



Trends in Packaging Consumables

Shift_018 - Bangkok (Thailand)

3rd May 2018

TRELLEBORG PRINTING SOLUTIONS



TRELLEBORG

Trelleborg Group

A world-leader in engineered polymer solutions

Annual Sales
€ 3,2 billion

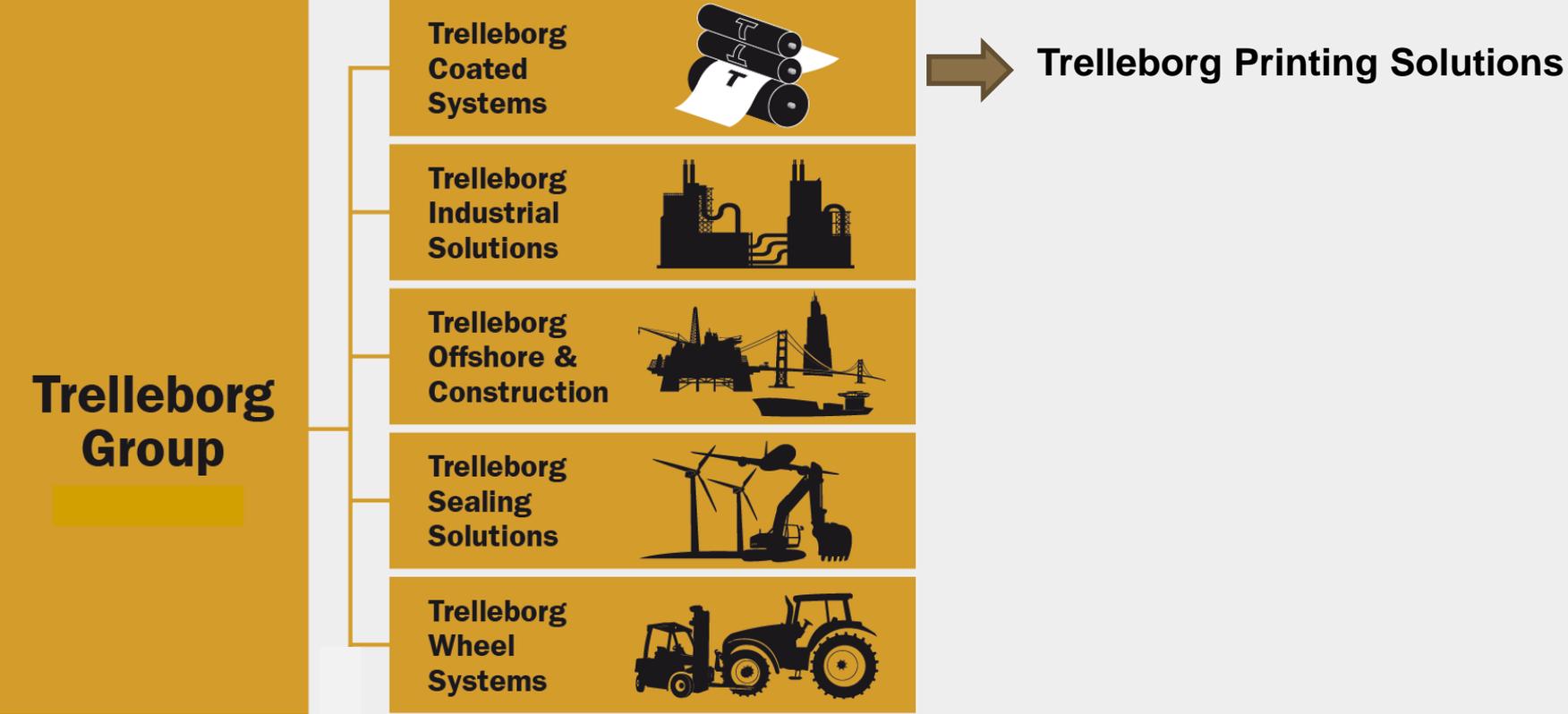
Employees
23,000

Countries
Over 47

Manufacturing
plants
Over 100



Trelleborg Group Business Areas



Our Premium Brands



Printing
Blankets



Printing
Blankets
Rollers & Belts



Printing
Blankets



Flexo Sleeves



Printing
Blankets

Top consumables used in the Printing Industry



Reasons on the Trends

- The volume of print determines the market for print consumables. Cost pressures intensify. Digital print is replacing some conventional print as the print process mix changes.
- Suppliers broaden their product range as one-stop shops for print suppliers. Press and equipment manufacturers increasingly move into consumable supply, promising maximum efficiencies on their machinery.
- Elimination / substitution in processes lowers waste. Controlling with automation & better efficiency also lower wastage.
- The trend toward sustainability with renewable green consumables.

Global print development

Supply chain changes

Process efficiency

Environment

Digital & inkjet maturity.

Drivers for Trends in consumables

- Reduction in run length / shorter lead times.
- Cost reduction pressure.
- Metrics.
- Full colour, totally variable printing.
- Environmental issues with the present consumables, both in use and in manufacturing.
- Press performances.
- Standardization, optimization and automation.

Reduction in run lengths

Cost Pressure

Metrics

Total Colour

Environmental pressure

Press performance

Standardization and optimization

Market Dynamics



Impact on the Business

- Lesser steps to Press Ready
- More colour, specialization, high quality
- Overall product process is important
- “Good products are no longer enough”
- Total control & automation
- Consistency of output across complete group



Trend in Printing Plates

Trends in Printing Plates

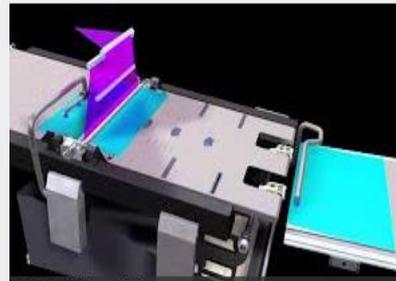
Pre-sensitized Plates



Double Layer Thermal CTP Plate



Violet



Analog Plates

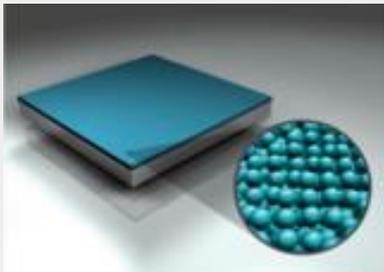
Digital Plates – Thermal & Violet

Digital Plates – Thermal & Violet –
Low Chem or Gum Developed

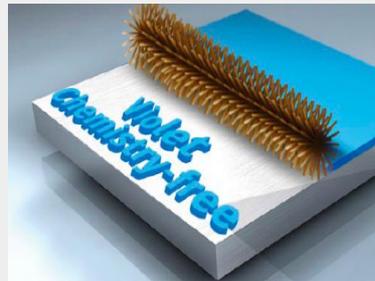
Digital Plates – Thermal –
Processless

Digital Plates – Violet – Plates to
print with UV

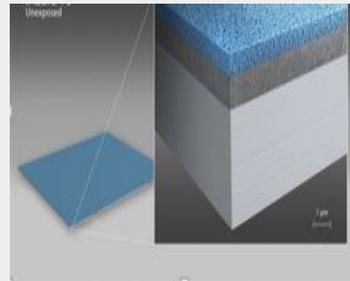
Thermal Chem-free



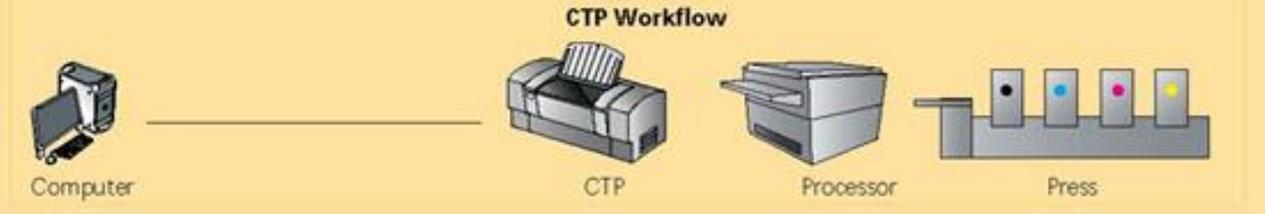
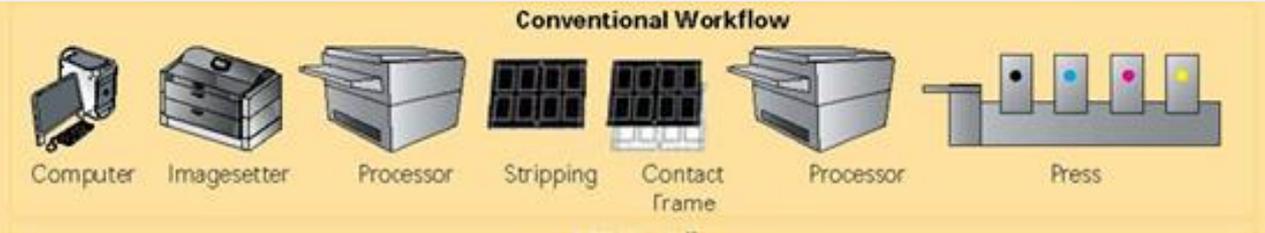
Violet Chem-free



Thermal process-less



Trends in plate workflow



CTF

CTP

CTP – Processless

No chemicals

No Replenishments

No Top-ups

change in speed

No water

Very less maintenance

Longer bath life

Benefits of the Trends

Print with UV

Decrease water usage

Lesser steps, therefore lesser mistakes

Lesser & friendly chemistry, therefore more safe and operator friendly

Waste disposal reduced

Carbon footprint reduced





Trend in Printing Chemical

Substitute Alcohol



Reduction in VOC emissions.

Improved health and human safety

Ink water balance

Lower odor levels in the pressroom

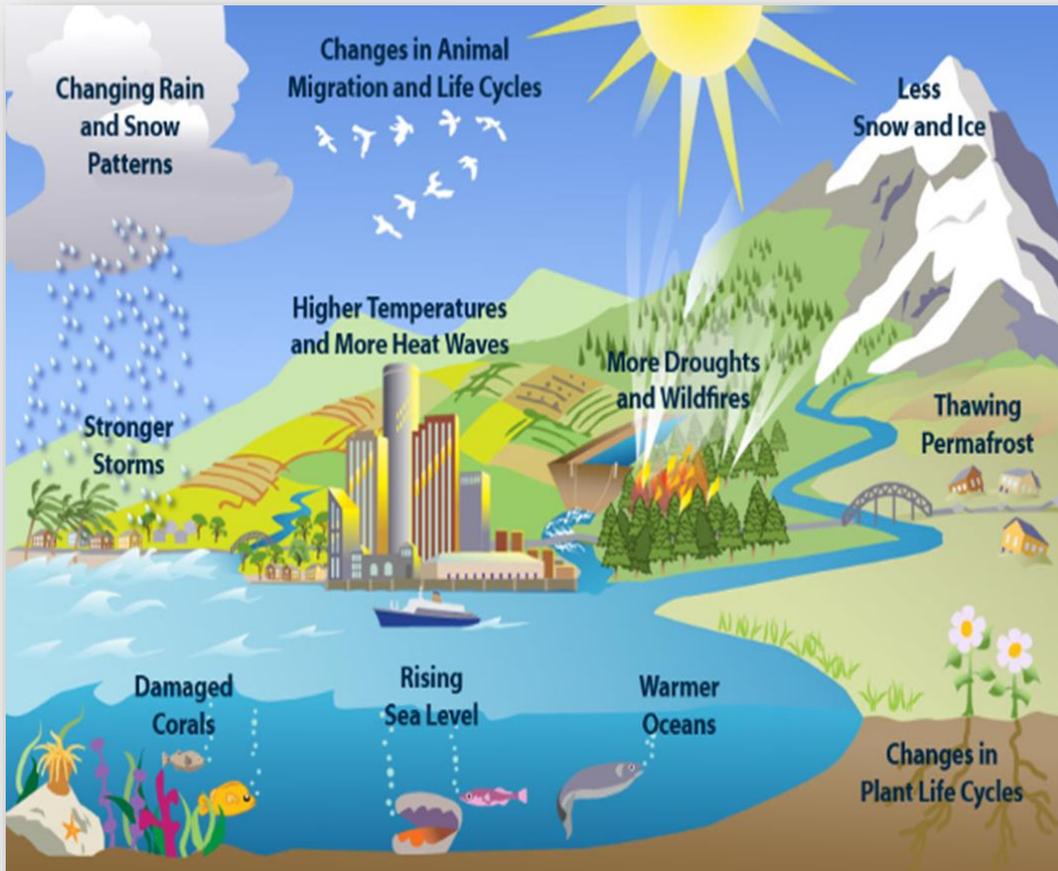
ISO Accreditation and corrosion inhibition

Stable founts

Stable dot reproduction

Eliminate issues in postpress

Chemicals – Climate Change



Water scarcity

Biocides in the fount will increase

Various minerals present in water

Destabilizes the fount during the run.

More DM & RO plants usage to renew water

Change in paper manufacturing



Use of clay instead of calcium carbonate asks for better fount chemistry

Non availability of virgin pulp

Deforestation

Lower gsm requirements

Chemicals & Care Products

- Printing on non-porous substrates.
- Movement to Alkonil – Water treatment and fount drossers to have stable fount throughout press run.
- Solvents with higher flashpoint, slower drying.
- Blending for specific customers with special requirements.
- Elimination, substitution, Control and Protection is the new programme.
- Standardization, Accreditation, Approved and Safe products will be used in the future.





Trend in Printing Blankets

Trends in Printing Blankets

- New generation of blankets are able to print FM, High density pigments, Lower GSM, Low migration inks and many more
- Suited top layers for various print process and compressible layers to suit substrates and carcass for high stability
- Blankets for Plastic pot printing, Security Printing, Precoat, cold gold foiling and many more applications.

Conventional Printing Blankets

Compressible Blankets 4ply

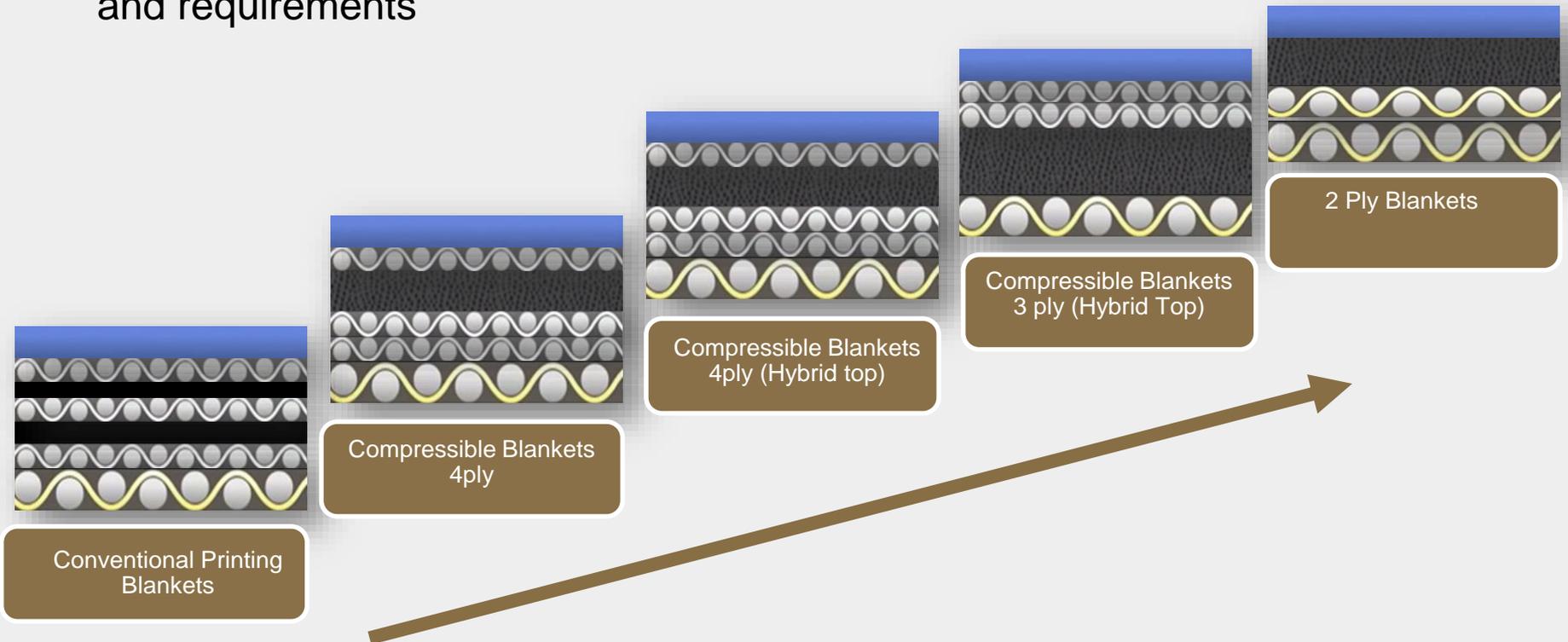
Compressible Blankets – 3ply.
Hybrid top

Compressible layers – Positive &
Neutral feed

Special blankets to print on
different substrates- HUV,
Anicolor and more

Trends in Printing Blankets

- **Various blanket design and structure** to match every market / customer needs and requirements



New manufacturing Process

BLUE
DIMENSION



- No use of solvents
- No sinking.
- Better bonding between layers and top face.
- Homogeneous in thickness and rubber lay.
- New capabilities for futuristic production capabilities.
- Reduce CO2 emission.

Solventless Printing blankets

Calendering Technology

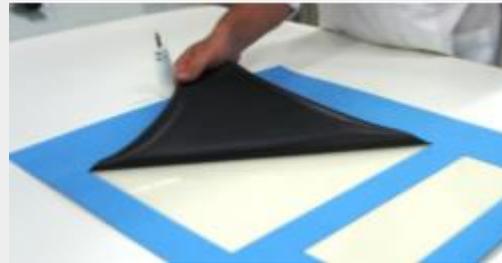
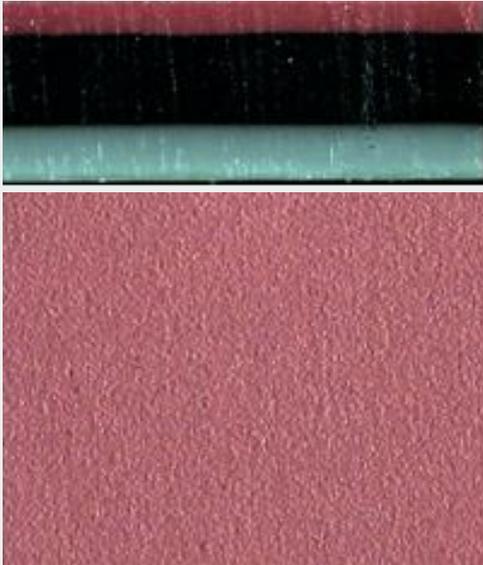
High production capacity

Reduced Production steps

High stable & consistent process

Safer Environment

Coating plates Vs blankets for coating & varnishing



- No Chemical Ingression
- Excellent Coating & lay.
- Superior sheet release.
- Easy to handle & clean.
- Best ideal for repeated jobs.

Polyester base for stable mount

Easy & accurate stripping

Thickness of 1.15, 1.35 and 1.96mm

For both UV & Aqueous

Food and Hygeine approved



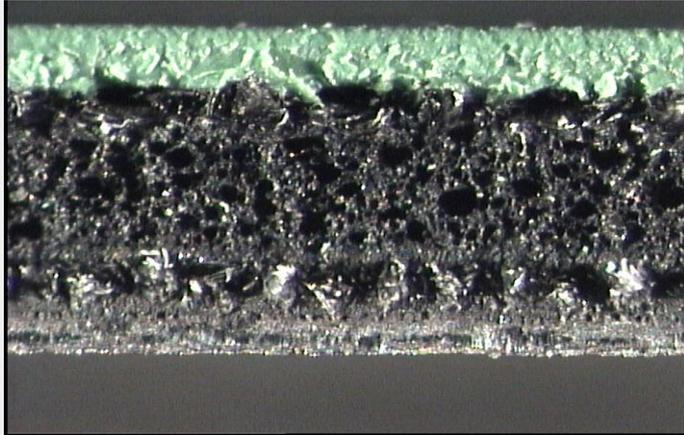
- Control on the use of solvents and some chemicals.
- Analyzes the effect of these chemicals when packed with Food.
- Conducts audit of the printing companies and also printed Samples.
- Advices both print companies and food manufacturers the Latest in food process techniques.

Association approving usage of raw materials used in manufacture of food packaging

Association which specializes in microbiology, ecology, environment and chemical analysis of raw materials used in food packaging

Safer Environment

Metal Back Printing blankets



- High speed and High production capacity.
- Able to do variable width webs.
- High mileage, therefore less changes of blankets.
- Ability to print both conventional and UV inks.
- Comes with attached mylar and therefore no variations in print.

Metal base

Very high speed

Gap of less than 1cm

Life of more than 20 million revolutions

Safer Environment

No elongation or guage loss

Best in Class for highspeed presses

Benefits of the Trends

- Without changing the CAPEX, we are able to change processes, use lesser steps, eliminate errors, improve Print Quality, add specialization and many more.
- Without much change we are able to save carbon footprint, save ecology, save water and also do not invest in high end disposal system.
- With change in trends in the OPEX, we are able to bring in safer, better and cheaper products into the printing segment.
- With change in the above, the **Think to Ink** time is less therefore GO to Market strategy of many companies is lesser.

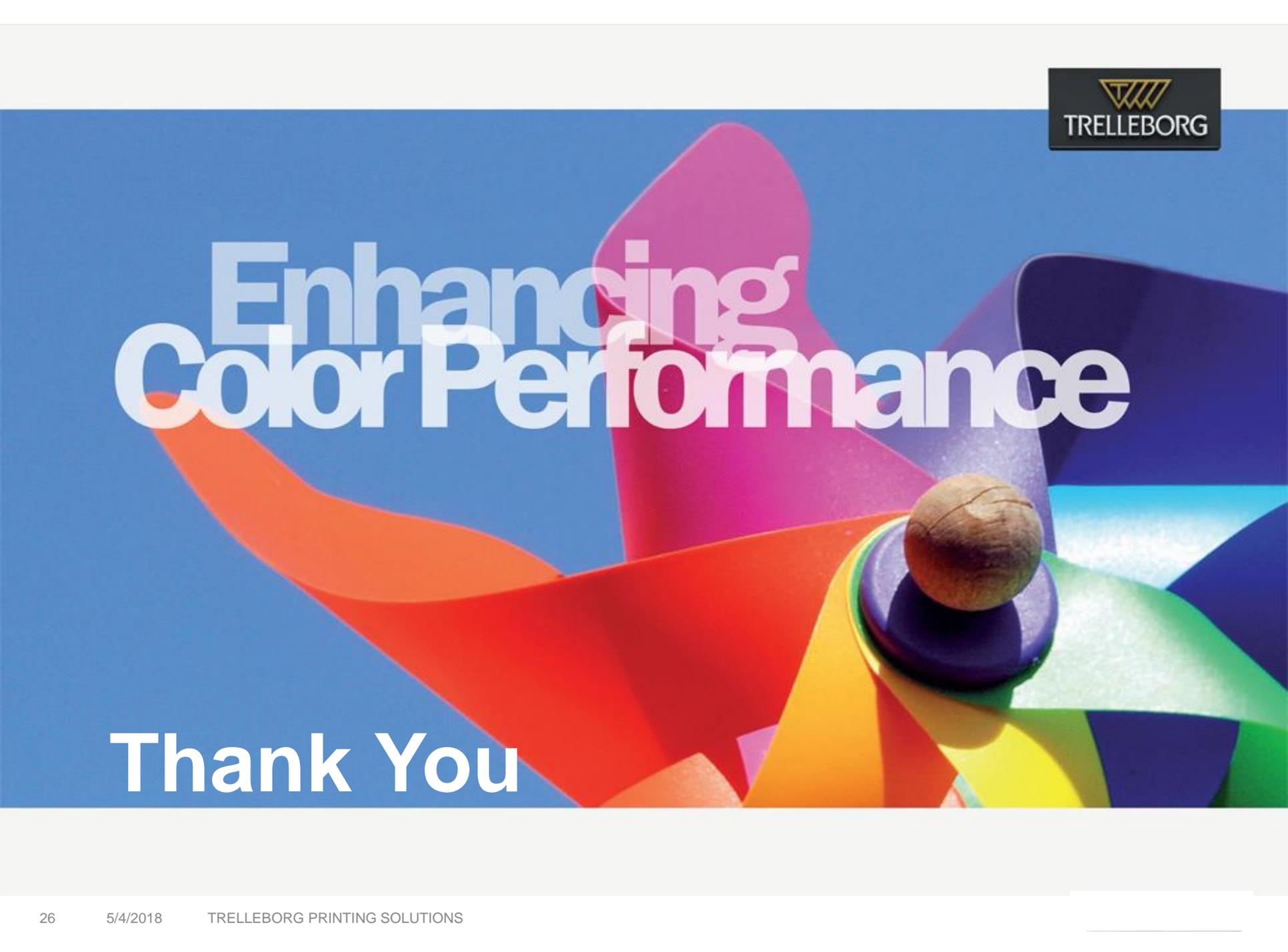
Same CAPEX

Reduce carbon footprint

Renewable green consumables

To go to Market

Digital & inkjet maturity

The background of the slide is a vibrant, abstract composition of overlapping, curved shapes in various colors including blue, orange, red, yellow, green, and purple. A wooden ball is positioned on a purple circular base in the lower right quadrant.

Enhancing Color Performance

Thank You



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