Use Print Inspection, to minimize waste, improve production efficiency and save costs

FINAT
Linking the Label Community

TECHNICAL SEMINAR 23-25 NOVEMBER 2022
InterContinental Barcelona

Have you checked your waste bin lately?

Guy Yogev
November 2022

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What do hear from the market?

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Customers are telling us that…

- *"The packaging & label markets are still strong & growing"*
- *"our incoming orders are still doing well"*
- *"We are working at high capacity"*

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And you're concerned with…

- Soaring energy and material cost
- Supply chain disruption
- Rising inflation
- Lack of skilled labor
- Volatile planning and reduced efficiency, leading to costly reprints and high material waste
- Environmental sustainability

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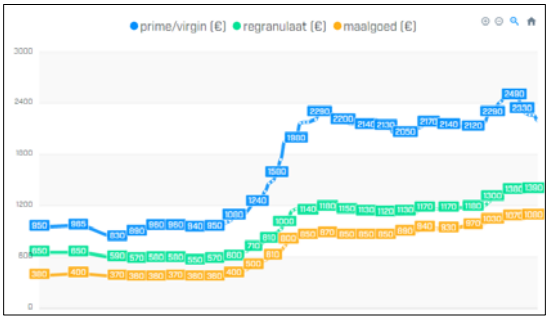
Raw material prices are surging

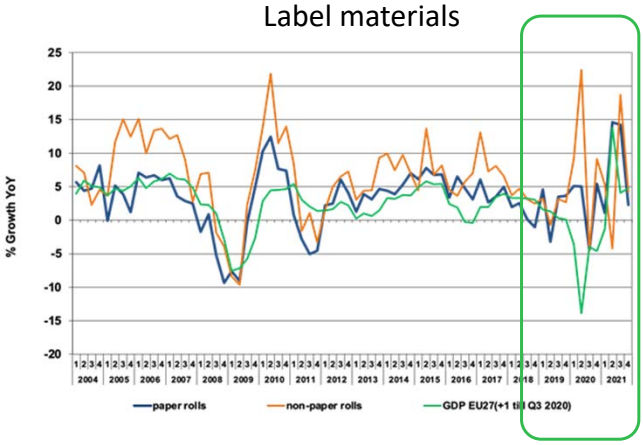
LDPE Film



27- DEC-19: **€950**
29-APR-22: peak at **€2,490**
Today: **€2,200**

x 2.3

Label materials



Source: https://www.vraagenaanbod.nl/thema/markttrends/

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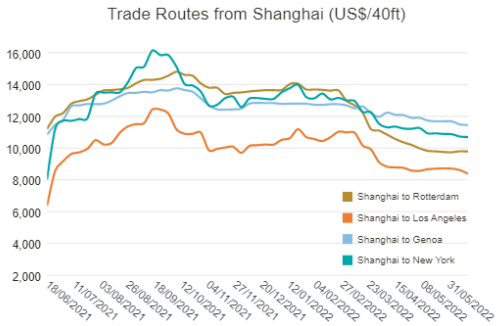
Cost of sea transportation causes disruption in globalized market and drives inflation.



The recovery in world trade that started faster than expected in mid-2020 created a capacity shortage in maritime transport.

As a result, sea container prices rose phenomenally: from **$2,000** (€1,700) each in November 2020, to more than **$16,000** in September 2021. Today (June 2022), the composite index decreased by 1%, but remains 8% higher than a year ago at **$10,695** for a 40ft container going from Shanghai to New York.

Source: https://www.drewry.co.uk/supply-chain-advisors/supply-chain-expertise/world-container-index-assessed-by-drewry

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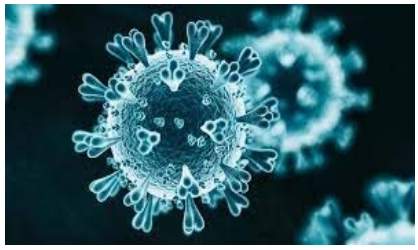
Can we predict the future?

Supply chain disruption

War and economic uncertainty

Logistics and inventory



Covid19 & changing world of work

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Bottom line:

The future will never be the same again, and our industry will have to **adapt to a different future and different way of working.**

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How can we **Minimize Waste, Improve Efficiency** and **Save Costs** - with **Print Inspection**?

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What are the main challenges printers and converters are facing?

- Shorter runs, many jobs per day with **job changeover challenges**
- **Less skilled and trained operators**
- **Material costs** went up and availability is challenging
- Too much **material is wasted** in both makeready and run-time. **Need more control** over the process
- **Need to improved efficiency, and time-to-market (OTD)**
- **Re-prints are very costly** and needs to be reduced or eliminated
- **Brand requires best quality**, and **we cannot risk losing customers** due to quality issues

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How can we assist you in resolving current issues?

- Perform **faster job change** with minimal waste
- Get all data from pre-press to enable **inspection automation**
- Ensure the **correct job is printed (avoid mistakes and re-prints)**
- Alert immediately and **reduce waste and time**
- Identify **repeating/ process issues & their source**
- Ensure printing enough good material **to avoid re-prints**
- Deliver **excellent quality, every time, and assure no bad material leaves the floor**

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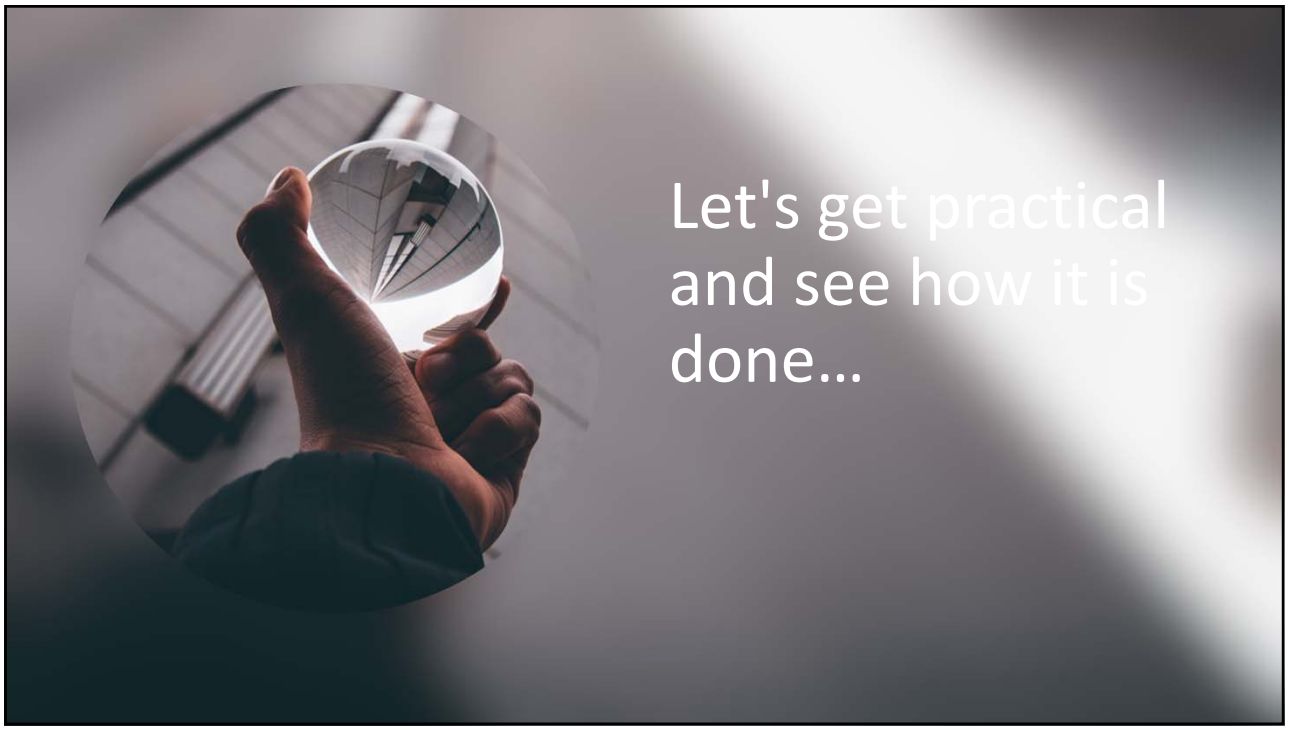

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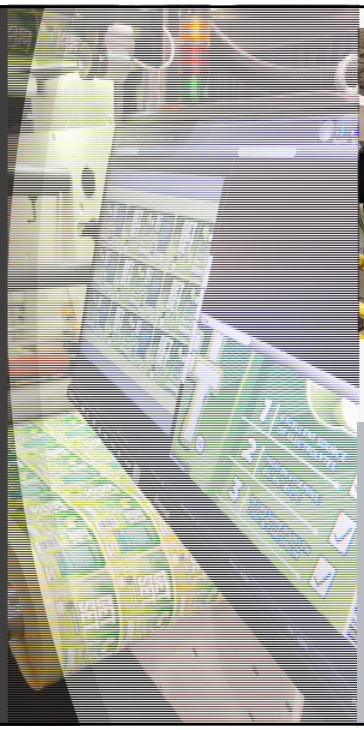
We will need 100% print inspection system on press as a starting point…



Turbo HD 100% Inspection

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Faster makeready & Press Control (register, pressure, color)

- The target – to reduce makeready time and waste with automatic press setup
- Manual register & pressure – can take 10-20 min and 500-700meter of waste
- **Automatic register and pressure** – can take 2-3min and up to 100 -150m of waste
- **The result** - reduction of hundreds of meters, valuable time and expertise
- **Color make ready** can be done faster **with inline Spectral color measurements**

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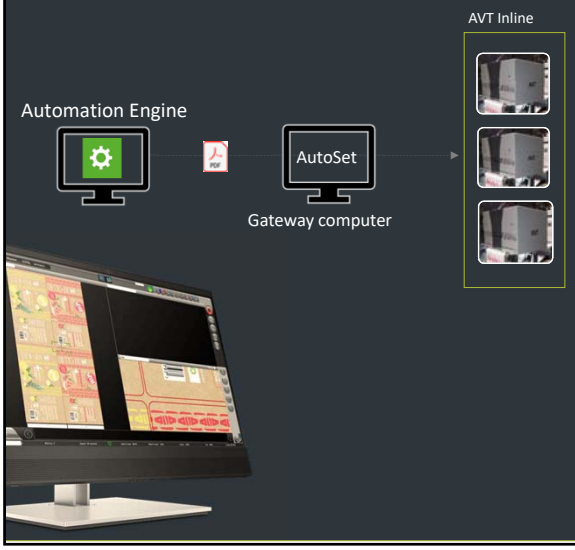
AutoSet – connecting pre-press to inspection on press



Out of the box connectivity
A touchless workflow for auto inspection setup from prepress to production
No extra labor

Job meta data:
Job dimensions, PDF file for Auto jobs ref

PDF content related data:
die line, text, barcode area identification
Auto support for multi-design jobs
Region of interest & iDeal points marked by Esko plug in for illustrator (provided with Autoset)

Saves 3-4 per each job
Ensures higher quality control
Eliminates human errors
Starting inspection automatically
Can Inspect from 1st copy

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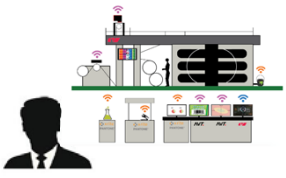
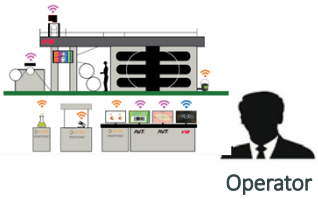
Manual Inspection setup (without automation):



Operator tasks to setup jobs for inspection:

1. Job ID should be set
2. Job dimension should be specified
3. PDF file manually uploaded to the inspection system (for Jobref)
4. Text elements marked manually
5. Barcodes elements marked manually
6. Inspection limits (die line) marked manually
7. Region of interests marked manually
8. Select iDeal points
9. Quality thresholds



Without automation –
Inspection setup is a manual process
Takes few minutes before every print run
Hard to control (per operator…)

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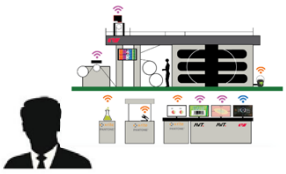
Inspection setup with AutoSet automation:



Operator

Operator tasks to setup jobs for inspection:

1. ~~Job ID should be set~~
2. ~~Job dimension should be specified~~
3. ~~PDF file manually uploaded to the inspection system (for Jobref)~~
4. ~~Text elements marked manually~~
5. ~~Barcodes elements marked manually~~
6. ~~Inspection limits (die line) marked manually~~
7. ~~Region of interests marked manually~~
8. ~~iDeal color points~~
9. ~~Quality thresholds~~

Operator

Operator

Save 3-4 min before print
Ensure high quality results
Eliminate human errors
Starts inspecting from 1st meter!

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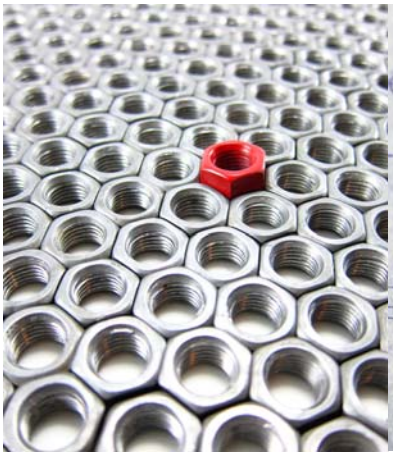
A single point of truth for quality management

Standardization **Accuracy** **Automation**



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Job Verification

- **AVT inline verification tools**
- **Main benefits – making sure the right job is printed, saving costly mistakes (wrong or defective plates, wrong revisions, languages)**
  - **JobRef** – online Job verification to PDF
  - → **supports comparison of single package PDF to all packages in the repeat**
  - → **supports "multi designs" jobs**

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100 % Based Automatic Inspection – Earlier warning to reduce defect lifespan

- After a **short** set-up, the Inspection Platform **automatically** identifies **any** type of printing and production faults
- Marks & Classifies and display the detected defects on the screen
- Alerts Immediately – once a defect was detected by the inspection system

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Alerting on any evolving issue!

- Any Print defect
- Color monitoring
- Color register
- Varnish / Cold Seal problems
- Die cut & matrix removal
- Repeat length
- Barcode readability
- And more…

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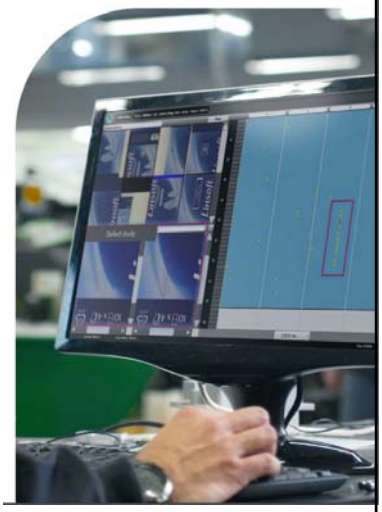
Continuous and Random Defects Monitoring

A process control tool to help printers and converters focus on what really maters

- Differentiate between **repeating defects versus random defects**
- **Focus on the most relevant defects** in real time
- **Identify source of defect**: Plate defects, Anilox, CI Drum, etc.
- Enables **better decision making on roll quality** and waste removal



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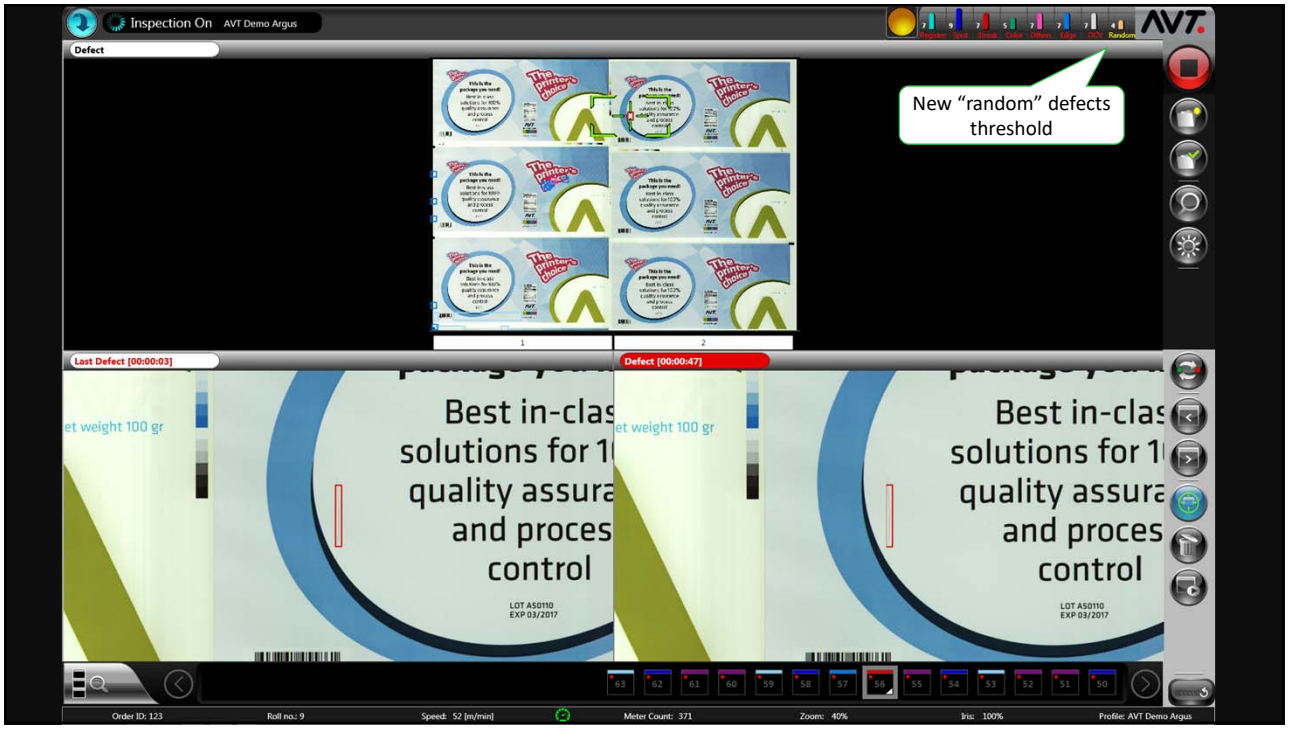

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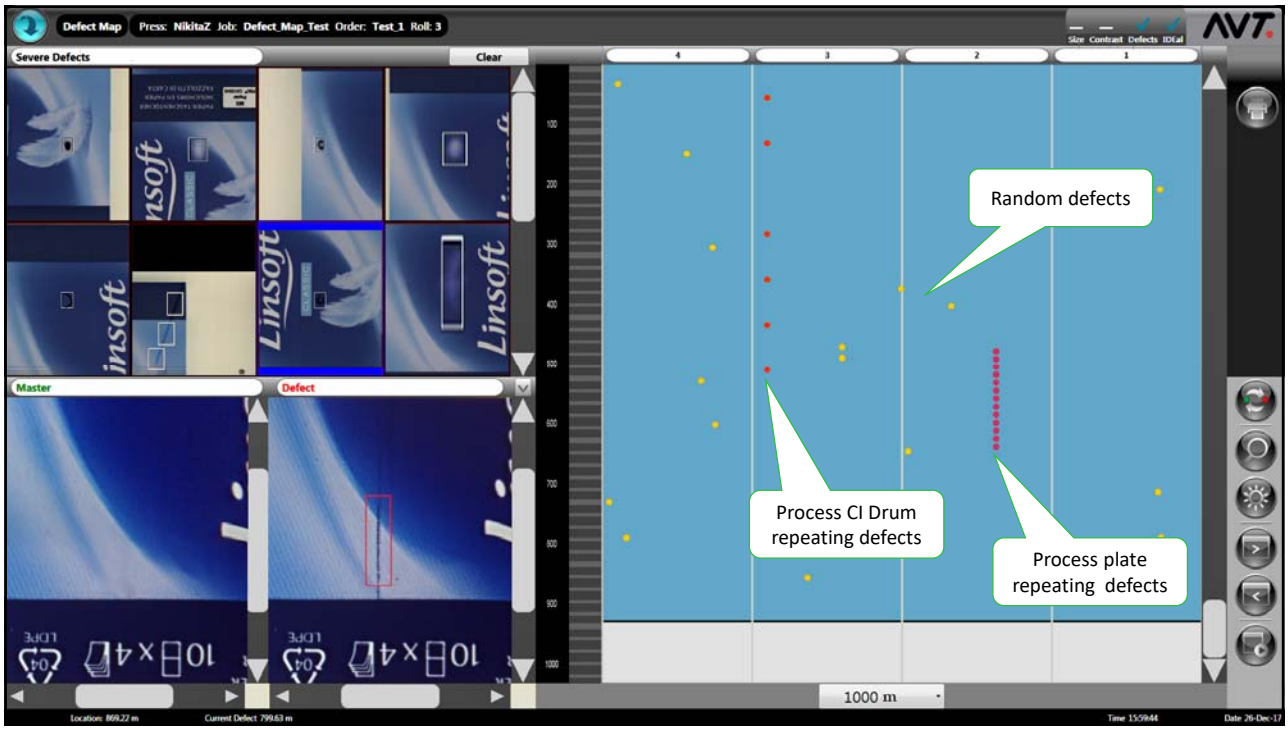

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Good material monitoring

- **Automatic counting of good material printed**, according to target substrate length or the number of packages, ensures that the correct amount is produced, and no reprints are needed due to higher-than-expected waste levels

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100% inspection, reporting & waste removal workflows

1. ESKO AVT 100% Turbo HD inspection, with highest inspection abilities
2. Complete reporting on everything inspected, monitored and measured
3. Easy removal of defects downstream with WorkFlow Link

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What does it practically mean for you?

Plastica (Romania) – "We were able to reduce production costs by 25%, increase productivity by 30%, and reduce preparation time for all jobs. We also have zero complains from our customers now"

AG3M (France) – "We increased productivity by about 30%. We reduced paper wastage, unnecessary re-prints, time and machine stops. In term of quality, 99% of defects are removed now prior to shipment"

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It's Time for Your Questions!

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Thank you

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