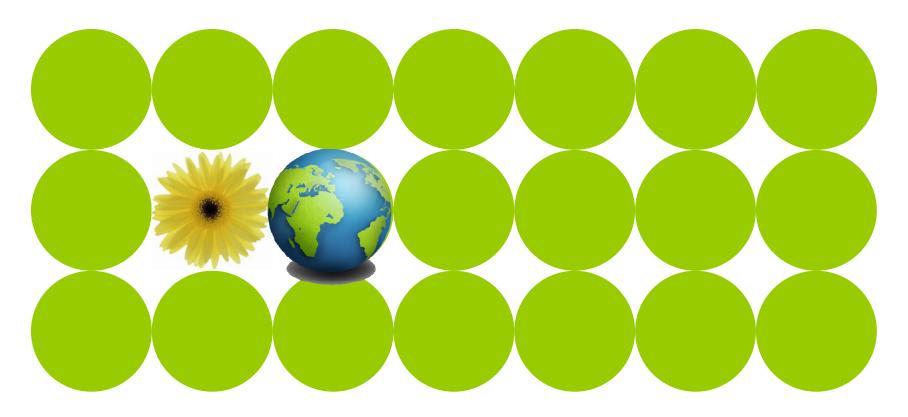
## **Hydro and Sustainability**



Jostein Søreide Roadshow 2012



#### **Global Trends**

- What do the society want?
  - Sustainable
  - Green
  - Environmentally friendly



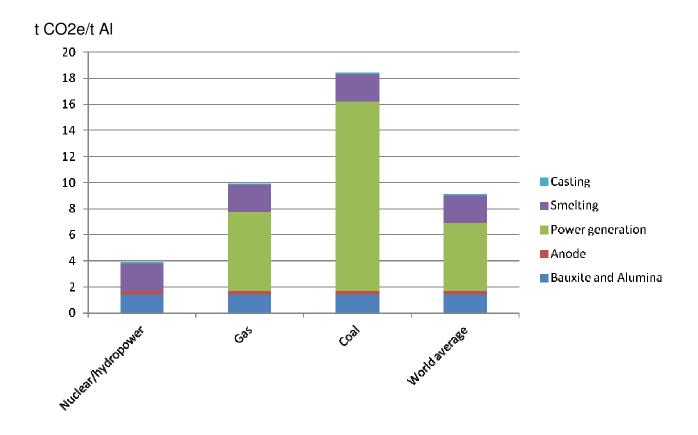
- What does this mean?
  - Low carbon footprint
    - Renewable power base
    - Recycled metal
  - Responsible value chain





## **The Carbon Footprint of Aluminium**

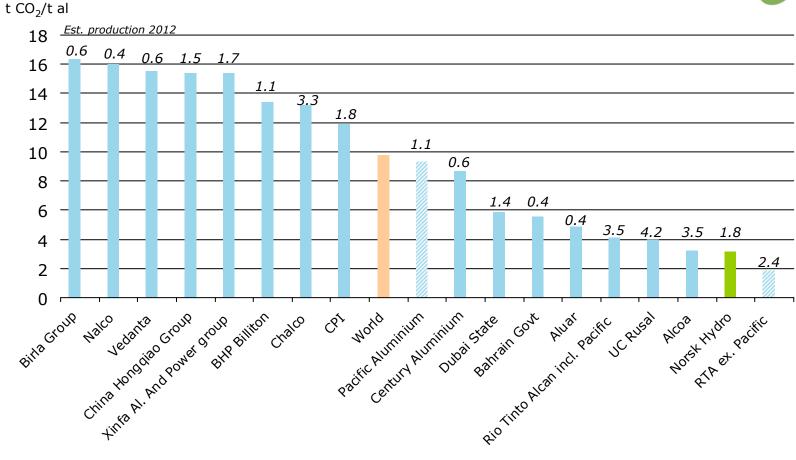






## **Hydro's Indirect Emissions**

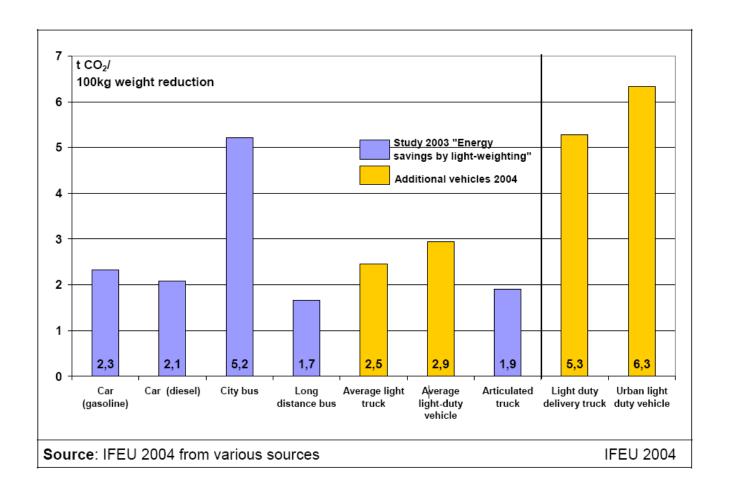






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## The Effect of Lightweighting in Transport





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#### **Aluminium - a Part of the Solution**

#### Emissions related to 1 kg aluminium

Production of primary aluminium  $+9 \text{ kg CO}_2\text{eq}$  Use of 25% recycled  $-3 \text{ kg CO}_2\text{eq}$  Reduced emissions from steel production  $-3 \text{ kg CO}_2\text{eq}$  Use phase  $-23 \text{ kg CO}_2\text{eq}$ 

### 1 kg aluminium = Reduction of 20 kg $CO_2$ eq





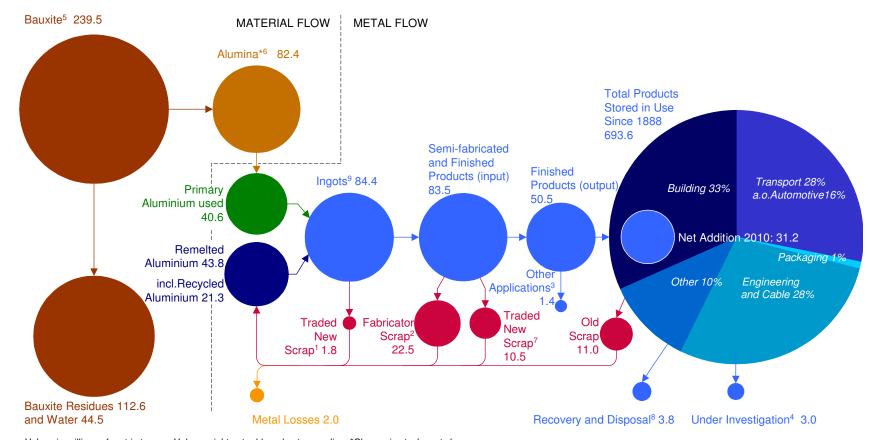
## **Recycling of Aluminium – a Viable Business**

- Recycling of aluminium requires only 5% of the energy used in primary production of aluminium
- Aluminium can be recycled over and over again without loosing quality
- Recycling rate is high
  - 95% in transport and buildings
  - 60% in packaging





## Access to Aluminium Scrap – a Challenge



Values in millions of metric tonnes. Values might not add up due to rounding. \*Change in stocks not shown

<sup>1</sup> Aluminium in skimmings; 2 Scrap generated by foundries, rolling mills and extruders. Most is internal scrap and not taken into account in statistics; 3 Such as deoxidation aluminium (metal property is lost) 4 Area of current research to identify final aluminium destination (reuse, recycling, recovery or disposal); 5 Calculated based on IAI LCI report - update 2010. Includes, depending on the ore, between 30% and 50% alumina; 6 Calculated. Includes on a global average 52% aluminium; 7 Scrap generated during the production of finished products from semis; 8 Either incinerated with/without energy recovery, material recovery or disposal; 9 Estimated stock decrease 890,000 tonnes.



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## **Hydro and Recycling**

- Hydro is a large remelter of aluminium with over 30 facilities worldwide
- Hydro increased its recycled amount by 35% from 2009 to 2011
- Hydro invests in increased recycling capacity (Karmøy and Neuss) and has as an ambition to recycle 1.000.000 tonnes contaminated and used scrap in 2020





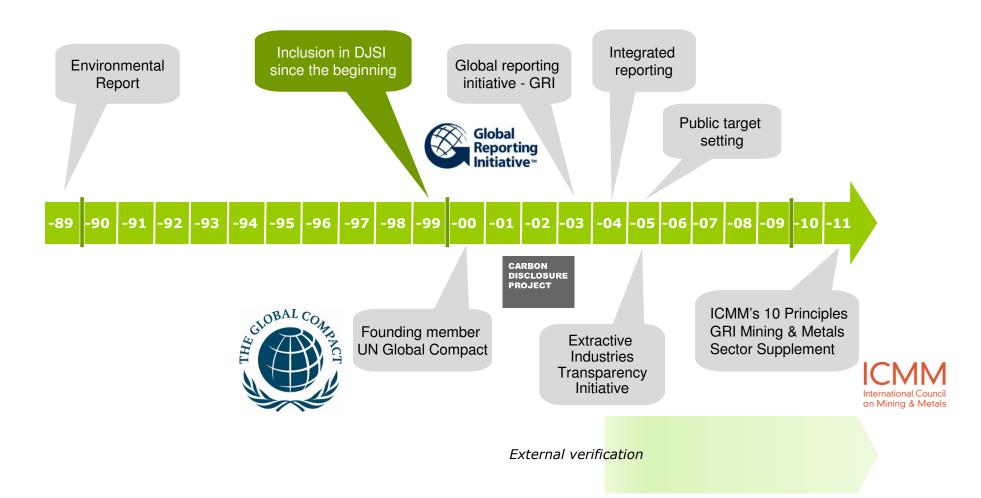
## Responsible Value Chain - More than CO<sub>2</sub>

- Economical dimension
  - Corporate governance
  - Transparency
  - Codes of conduct
- Environmental dimension
  - Biodiversity/rehabilitation
  - Water management
  - Waste management
- Social dimension
  - Human rights/social responsibility
  - Local development
  - Labor practices





## **Reporting and Transparency**





# Independent review of Hydro's performance











