Plate automation project

L'Est Républicain

Le Républicain Lorrain, Vosges Matin

Part of **EBRA-group**

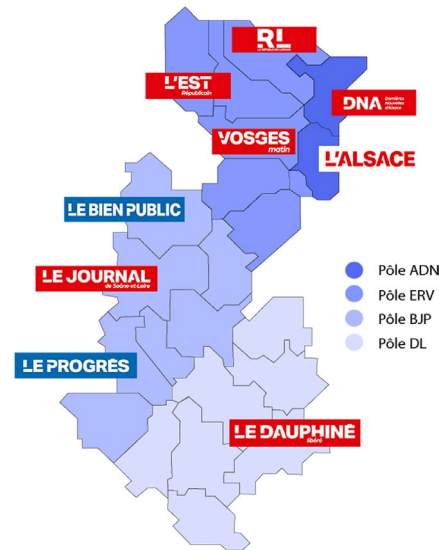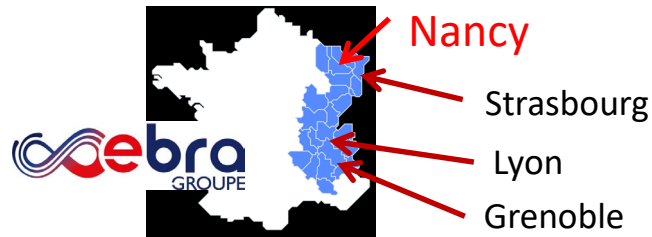**Nancy**, Grand Est, France

- 9 major newspaper titles

- 4 print sites: Lyon, Grenoble, Strasbourg, Nancy

- Circulation of EBRA-group : 760.000 copies
  (Nancy Printing plant : 200.000 copies)

Pre-press automation projects with NELA Just in Time-concept

**realized at all sites**

New press & plate automation project

2018   Launch of a a study to replace our old presses in Nancy
(outdated press : 40 years old ! ; only half pages in color; low automation level)

2020   Purchase of new press, Koenig & Bauer Commander *(second hand market)*

2020/2021   Relocation and commissioning of the Commander (Koenig & Bauer) :
New mailroom installation (Ferag)

2020/2021   **Plate automation project with NELA**

Mid - 2021   New plant start-up

New press & plate automation project

Production at L'Est Republicain

- Daily newspaper with 17 local editions – 200 000 copies

- 15 – 20 plate changes per night

- 1.300 plates imaged per day, on average
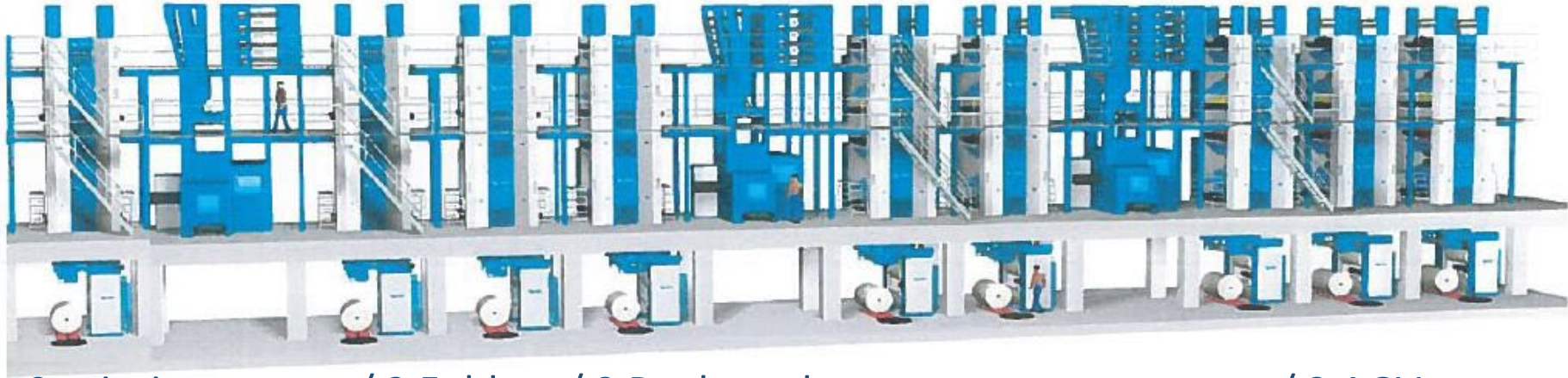
9 printing towers / 3 Folders / 9 Reelstands - Large diameter reel (1500 mm) / 2 AGV

ABB control system

New press & plate automation project

Why was plate automation unavoidable ?

=> Improve productivity

- ✓ **Reduce staff**

- ✓ **Speed up our plates flow**

- ✓ **Reduce handling errors**

Details of the automation project

=> Installed in three phases in 2020/21 –

Benders installation/ Sorting of high units (Y and K) / Sorting of lower units (C and M)

- ❑ 3 Ctp-lines Agfa Advantage N-TR with plate processors (each 165 pph)
- ❑ **3 NELA Vision punch-benders – total capacity up to 800 pph**
- ❑ **Conveyors, elevator and stackers to bring plates right to the press units (156 stacker bins total)**

Workflow: Newsway (ProImage)
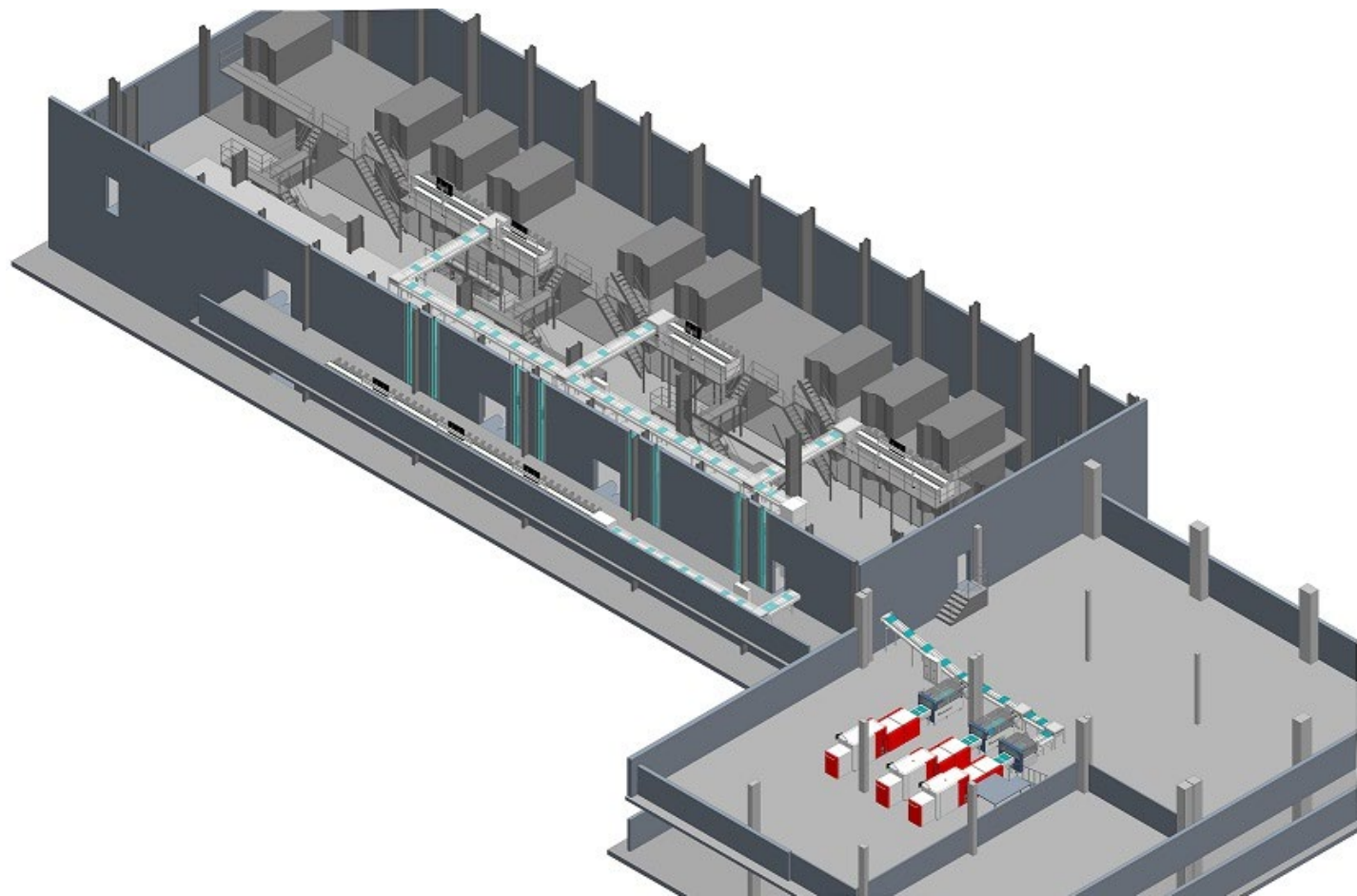
Goals of plate automation

- ✓ Delivery of all plates just in time and as directly to the press units as possible

- ✓ Handle increasing numbers of plates needed for additional products

- ✓ Handle output of three new high-speed Ctp units

- ✓ Elimination of manual plate handling, sorting, transport to the press

- ✓ Shorter press runs, more frequent plate changes, handle increased number of plates

- ✓ Avoid waiting times because of missing plates

- ✓ Create more ergonomic working conditions for printers

NELA Just in Time-concept

- Fully automated plate production, supervised by 1 person from the press crew

- Cross-linked production: interface to Ctp-workflow

- Workflow generates barcode for plate sorting

NELA Just in Time-concept

Pre-press is driven by the press production plan :

Which plates are needed when and where?

| Plieuse 3	tirage brut	Sortie 3				Plieuse 5	tirage brut	Sortie 5			
		début tirage	durée (hh:mn)	fin tirage	calage (hh:mn)			début tirage	durée (hh:mn)	fin tirage	calage (hh:mn)
25A-Doubs	25 000	**22:00**	00:42	22:42	0:10	57AForbach	9 500	**22:00**	0:16	22:16	0:11
						57D-Sarreguemines	11 500	22:27	0:19	22:46	0:11
70A-Vesoul	15 500	22:52	00:26	23:18	0:10	57E-St-Avold	11 500	22:57	0:19	23:16	0:11
						57C-St-A - Sarrebrg	10 500	23:27	0:17	23:45	0:11
25B -Montbéliard	11 000	23:28	0:18	23:47	0:10	54E MM	10 500	23:56	0:17	0:14	0:11
90A Belfort	10 000	23:57	0:16	0:13	0:15	57F MosN	16 000	0:25	0:27	0:52	0:11
		0:28	0:00	0:28	0:00	57B-Metz	25 000	1:03	0:42	1:45	0:15
55AB- Meuse	14 500	0:28	0:24	0:53	0:15			2:00	0:00	2:00	0:00
		1:08	0:00	1:08	0:00			2:00	0:00	2:00	0:00
88A-Epi	19 000	1:08	0:32	1:40	0:10			2:00	0:00	2:00	0:00
88B-Std	11 500	1:50	0:19	2:10	0:15	54CD-PàM-Toul	7 000	2:00	0:11	2:12	0:10
		2:25	0:00	2:25	0:00	54A-Lun	6 500	2:22	0:10	2:33	0:10
		2:25	0:00	2:25	0:00	54B-Nancy	7 000	2:43	0:11	2:55	0:00
54B-Nancy	14 500	2:25	0:24	**2:49**	0:00						
	121 000		03:00		**1:25**		115 000		02:37		**1:19**

NELA Just in Time-concept

Pre-press is driven by the press production plan :

## Which plates are needed when and where?
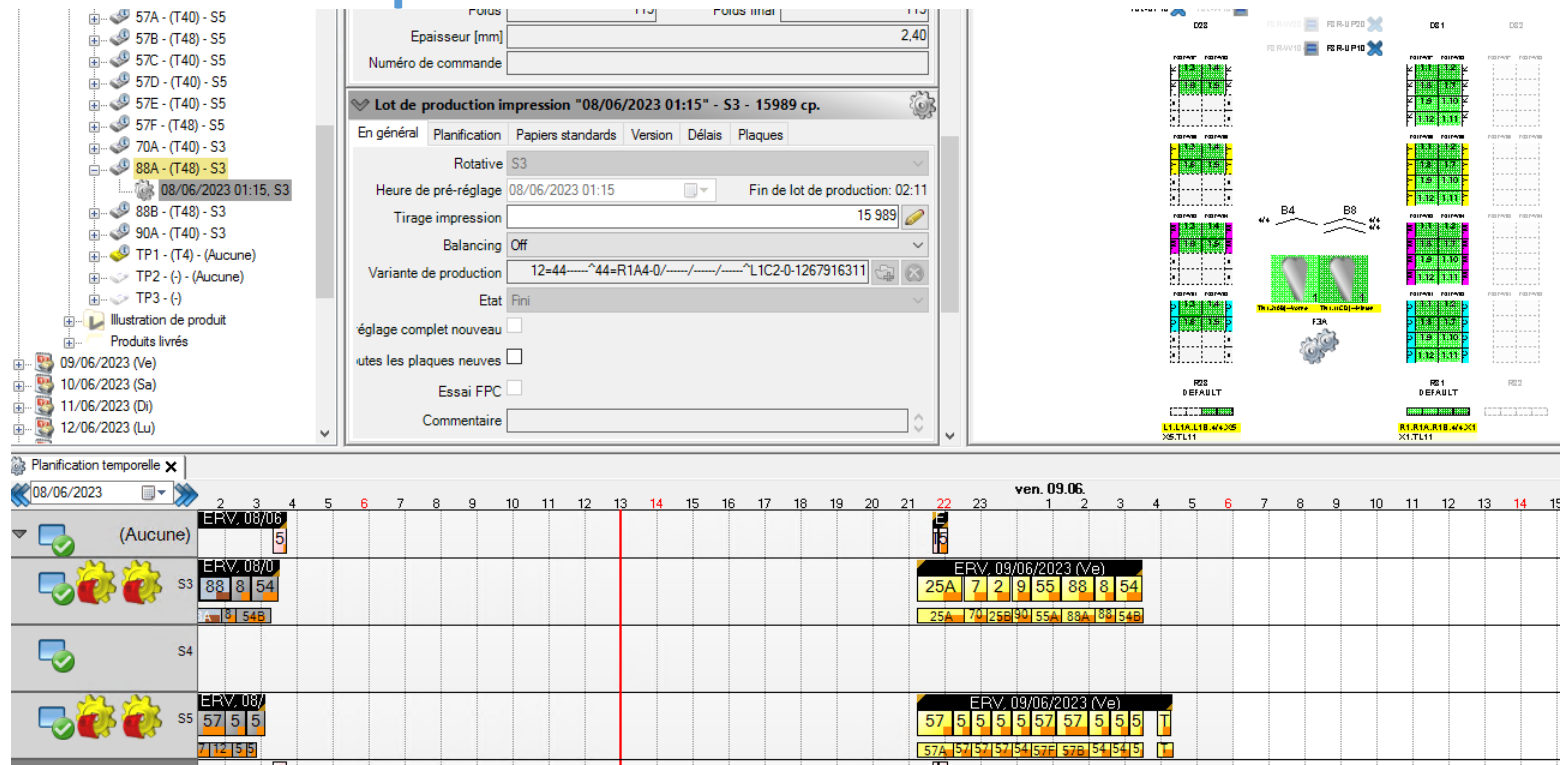
NELA Just in Time-concept
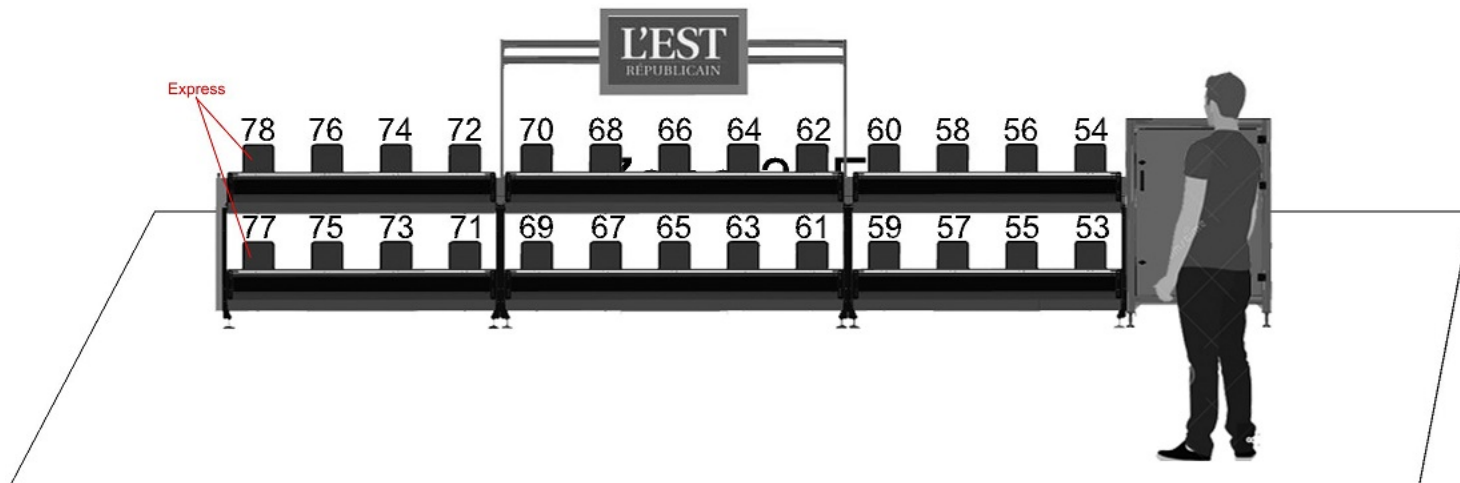
NELA Just in Time-concept Summary

❑ Imaged plates are identified by barcode and are delivered to the correct stacker bin, right by the press unit

Requirement: plates are imaged job-wise (no mixed imaging)

❑ Plates are stacked in the correct sequence for mounting on press

❑ Remakes / express plates: go to dedicated stacker bin(s)

❑ As soon as a group of stacker bins is emptied, signal goes to workflow to start imaging plates for the next production

❑ Stacker system can store plates for two productions

NELA Just in Time-concept
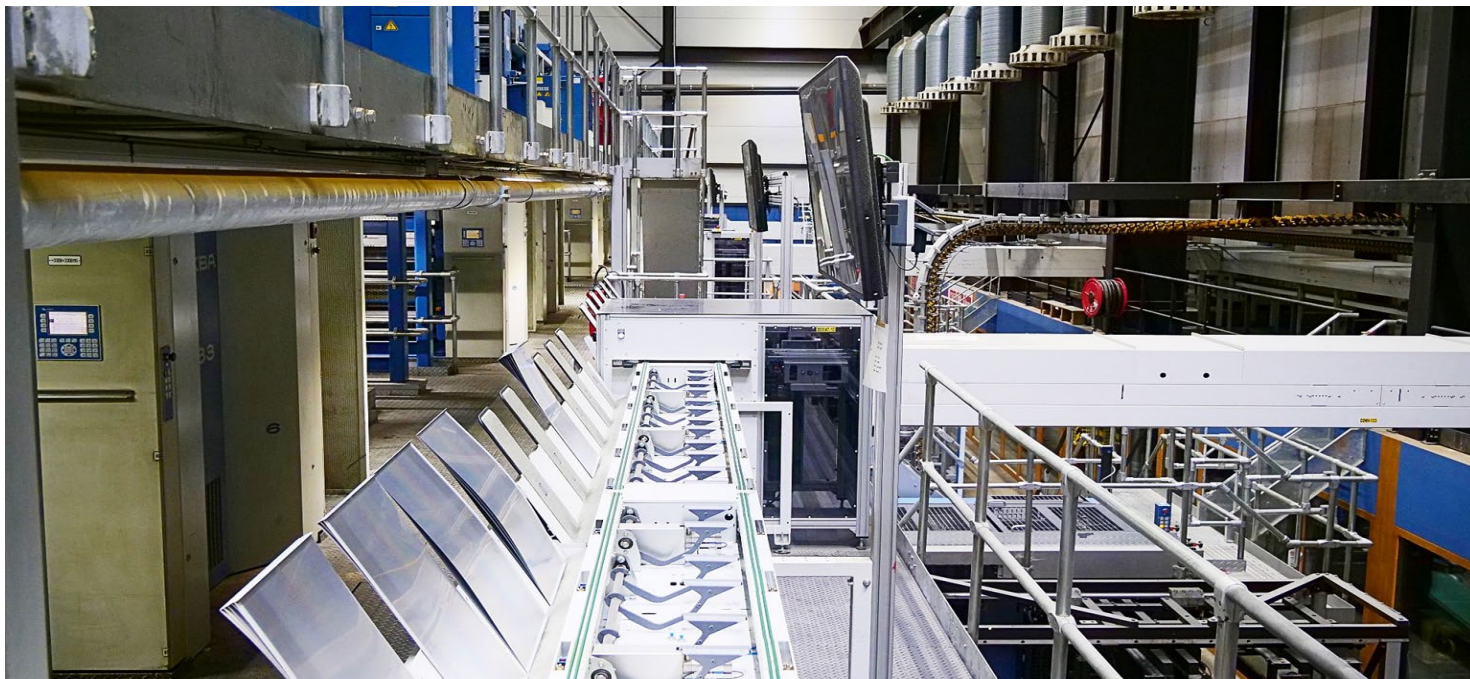
NELA Just in Time-concept

Goals achieved

- ✓ One person (from the press team) supervising pre-press

- ✓ Profitable and efficient production of more titles at the Nancy print site was only possible with a very high level of automation

- ✓ Handle more editions with fewer people

    -> no limitations for future expansion

- ✓ Improved working conditions for operators

- ✓ **Amortization of the NELA project: middle of 2024 (after 3 years)**

    Before invest : 2 operators Ctp & 12 printers
    After invest : 0 operators Ctp   & 8 printers

Thank you !
Grazie mille !