



STEEL'S COMMITMENT TO CLIMATE CHANGE

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Session 1



Steel: the ESSENTIAL FACTS

- steel is the most important engineering, industrial and construction material in the world
- steel is used in every aspect our lives and without it progress would be impossible
- in 1950 steel production was 200 million tons
- in 2007 steel production was 1.3 billion tons
- future growth: 3-5%, with 8-10% growth in China, India and Russia

Steel: and CLIMATE CHANGE

- according to IPCC the steel industry accounts for 3-4% of global greenhouse gas emissions
- although much less energy is used to make steel compared to other materials such as aluminium, the size of steel (x 30 AL) makes us a big emitter
- over 90% of steel-industry emissions come from 9 countries/regions: Brazil, China, EU-27, India, Japan, Korea, Russia, Ukraine and USA
- on average, 1.7 tons of CO₂ are emitted for every tonne of steel produced

IISI Climate Change Commitments



1. maximise steel recycling
(steel is already No.1 recycled material)
2. use co-products e.g. to save CO_2 in cement
3. apply best-practice everywhere
4. apply new steels for greater energy efficiency – life cycle approach:
 - automotive
 - housing
 - power generation

IISI Climate Change Commitments



5. research on radical new technologies
6. measure and report greenhouse gas emissions
7. promote a global sectoral approach

Climate Change

Why is a global sectoral approach required?

- 40% of steel is traded
- current best-practice is mainly in Kyoto countries
- China already accounts for >50% CO₂ emissions
- greatest scope for improvement is in China, India and Russia

Climate Change

IISI global sectoral approach:

- measurement and reporting CO₂ emissions
- targets based on CO₂/tonne
- all major steel-producing countries engaged

Climate Change

What are we doing today?

- data collection
- scenario projections
- dialogues with governments and UN

Climate Change

What we will do tomorrow?

- work with customers to apply new energy-efficient solutions
- increase research on new technology
- targets and incentives to spread best-practice worldwide
(e.g. sector based CDMs)

World Steel 2050

- global steel production in 2050 could be > 3 billion tonnes
- even applying current best practice everywhere: global CO₂ emissions could be +50-100%
- the only long-term solution is to find ways to produce steel with a fundamental lower carbon footprint

New Technologies

1. Optimise the blast furnace + CCS
2. New smelting technologies
3. Hydrogen steelmaking
4. Electrolysis + nuclear power
5. ?

Conclusion and Summary

The steel industry working together with governments must promote a major expansion in R&D and the encouragement of thinking “outside the box”



Thank You

