



BOBST oneECG Gravure

ROTO4ALL  
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[www.bobst.com](http://www.bobst.com)

# **oneECG** **The Future of Rotogravure Printing**



# BOBST at a Glance

# Four cornerstones of our vision

## \_Connectivity



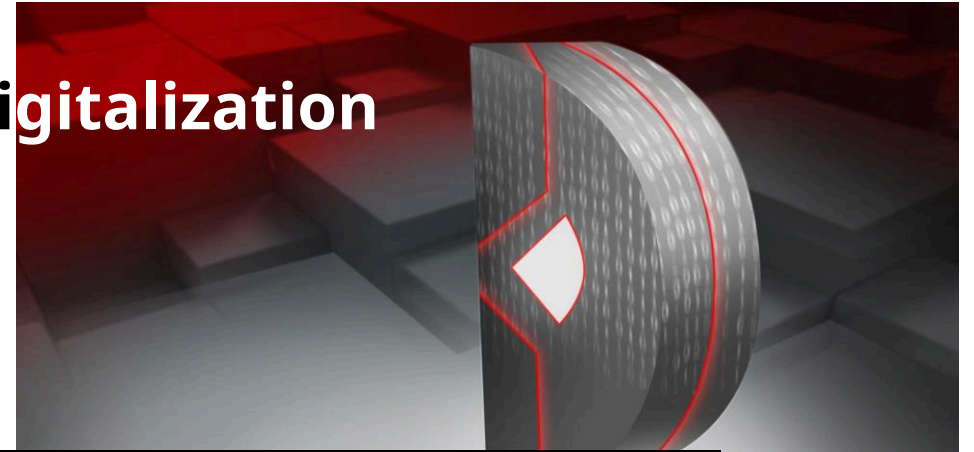
The entire packaging production  
will be connected

## \_Automation



Greater quality – less errors

## \_Digitalization



More efficiency and agility

## \_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**

**HIGH QUALITY  
PRINTING**

**CONSISTENCY**

**OFF-LINE  
PREPARATION**

**JOB CHANGEOVER  
TIME & SET-UP TIME**

**FASTER TIME  
TO MARKET**

**RELIABILITY**

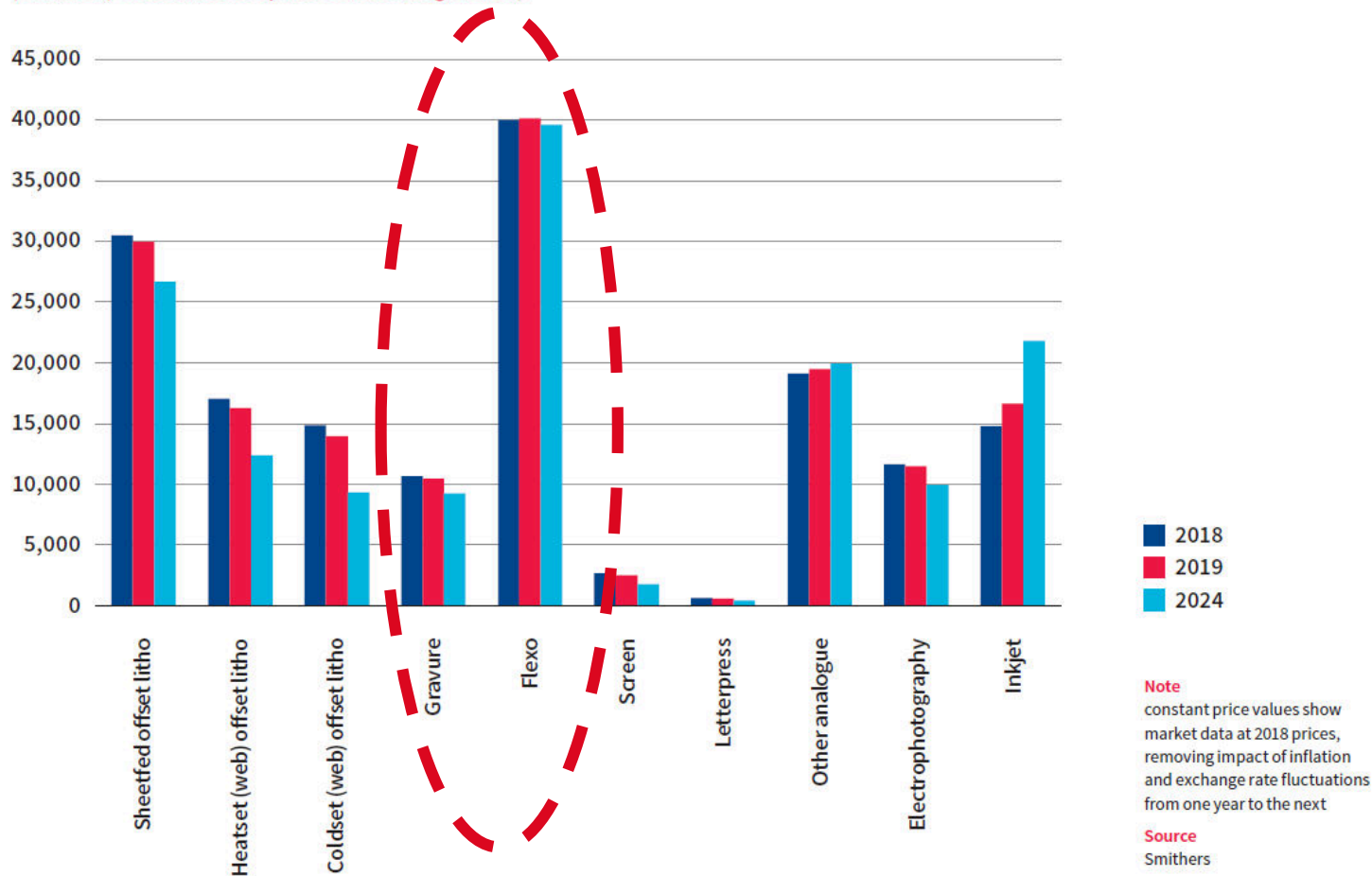
**TIME, COST, WASTE  
SAVING**

**NO SACRIFICE OF  
BRAND IDENTITY**



# Gravure vs Flexo printing output

FIGURE 5 European Printing & Printed Packaging Output by Process, 2018-2024f  
(€ million, constant 2018 prices & exchange rates)



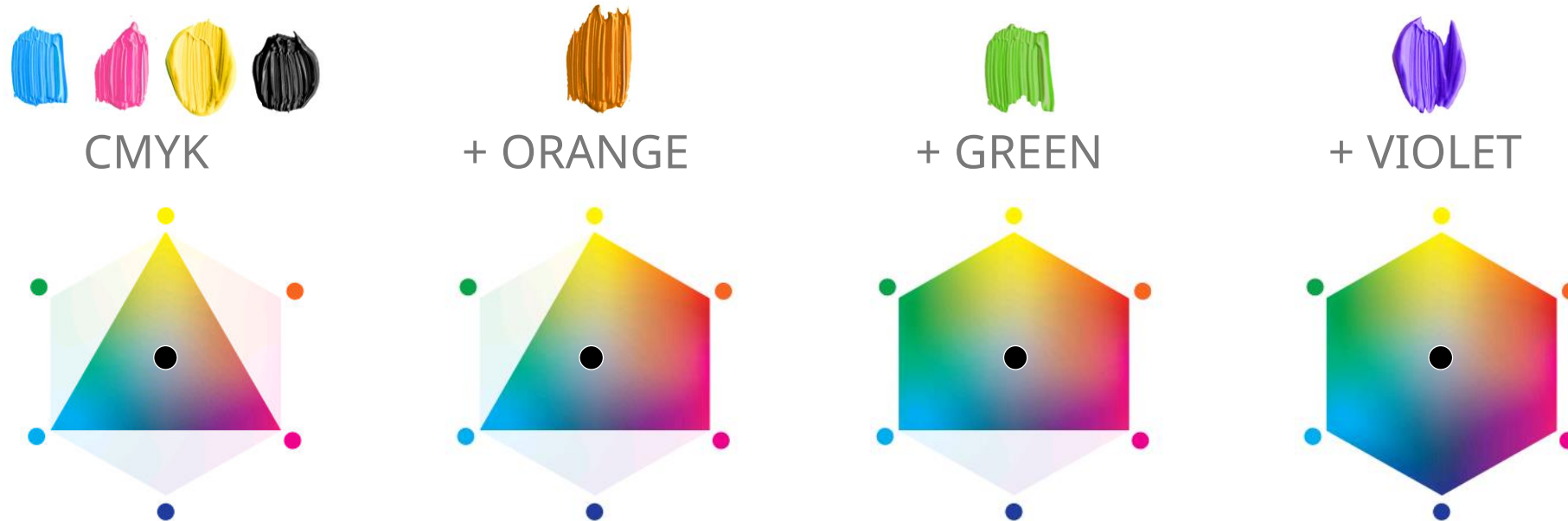
Flexo printing process was the one to overcome first the challenges of Brand owners:

- 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



# What exactly is Extended Color Gamut?



65% → >90%

ECG printing uses up to **three additional ink colors** on top of the conventional colors of cyan, magenta, yellow, and black (CMYK), enabling a match with **>90%+** of the Pantone book, compared with previous 65%.

# 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

TIME COMPARISON FOR ONE PRODUCTION CYCLE		
	6003 QC	6003 ECG
Description	Minutes	Minutes
Job change over time and machine inregister for new job	39,5	23
Colour Matching	44,1	14,5
Production time	56	56
TOTAL	139	93
Job Change over / WYear	2383	3565
Job Change over / Wday	10	15

FILM WASTE COMPARISON FOR ONE PRODUCTION CYCLE				
	6003 QC		6003 ECG	
Description	Linear meters	Square meter	Linear meters	Square meter
Production length	16.666,7	20.000,0	16.666,7	20.000,0
Trims waste		333,3		333,3
Machine in Register	170,8	204,9	170,8	204,9
Color Matching	1.020,3	1.224,4	304,1	364,9
Waste : Production	17.857,8	21.762,7	17.141,5	20.903,2
Total Waste	1.191,1	1.762,7	474,9	903,2
FILM WASTE %	8,1%		4,3%	

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

Decreasing **waste** by **- 50%**

# Innovation lies in the Process

# Register Optimization

1

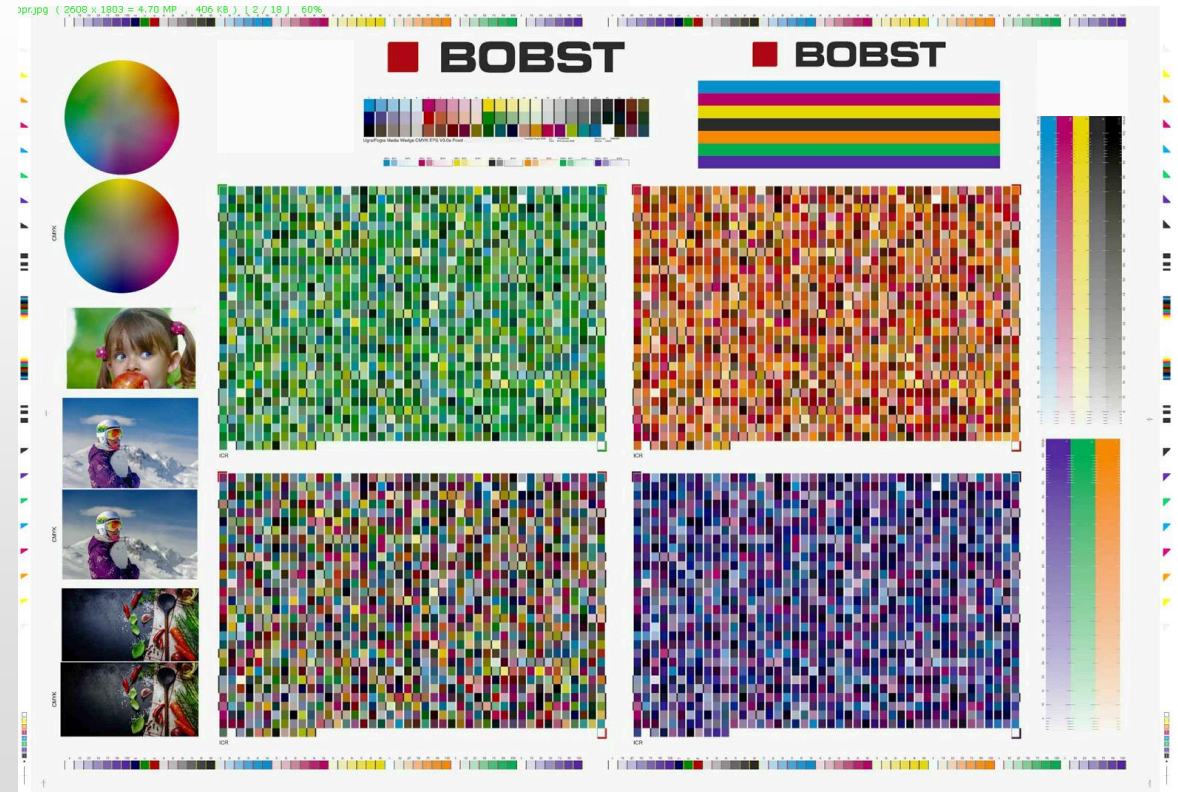
- **Unbeatable BOBST system**, restoring the register **in just seconds** at job changeovers.
- Optimized to **obtain and guarantee a performance within 50micron** on the total job width and length
- BOBST Registron® is a technological guarantee, with **minimum waste and best in class automation**.



# Fingerprint creation

2

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



# Create your GAMUT

3

$\Delta E_{00} < 2.0$  ●  $\Delta E_{00} < 3.0$  ●  $\Delta E_{00} \geq 3.0$  ●

PANTONE 693 C	PANTONE 694 C	PANTONE 695 C	PANTONE 696 C	PANTONE 697 C	PANTONE 698 C	PANTONE 699 C
PANTONE 700 C	PANTONE 701 C	PANTONE 702 C	PANTONE 703 C	PANTONE 704 C	PANTONE 705 C	PANTONE 706 C
PANTONE 707 C	PANTONE 708 C	PANTONE 709 C	PANTONE 710 C	PANTONE 711 C	PANTONE 712 C	PANTONE 713 C
PANTONE 714 C	PANTONE 715 C	PANTONE 716 C	PANTONE 717 C	PANTONE 718 C	PANTONE 719 C	PANTONE 720 C
PANTONE 721 C	PANTONE 722 C	PANTONE 723 C	PANTONE 724 C	PANTONE 725 C	PANTONE 726 C	PANTONE 727 C
PANTONE 728 C	PANTONE 729 C	PANTONE 730 C	PANTONE 731 C	PANTONE 732 C	PANTONE 801 C	PANTONE 802 C
PANTONE 803 C	PANTONE 804 C	PANTONE 805 C	PANTONE 806 C	PANTONE 807 C	PANTONE 871 C	PANTONE 872 C
PANTONE 873 C	PANTONE 874 C	PANTONE 875 C	PANTONE 876 C	PANTONE 877 C	PANTONE 1205 C	PANTONE 1215 C
PANTONE 1225 C	PANTONE 1235 C	PANTONE 1245 C	PANTONE 1255 C	PANTONE 1265 C	PANTONE 1345 C	PANTONE 1355 C

Analyze fingerprint and read color chart to generate your own **color gamut**

- 7 color ECG printing
- dE Max. (**95%**) = <2
- Ref. digital Pantone library
- Nr. of spots within tolerance 1 = 1626
- dE Average = **0,6**

***BOBST Results:***

***95%***

***PANTONE color library***

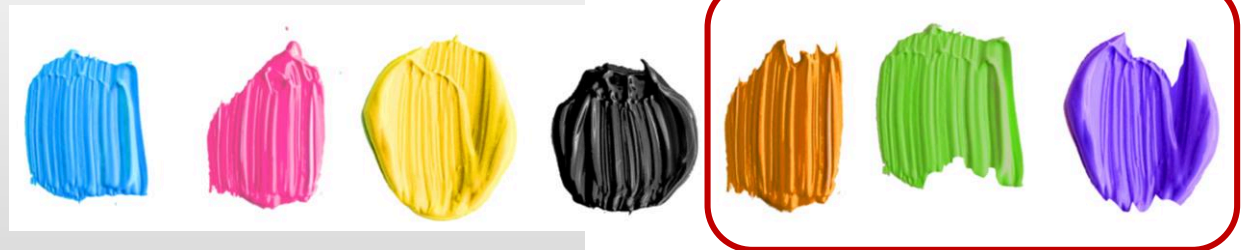
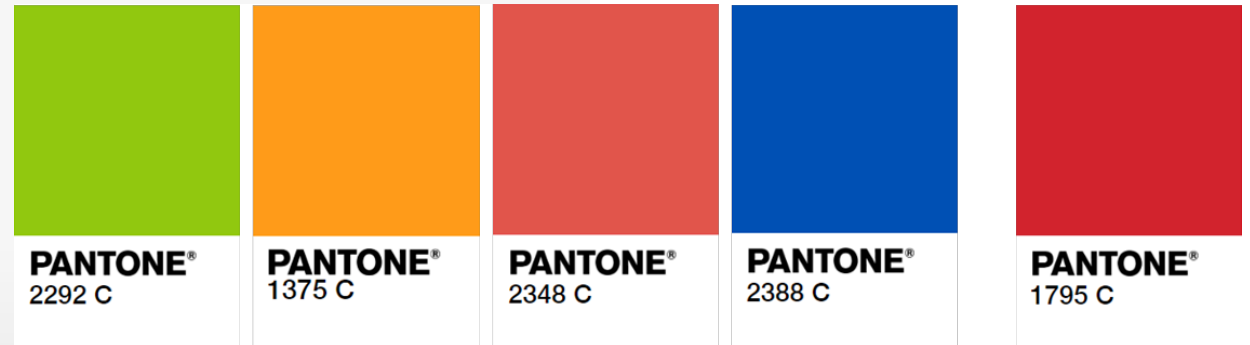


# Match your COLOR LIBRARY

4

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

5

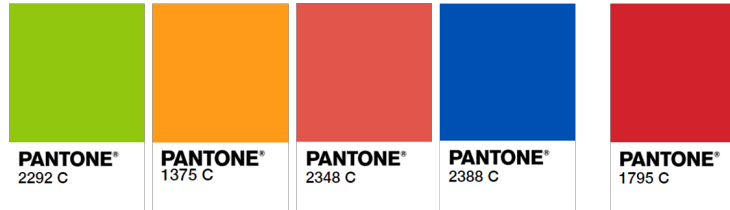


- 20um BOPP
- 300 m/min
- 4 jobs in one

- CMYK + **orange + violet**  
6 colours + white

PANTONE	CYAN	MAGENTA	YELLOW	BLACK	ORANGE	VIOLET	ΔE 2000
1375	0	14,6	73,6	0	63,7	0	0,96
1795	0	73,3	0	10,5	91,4	0	0,86
2292	48,2	0	97,8	0	0	0	1,47
2348	0	74,1	66,8	0	0	0	1,1
2388	100	26,4	0	0	0	53,1	1,67

# Comparison with TRADITIONAL JOB



- 20um BOPP
- 300 m/min
- 4 jobs in one
- 5 PANTONE COLORS

## TRADITIONAL JOB:

- CMYK + **5 spot colors**
- 9 colors + white**

- Machine with **10PU**
- Longer color matching
- Bigger dryers for full colours

## ECG ROTOGRAVURE:

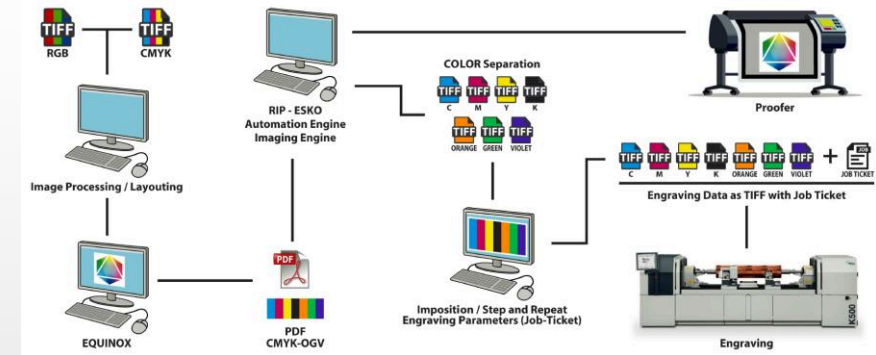
- CMYK + **orange + violet**
- 6 colors + white**

- Machine with **7PU**
- Shorter color matching
- Dryers run on ECO mode except for white

# 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**



Workflow

Cylinder Engraving

Color measurement

Inks Manufacturer

In-line Spectro

**ESKO** \*

**ICR**  
INCISIONI CILINDRI  
ROTOCALCO

**x-rite**  
**PANTONE**®

**SunChemical**®  
a member of the DIC group **GGC**  
Color & Comfort

**Different partners  
available**

# Questions....?



A close-up photograph of a person's face, heavily decorated with vibrant, multi-colored face paint in shades of red, orange, yellow, green, blue, and purple. The person's eyes are visible, looking directly at the camera. The background is blurred, showing another person with similar colorful makeup.

Be ready to move

**THANK YOU !**