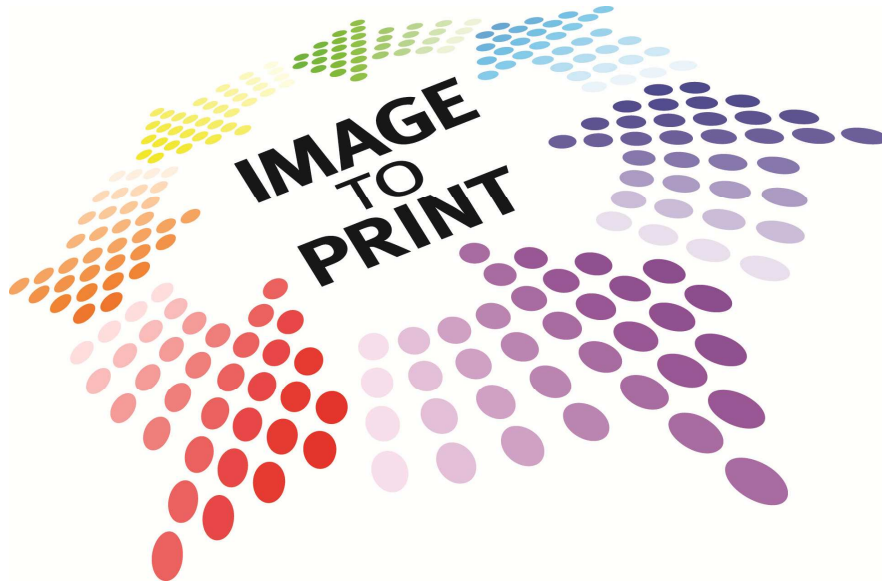


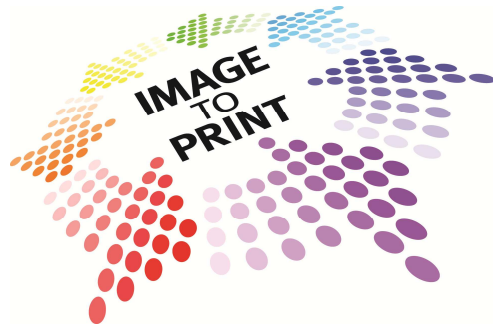
# Technology & Innovation Days

image-to-print | April 4<sup>th</sup> 2013



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**« we as partners want to share our thoughts,  
together with you, our customers,  
to contribute all together  
to overall improvements to our industry... »**



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The World  
is changing...  
**and so do we!**



# Environment, Sustainability, CO<sub>2</sub> Footprint, ...

## The Brands` Topic Today

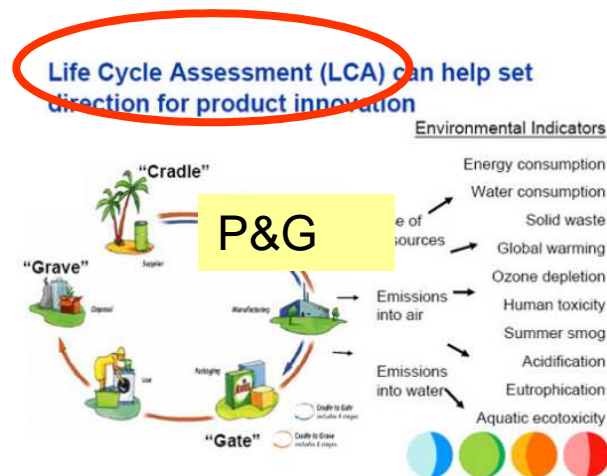
**Kimberly-Clark**  
Growing Responsibly In A World Of Finite Resources

**Our Sustainability Framework**

K-C embraces sustainability through our commitments to...

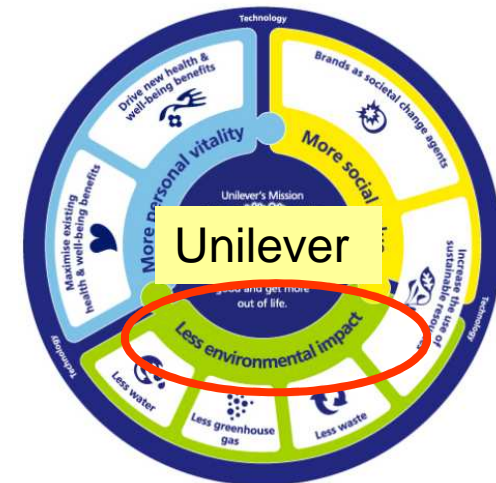
- PRODUCTS** The products we make...
  - Listening to the Sustainability insights of our customers/shoppers/choosers/users to help drive innovations.
  - Applying "Design for Environment" principles systematically to our product development and innovation processes.
  - Being a global leader in the responsible use of resources.
- OPERATIONS** The way we do business...
  - Reducing the environmental footprint of our operations, including fresh water reduction, energy conservation, and waste reduction.
  - Encouraging our business partners to adopt sustainable practices.
- COMMUNITIES** Our contributions to the world...
  - Having a positive impact on local communities and the environment.
- EMPLOYEES** Empowering our employees...
  - Challenging employees to help K-C achieve success in its Sustainability efforts.
  - Encouraging employees to make better choices for the environment on a daily basis.
  - We need to care for our employees (health and Safety efforts).

Kimberly-Clark

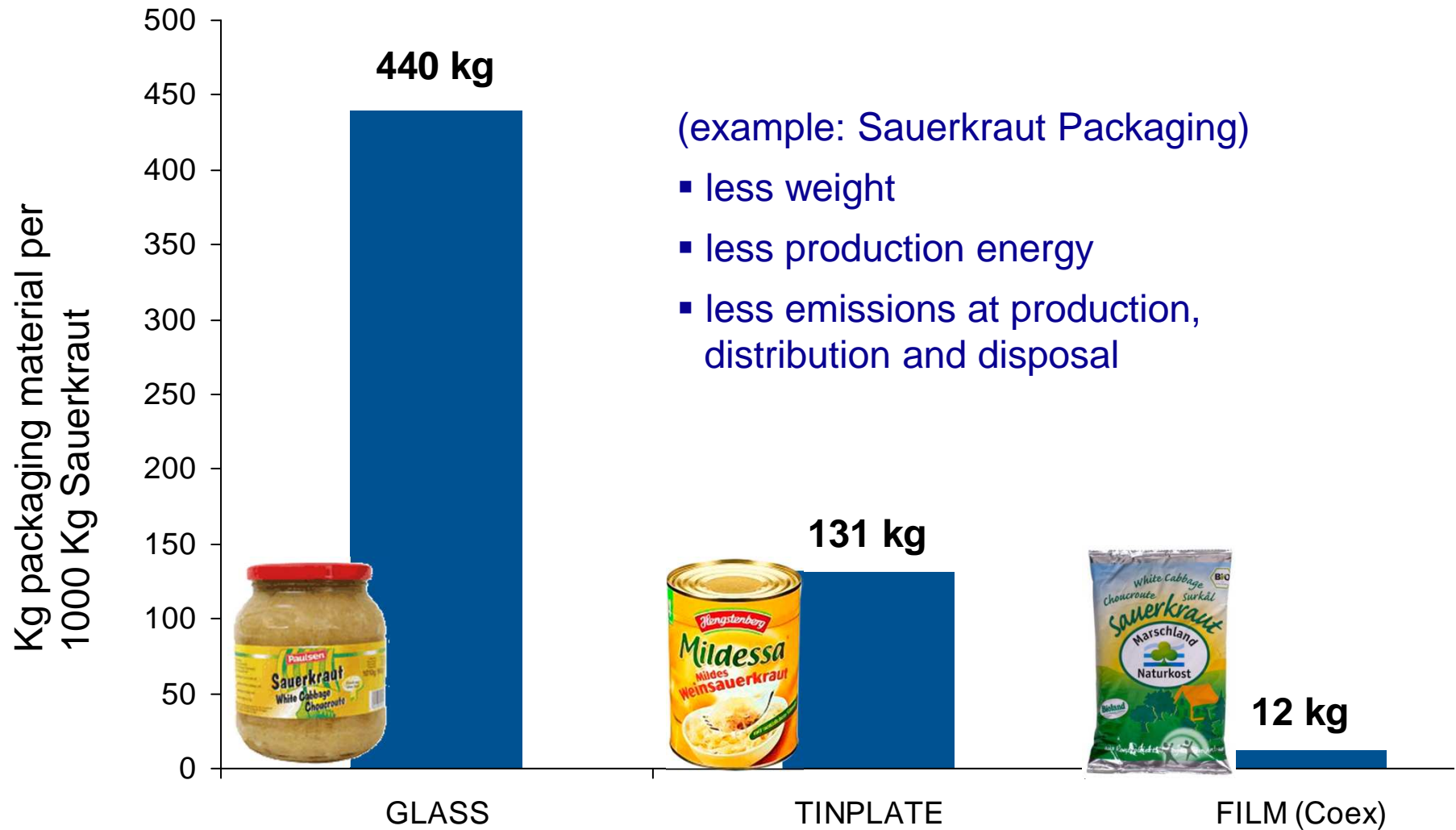


# Environment, Sustainability, CO<sub>2</sub> Footprint, ...

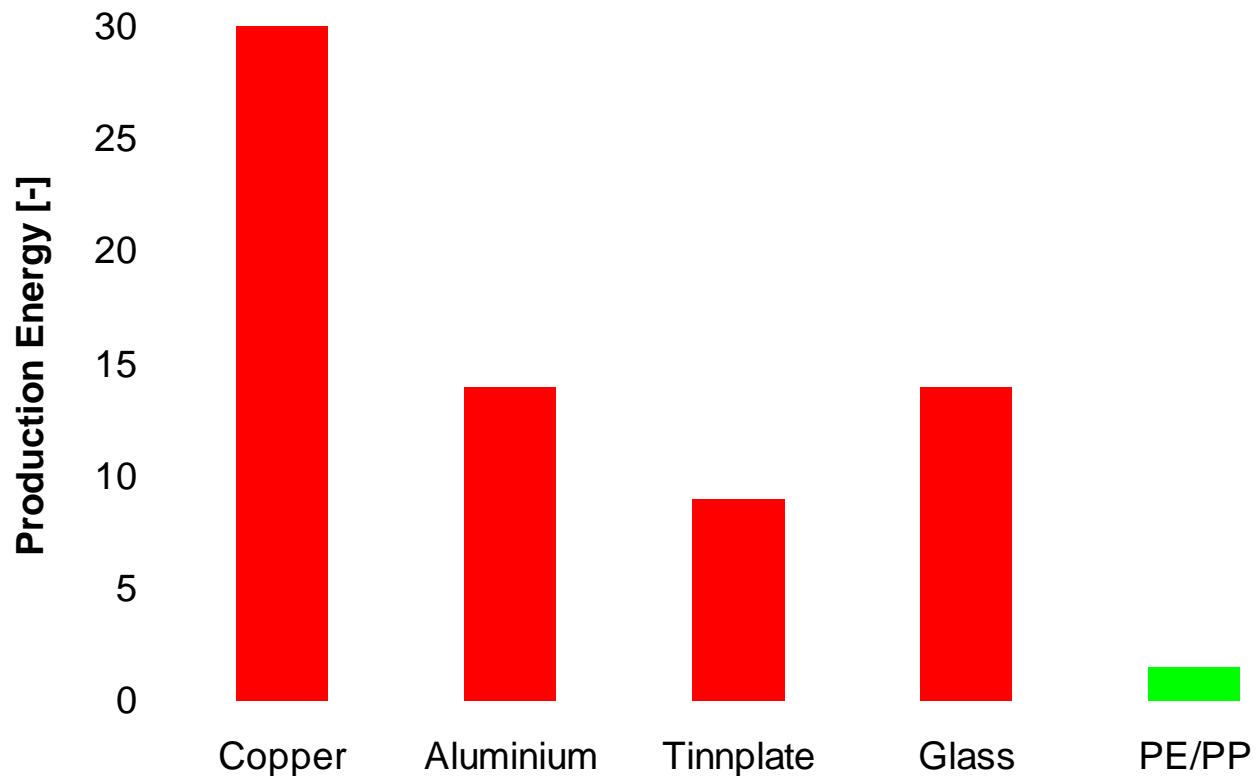
## The Brands` Topic Today



# Flexible Packaging is sustainable!



# Production energy used for different types of packaging





**Printing** exists  
since more than 500 years...

**Printing** has been  
a major factor  
for changes in this world...



Johannes Gutenberg  
1408 - 1468







We don't want to look back 500 years –  
but what has changed in our Industry  
over the past 10 to 20 years?



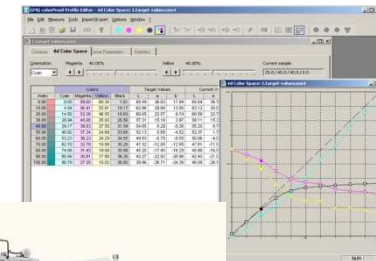
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# Pre-Press Developments

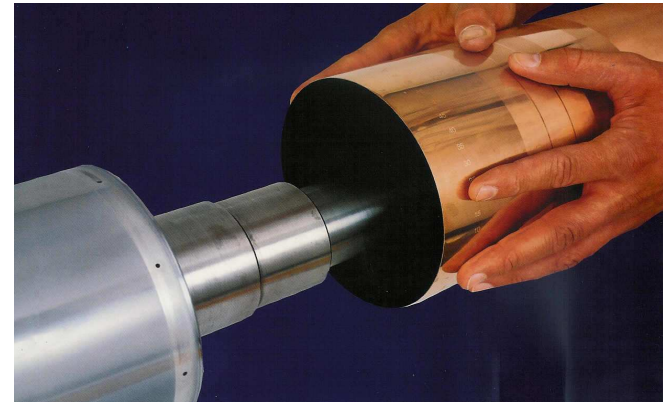
By applying **PCM** (Print Color Management) in the pre-press stage, color matching times on press have been reduced significantly.

This means less **waste** and less **cost**!



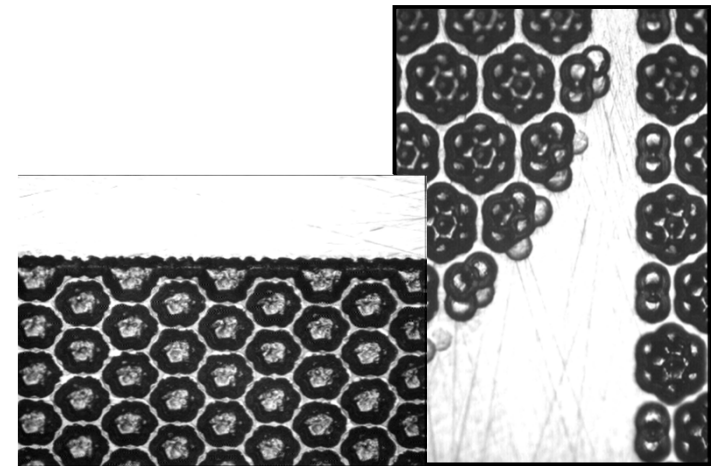
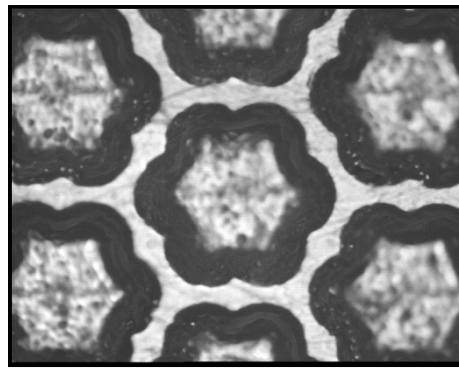
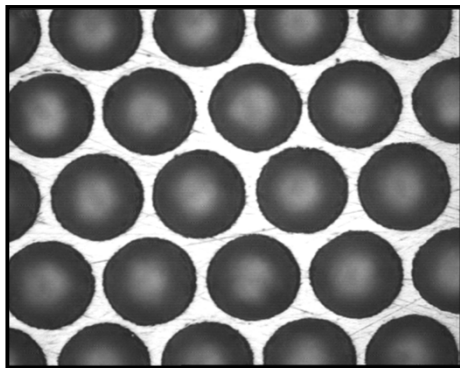
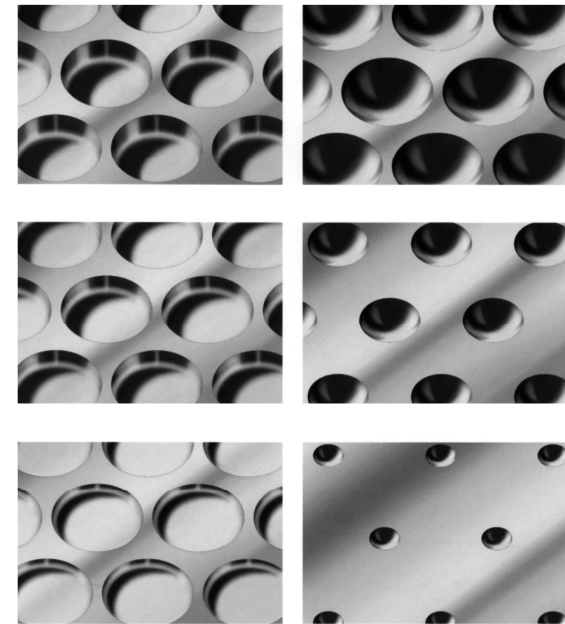
# Light Weight Solutions for bases and Sleeves

- easier handling
- reduced set-up times
- reduced storage costs
- reduced transport costs



# Developments such as **Laser-Engraving**

- **faster** engraving time
- higher **quality** and higher **definition**
- better **printability** and ink transfer





# Rotogravure press developments



**MERKUR HELIOSTAR 1990**

(Equal Job,  
30.000 meters)



**HELIOSTAR SL 2010**

■ Production time:	130 min.	85 min.	- 35 %
■ Energy consumption:	450 kWh	285 kWh	- 37 %
■ Waste of substrate:	1120 m	320 m	- 71 %
■ Waste of ink:	14,9 kg	7,9 kg	- 47 %



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# HELIOSTAR S

## Drive & Preregistermanagement



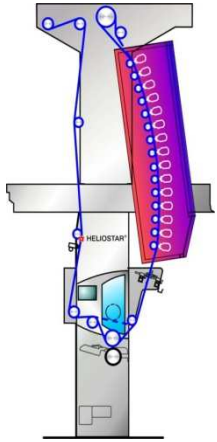
**EASY SYNC:** Only 1 web length in the machine is needed to set preregister

**HELIOCONTROL:** Highest register accuracy and lowest waste rates

**=> Savings of approx. 200.000 m of waste p.a.**



# HELIOSTAR S / Drying System

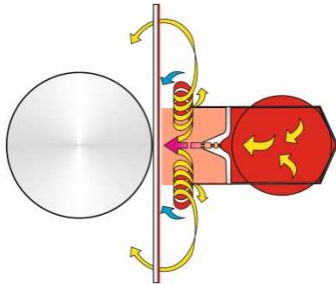


**Effizient concentration of solvents in the exhaust**

**30% Energy savings**

**Effektive air flow in drying hoods**

**20% less air volume**



**Fans with frequency control**

**20% savings of electrical energy**



# PRINTING INK DEVELOPMENTS

## Development of gravure inks for high temperature retort packaging

Lowered print production costs due to high speed printing capability and low solvent retention properties

Facilitated development of convenience packaging

Can be used for up to 135' retort sterilisation processing applications

Enabled packaging design trend from metal cans to flexible packaging solutions



# PRINTING INK DEVELOPMENTS

**Multipurpose Inks for multi-  
substrate and surface &  
lamination applications in  
one system**

**Lowered waste**

**Lowered downtimes**

**Higher speeds**

**Lowered solvent retention**

**Simplified systems for less  
inventory and cost**



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# PRINTING INK DEVELOPMENTS

## Water based gravure inks for film printing

More sustainable solution

No solvent abatement issues

Low VOC

Print quality improvement to  
Solvent Based Standards





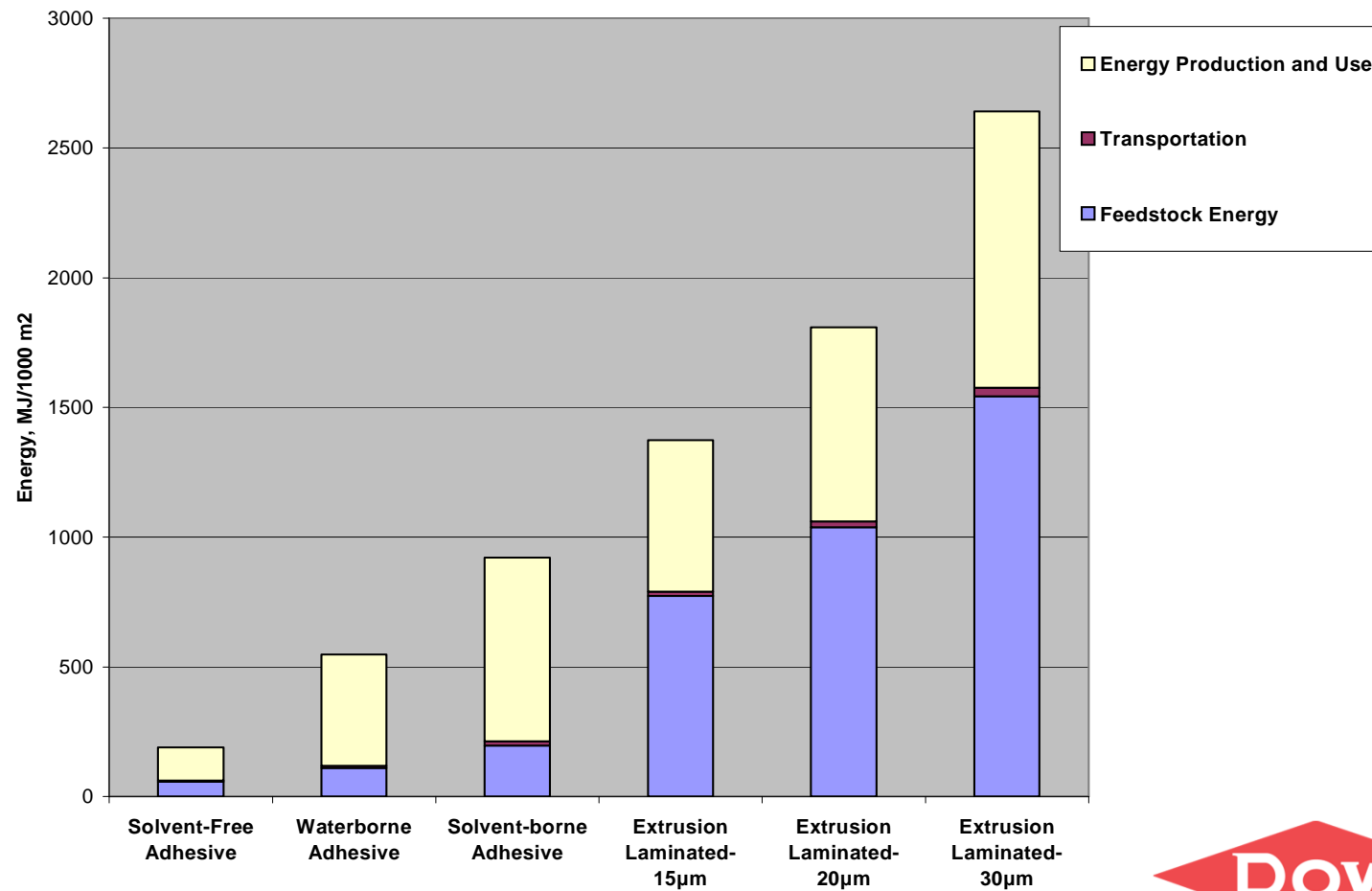
nordmeccanica solutions  
for a **Better Life**



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## Energy Use in MJ/1000 m<sup>2</sup>



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Technical Sessions 2010 - April 28<sup>th</sup>  
**Celebrating Earth DAY**



**FOCUS ON: SUSTAINABILITY**

Don't miss the opportunity  
 to see machinery, adhesives,  
 films and inks performing together  
 to deliver practical answers  
 to your packaging needs.


**HANDS ON PURE FACTS**

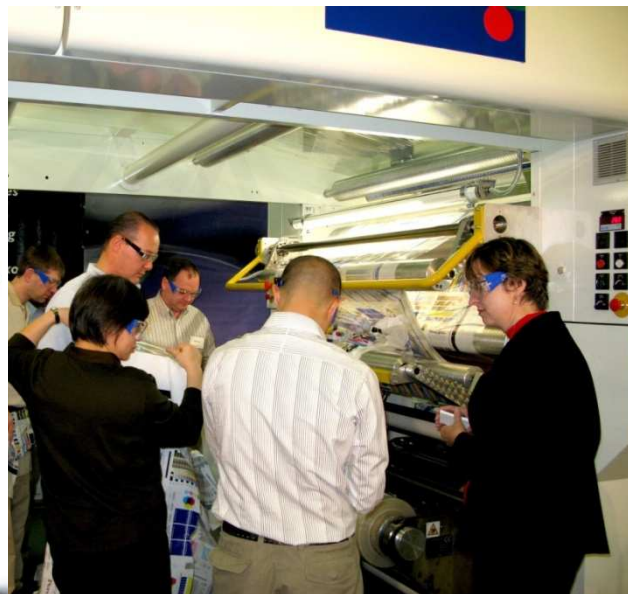


**nordmeccanica group**

technical partners





**SunChemical**  
 a member of the DIC group 

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**The Easy Way to Sustainability**



## "One Shot": Why?

- **Zero emissions.**

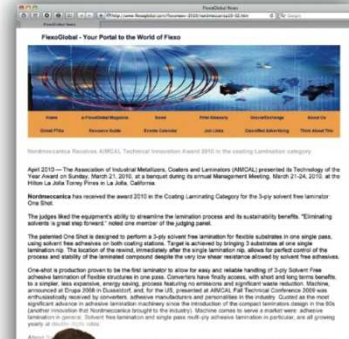
**-Lower installation and handling costs:**

- - 20% capital equipment investment.
- - 25% auxiliary equipments.
- - 100% savings on after burner (incinerator).
- - 25% maintenance costs.
- - 10 % spare parts.

**-Lower energy consumption:**

- Competitors: 1200 kW.
- Triplex Combi Vertical: 1000 kW.
- One Shot: **200 kW.**





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**We believe in the future!**  
**Rotogravure, the technology for the future!**



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**“We are partners,  
we care for our Industry,  
and our world...”**

**Thank you for being here  
and thank you for your attention!**



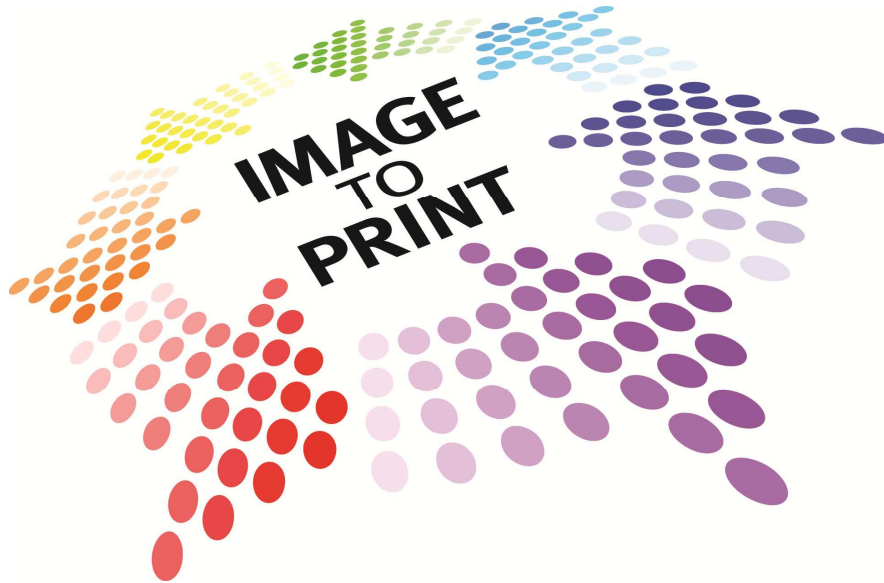
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Cảm ơn bạn  
Thank you...



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