

**Presentation 3.8:** Mondi's perspective on energy efficiency and emission reduction

**Peter Stieger**

Commodity Manager Energy

Mondi

E-mail: [peter.stieger@mondipackaging.com](mailto:peter.stieger@mondipackaging.com).





## Mondi's perspective on energy efficiency and emission reduction

Rome, 31st Oct 2006

A member of the Anglo American plc group

### Agenda

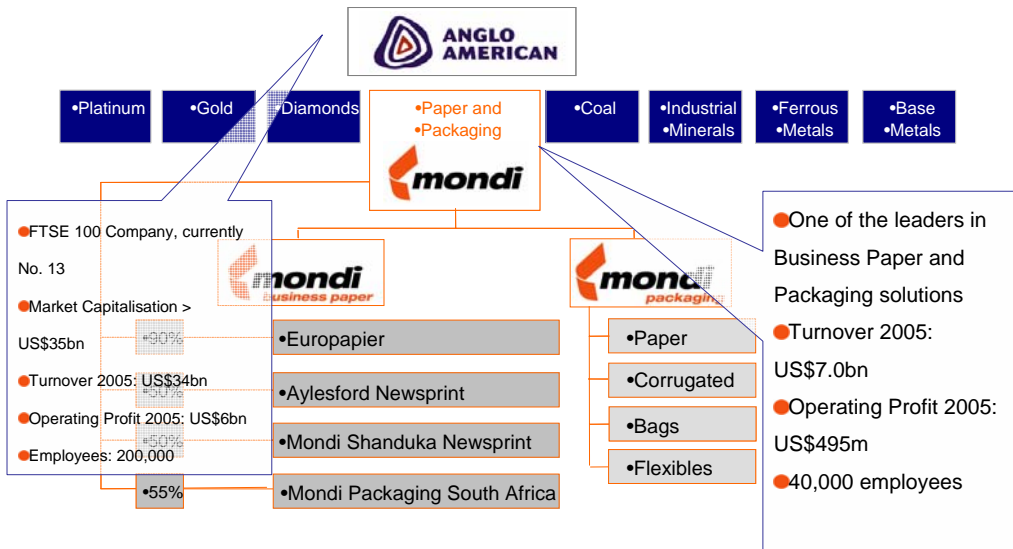


- **Mondi at a glance**
- **Mondi's current Energy Situation and CO2 Position**
- **Mondi's Perspective**
- **Final Statement**

A member of the Anglo American plc group

PAGE 2

# Agenda



# Agenda



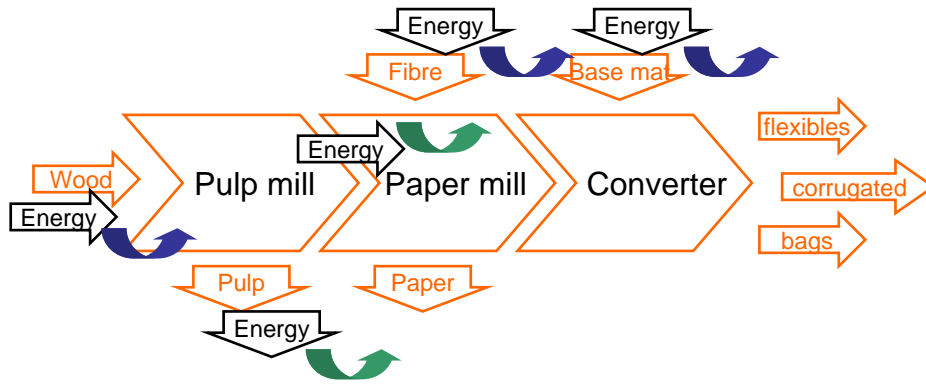
## ● Mondi at a glance

## ● Mondi's current Energy Situation and CO2 Position

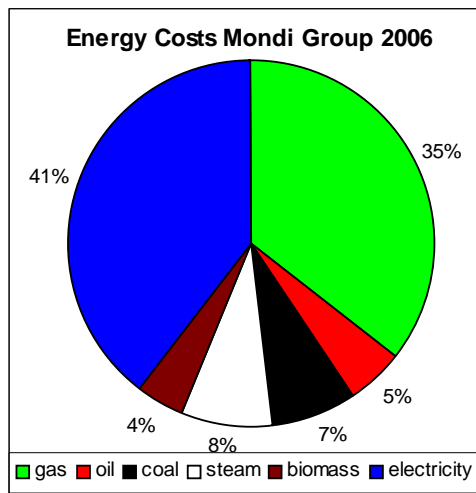
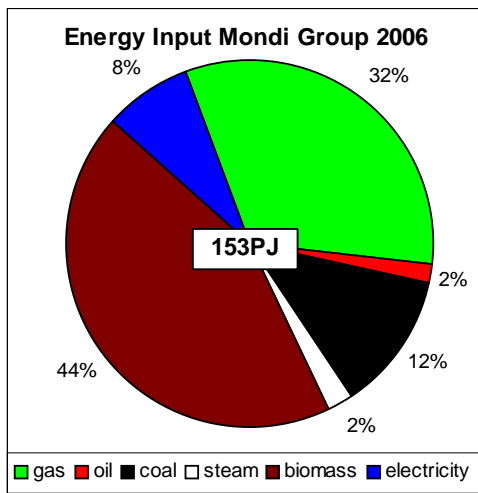
## ● Mondi's Perspective

## ● Final Statement

# Energy in the Value Chain



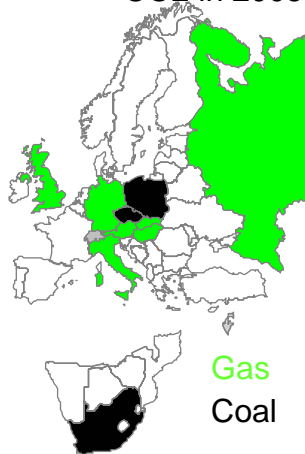
# Energy Situation at Mondi



## CO2 Emissions Paper Mills



Paper Mills emitted 3.90 mio t of fossil CO2 in 2005



Russia	1.67 mio t
South Africa	0.78 mio t
Czech Rep.	0.37 mio t
Poland	0.35 mio t
Austria	0.25 mio t
Slovakia	0.23 mio t
Germany	0.10 mio t
Hungary	0.07 mio t
UK	0.03 mio t
Italy	0.03 mio t
Sweden	0.01 mio t
Israel	0.00 mio t
Switzerland	0.00 mio t

A member of the Anglo American plc group

PAGE 7

## Agenda



- **Mondi at a glance**
- **Mondi's current Energy Situation and CO2 Position**
- **Mondi's Perspective**
- **Final Statement**

A member of the Anglo American plc group

PAGE 8

## Reasons to reduce fossil CO2



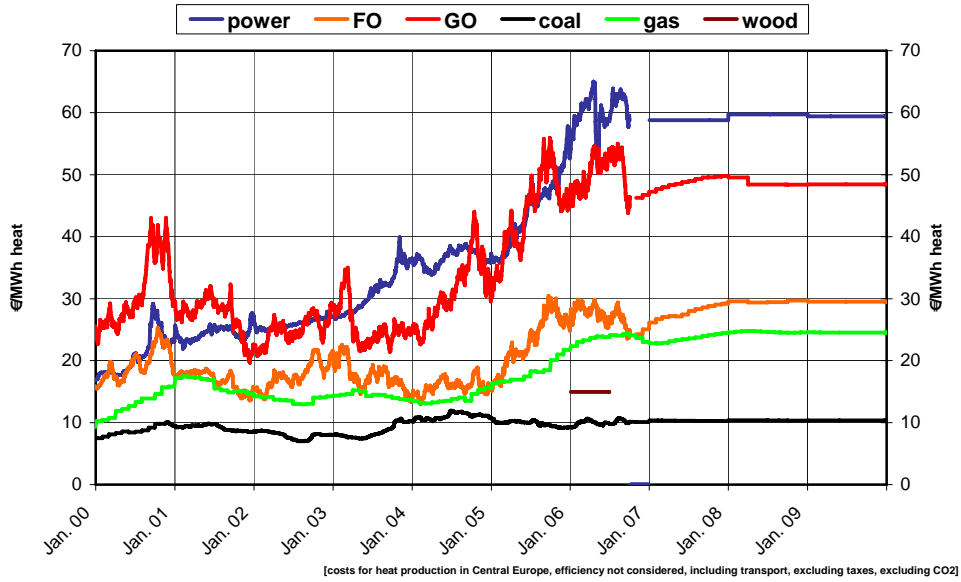
- **Costs**
- **Volatility of CO2 value**  
change of 1€/t EUA price results in more than 800k€ impact on Mondi's EBIT
- **Increase of product value**  
customers demand CO2-neutral products
- **Sustainability**  
investments need stable financial surrounding  
acceptance of production towards governments, NGOs and inhabitants

## Possibilities to reduce fossile CO2



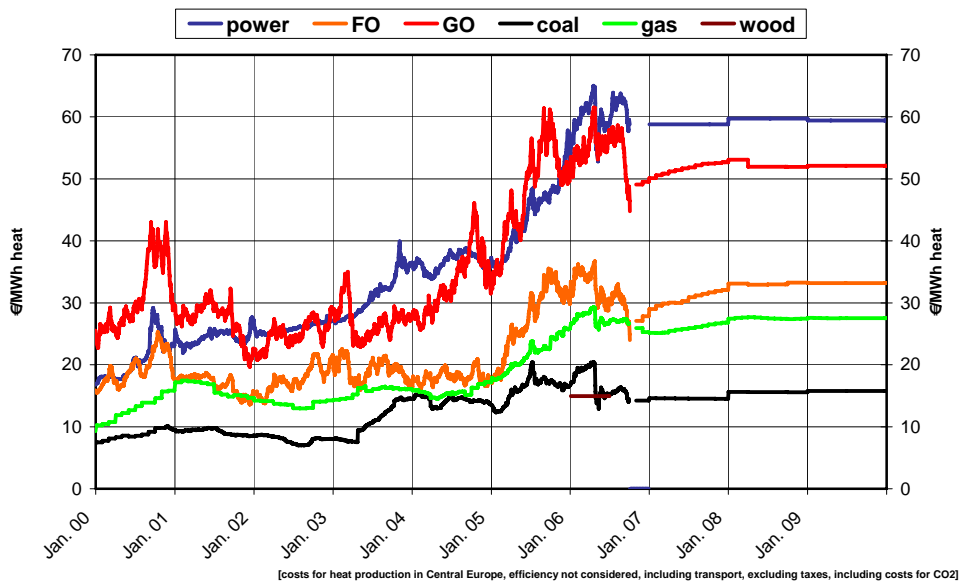
- **Reduction of Production** -> no option
- **Fuel switch**
- **Efficiency increase**

# Fuel switch “dirty”



A member of the Anglo American group

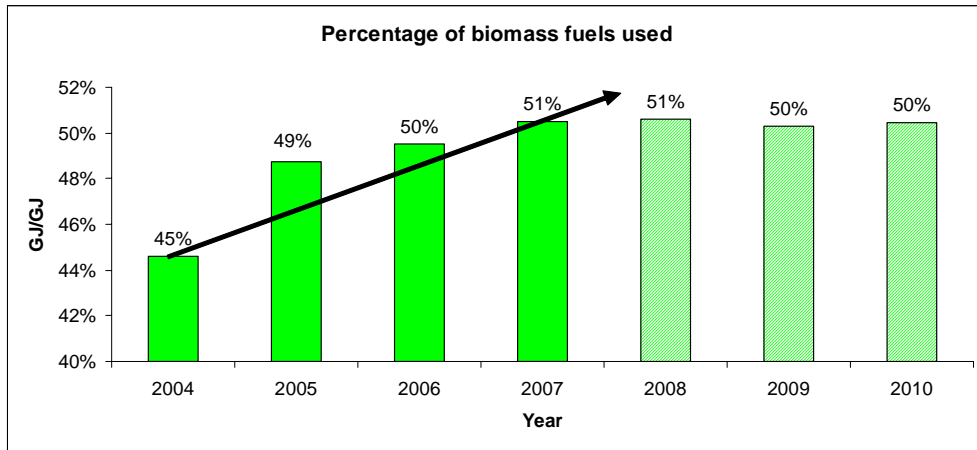
# Fuel switch “clean”



A member of the Anglo American group



## Fuel switch, development



A member of the Anglo American plc group

PAGE 13

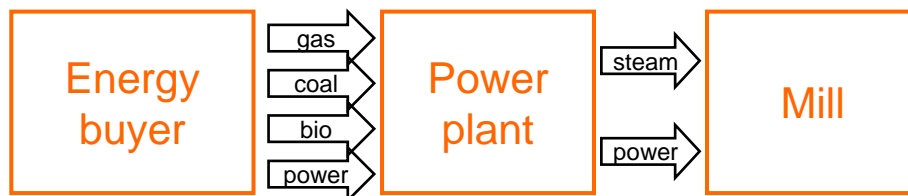
## Efficiency - Demand Side



energy costs optimisation

supply side

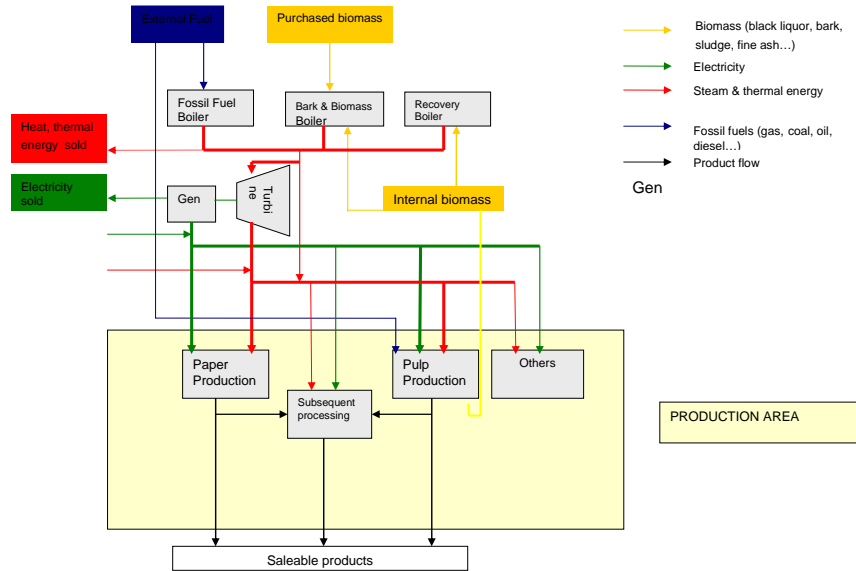
demand side



A member of the Anglo American plc group

PAGE 14

## Efficiency - Energy Flowchart



## Measures to increase efficiency



- Improve productivity (runability)
- Implement new technologies in pulp / paper production
- Investments in energy production units
- Investments in high efficient components
- Benchmarking
- Share of experience
- Cross learning
- Organisational adaptations
- Cost transparency

## Example for efficiency increase



- **Rebuild of PM in Slovakia with new technology**

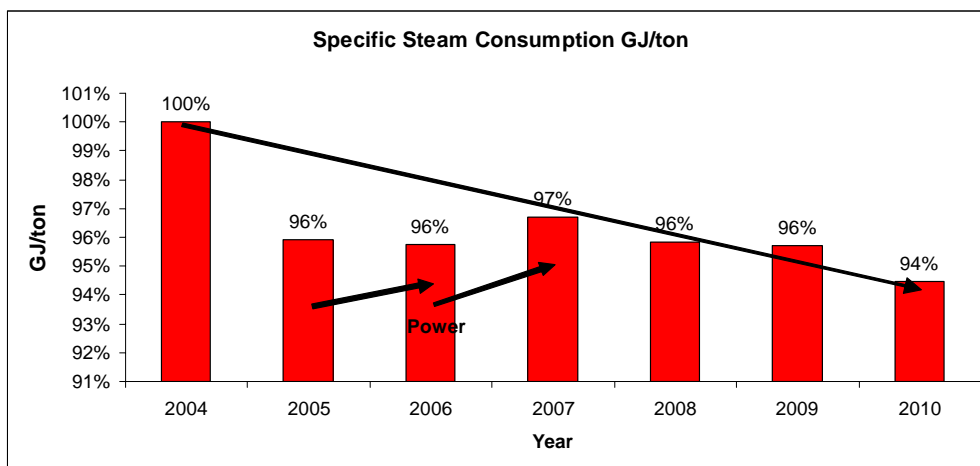
- Specific heat consumption: - 30%
- Specific power consumption: - 30%

- **Rebuild of PM in SA with the same technology**

- **2 Awards in SA for digester rebuilt**

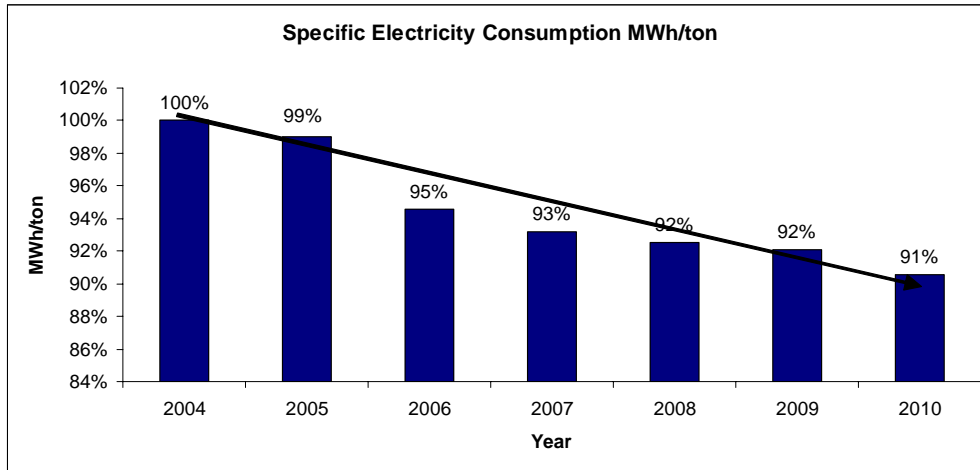
- NACA award in 2005 for improvement in air emissions
- ETA award for improvement in energy efficiency

## Specific Heat Input



\* Specific energy input based on saleable product of pulp and paper

## Specific Electricity Input

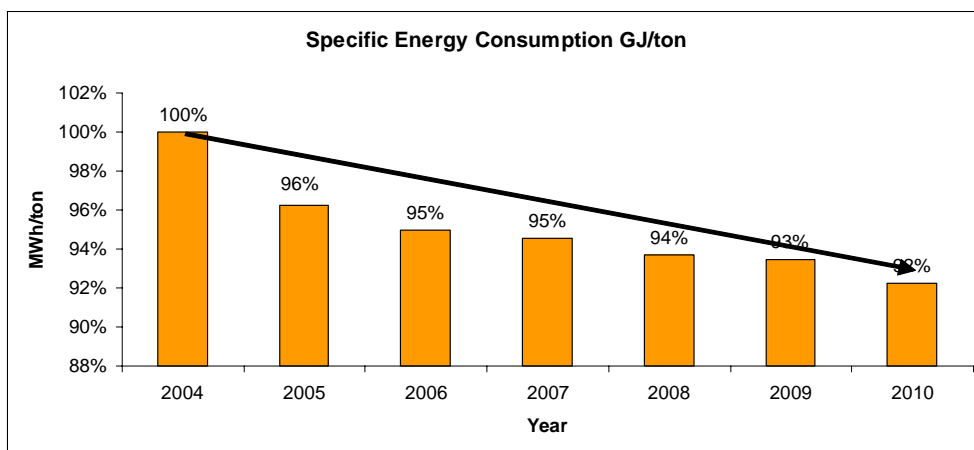


\* Specific energy input based on saleable product of pulp and paper

Member of the Anglo American group

PAGE 19

## Specific Energy Input



\* Specific energy input based on saleable product of pulp and paper

Member of the Anglo American group

PAGE 20

## Agenda



- **Mondi at a glance**
- **Mondi's current Energy Situation and CO2 Position**
- **Mondi's Perspective**
- **Final Statement**

## Final Statement



- **We live in a challenging environment.**
- **Mondi was very successful in increasing efficiency and reducing GHG.**
- **Mondi will work further to become even cleaner by increasing efficiency and increasing it's share of RES where feasible.**

**All we need is investment friendly stable regulatory surroundings.**