Water-Based Inks for Flexible Packaging
A Sustainable and Healthy Solution for the Future

Tjalle Hijlkema | March 2021
AGENDA

Tjalle Hijlkema, BASF
General and market introduction to water-based inks for flexible packaging

Marcin Spiewok, SILBO
Innovative approach and the highest quality is always combined with care for nature

Laura Pomes, Quimovil
Water-based inks: the sustainable solution for the future

Jordi Puig, COMEXI
We are entering a new era of sustainability and there is no turning back

Q&A

All
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AGENDA - INTRODUCTION

- European ink market for flexible packaging
- Pros and cons of water-based inks
- Why consider the conversion?
- #WePrethinkINK
European Ink Market for Printing & Packaging – A Mental Map

European Ink Market
- Offset Ink
- Liquid Ink
- Flexible Packaging
- Paper and Board

Liquid Ink
- FlexPack ~ 90% SB

Flexible Packaging
- Paper ~ 90% WB

Print Techniques
- Roto Lamination
- Roto Surface Print
- Flexo Lamination
- Flexo Surface Print

DIGITAL
Quite Some Solvents Currently Used in Inks for Flexible Packaging

**INK COMPOSITION**

- Wet Ink: 12%
- Pigment: 5%
- Additives: 5%
- Resins: 18%
- Solvent: 65%

**How Much Solvent Is Being Used in the Flexible Packaging Industry in the EU**

- 250,000 MT (250 kT) Ink in Europe (ca 150 kT solvent) per Liter Ink, 1 Liter Solvent
- 150,000 + 250,000 = 400,000 MT Solvent
- 400,000,000 Liters
- approx. 20,000 Road Tankers!

x 1,000
Many Applications Already Made the Move from Solvent to Water-Based

- **Paper and board already mainly printed with WB inks**
  - Board pre- and/or post-print
  - Liquid food packaging

- **Decorative coatings**
  - Water-based coatings are preferred for many years already

- **Automotive coatings**
  - Water-based primer, base- and top-coats at main car brands

- **Flexible packaging with water**
  - *Conversion is ongoing*
# Pros and Cons Between Water-Based and Solvent-Based Inks

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Why Should You Consider the Conversion to Water-Based Inks?

- Brand owners are asking for more **sustainable solutions**
- **Increase** the **health** and **safety** during the printing process
- All actors in the value chain have **increased** the **performance** of their respective products – it is indeed possible now!

**BENEFITS OF WATER-BASED INKS**

- **Health** (no harmful fumes)
- **Safety** (decreased risk for explosion/fire)
- **Lower CO₂ footprint** (and water footprint?)
- **More sustainable** (no incineration)
PRETHINK INK
Network of Companies Promoting the Use of Water-Based Inks

Raw Material Suppliers
Ink Makers
Machine Producers / Machine Equipment
Printers
Packaging Companies
Recycling / De-Inking
We prethink ink.

#WePrethinkInk