

Image-to-Print

Rotogravure Technology & Innovation Days

**Trends & Innovations
in cylinder manufacturing in Europe**

Rudi Weis-Schiff

Janoschka | 4 April 2013 | Ho Chi Minh City

Janoschka

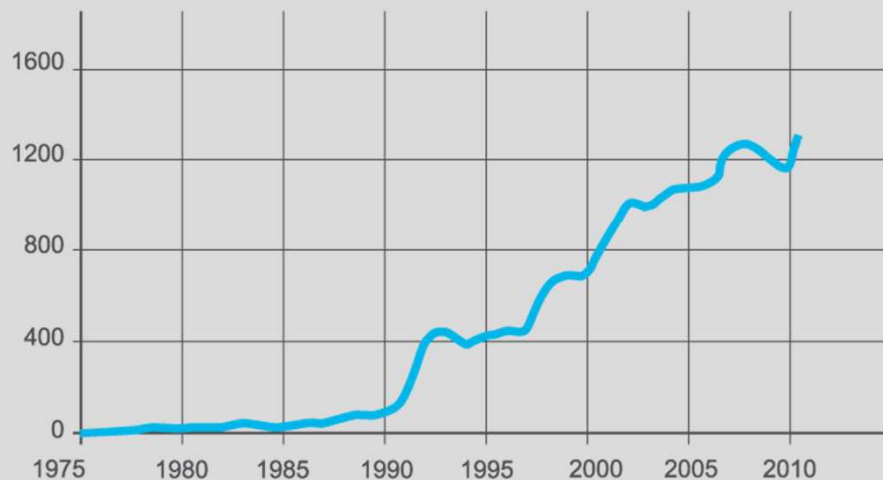
...is one of Europe's biggest Network
for Pre-Press and Print Color Management
for the Packaging Industry

As a family-owned business
Janoschka has grown since its beginnings in 1976
by combining top talent,
state-of-the-art technology,
customer proximity and service.

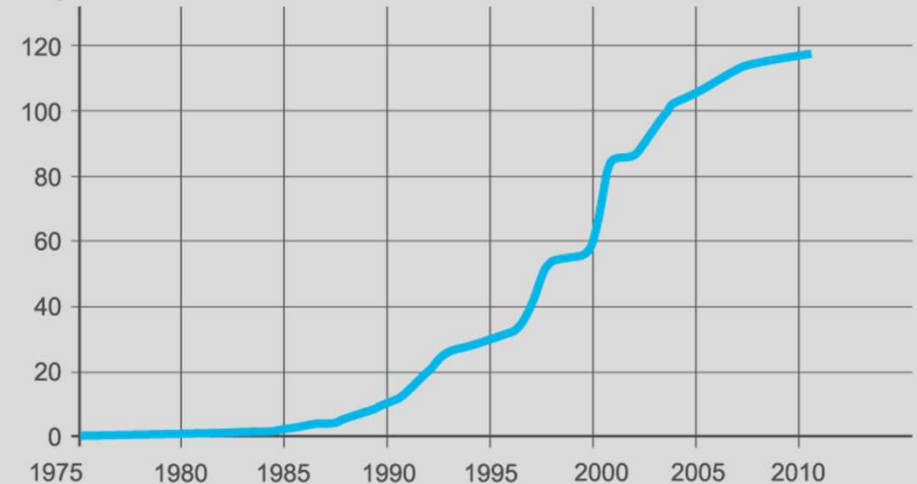
Continued Success

Since its foundation in 1976, the family-run company can look back on successful business development.

Personnel



Total revenue
(in mio Euros)



Figures 2012

■ Turnover

— in Mio. EUR 120

■ Reproduction

— Artworks 100.000

— Graphic Operator 300

■ Print form production

— Print forms produced 200.000

— Steelbases produced 50.000

— Direct-Laser Systems / Schepers-Laser 7 / 7

— Think Laser 3

— Helioklischographs (Hell, Ohio, Daetwyler) 90

Our Markets

FMCG Packaging

food, personal care,
home and
pharmaceuticals



Tobacco Packaging

cigarettes, tipplings

Decorative

laminates, napkins, gift wrap, wall paper

* Group figures

International Presence

■ 26 production sites in 13 countries

- Leading network in Europe: Germany, France, Netherland, Portugal, Poland, Russia, Switzerland, Spain
- Further production sites in Asia and Central and South America: Malaysia, Vietnam, Mexico, Argentina

■ Sales Offices

- Germany, France, Sweden, Ukraine, UK

Products & Services

- Gravure cylinders for Flexible Packaging, Tobacco and Decorative printing
- Cylinders for Security printing
- Embossing cylinders
- Technical cylinders (special applications)
- Flexo Plates and Sleeves
- Cylinder bases, Light weight cylinders and Sleeves



True to its origins

Headquarters of the family-run company in Kippenheim



- Research and Development
- Janoschka Academy (internal and external trainings)
- Basis for standardized processes, KPIs, etc.
- Investment, purchasing, administration

Janoschka in the Asia-Pacific Region



janoschka

APE
asiapacific
engravers

APE Malaysia



janoschka

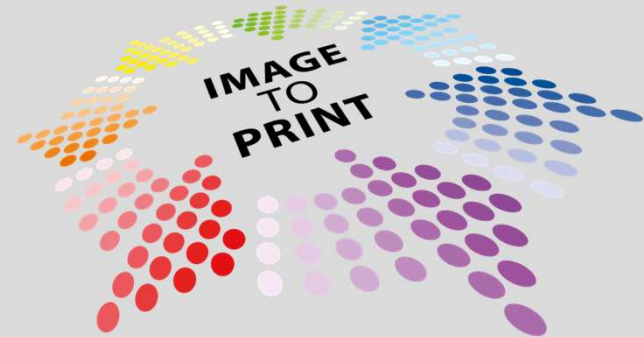
APE
asiapacific
engravers

APE Vietnam

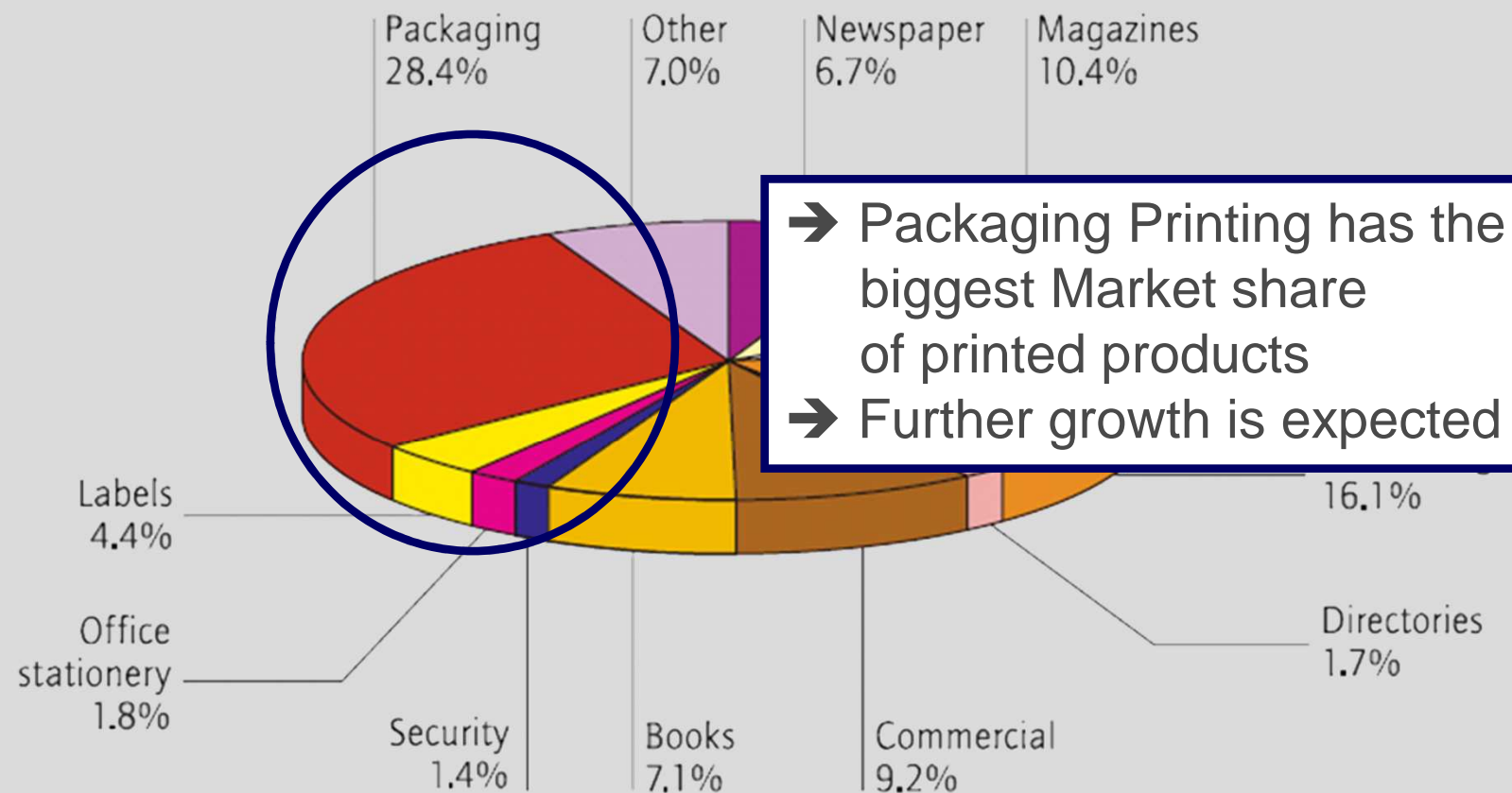


Trends & Innovations in cylinder manufacturing in Europe

Rudi Weis-Schiff
Managing Director

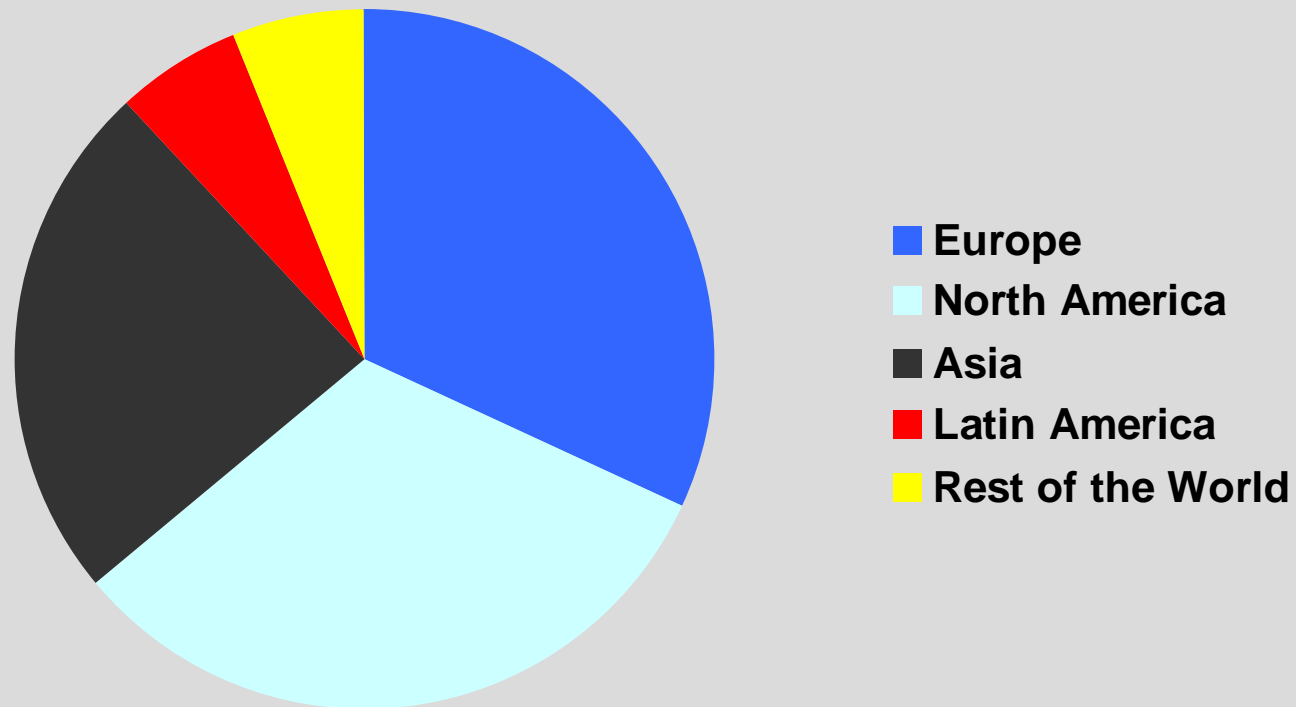


Shares of „printed“ products

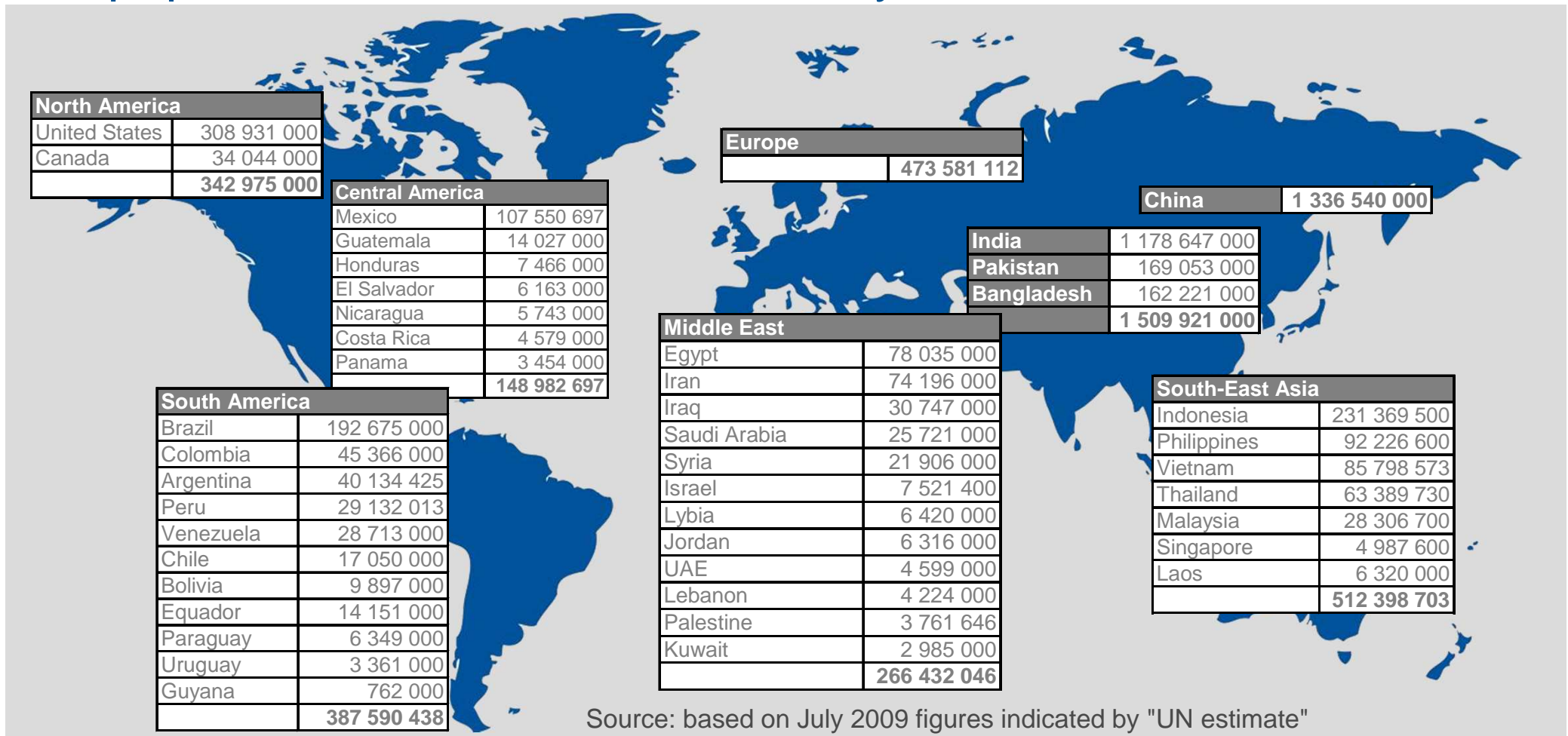


Source: Pira International Ltd

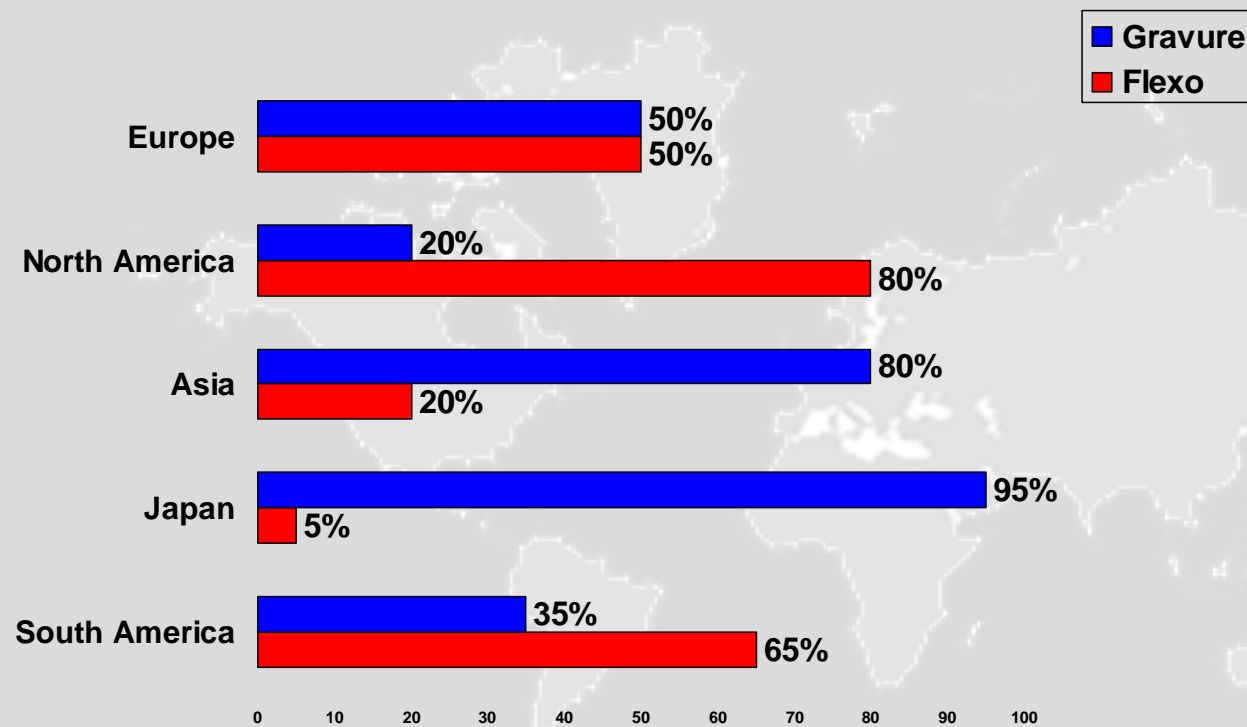
Packaging markets in regions



The population of the world is currently 6.810.400.000



Market share: Gravur ⇔ Flexo



Source: ERA

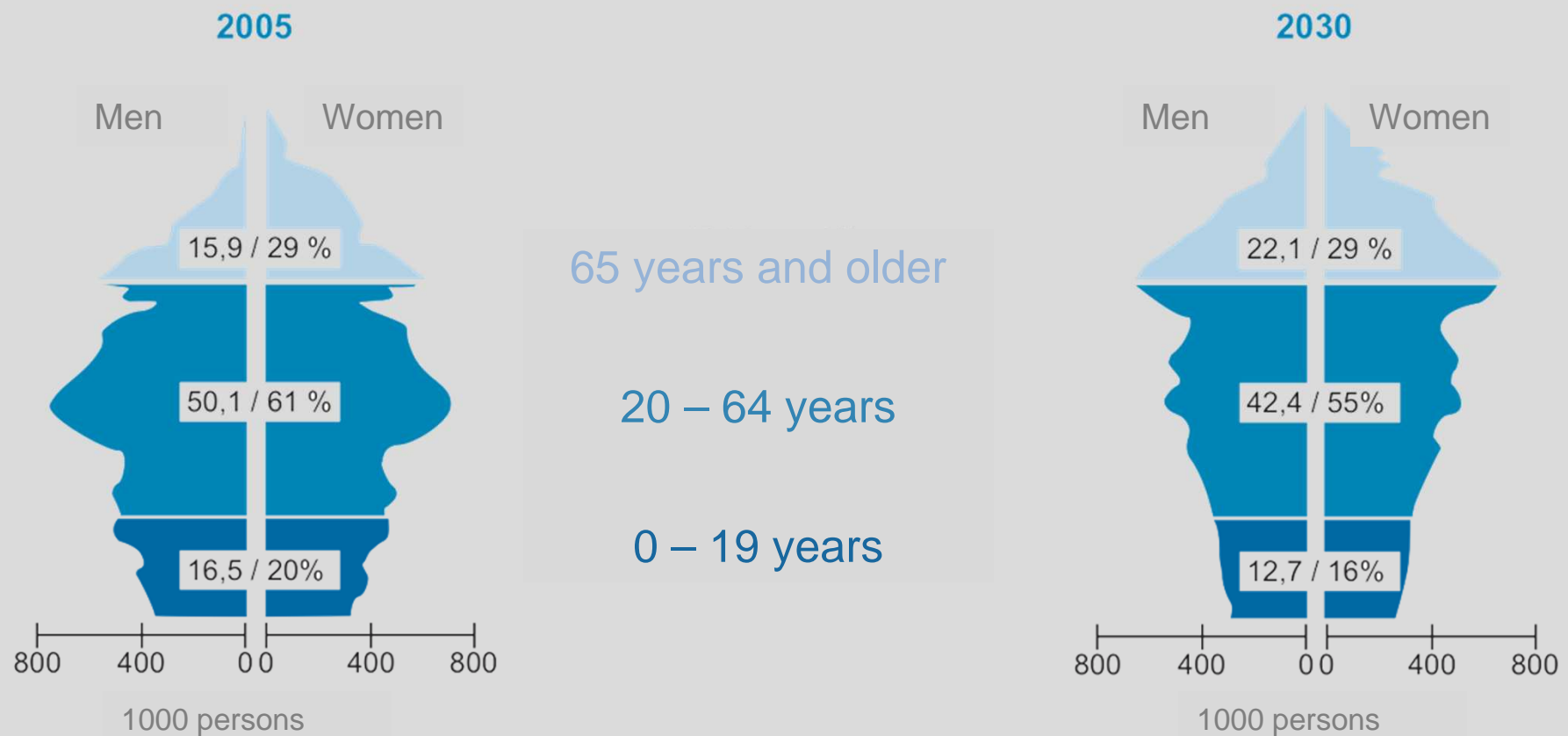
Market trends – our experience in Europe

Insights into FMCG*
packaging requirements
in **Europe**

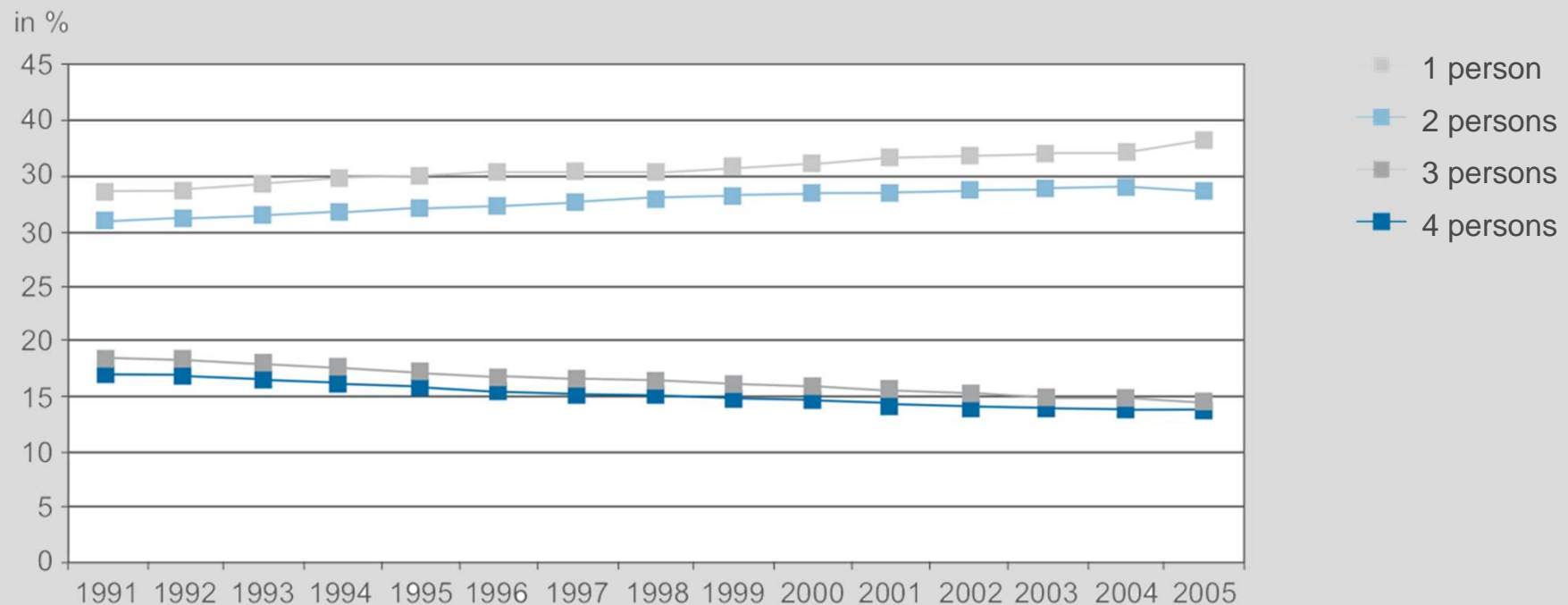


* FMCG = Fast moving consumer goods

Insights: FMCG packaging requirements in Europe consumer changes - demographics

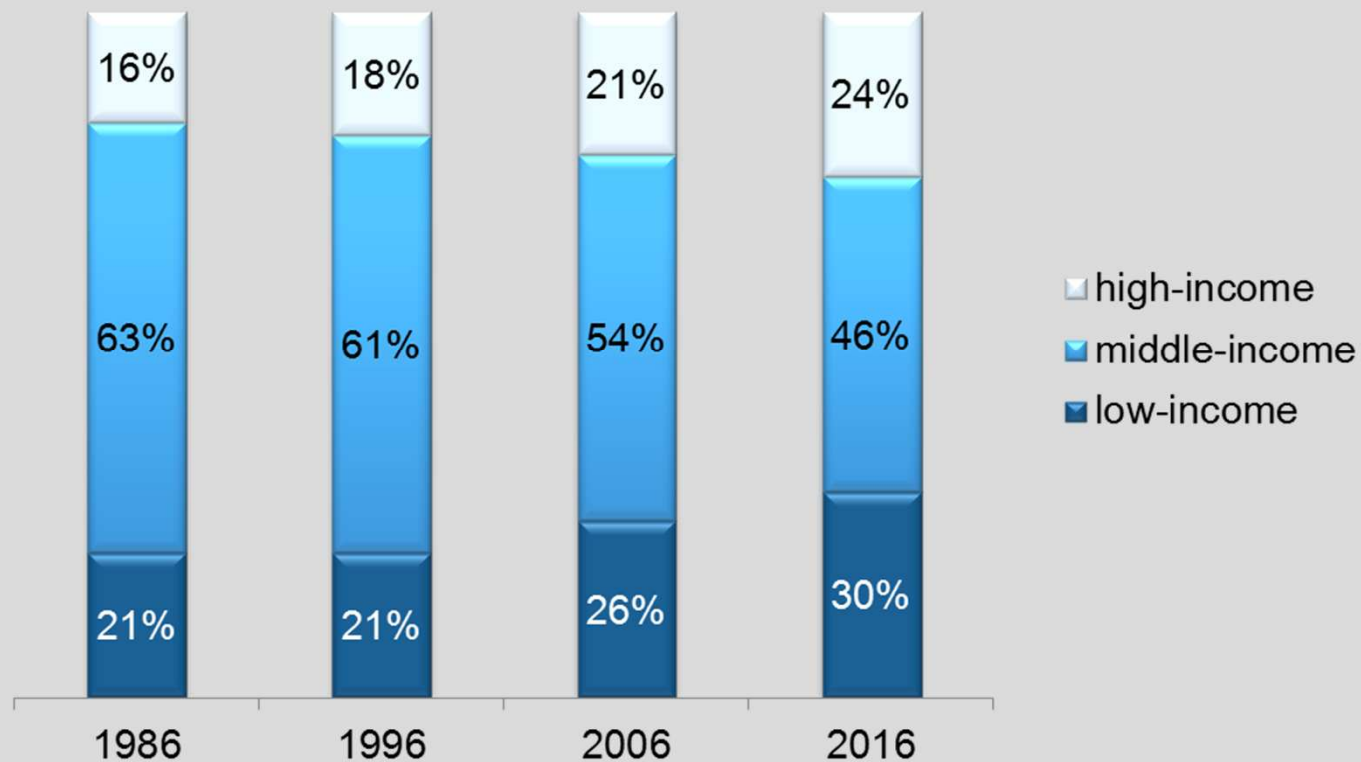


Insights: FMCG packaging requirements in Europe consumer changes - household size



Evolution of „person per household ratio“ in Germany

Consumer changes – spendable income in Europe



Insights: FMCG packaging requirements in Europe

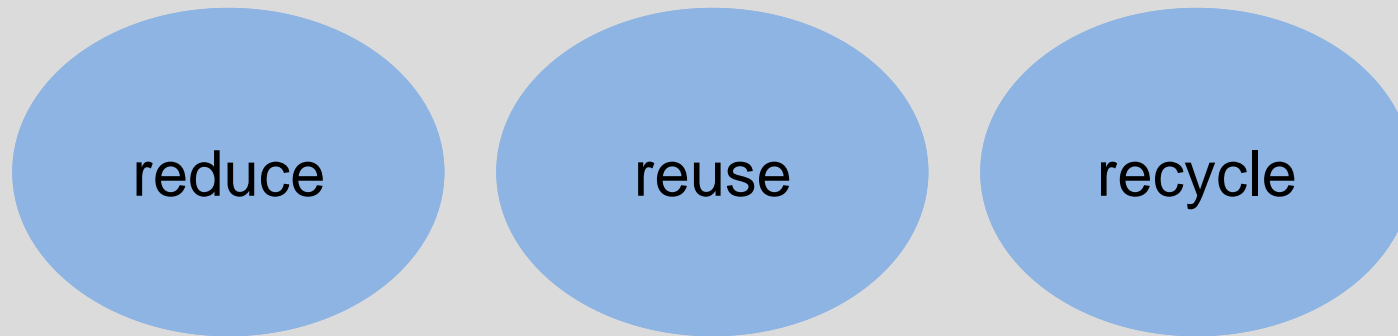
Consumer changes – target group classification

A few examples...

- WOOF (Well off older folks)
- DINK (Double income no kids)
- LOHAS (Lifestyle of health and sustainability)
- .../
- but also, smaller, affordable packs...
- .../

FMCG market trends

Environmental trends



“carbon footprint”

“biodegradable”

FMCG market trends

„Recycle“



Insights: FMCG packaging requirements in Europe

Market Evolution

up until the 60s



introduction between 60s an 70s



Insights: FMCG packaging requirements in Europe

Brand concentration in the supermarket



Sensory overload!

Insights: FMCG packaging requirements in Asia

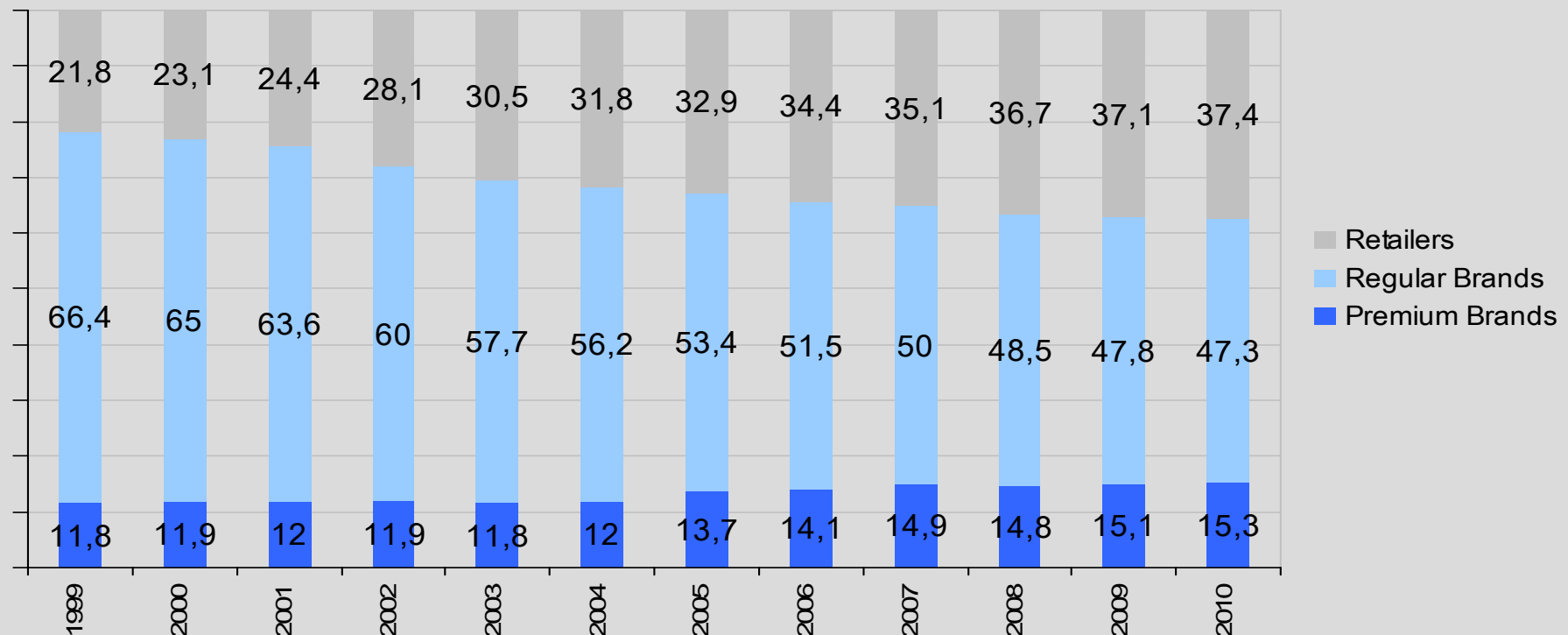
Brand concentration in the supermarket



Sensory overload!

Retailers gain market share, brands loosing ground

Daily used products – Market development in %



Packaging „is the single biggest driver of sales increases in the world.“

– Muthar Kent, CEO of Coca Cola

The **importance of color** when buying products:

According to surveys, 85% of consumers stated that **color** accounts for more than half of the factors considered important for choosing products.

First Moment of truth

Stop



Hold

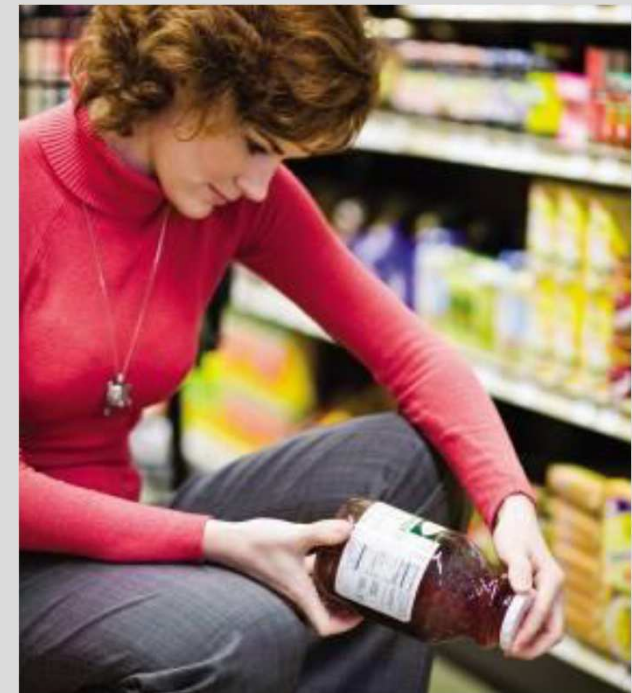


**Make
the
sale**

Disturbance
Eye attraction

Interest
look and feel
hand attraction

convinced



Packaging is the most important communication tool...

The first moment of truths...

- 1,6 seconds...

is the average time to make a purchase decision at the “point of sale”





Packaging is the most important communication tool...

- 1,6 seconds...

is the average time to make a purchase decision at the “point of sale”

- 74% of all purchases are unplanned and decided on the point of sale
- majority → the price
- **60% for packaging and product presentation**





Miến Phở Hương Vị THỊT BẮM

Hương vị **THỊT BẮM**
碎肉粉麵

Đặc Biệt
Sợi Miến Gạo

Miến Phở Hương Vị THỊT BẮM

Hương vị **THỊT BẮM**
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Đặc Biệt
Sợi Miến Gạo

Miến Phở Hương Vị THỊT BẮM

Miến Phở Hương Vị SUON HE

Miến Phở Hương Vị SUON HE

Miến Phở Hương Vị SUON HE

Jackfruit chips



THUẬN
VIỆT

Mít sấy

100%
tự nhiên

↑
Open



NHABE

Mít sấy
Jackfruit Chips
Vacuum Fried



NO CHOLESTEROL



Consumer's trust

Color itself and **color consistency** of packaging is also playing an important role in recognition of brands and reaffirming consumer trust, especially in developing countries where brand counterfeiting is an issue.



Diversification | private labels vs. premium brands



premium brands



private labels

Color inconsistency reflects “bad quality”



Fast moving consumable goods

Inconsistent color can also create a perception among consumers that a product has been on shelf too long, or in some parts of the world, that the product is not authentic. The long-term effect is that it can dampen consumer trust in the brand.



Security Features

The economic loss is estimated around 168 trillion dollar per year.

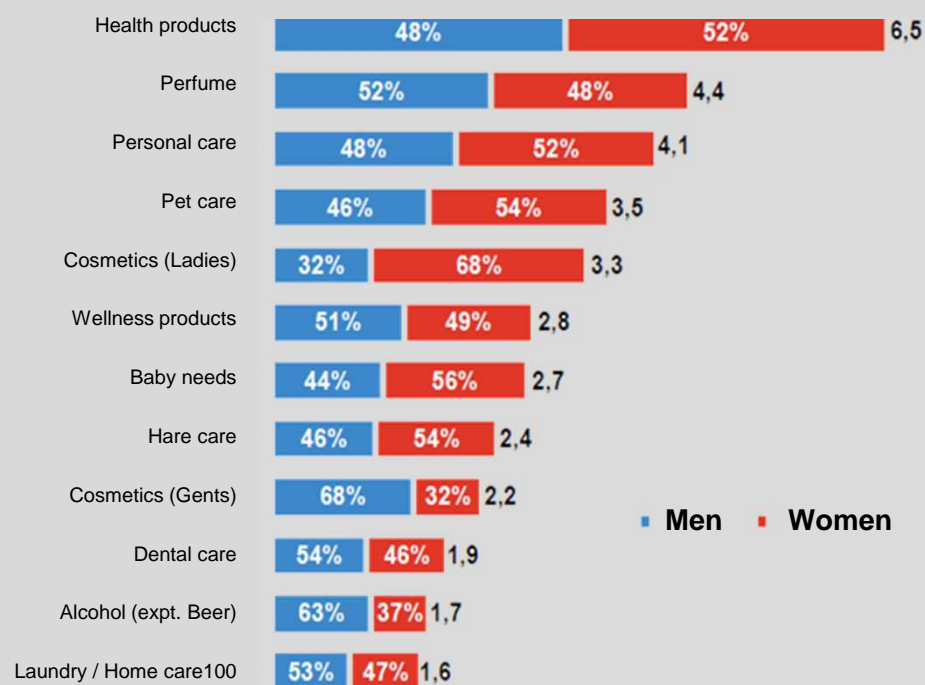
Approximately 2000 children die per day because of counterfeit medicaments.



FMCG market trends - Internet Shopping

FMCG internet purchases

...online shoppers within the last 12 Months in %



Each product is only as good as its packaging...

- protection against forgery has become a major topic
- individual appearance prevents from forgery
- innovations and new technologies are required to do so!



Attract consumers through innovation...

- innovation and new technologies help to create new products & marketing ideas

NIGHTGLOW

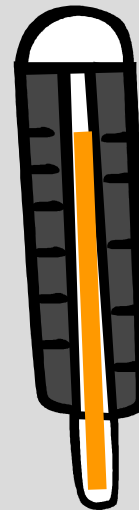
Special printing inks with phosphorescent pigments give your packaging a lasting glow



Attract consumers through innovation...

- Temp-control:
Reversible thermo-chrome inks

These are printing inks which are sensitive to temperature and react to different temperature ranges by changing color.



Each product is only as good as its packaging...



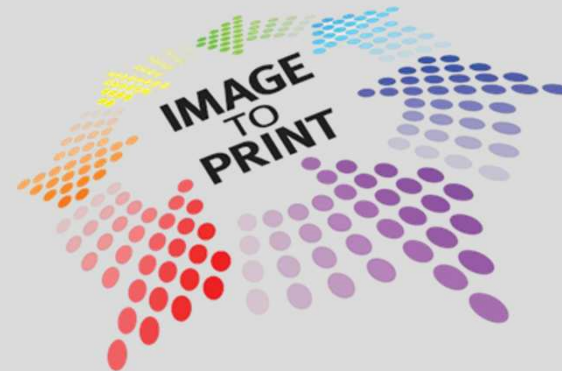
These facts & figures influence the global packaging market

We need to be:

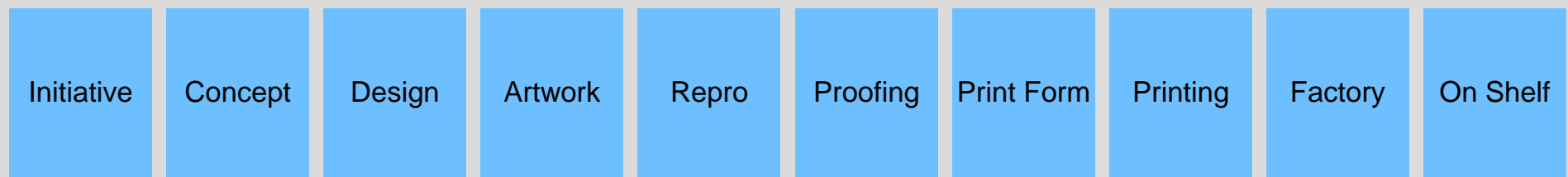
1. better
2. faster
3. cheaper



And how does all this relate to:
“state of the art cylinder manufacturing”?



Process ownership in the print supply chain



in the past



today



today

- ➔ enlargement of the process ownership
- ➔ while the graphics are treated directly with the Brand customer

Brand management

- Brand management (all processes)
- Design consulting (feasibility)
- Artwork creation
- Color separation (reproduction)
- Workflow-tools and project management
- Central archiving
- Additional services



Fast moving consumable goods

“The identification and recognition of a product is **the most important asset** of the brand”.

Inconsistent color, especially in a product range, where different substrates and different printing technologies apply, are no longer accepted.



Significant difference in color are not accepted anymore



Approved color-target



Print-run

Print Color Management (PCM)

PrePress knowledge



- Customized parameters, individual fingerprints
- Dedicated profiles
- Specific production software / colour management requirements

Print Color Management (PCM)

Perfect use of new technologies and software which is now available

- Simulate the printing results
- Show marketers only what you can achieve



Impact on the printing result

- Different printing Inks
- Different substrates



Impact on the printing result

But also different printing machines, processes and different machine settings have big influence on the printing result

- Type of machine
- Number of colors
- Printing speed
- Impression rollers / pressure
- Viscosity
- Doctor-blade setting
- etc.

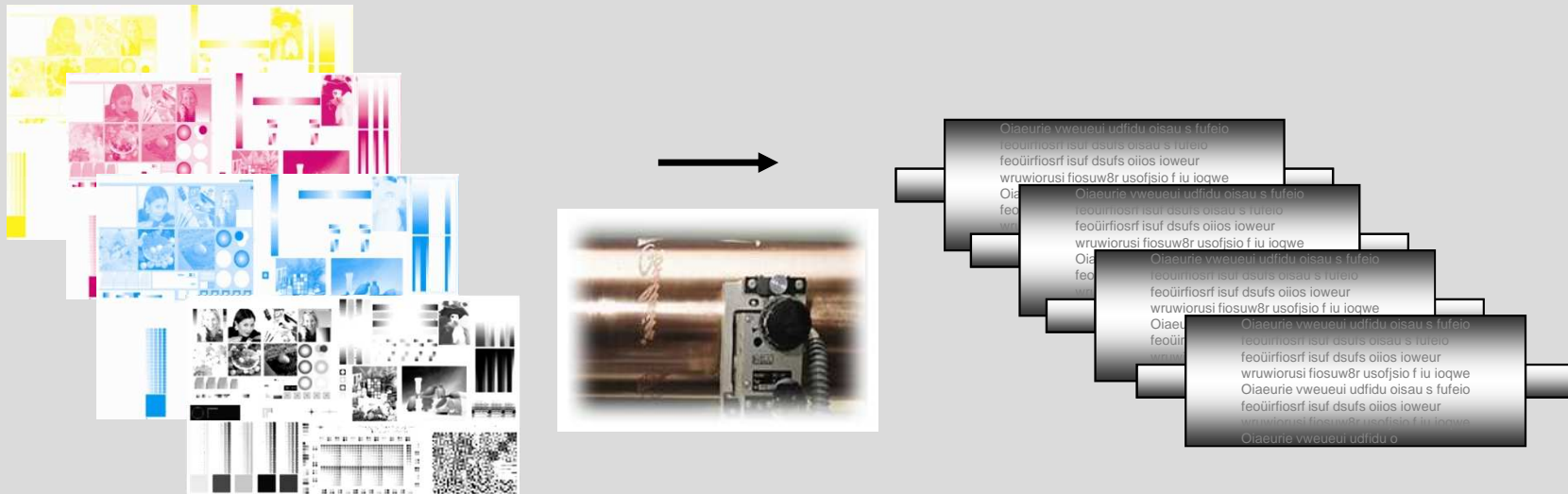


Print Color Management (PCM)



«finger-print» test form

Engraved set of cylinders



YMCK

YMCK

Standard parameters

Print run | printing result under perfect conditions

Printing machine with standard settings

- Printing speed
- Doctor blade setting
- Ink density and viscosity
- Substrates
- etc.



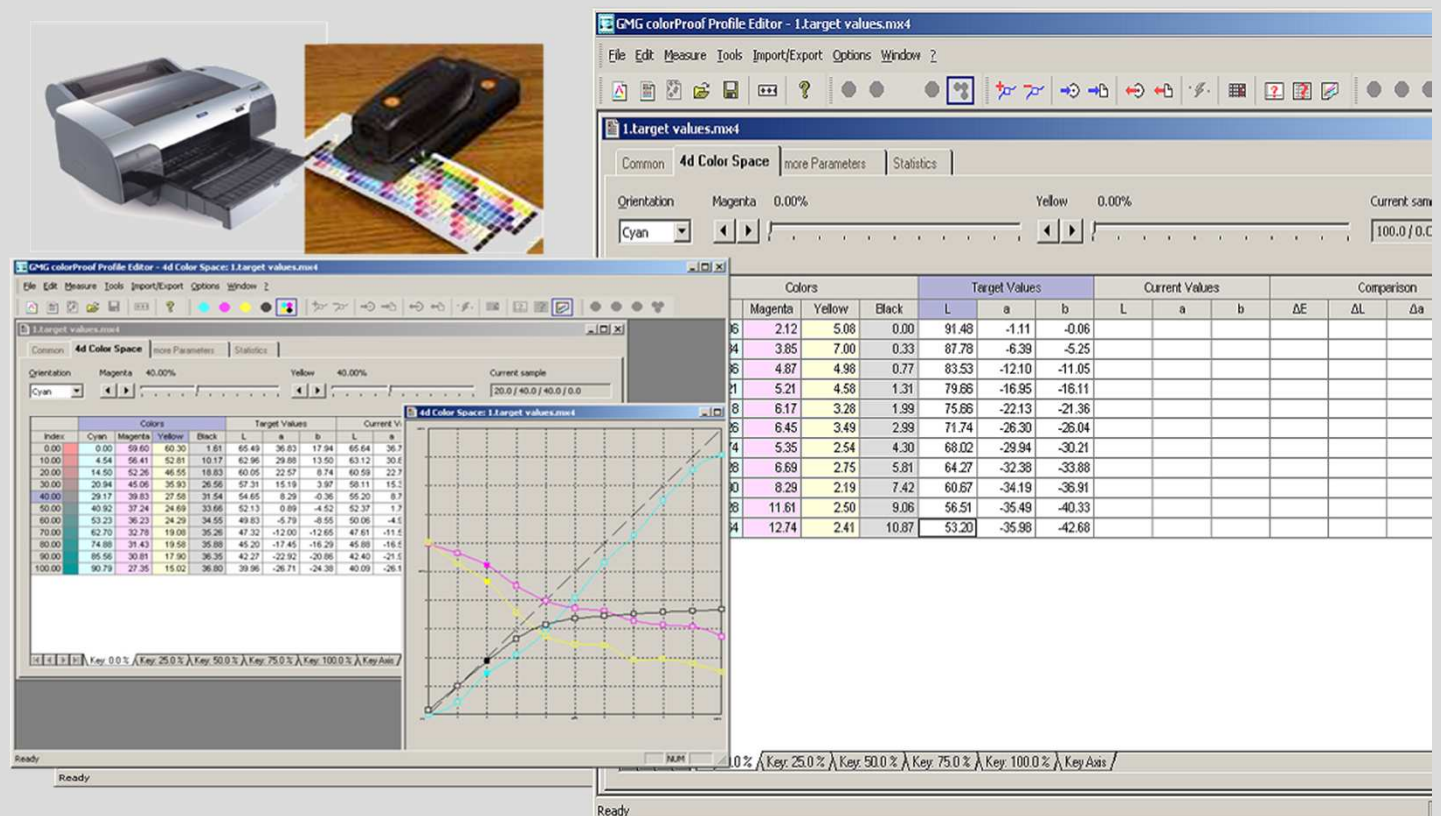
Print Color Management (PCM)

The values of „optimum print result“ will be spectrophotometrically captured and the profile will be generated



Print color management (PCM)

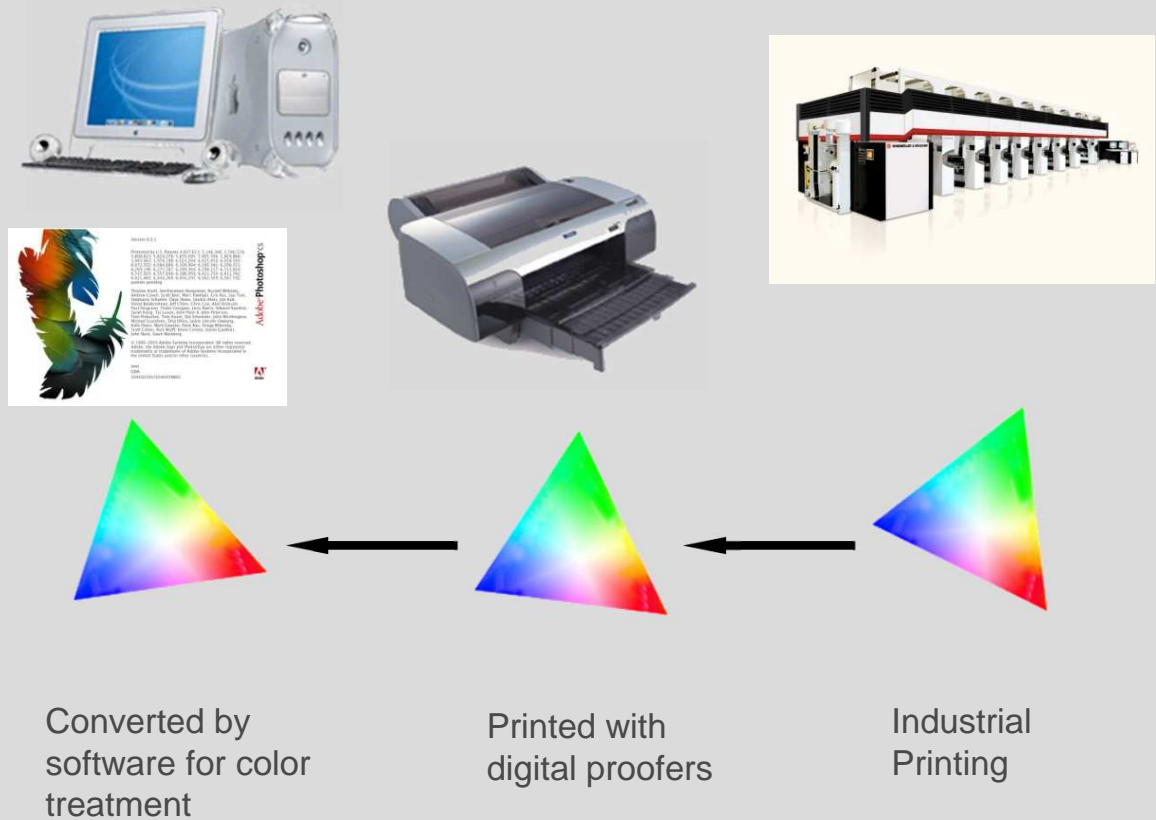
Generating a «printer specific profile»



Print color management (PCM)

“Turn things around and do the work upfront...” !

- printing machine with optimum settings
- Digital-proofers with “printer specific” profile...
- “Printer specific” repro



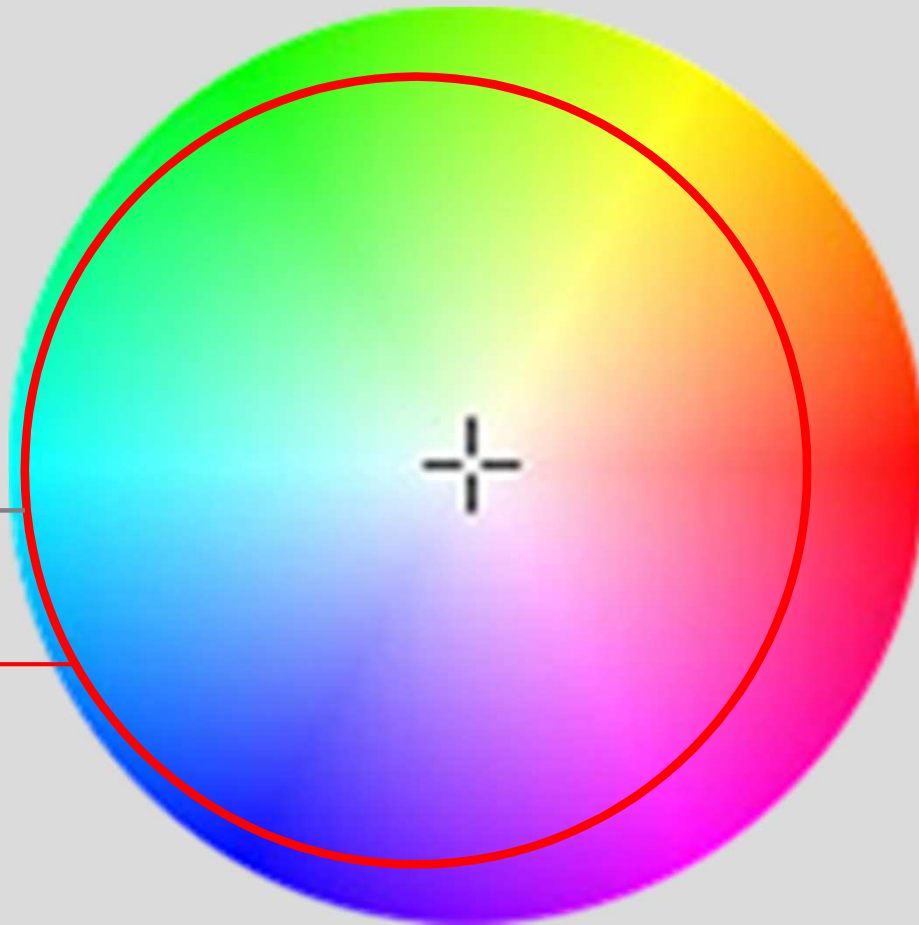
Print color management (PCM)

The Result:

The digital target-proof and the printed result **will match!**

Digital Target Proof

Print Run



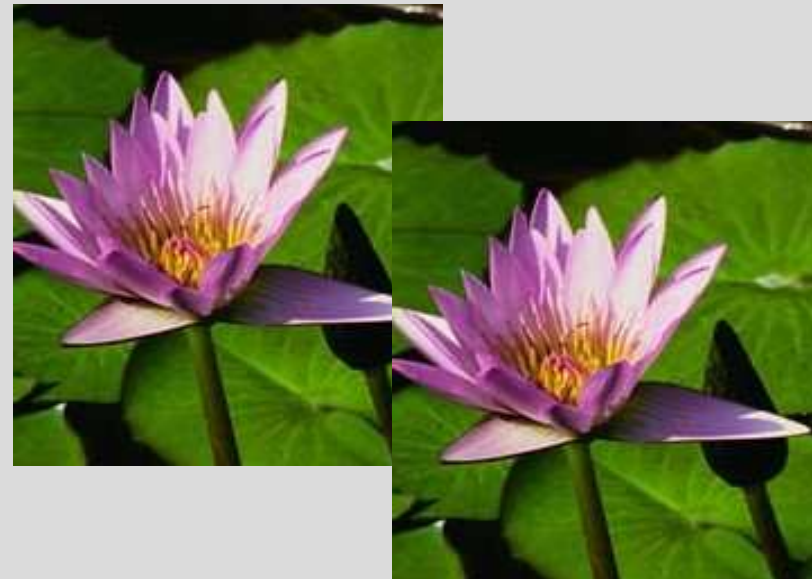
Print color management (PCM)

Our Target: Target proofs and printing results will match!
Reduced set-up time – reduced waste – reduced cost !

Original Target

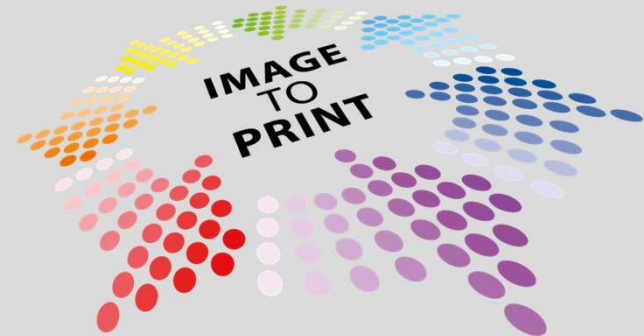


Printing Results



Developments in cylinder making

Rudi Weis-Schiff
Managing Director



Automization: streamlined cylinder production

- 24 h
- 7/7



Developments

Electromechanical cylinder engraving



Development of faster engraving heads:

➔ 3500 Hz ➔ 8000 H ➔ 12000 Hz*

*Beta test

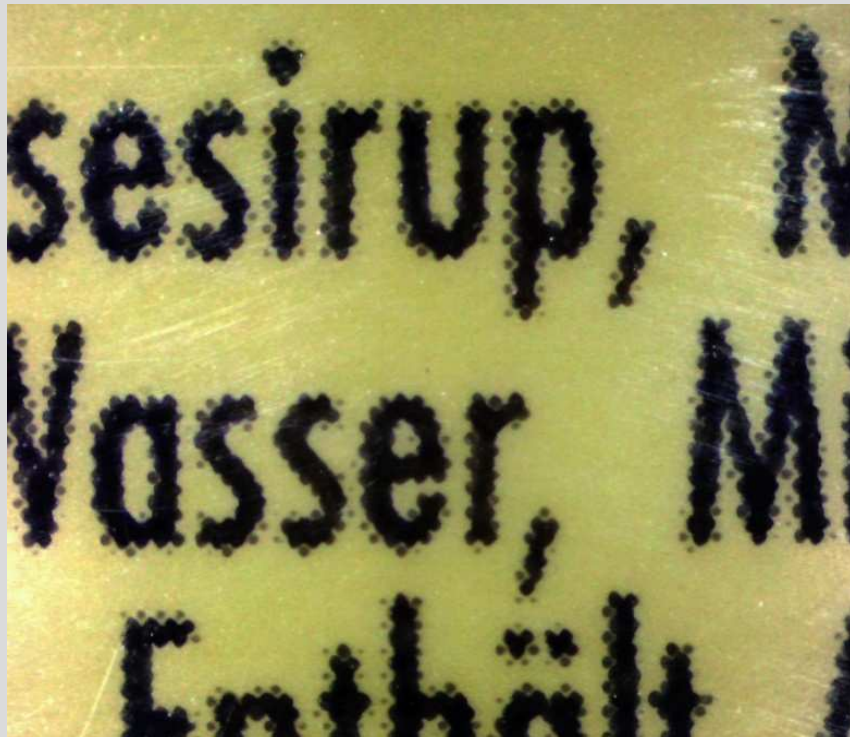
Developments

Electromechanical cylinder engraving

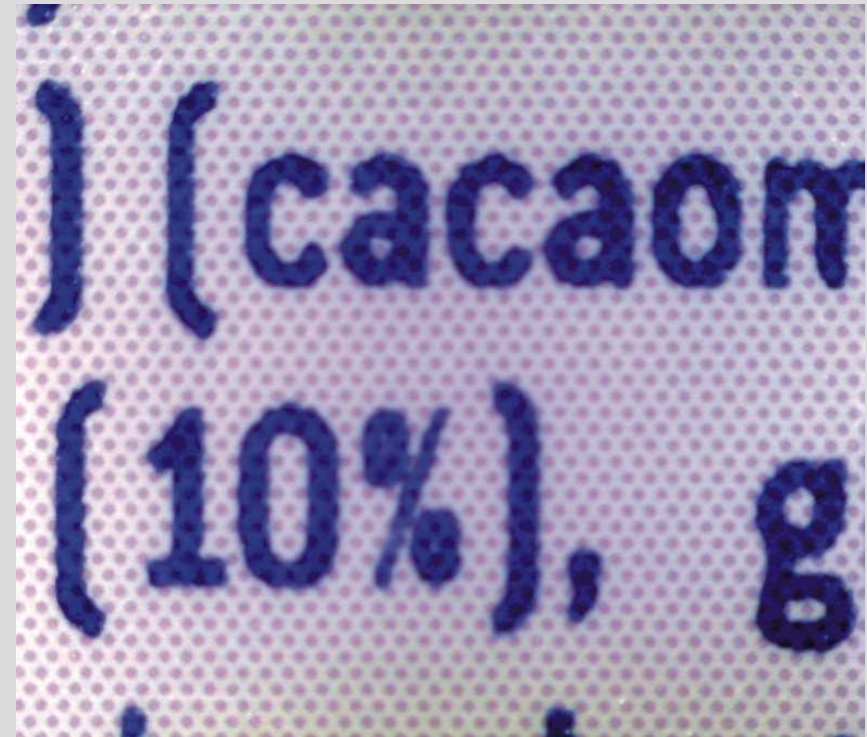


*Xtreme*Engraving

Developments



Conventional engraving



X-treme engraving

Developments

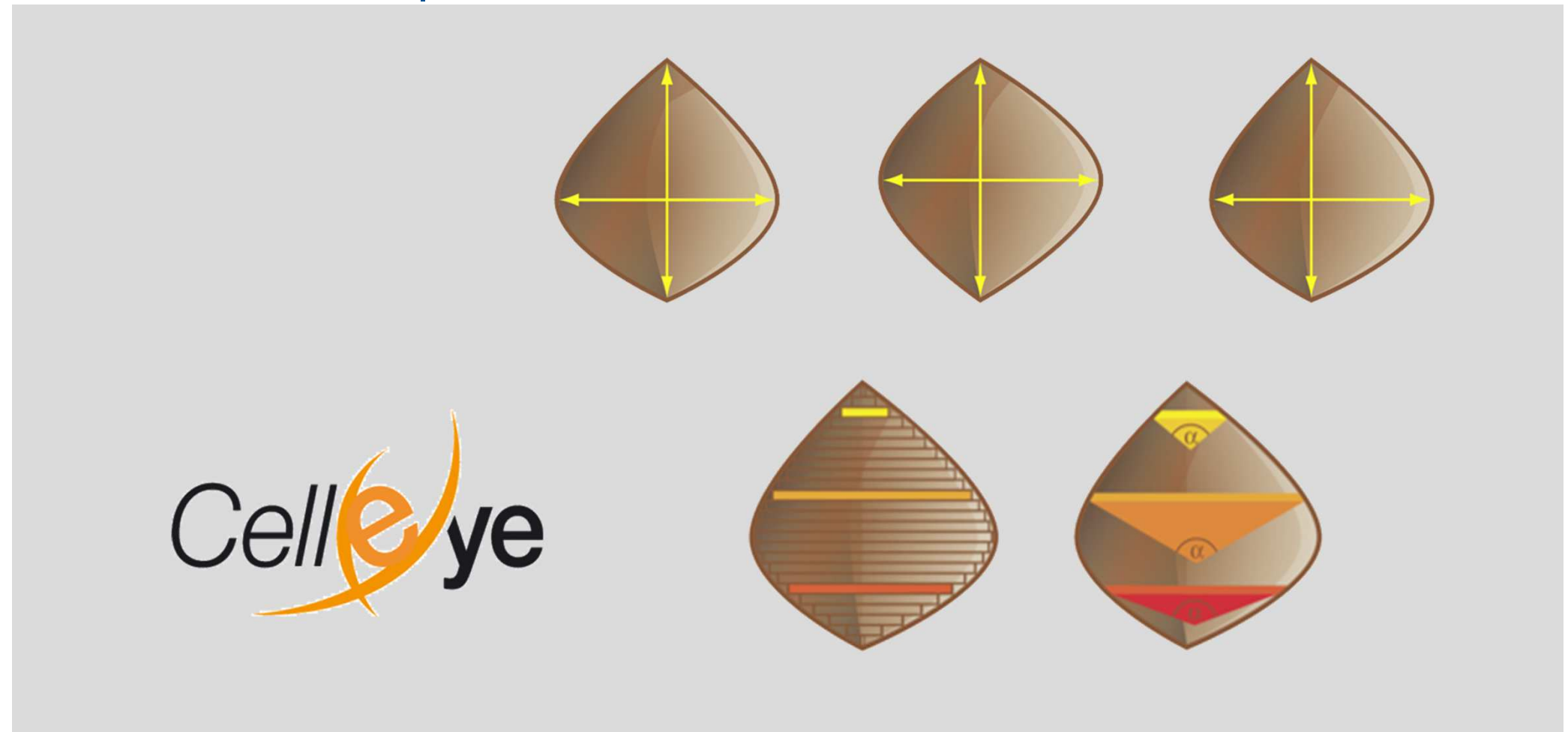
Electromechanical cylinder engraving



Cell^eye

Cell-guard III

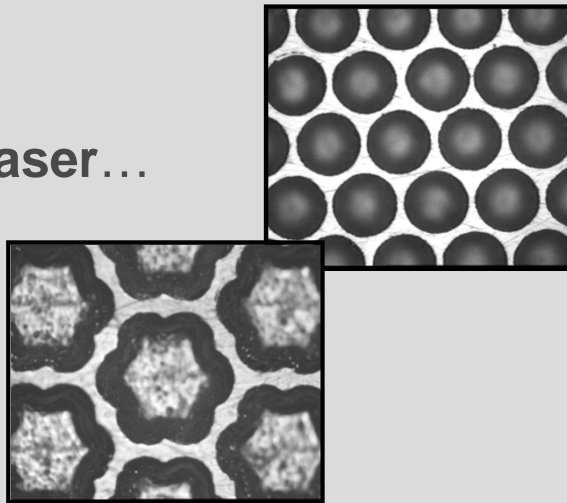
Standard test cut | Volume control measurement



Cell^eye

Laser engraving with Daetwyler DLS (Direct Laser System)

...has become
the ultimate reference
for quality..., and **the future is Laser...**



Today, Janoschka produces
more than 30.000 Laser cylinders per year
in Germany, Russia and Malaysia,
Argentina & Mexico.



Cylight ®



➔ ~50% less weight...

Cylinder size:

face-width: 900 mm

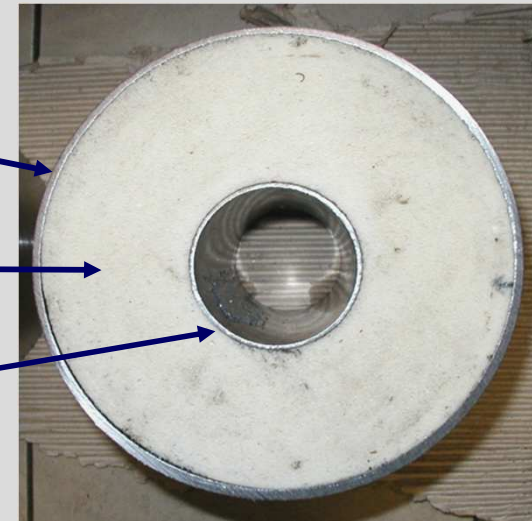
Circumference: 600 mm

Weight: 28,2 Kg

Cylight ®

Technology Concept of „Light-Weight“ Cylinders

- Thin steel pipe outside
- PU-Sandwich
- Thin steel-pipe inside



Cylight ®

The advantages

- Ideal for small face-width (less than 1000 mm)
- Optimum weight (25 kg / Cylinder)
- Easy Handling, better working conditions
- 50% less weight, less transport costs
- less storage costs
- Outstanding performance at high printing-speed





Typical cylinder
storage in Europe

Sleeve technology

- Light weight cylinder solutions



Sleeve technology

- Weight reduction of more than 90%
- Easy handling and shipping
- Easy storage



Sleeve technology

- Easy, fast, cost effective
- but un-flexible if you need different diameters!



proROTO system

Innovative Rotogravure Sleeve System made of conductible and reusable high-performance plastic.

proROTO Expander

proROTO Helix

proROTO Sleeve

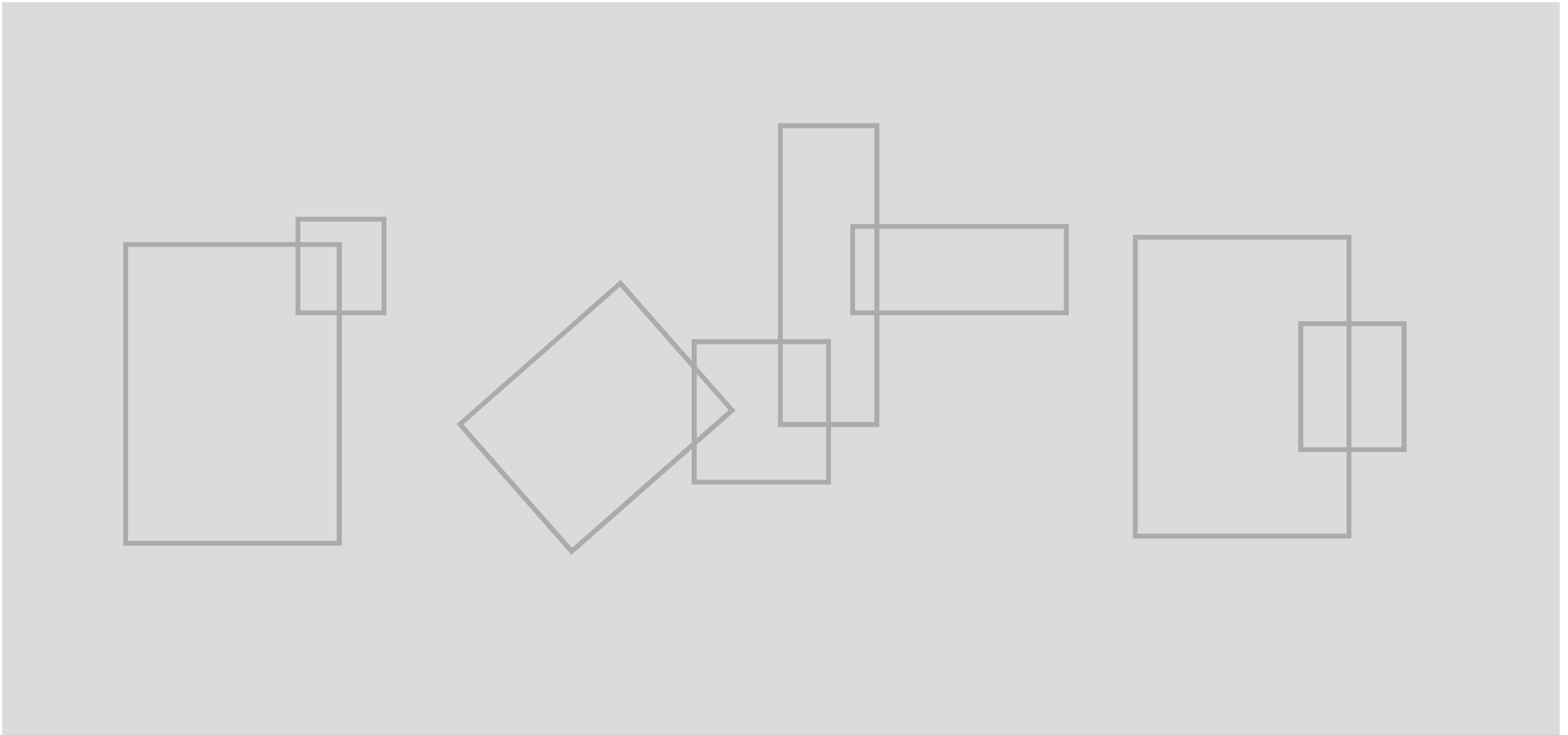


proROTO I Sleeve

- Sleeve made of reusable high-performance plastic
- Quick and Simple manual change-over at the printing-press
- High-precision and resistant core of nickel for a precise and durable use on the expander
- Light-weight solution to reduce handling, transport and storage costs
- Printing-Sleeves can be stored in high-rack warehouses, returned or recycles after the print-run
 - ➔ Saving of storage costs and space



Innovation, Research & Development



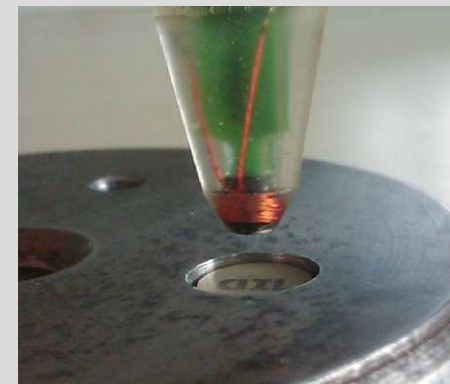
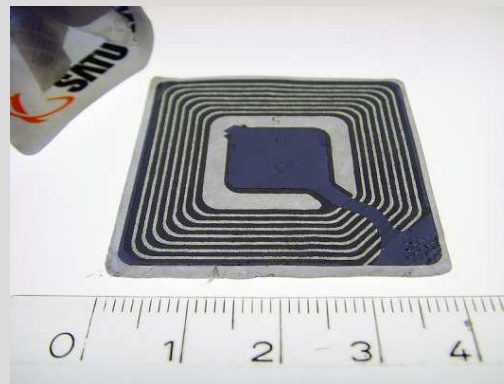
Innovation, R&D

Continues developments:

- in Laser Technology
- Light-weight cylinders and "sleeve systems"
- RFID – "Cylinder tracking"
- Color Management and profiling

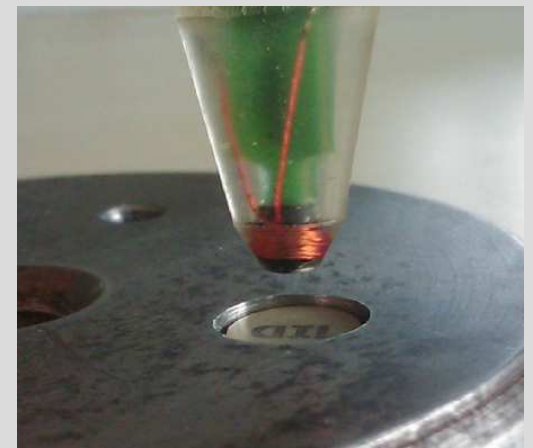
R&D - Innovations

- RFID - Cylinder tracking
- RFID = Radio Frequency Identification



R&D - Opportunities for rotogravure

- Workflow and storage optimization
- Product Life Cycle
- Printing Costs savings
- Automatization of printing pre-settings (reduction of waste and setup time)
- Improved Process consistency:
Print adjustments can be known before the job enters the press



Protecting consumers | security features



■ OVERT



■ COVERT



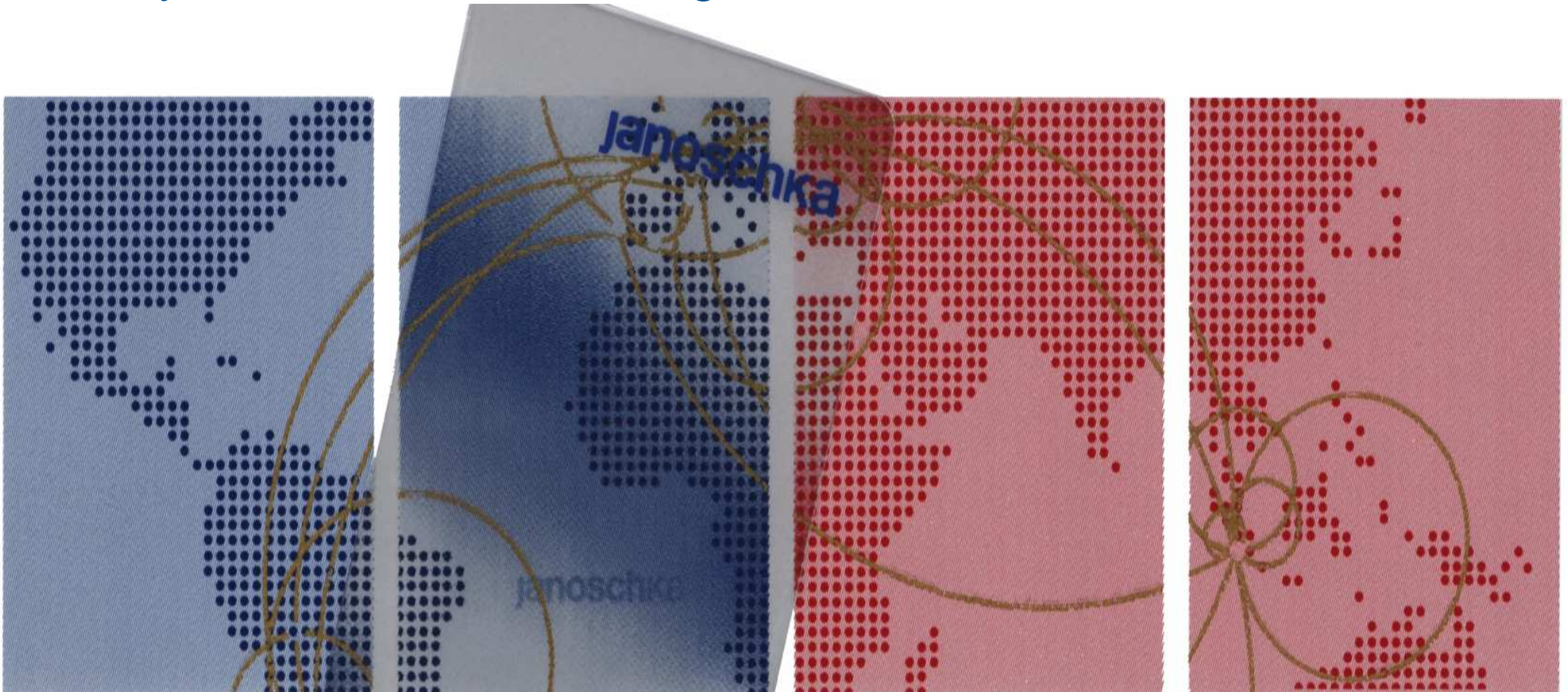
■ FORENSIC



■ BIOMETRIC



Security features I hidden images

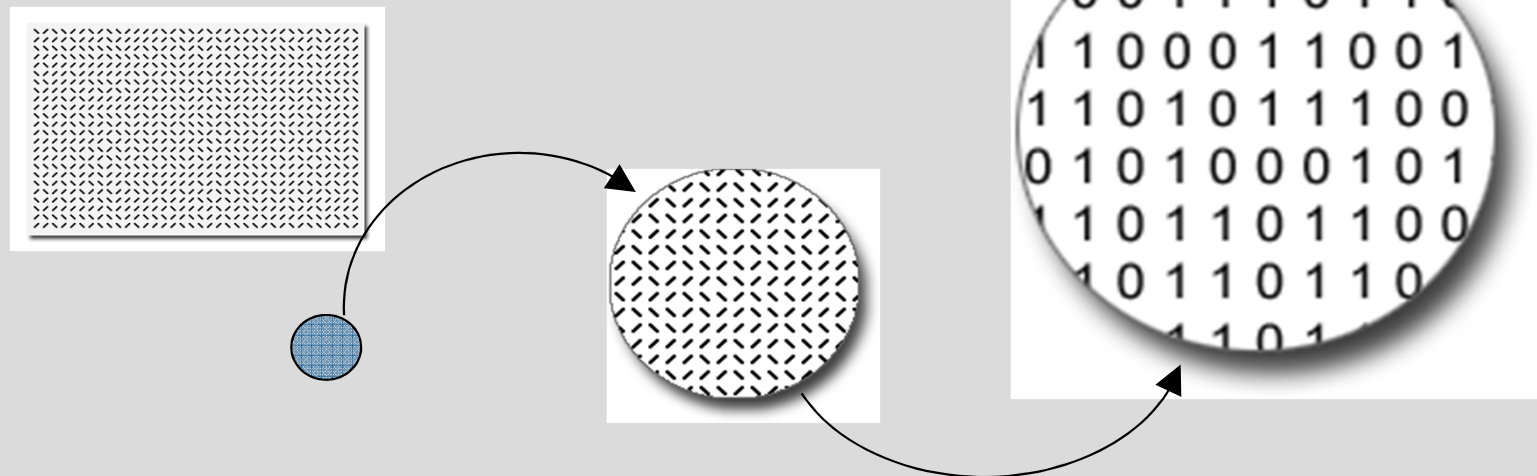


Security features I Luminescence color



Microglyph®

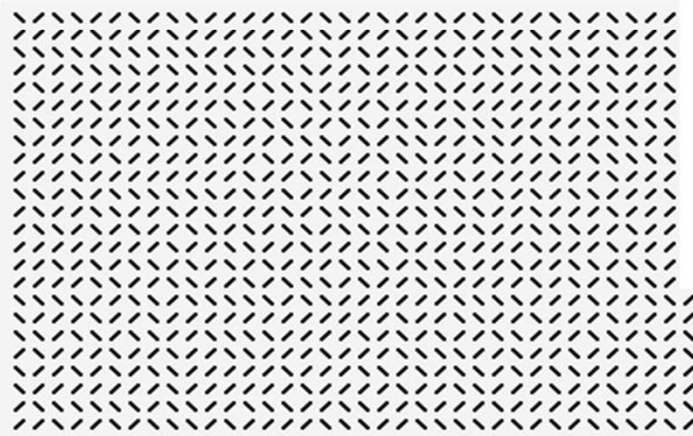
Basic Microglyphs encode information in tiny, 45 degree diagonal lines (glyphs)



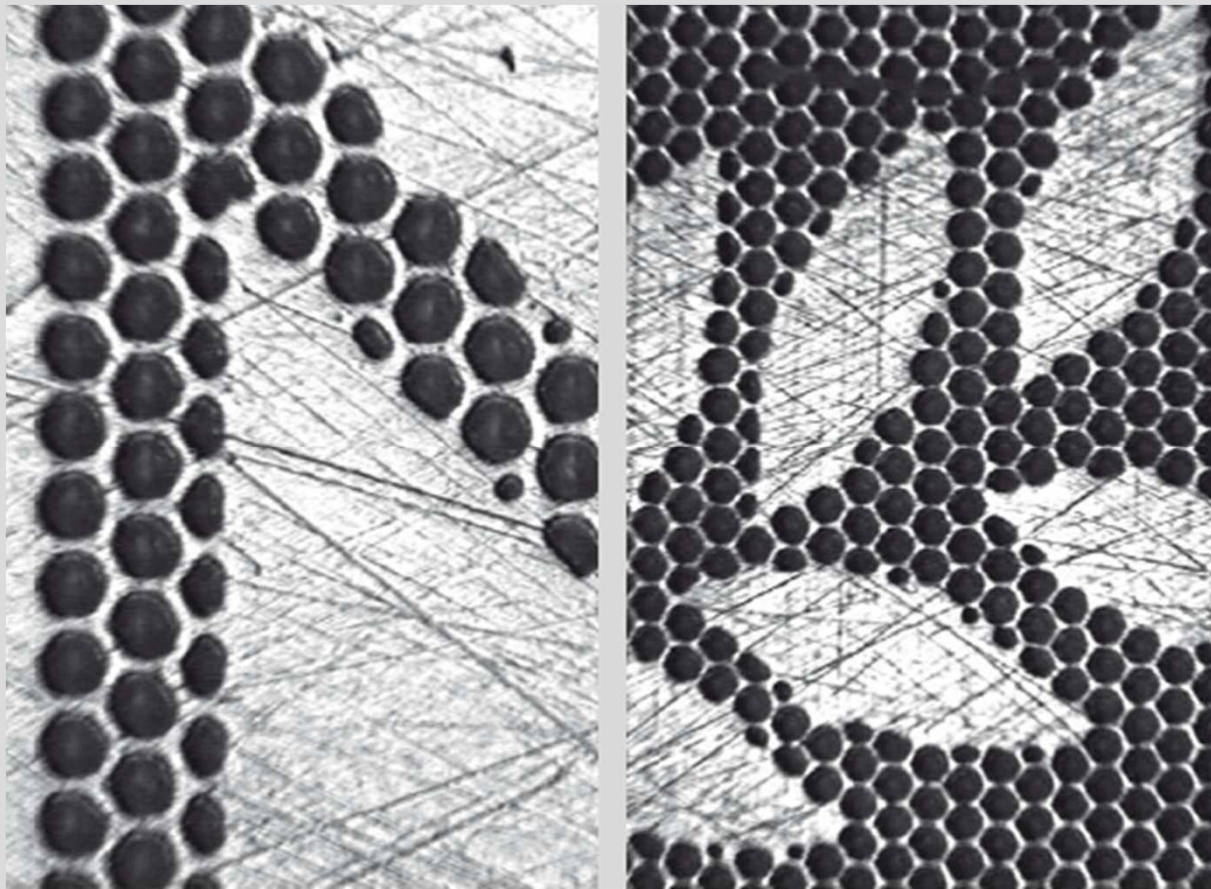
Microglyph® Sample Application

Microglyphe can be applied on packaging, labels and documents.

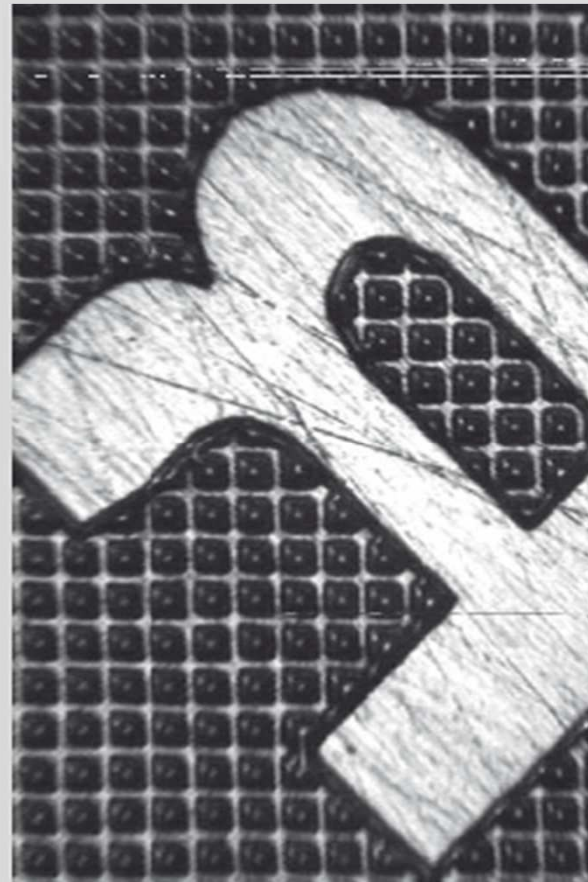
Microglyph® codes can be integrated in the package design, and are almost invisible for the consumer.



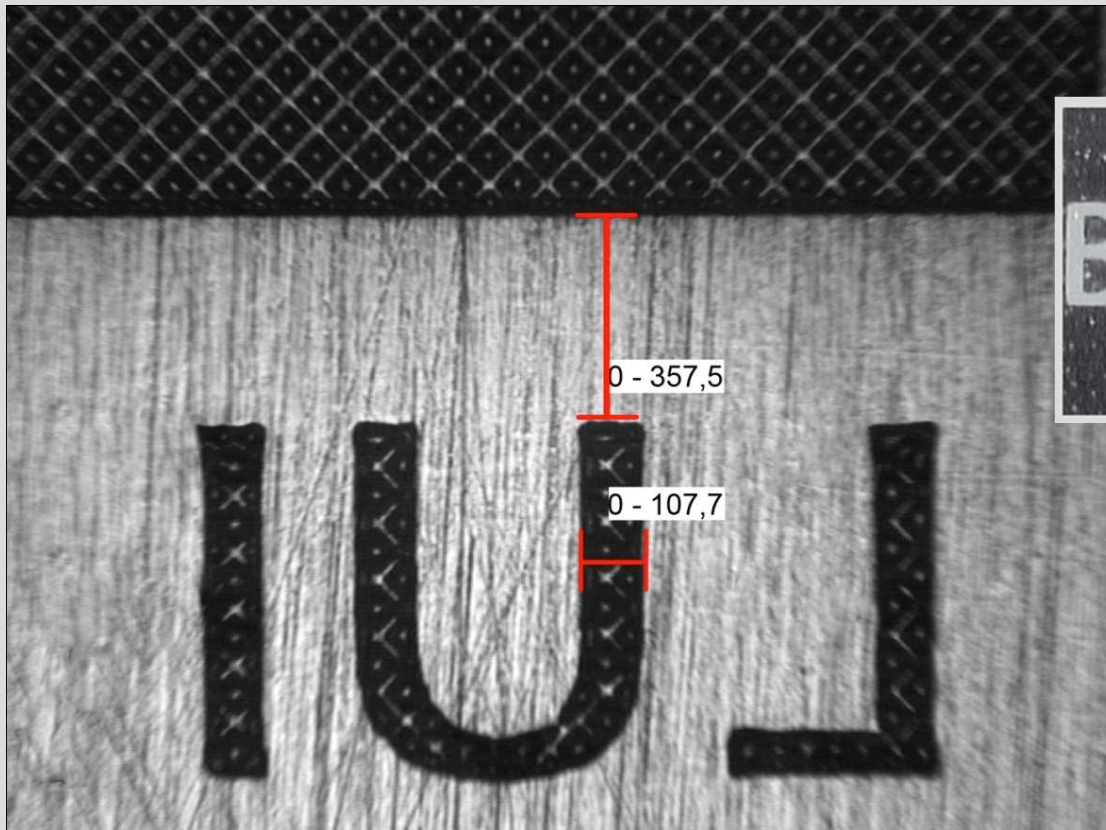
Challenging cylinder making I Hi-Res Technologies



Challenging cylinder making I Hi-Res Technologies



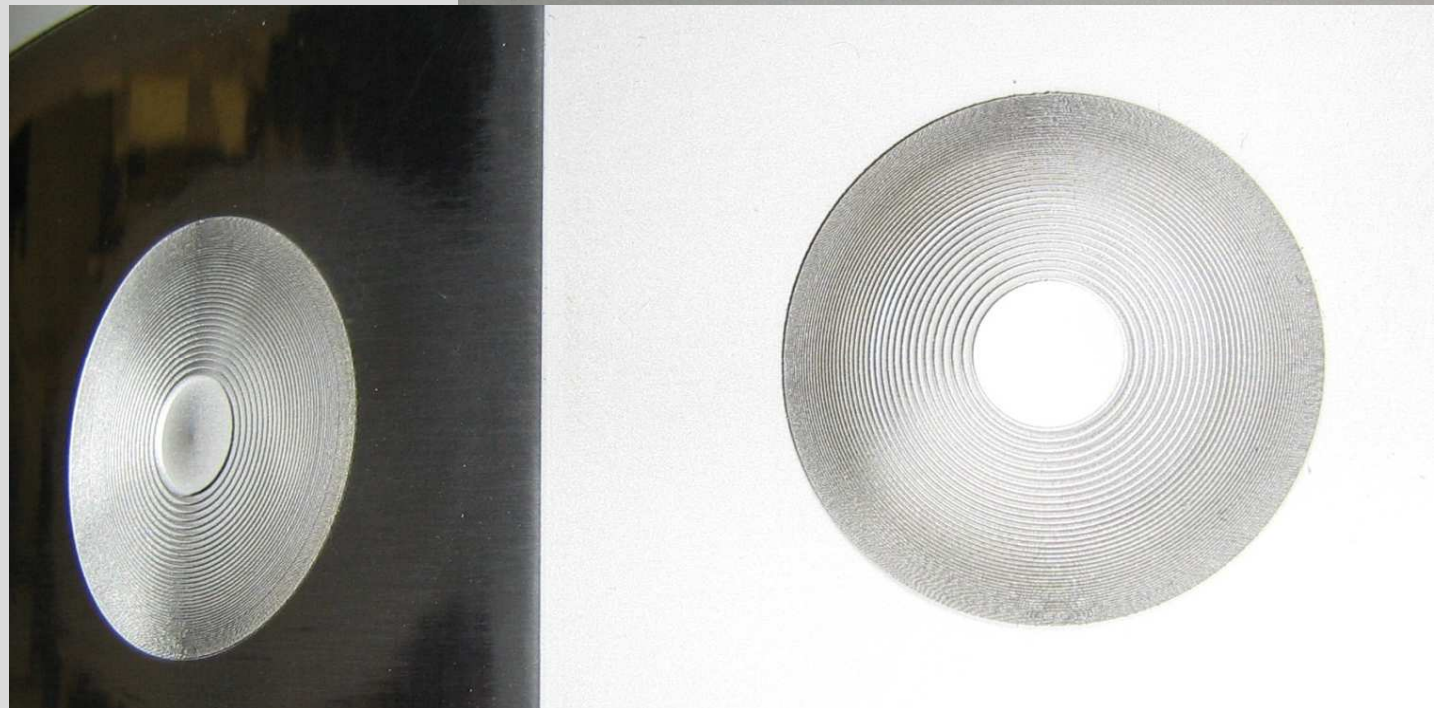
Challenging cylinder making | Hi-Res Technologies



Screen-less types
with line sizes $> 0,05$ mm

Challenging cylinder making | Hi-Res Technologies

- Micro Embossing
Anti Counterfeiting

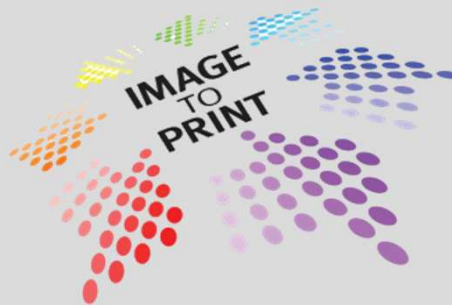


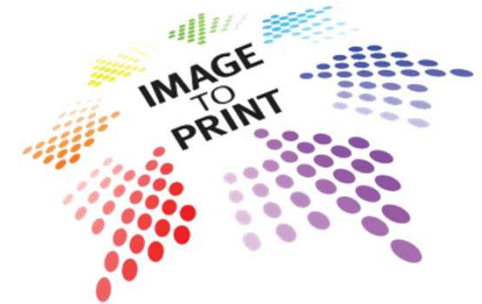
Janoschka Academy

The Janoschka Academy offers internal and external training programs

- Human resource developments
- Technical trainings
- Academics cooperation's
- Future Leadership Programs

janoschka
insight





Thank you
for your attention

Rudi Weis-Schiff
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