BOBST at a Glance
Leading innovation

BOBST is one of the world’s leading suppliers of equipment and services to packaging and label manufacturers.
BOBST AT A GLANCE

Creating value

- 1,400 machines sold in 2019
- 1.63 Billion CHF turnover
- 930 million CHF market capitalization
- 81 million CHF operating result (EBIT)
- 5,500 employees
- As percentage of sales: 5.0%

Investment
Expansion
Market penetration
in 2019
A Global Leader

>50 countries

14 production sites

5,500 employees
Four cornerstones of our vision

**Connectivity**

The entire packaging production will be connected

**Digitalization**

More efficiency and agility

**Automation**

Greater quality – less errors

**Sustainability**

Answering brand and consumers demands, taking responsibilities
Brand Challenges
Industry needs evolutions
So do we

Brand owner needs

- **Shorter lead time**
- **Reduce steps between creation and job printing**
- **Mass customization, variability, short runs**
- **Extended packaging**

BOBST evolution

**BOBST Digital Transformation**

- **Customer** focused solutions
- **Versatile** products and technologies
- **Global workflow** solutions
- **Cost competitive** solutions
Responding to Brand Owners and Converters

MORE FLEXIBILITY ON SHORTER JOB RUNS

CONSISTENCY

OFF-LINE PREPARATION

FASTER TIME TO MARKET

RELIABILITY

NO SACRIFICE OF BRAND IDENTITY

HIGH QUALITY PRINTING

JOB CHANGEOVER TIME & SET-UP TIME

TIME, COST, WASTE SAVING
Gravure vs Flexo printing output

Flexo printing process was the one to overcome first the challenges of Brand owners:

- in mature markets like Europe, **Flexo printing** accounts for a value more than **3 times higher than Gravure printing**, leading gravure presses manufacturers to face new challenges.

oneECG Rotogravure
BOBST Extended Color Gamut
Winning the challenge of color consistency

- Exceptional color quality
- Minimum waste of substrates and consumables
- High profitability producing very short and very long runs
- Immediate color matching
Preferred partner for oneECG
Experience

1. Digital
2. Narrow Web Flexo
3. CI Flexo
4. Rotogravure

OneECG Rotogravure was the last block to complete BOBST offering in ECG: the experience gained with other printing technologies makes BOBST a solution provider and preferred partner in ECG.
The clear advantages of ECG in Gravure

Making rotogravure the more efficient choice even for shorter job runs

Drastic reduction of machine downtime with reduction in JCO time of around 50% and Color matching time reduced to a minimum

Important reduction of parts to be cleaned saving time and materials

100% repeatability of job quality & color consistency with 90% of job preparation off-line

Print multiple jobs on the same run: inks are always the same
  - All colors always on the machine
  - Reducing left-over inks and waste decreased by 50%

Sustainable energy and cost saving
  - Less drying capacity needed for the full color mid machine
Uptime comparison of CMYK vs. ECG in Gravure

**Increasing annual machine productivity by + 40%**

**Decreasing waste by - 50%**
Innovation lies in the Process
The fundamentals of ECG in Gravure

Configuration
Having the right machine set-up is fundamental
It must be consistent therefore repeatable and reliable

Control
Have control of remaining machine “variables”
Register, viscosity and temperature

Reporting
Analyze each printed roll, providing a report of all parameters, including register performance results on the total job width and length
Register Optimization

- Unbeatable BOBST system, restoring the register **in just seconds** at job changeovers.

- Optimized to **obtain and guarantee a performance within 50micron** on the total job width and length

- BOBST Registron® is a technological guarantee, with **minimum waste and best in class automation.**
Fingerprint creation

- Define L.A.B. C and H color target
- Create a **7 color finger print**
- Create the **printing profile**
Create your GAMUT

- 7 color ECG printing
- $dE_{\text{Max.}}$ (95%) = <2
- Ref. digital Pantone library
- Nr. of spots within tolerance 1 = 1626
- $dE$ Average = 0.6

BOBST Results: 95%

PANTONE color library

Analyze fingerprint and read color chart to generate your own color gamut
Match your COLOR LIBRARY

After the creation of your color Gamut:

- Compare it to your color library to try to Match 100% it

- Work on the 3 additional colors to match the request

- Define your job parameters
Print your JOB

- 20um BOPP
- 300 m/min
- 4 jobs in one
- CMYK + orange + violet
- 6 colours + white

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Comparison with TRADITIONAL JOB

TRADITIONAL JOB:
- CMYK + 5 spot colors
  9 colors + white
- Machine with 10PU
- Longer color matching
- Bigger dryers for full colours

ECG ROTOGRAVURE:
- CMYK + orange + violet
  6 colors + white
- Machine with 7PU
- Shorter color matching
- Dryers run on ECO mode except for white

- 20um BOPP
- 300 m/min
- 4 jobs in one
- 5 PANTONE COLORS
Laboratory equipment
In-house expertise

- **Solvent retention** (N.I.R.A. Automatic residual analyser & Perkin Elmer HS-GC-FID)
- **Coating weight** (Sartorius Analytical weighting device)
- **Chemical composition** of materials (Perkin Elmer Spectrophotometer UATR-FT-IR)
- **Colorimetric parameters** - ΔE, L*a*b* coordinates & optical density - (X-Rite Spectrophotometer)
- **Bond & Heat Sealing** Strength (Zwick Roell Dynamometer)
- **Moisture %** in the paper (Sartorius Moisture weighting device)

Real time analysis
oneECG in gravure driven by BOBST

Supported by partners

- **Full solution provider**: oneECG process together with our high-level certified partners
- **Integrated Workflow** from file to print
- **Open partnership approach**
How to deploy oneECG in your facility

Right machine set up in order to manage the variables

Have the right machine whether it be the ECG ready BOBST RS 6003 platform or the ECG retrofit kit for your existing gravure press

Measurement, data analysis and reporting equipment and know-how

oneECG process supported by BOBST to Certify your job with your materials
Questions....?
Be ready to move

THANK YOU!