Understanding In-house ink logistics

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Understanding Inhouse ink logistics

- GSE at a glance
- Introduction to inhouse ink logistics
- Lean ink management
- Automated ink dispensing
- Reusing of press return inks
- Colour matching inks
- Traceability
- Business process integration
- Summary

Understanding Inhouse ink logistics

- GSE delivers robust, fast and smart dispensing equipment, software and services
- To minimise ink-related waste in the printing workflow
- More than 40 years experience in graphics, textiles and coating
- Headquarters in the Netherlands, with local presence in USA, Brazil and Czech Republic
- Global network of sales agents and service representatives
- > 1900 installations in 90 countries

Inhouse ink logistics
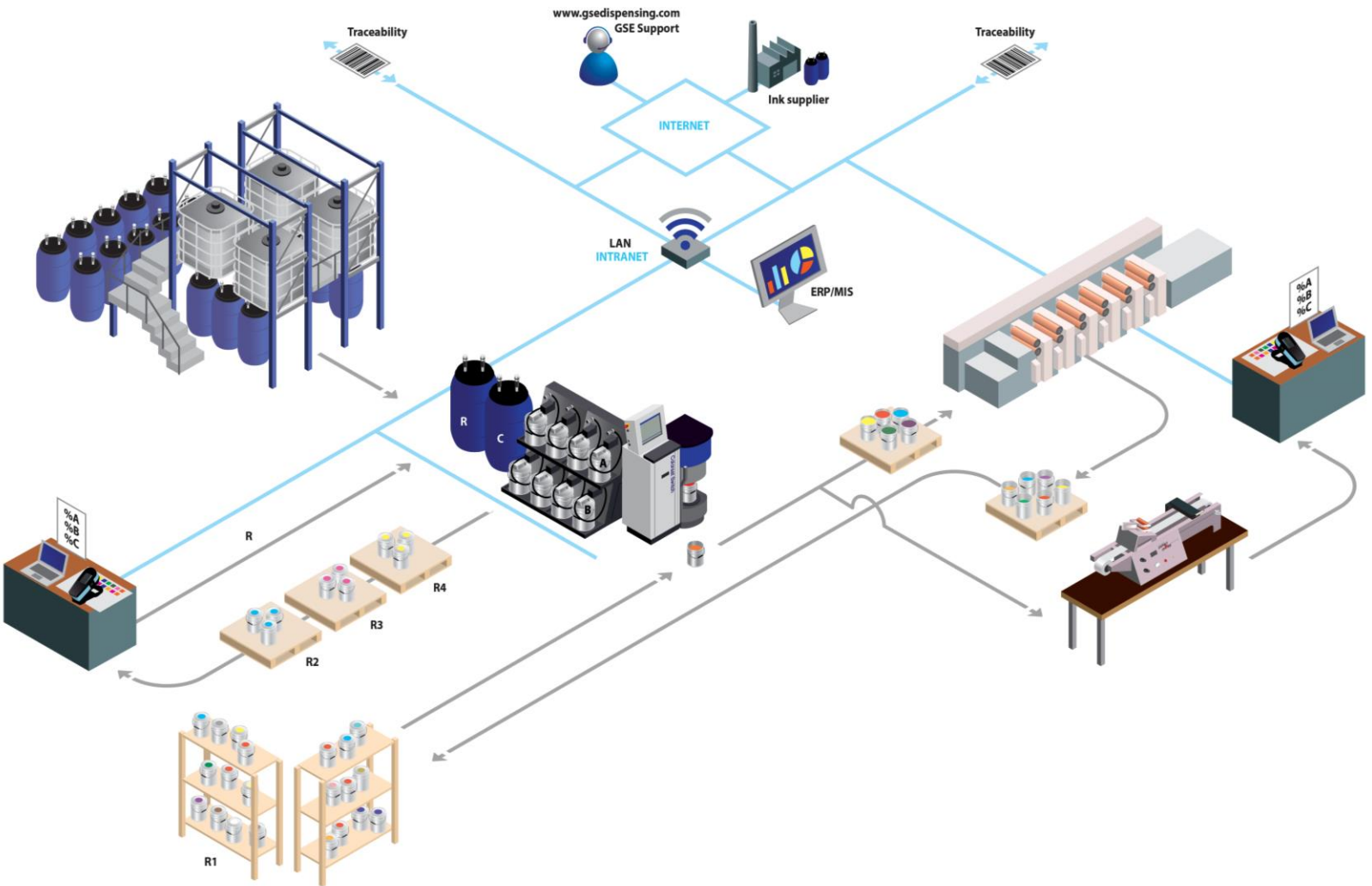
Lean ink management

"Eliminate the expenditure of all ink-related resources for any goal other than the creation of value for the end customer"

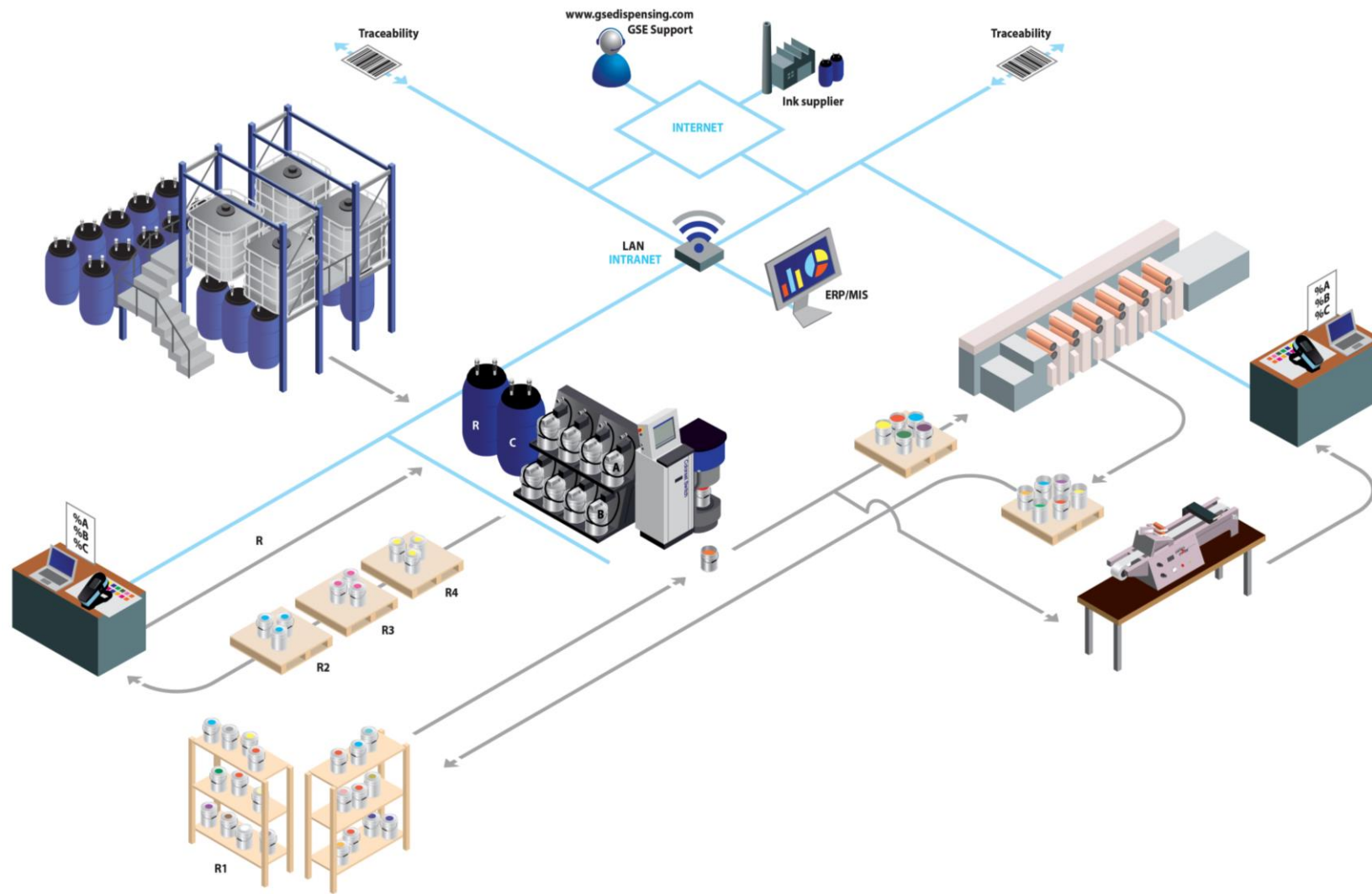| 1	2	3	4	5	6	7	8
Overproduction	Transport	Defects	Inventory	Motion	Overprocessing	Waiting	Talent

Automated ink dispensing

Automated ink dispensing

- Automatically dispense ink recipes made from base components

- Instant availability of exact colours

- Precise quantities for the job

- No need to purchase ready-mixed colours, or excess amounts "just-in-case"

- Ordering base components saves transport, warehousing and administration costs
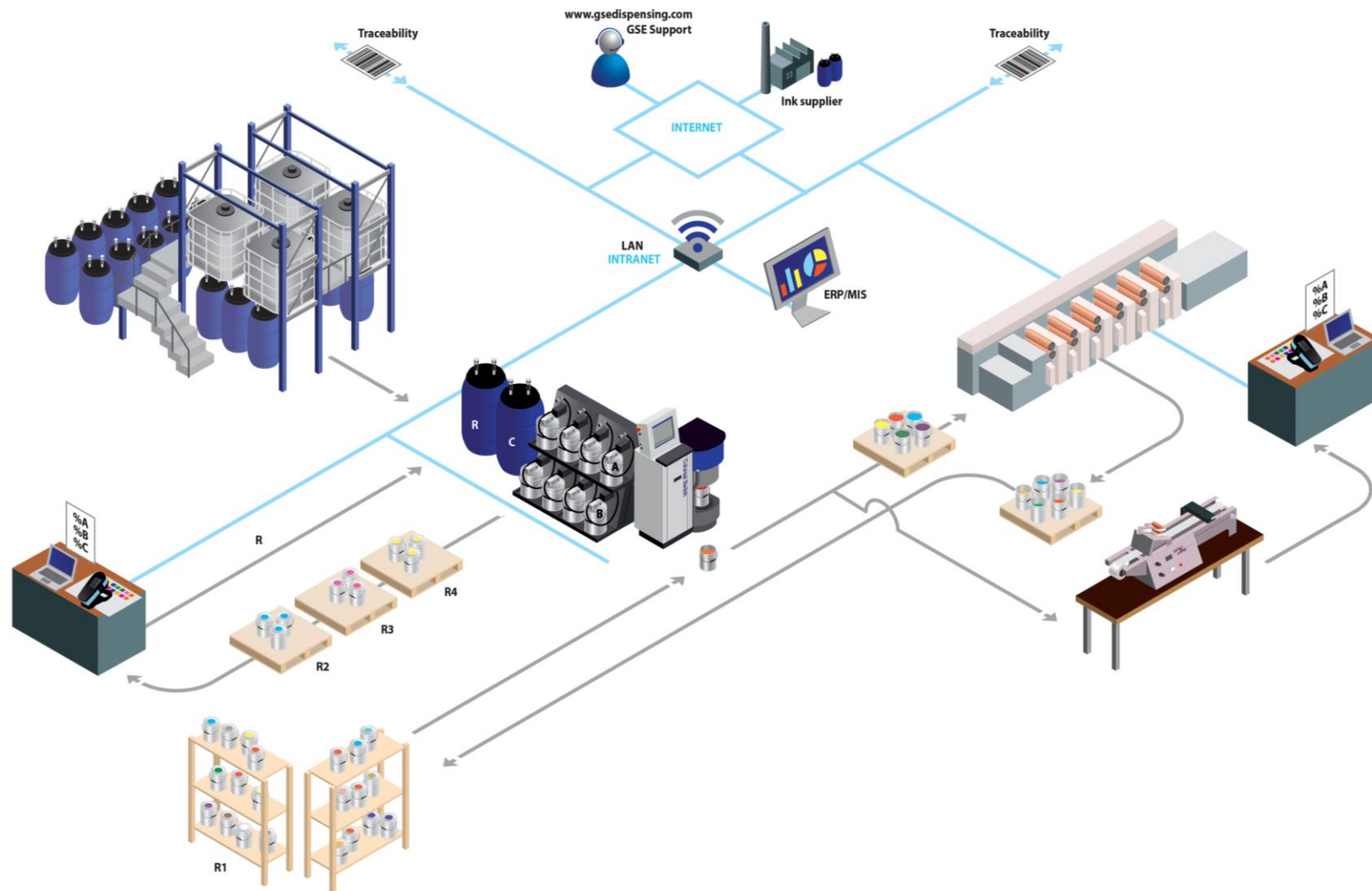
- Supply chain management

Hardware selection parameters

- Ink type used (SB, WB, UV or LED)

- Ink viscosity and rheology

- Production batch sizes and accuracy

- Required production capacity

- Number and type of base components
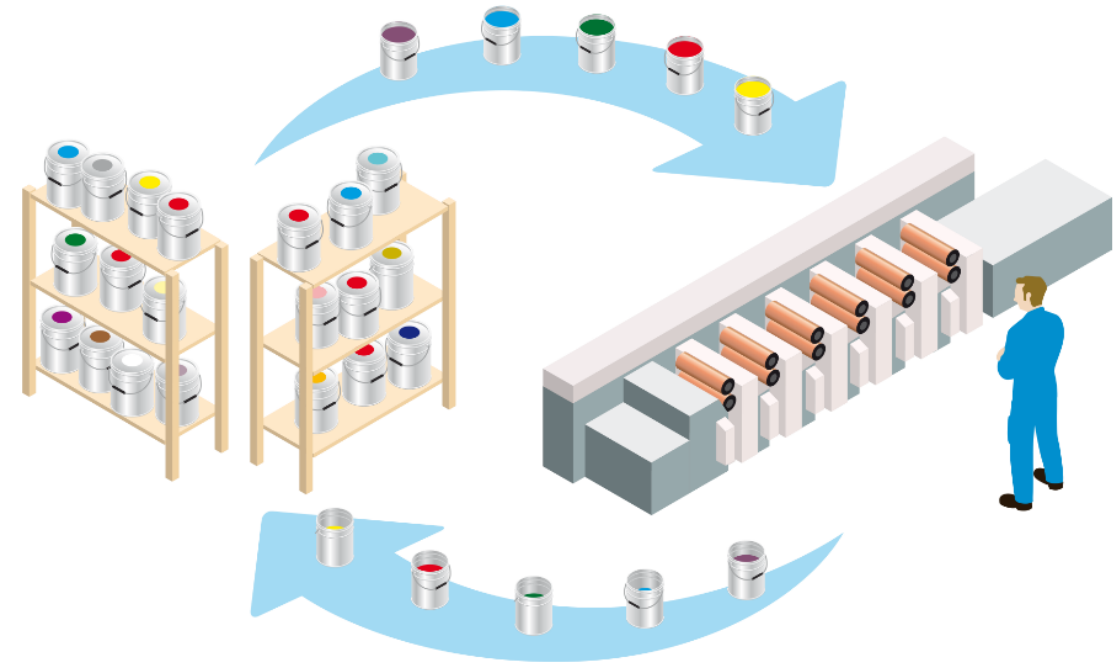
- Current and future workflows
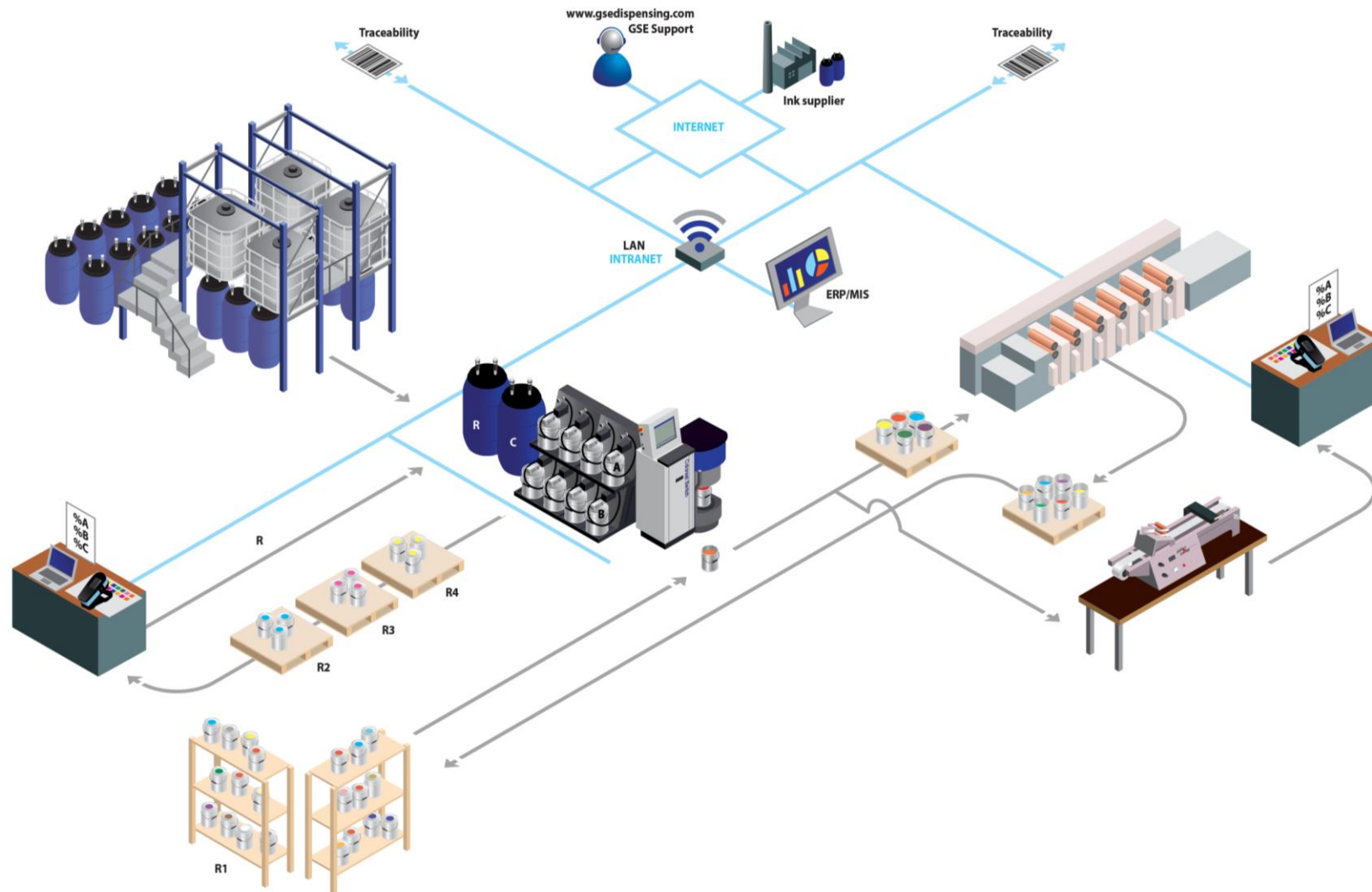
Reusing of press return inks

Reusing of press return inks

- By individual containers
- By producing 'clusters'
  - Collect return inks
- By using 'substitutes'
- Prepare or reserve returns

Colour matching

New colours

- Mix samples with formulas or by component dispensing
- By using experience and eye judgment
- Or with a spectrophotometer and colour formulation software (CFS)
- Sent new formulas from CFS directly to Ink management software
- Reuse the returned ink for constructing another colour
- Use a test press to boost printing press productivity
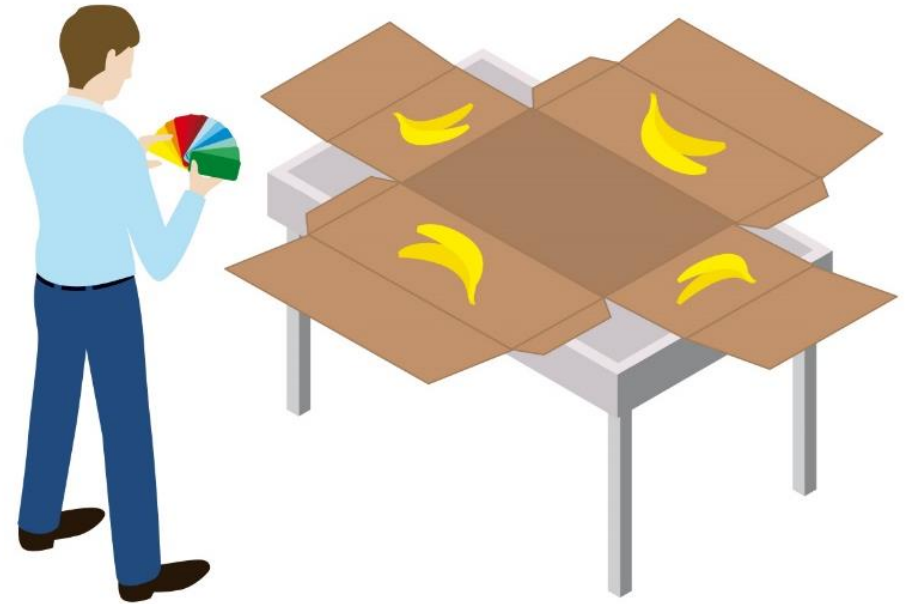
Colour corrections

- Start to adjust press settings
- Correct formula in ink supply container manually
- Or with Colour Formulation Software
- Temporarily corrections to the container or permanent corrections to the formula
- Reorder with correct colour
- Reuse return containers with corrections
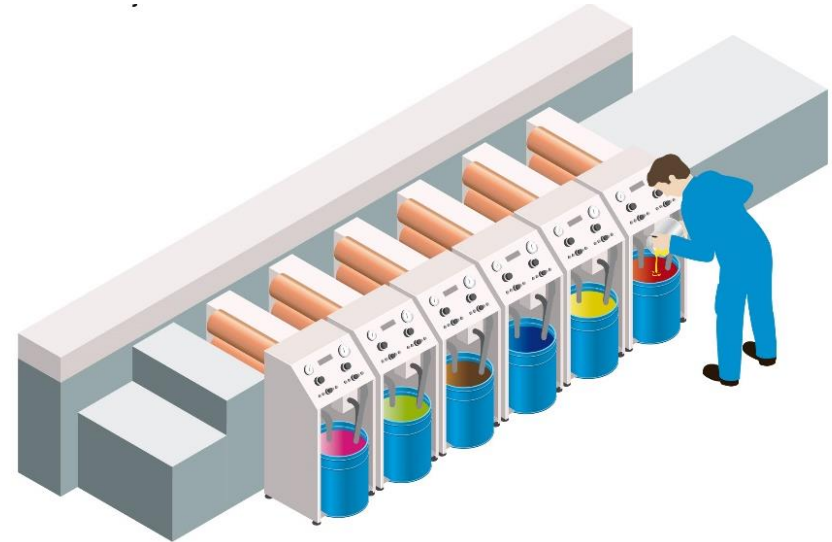
Traceability
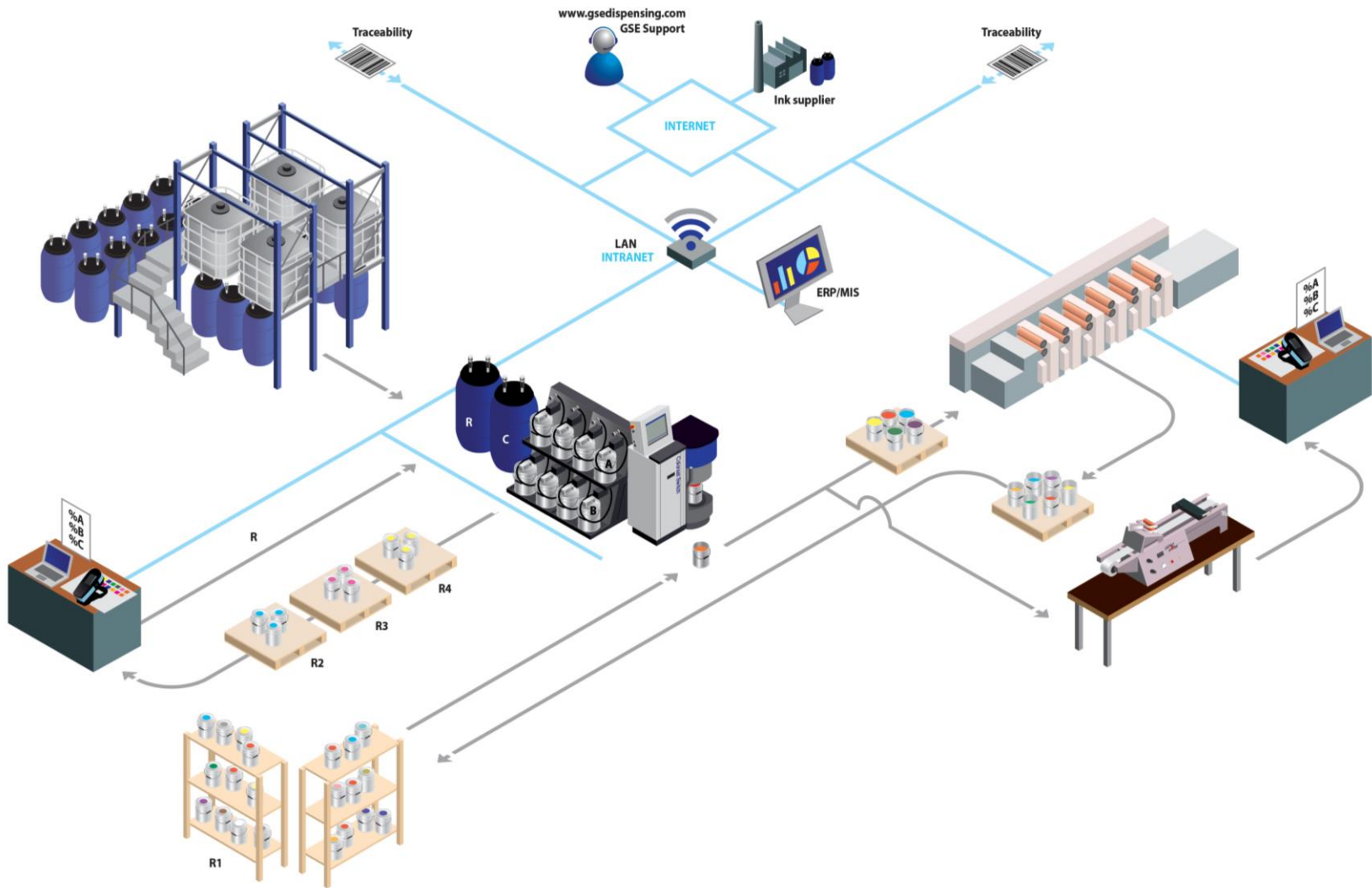
Reusing of press return inks

- Instant access to batch information of base components
- Batch-to-order or order-to-batch
- Traceability data including expiry dates and return ink containers used

Example traceability report

Traceability report for batch code

Batch code	**Batch-002B**	
Component	**BC_002 Blue**	
Name	**Blue**	
Date of first use	**07-03-2017**	
Expiry	**12-12-2017**	

Container	Parts	Weight	Order	Formula	Produced	Expiry
12/1	18.18	1.623		REC_005	08-03-2017 11:34:51	12-12-2017
13/1	9.09	0.992		REC_007	08-03-2017 11:35:34	02-05-2017
21/1	30.00	4.167	Test	REC_Compound	08-03-2017 11:42:03	02-05-2017
33/1	30.00	2.700		REC_Compound	10-03-2017 14:23:34	
22/1	6.00	0.893	Test	REC_Macro	08-03-2017 11:28:53	02-05-2017
22/2	6.00	0.893	Test	REC_Macro	08-03-2017 11:29:28	02-05-2017
23/1	33.29	0.992			08-03-2017 16:25:26	19-03-2017
34/2	5.96	0.059		REC_Macro	10-03-2017 14:53:18	02-05-2017

Trace returns on batch code

Return store	Return location	Position	Position index	Container number/index	Formula	Total contents	Weight	Parts	Expiry
Main store	**Location**	**Position-001**	2	22/1	REC_Macro	8.000	0.480	6.00	02-05-2017
Main store	**Location**	**Position-001**	3	23/1		7.500	0.992	33.29	19-03-2017
Main store	**Location**	**Position-006**	2	13/1	REC_007	7.700	0.700	9.09	02-05-2017
No. of items	3				Total	23.20	2.17		
Total	3					23.20	2.17		

Batch code previous and following barrel

Next barrel

Batch code	Machine	System	Mutation date	Remaining	Expiry	New weight	Operator
Batch-002C	Test-IMS.NET	2	07-09-2017	19.000	12-01-2018	219.000	Operator

Previous barrel

Batch code	Machine	System	Mutation date	Remaining	Expiry	New weight	Operator
Batch-002A	Test-IMS.NET	2	01-02-2017	189.416	12-10-2017	289.416	Management

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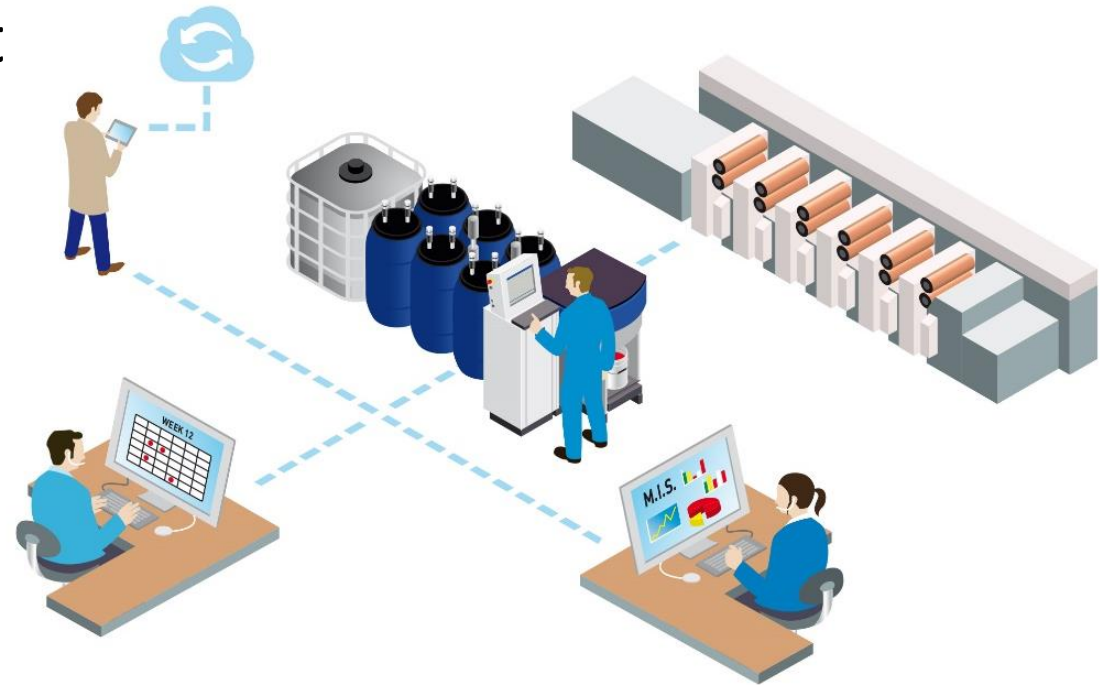www.labelexpo-europe.com

Business process integration – example 5Sept
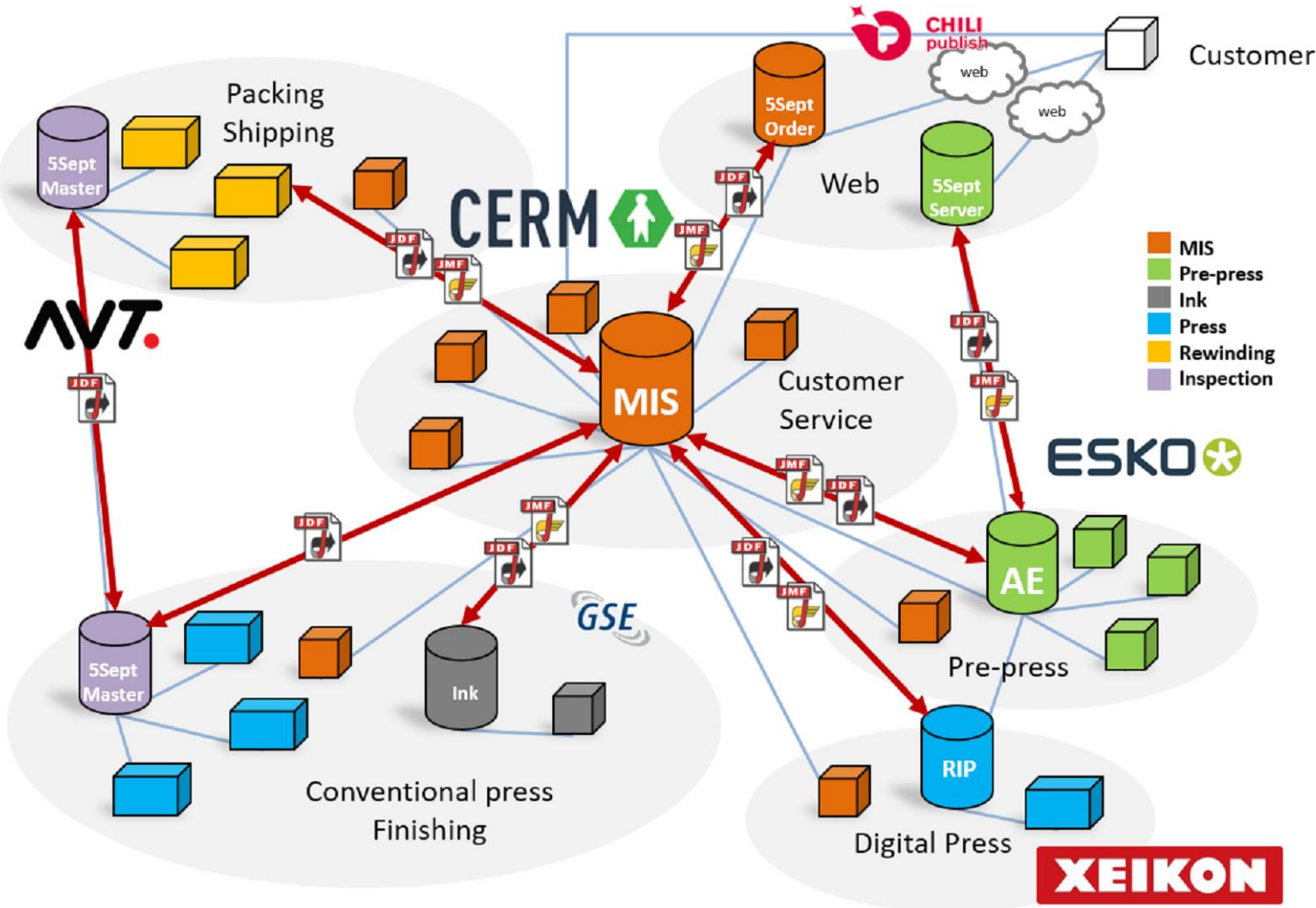
Road map to "lean & smart" ink logistics

1. Ink dispensing & ink management
2. Colour management
3. Ink proofing
4. Business process integration

Summary: key benefits

- Reduce ink cost with up to 30% by
  - buying base components instead of ready-mixed inks
  - recycling return inks
  - minimising stock
- Meet brand expectations in terms of colour consistency and trace-ability
- Boost your press productivity by hundreds of hours
- Prevent rework and human errors

Thank you for attention

For more information and demonstrations:

Hall 7, stand D59

www.gsedispensing.com

www.printproofsolutions.com

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