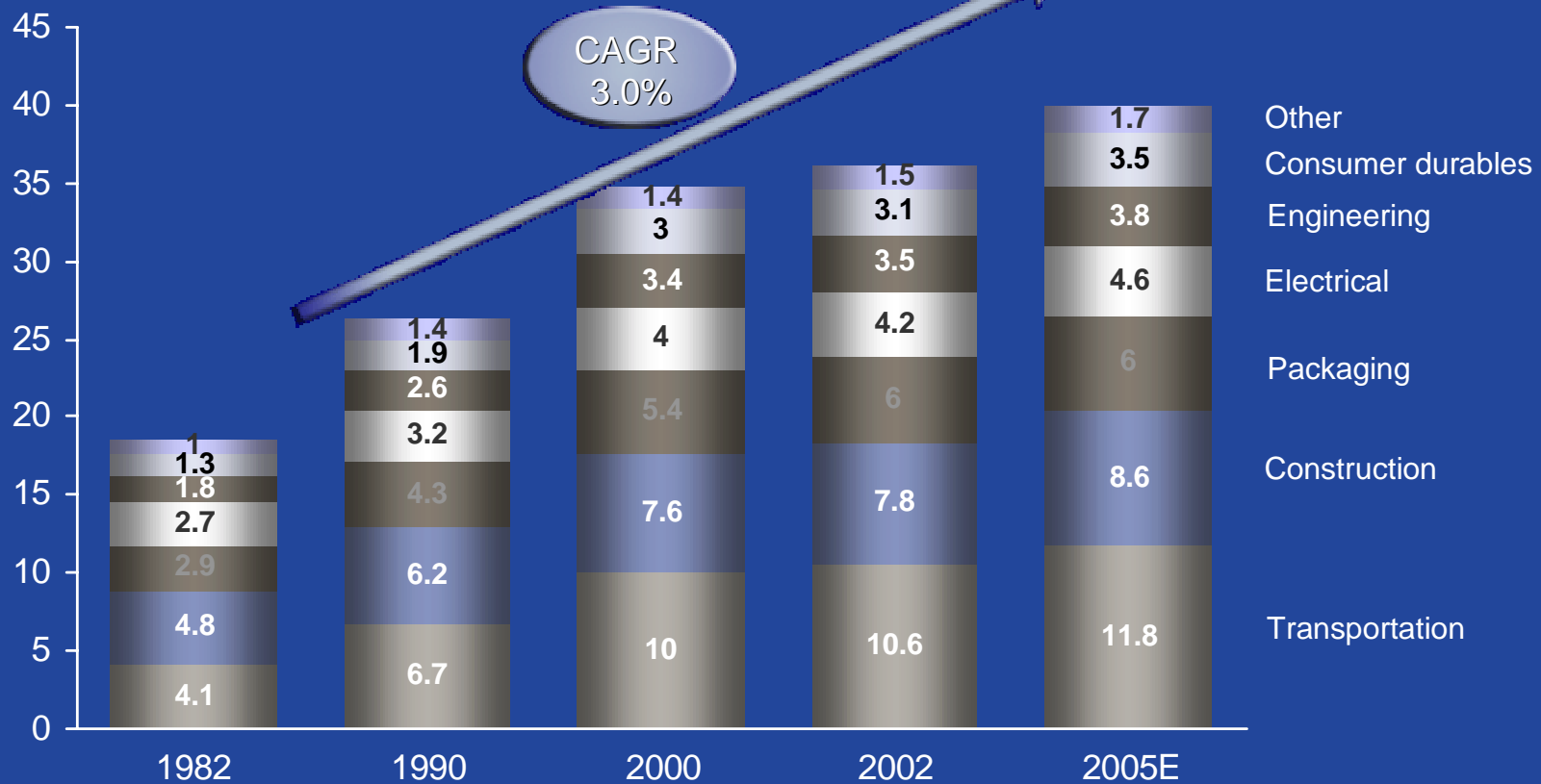


Degree of Casting integration: 10%

# Aluminium – a fast growing metal

## Aluminium demand development

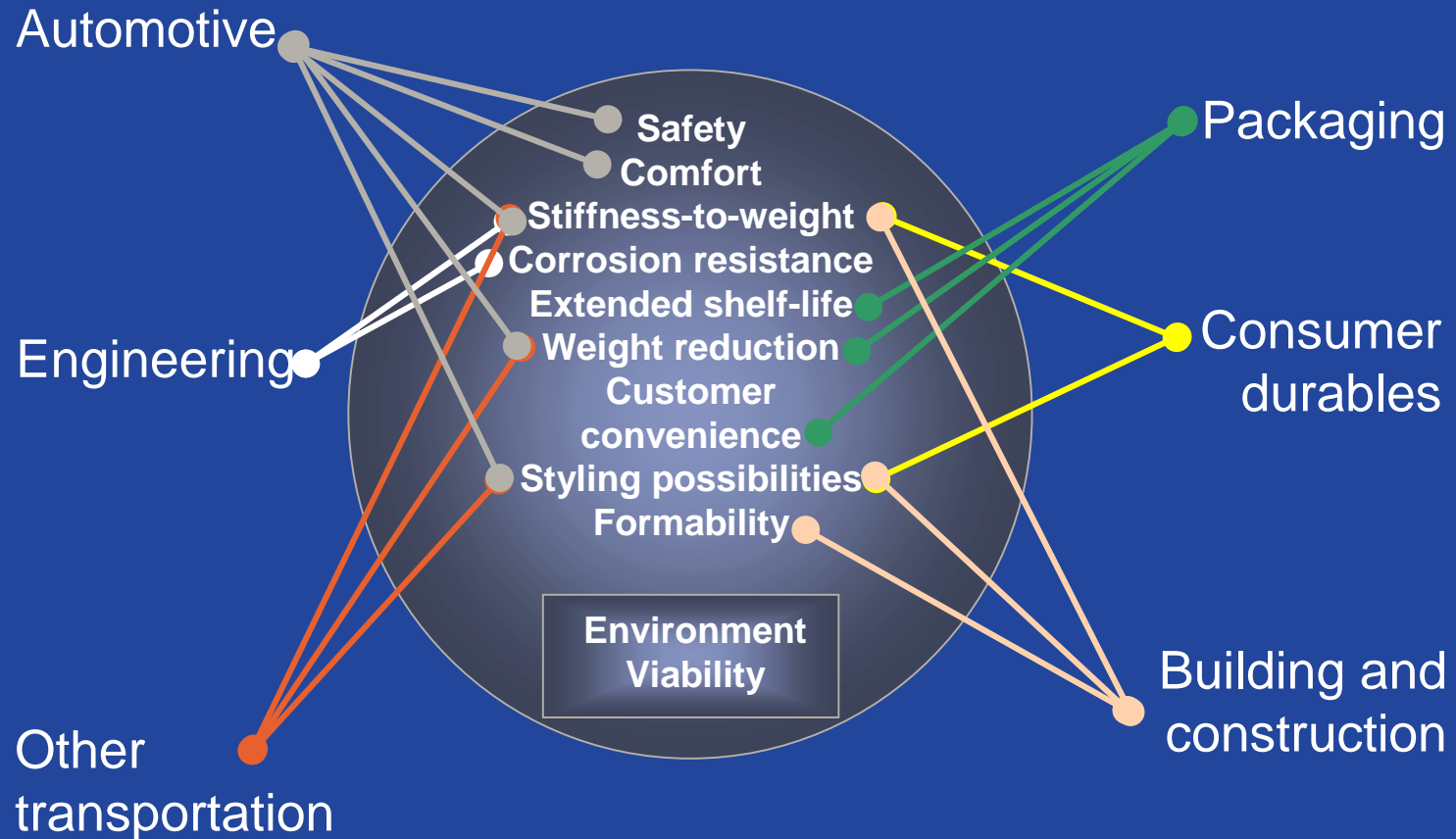
Million tonnes



Source: James F King, Brook Hunt



# Application areas for aluminium and main drivers for growth

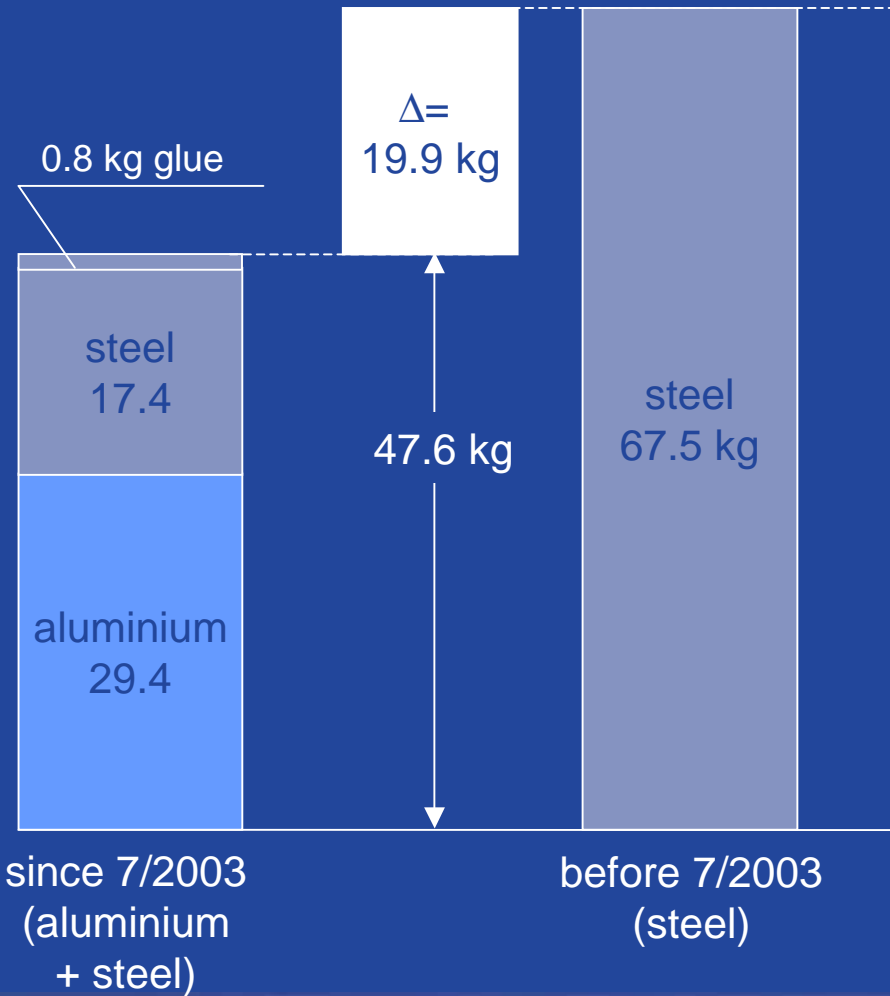


# Automotive – a strong driver for growth

What Customers are saying about Aluminium (BMW – Bologna, Nov. 2003)

- Aluminium is becoming more important in automotive design, particularly in the body in white and chassis systems
- Aluminium in the chassis system reduces the weight and provides functional benefits
- Aluminium plays a dominating role in the engine design especially in housing parts
- In the future the combining of materials will play an increasingly important role in engineering
- There is a great demand for material and process technology to reduce costs

# Aluminium for the front end structure Weight reduction – new BMW 5-Series



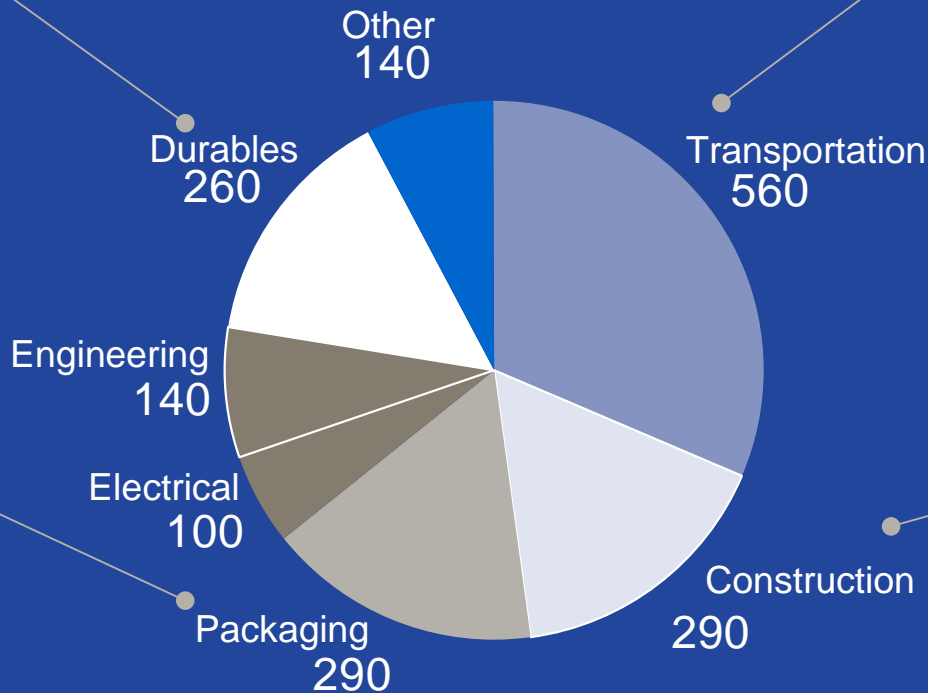


# Hydro Aluminium's exposure to different end-use segments

## Market dynamics – customer structure

Sales by end-use market (1 000 tons)

2002\*



### Customers:

- Few, large regional/national customers
- Limited material product differentiation
- Lithography segment different

### Customers

- Large/small and local/global (dependent on products)
- Limited material product differentiation
- Annual or longer contracts

### Automotive customers:

- Few, mainly global customers
- Strong negotiating power
- Differentiation is key

### Other transport customers

- Global, big
- Local, small

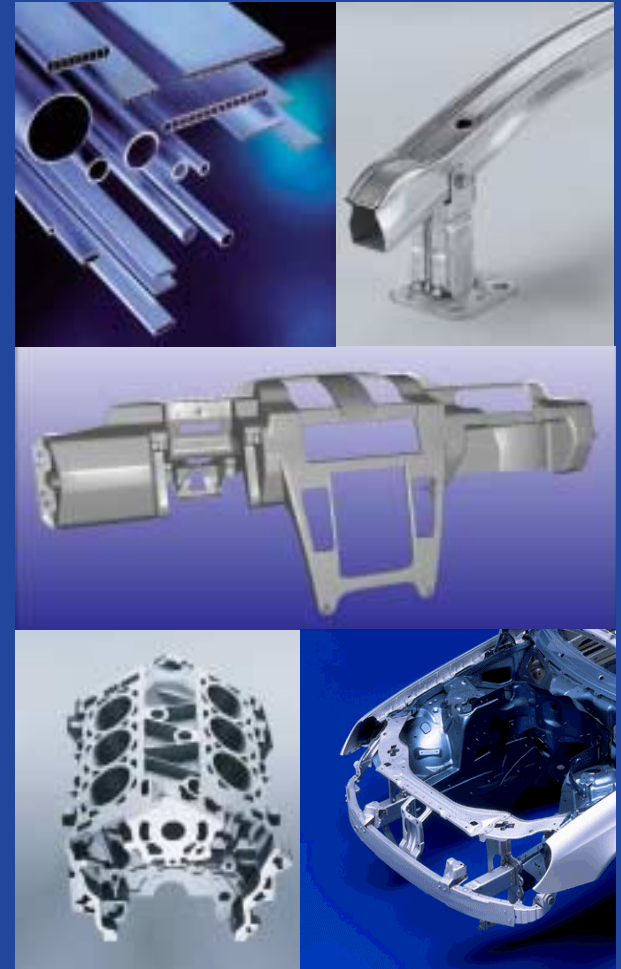
### Customers

- Small, local
- Short term contracts

\* 2002 includes VAW 01.01 – 15.03.2002  
Downstream business sectors plus foundry alloys sold directly to automotive industry

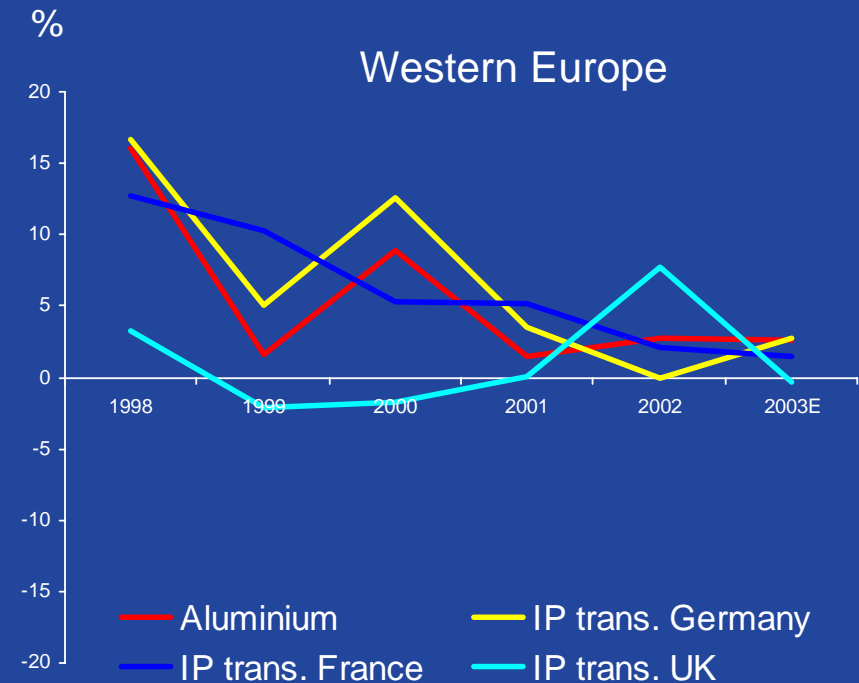
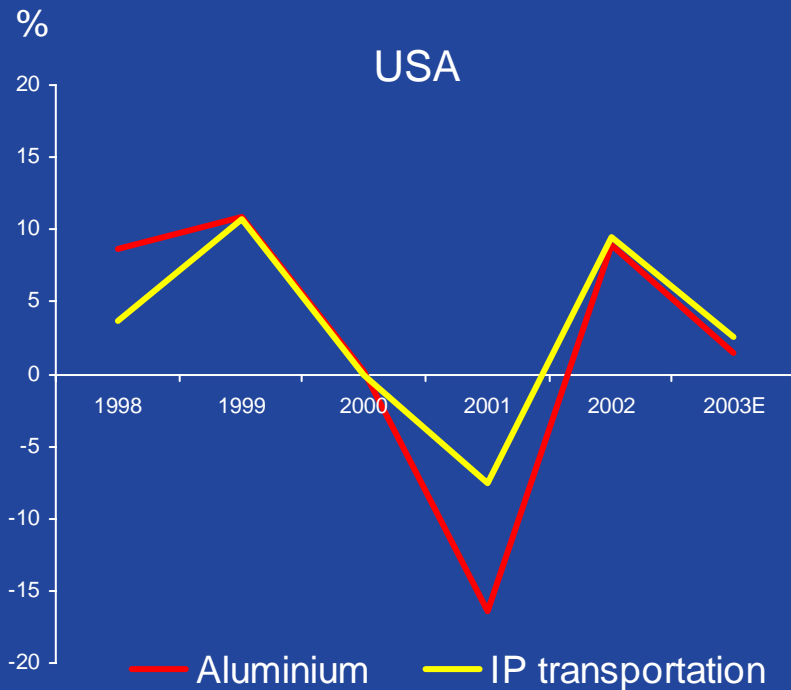
# Hydro Aluminium holds leading positions in light weight automotive applications

- Strategy focused on enhancing strong presence in selected market segments
- Key competencies in extruded, rolled and cast applications
  - Material understanding and alloy development
  - Design and process capabilities
  - Leading manufacturing technologies
  - Support to application development in aluminium and magnesium
- Lean organization committed to meeting customers' expectations



# Growth indicators – selected examples transportation

Good correlation to growth indicator for  
Industry production in transport sector



Sources: OEF, CRU, HAL

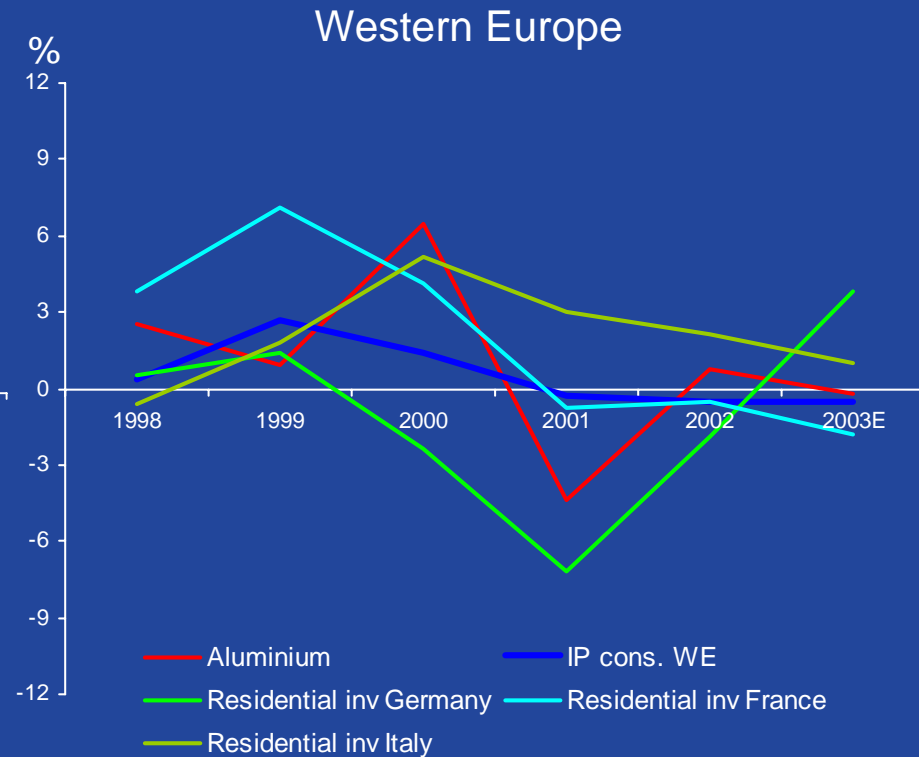
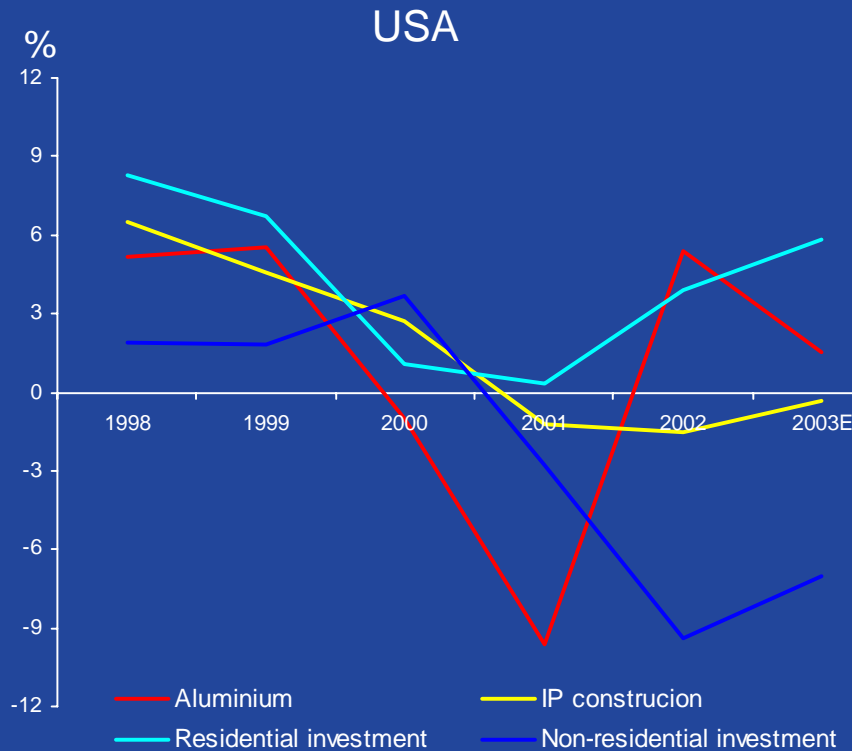
# Strong positions in construction segments

- Building applications based on extrusions and rolled products-based
- Broad range of solutions and products spanning from individual residential solutions to large international tender projects
- More than a metal supplier: Building Systems
  - Strong brands: Domal, Technal, Wicona
  - Leadership in product innovation and customer partnerships/relationships
  - Proprietary software for project calculations
  - Advanced technical project support



# Growth indicators – selected examples construction

## Strong pipeline effect in the US



Sources: OEF, CRU, HAL

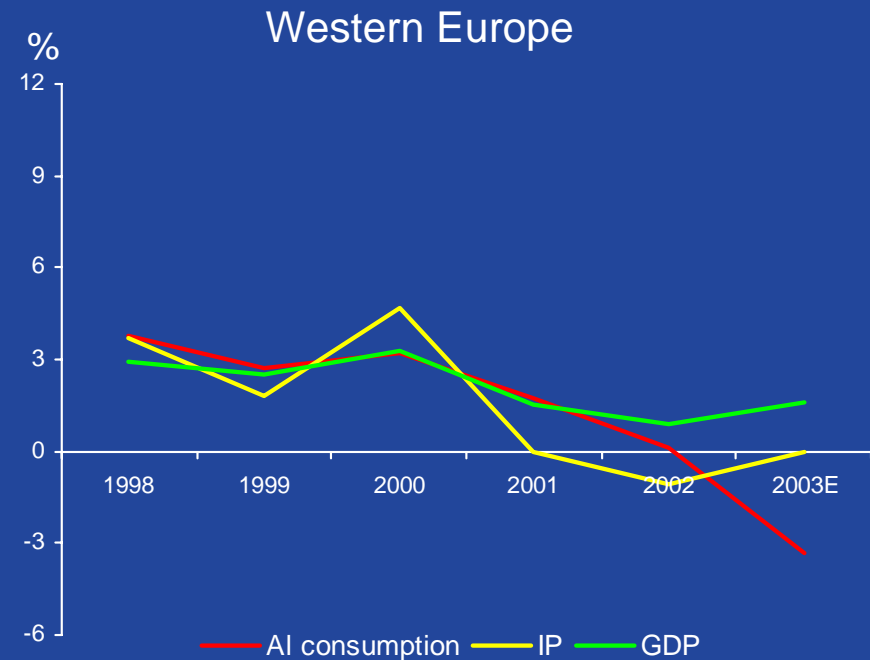
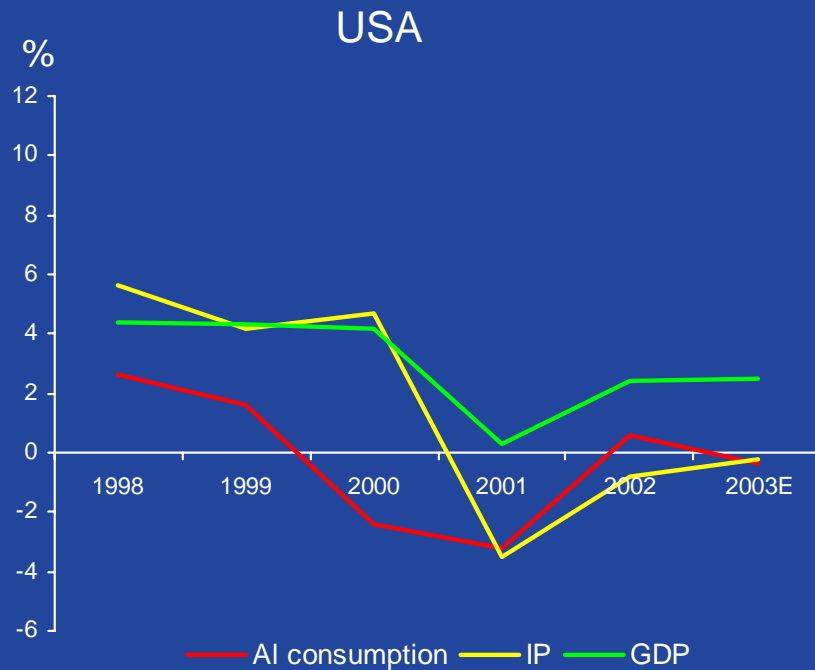
# Strong positions in packaging markets

- Hydro Aluminium serves the packaging market with more than just metal
  - Broad range of services to customers
  - Continuous product and service improvements
  - Contribution to increased customer productivity
- Partly dedicated product lines using best available technology
- Hydro Aluminium serves as benchmark for flexible packaging customers to evaluate other foil suppliers



# Growth indicators – selected examples packaging

Correlation to GDP stronger than to Industrial production



Sources: OEF, BrookHunt, HAL

# Closing remarks

- An attractive material, growing fast on a global basis
- Industry consolidation – both on supply and demand side – continues in most parts of the value chain
- Hydro Aluminium's market and product strategy:
  - Strengthen a unique portfolio: distinct value propositions
  - Strengthen position in construction market through 'Building Systems' brand portfolio
  - Selective growth in automotive engagements
  - Maintain leadership in speciality segments for rolled products – global reach

**A leader in selected segments – an innovative partner**



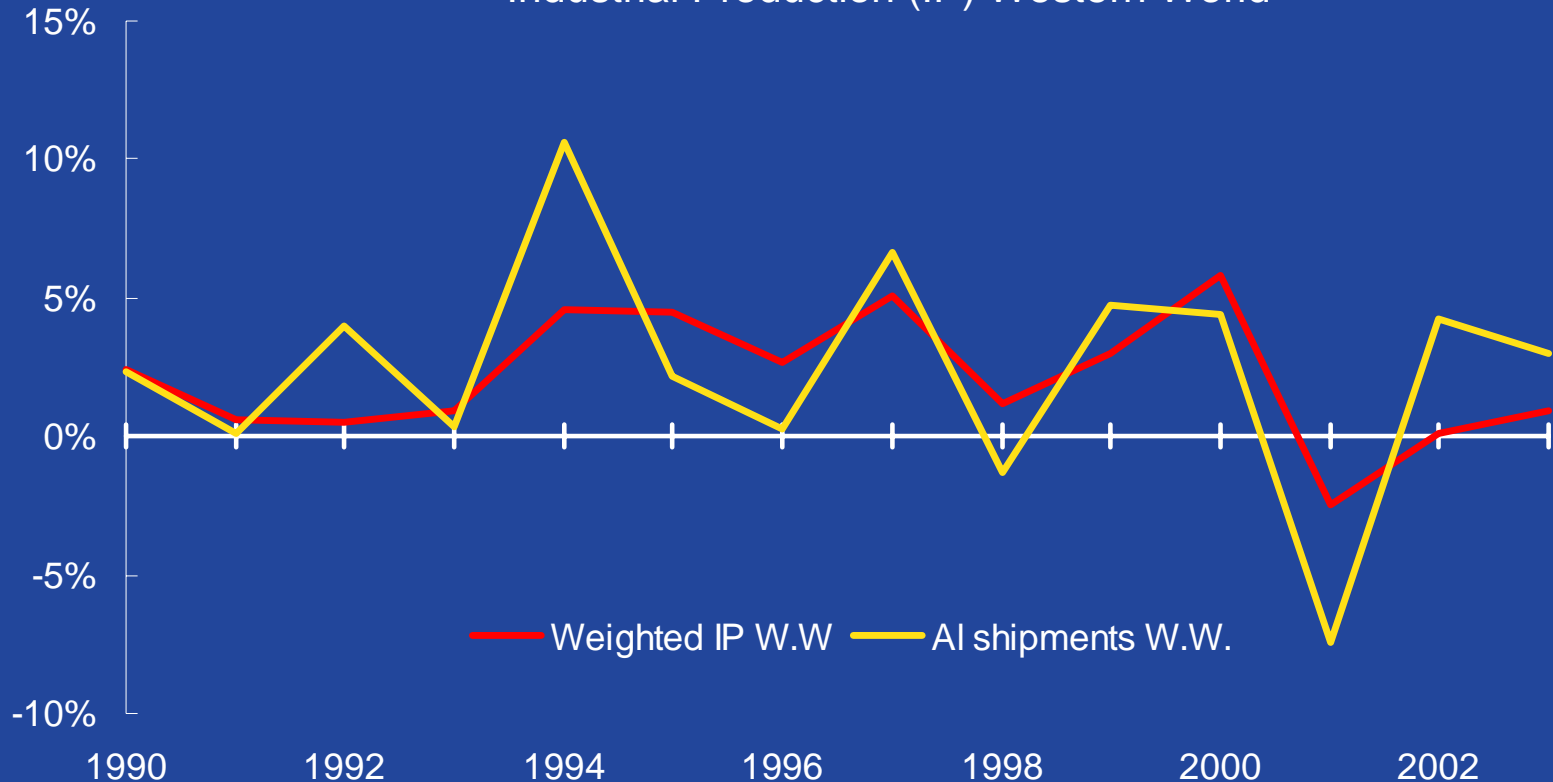


# Appendix

# Shipments growth in line with general economy – short-term influenced by pipeline effects

Change over previous year

Primary aluminium apparent consumption and Industrial Production (IP) Western World



Updated: November 2003

Sources: CRU, WBMS, AA, EAA



# Forward-Looking Statements/ Use of Non-GAAP Financial Measures

In order to utilize the "safe harbour" provisions of the United States Private Securities Litigation Reform Act of 1995, Hydro is providing the following cautionary statement: This presentation contains certain forward-looking statements with respect to the financial condition, results of operations and business of the Company and certain of the plans and objectives of the Company with respect to these items. By their nature, forward-looking statements involve risk and uncertainty because they relate to events and depend on circumstances that will occur in the future. The actual results and developments may differ materially from those expressed or implied in the forward-looking statements due to any number of different factors. These factors include, but are not limited to, changes in costs and prices, changes in economic conditions, and changes in demand for the Company's products. Additional information, including information on factors which may affect Hydro's business, is contained in the Company's 2002 Annual Report on Form 20-F filed with the U.S. Securities and Exchange Commission.

With respect to each non-GAAP financial measure Hydro uses in connection with its financial reporting and other public communications, Hydro provides a presentation of what Hydro believes to be the most directly comparable GAAP financial measure and a reconciliation between the non-GAAP and GAAP measures. This information can be found in Hydro's earnings press releases, quarterly reports and other written communications, all of which have been posted to Hydro's website ([www.hydro.com](http://www.hydro.com)).