

Easier, faster, safer

2nd RAG 2022

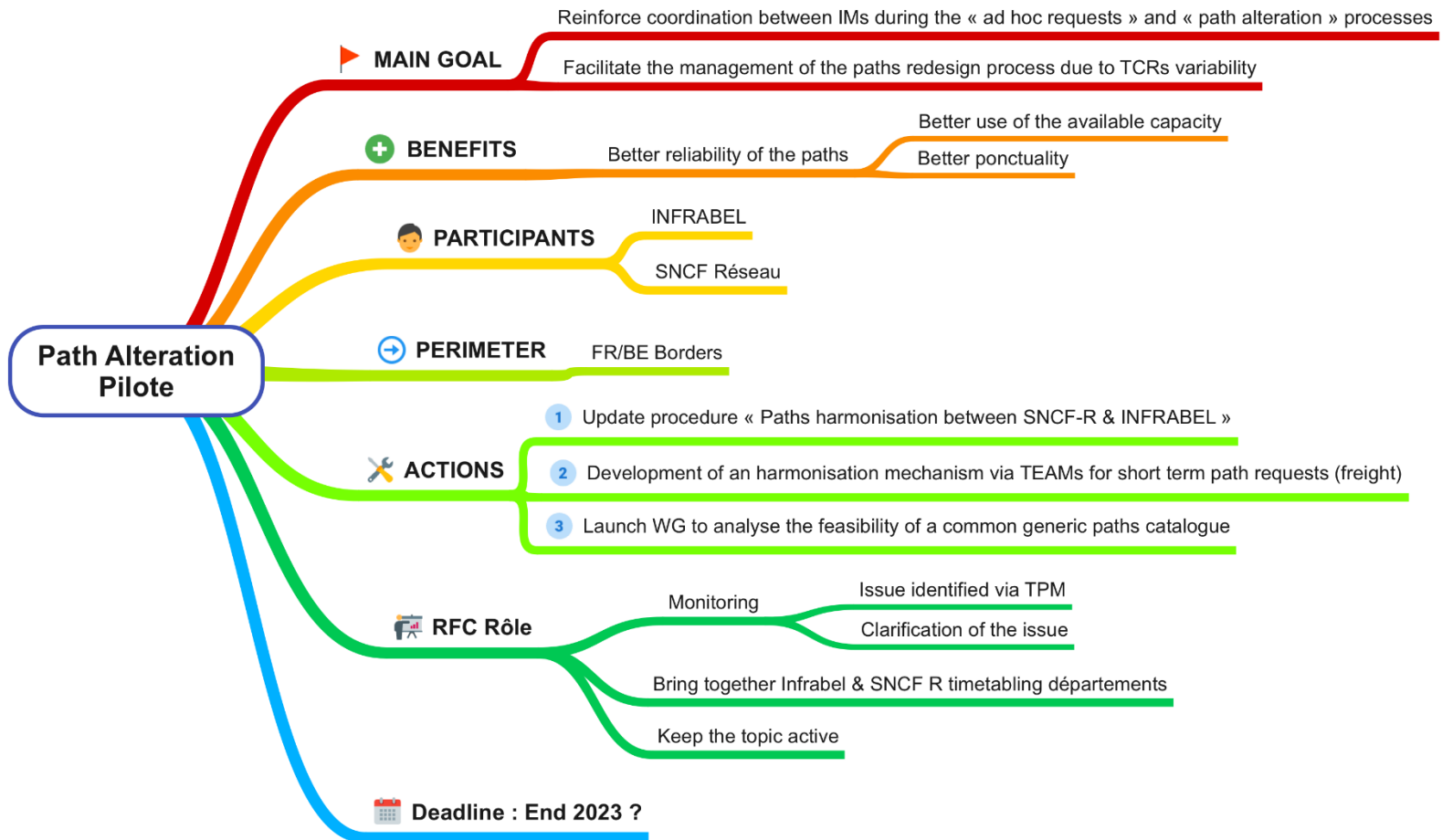
RFC North Sea Med, presentation of the initiatives

01 December 2022



Co-financed by the Connecting Europe
Facility of the European Union

1. 1st initiative : Path alteration Pilot



1.

23:16

Lundi 28 novembre

...

Timetable

+

Nouveau

...

Tous les éléments

Copier le lien

| | | | | | |
|----------|------------|--------------|-----------------|-----------------|-----------------------------------|
| FR -> DE | Creutzwald | Worms | 05/12/2022 1... | 05/12/2022 1... | |
| DE- > FR | Worms | Creutzwald | 05/12/2022 ... | 05/12/2022 ... | |
| DE- > FR | Osnabrück | Bening | 03/12/2022 2... | | ✓ |
| FR -> DE | Creutzwald | Worms | 01/12/2022 2... | 01/12/2022 2... | Relève / Per |
| DE- > FR | Worms | Creutzwald | 01/12/2022 0... | 01/12/2022 0... | Relève / Per |
| FR -> DE | Port-Bou | ludwigshafen | 29/11/2022 0... | 29/11/2022 0... | Oui/Ja Relève / Per |
| FR -> DE | Creutzwald | Worms | 28/11/2022 1... | 28/11/2022 1... | Relève / Per |
| FR -> DE | Woippy | | 28/11/2022 1... | 28/11/2022 1... | |
| FR -> DE | Woippy | Saarbrücken | 28/11/2022 1... | 28/11/2022 1... | Relève / Per |
| DE- > FR | Worms | Creutzwald | 28/11/2022 0... | 28/11/2022 0... | Relève / Per |
| FR -> DE | Hagondange | Saarbrücken | 28/11/2022 0... | 28/11/2022 0... | |
| FR -> DE | Woippy | Worms | 27/11/2022 1... | | ✓ |
| FR -> DE | Woippy | Halle | 26/11/2022 1... | 26/11/2022 1... | Oui/Ja Relève / Per Chgt loc / Lo |

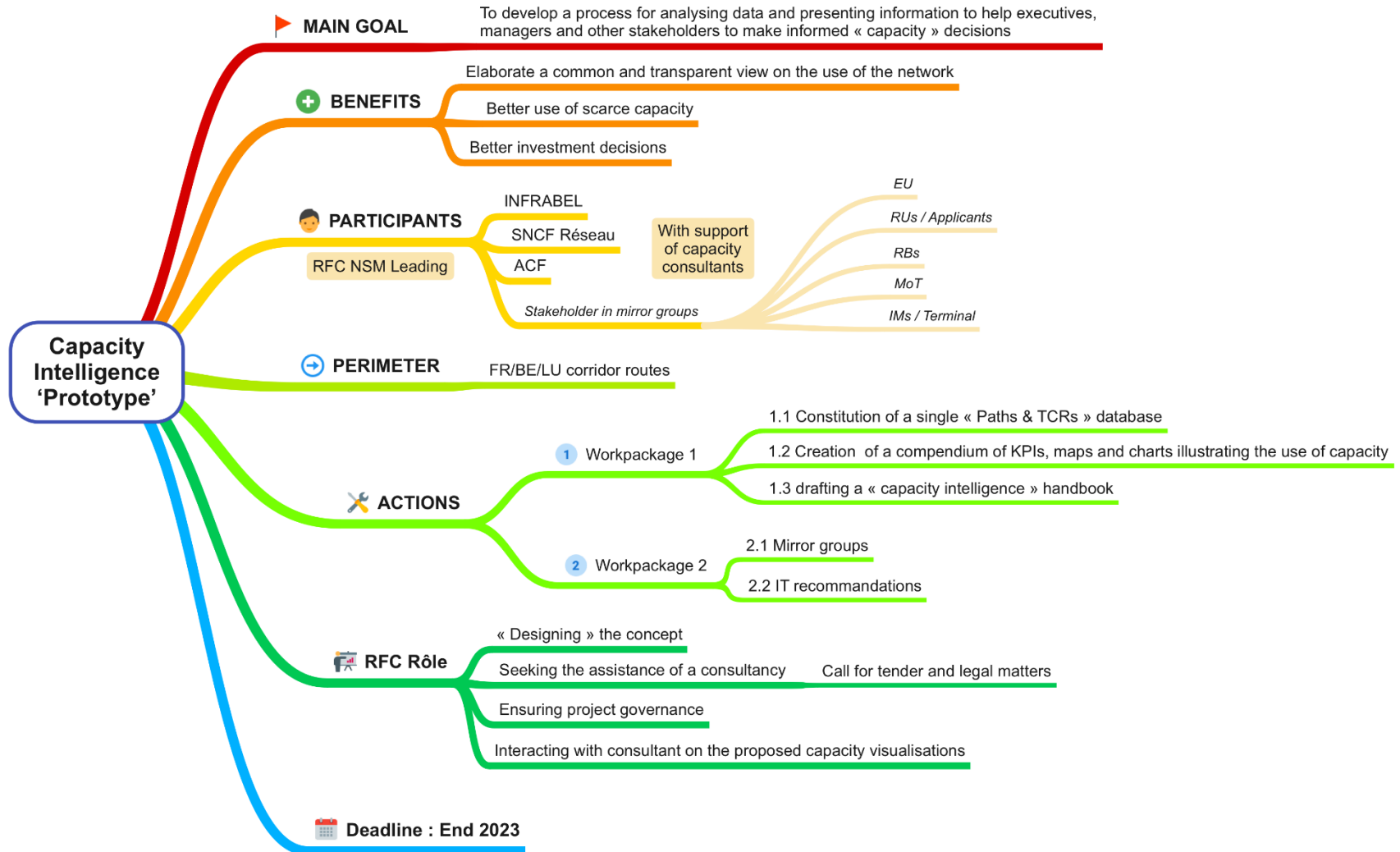
Benchmark on border traffic management in Forbach via TEAMS and LISTS applications
Benefits : very flexible in use, tracability

[illegible]

**Benchmark on border timetabling management
between INFRABEL and PRORAIL**
Benefits : Excel known to all

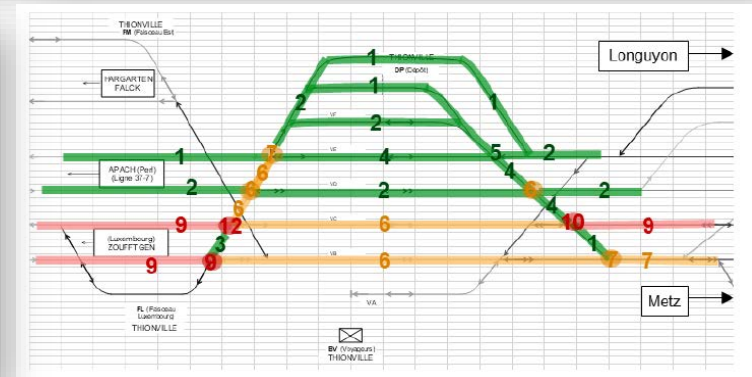
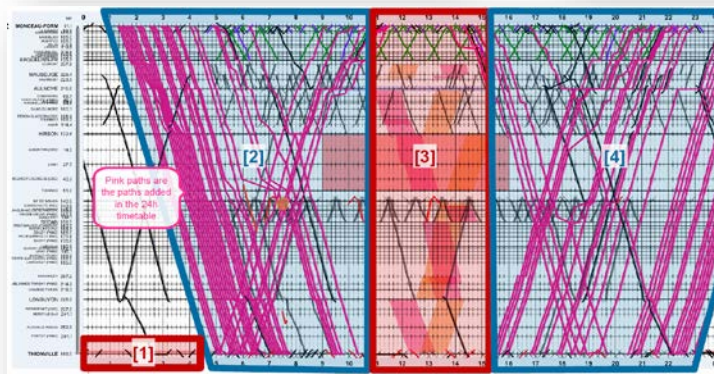
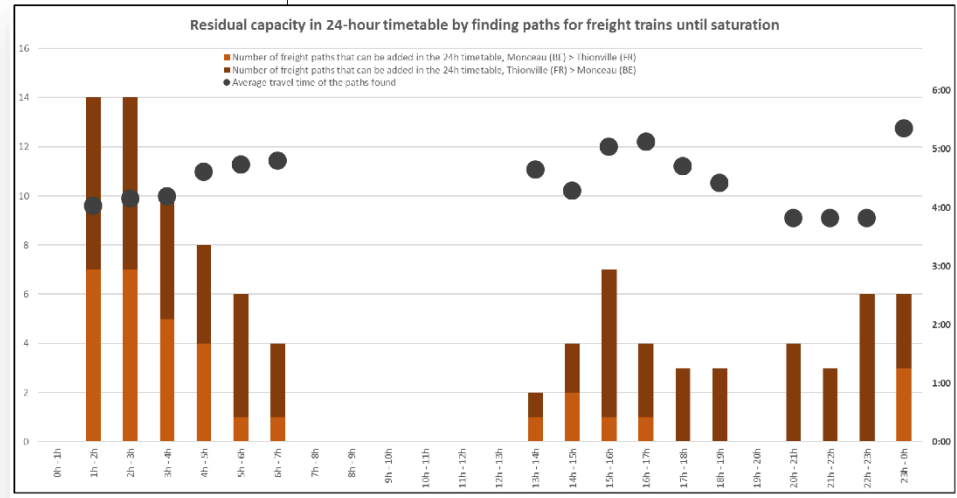
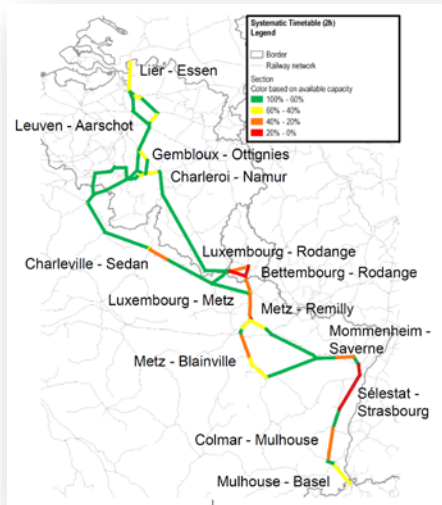
2. 2nd Initiative : Capacity Intelligence

2nd stage after 2021 proof of concept



2.

2nd Initiative : Capacity Intelligence



Source : RFC NSM 2021, capacity intelligence proof of concept

3.

3rd Initiative : Lyon Bettembourg QCO



3.

3rd Initiative : Lyon Bettembourg QCO

① Daily monitoring and root cause identification



41953

nov-22



| Jour | Mardi | Mercredi | Jeudi | Vendredi | Samedi | Dimanche | Lundi | Mardi | Mercredi | Jeudi | Vendredi | Samedi | Dimanche |
|------------------|---------|----------|---------|----------|--------|----------|---------|---------|----------|--------|----------|--------|----------|
| Date | 01-nov | 02-nov | 03-nov | 04-nov | 05-nov | 06-nov | 07-nov | 08-nov | 09-nov | 10-nov | 11-nov | 12-nov | 13-nov |
| Départ théorique | 20 h 41 | 20 h 41 | 20 h 41 | 20 h 41 | | | 20 h 41 | 20 h 41 | 20 h 41 | | | | |
| Départ réel | 20 h 32 | 20 h 50 | 20 h 35 | 20 h 47 | | | 21 h 06 | 20 h 37 | 22 h 11 | | | | |
| Delta (min) | -9 | 8 | -6 | 5 | | | 25 | -4 | 89 | | | | |

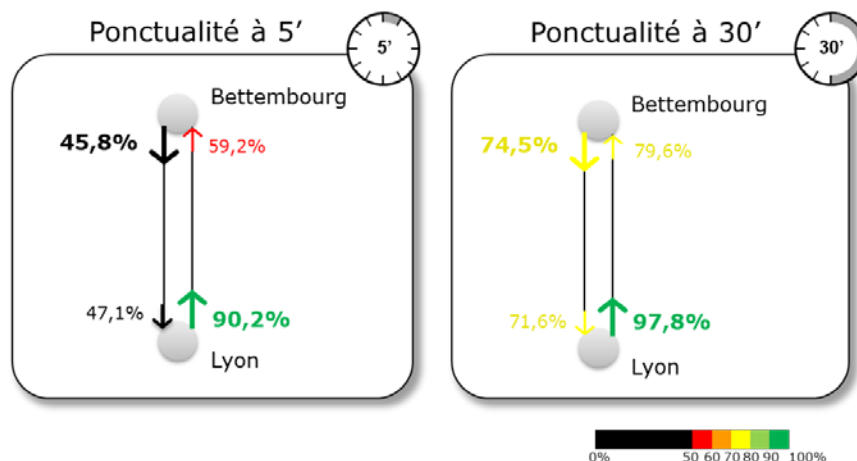


41971

nov-22



| Jour | Mardi | Mercredi | Jeudi | Vendredi | Samedi | Dimanche | Lundi | Mardi | Mercredi | Jeudi | Vendredi | Samedi | Dimanche |
|------------------|--------|----------|--------|----------|--------|----------|--------|--------|----------|--------|----------|--------|----------|
| Date | 01-nov | 02-nov | 03-nov | 04-nov | 05-nov | 06-nov | 07-nov | 08-nov | 09-nov | 10-nov | 11-nov | 12-nov | 13-nov |
| Départ théorique | | | | | | 14 h 35 | | | | | | | 14:35 |
| Départ réel | | | | | | 14 h 28 | | | | | | | 14:06 |
| Delta (min) | | | | | | -6 | | | | | | | -29 |



3. Lyon Bettembourg QCO

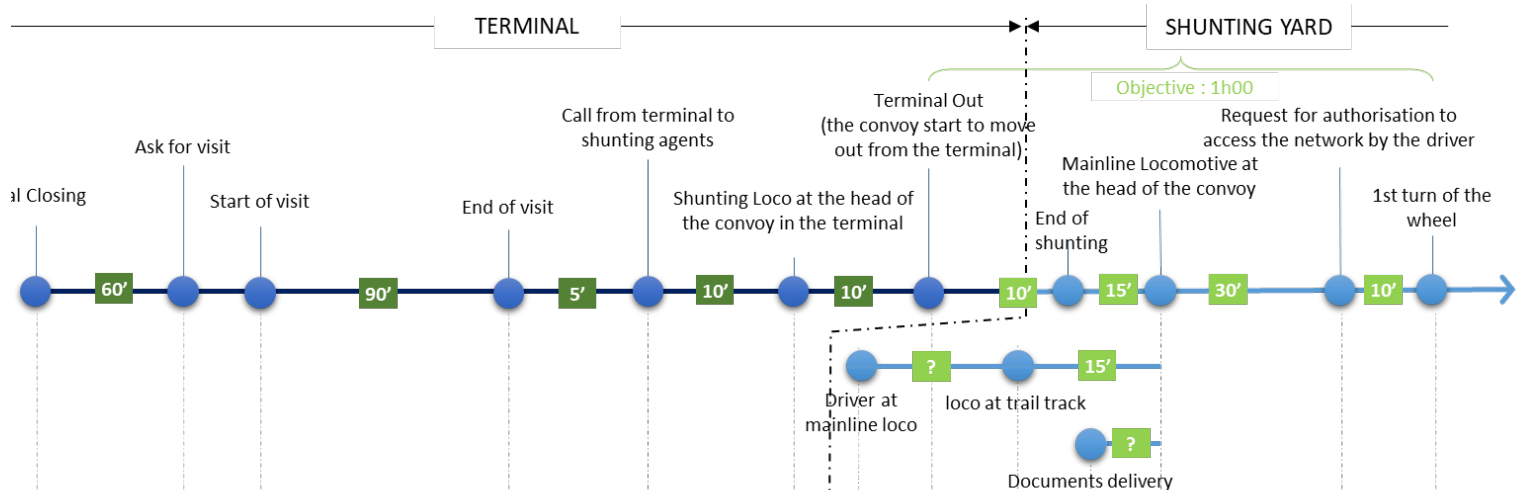
② Governance



3. Lyon Bettembourg QCO

③ Process mapping

Chrono-gramme de Bettembourg VO en mars 2022



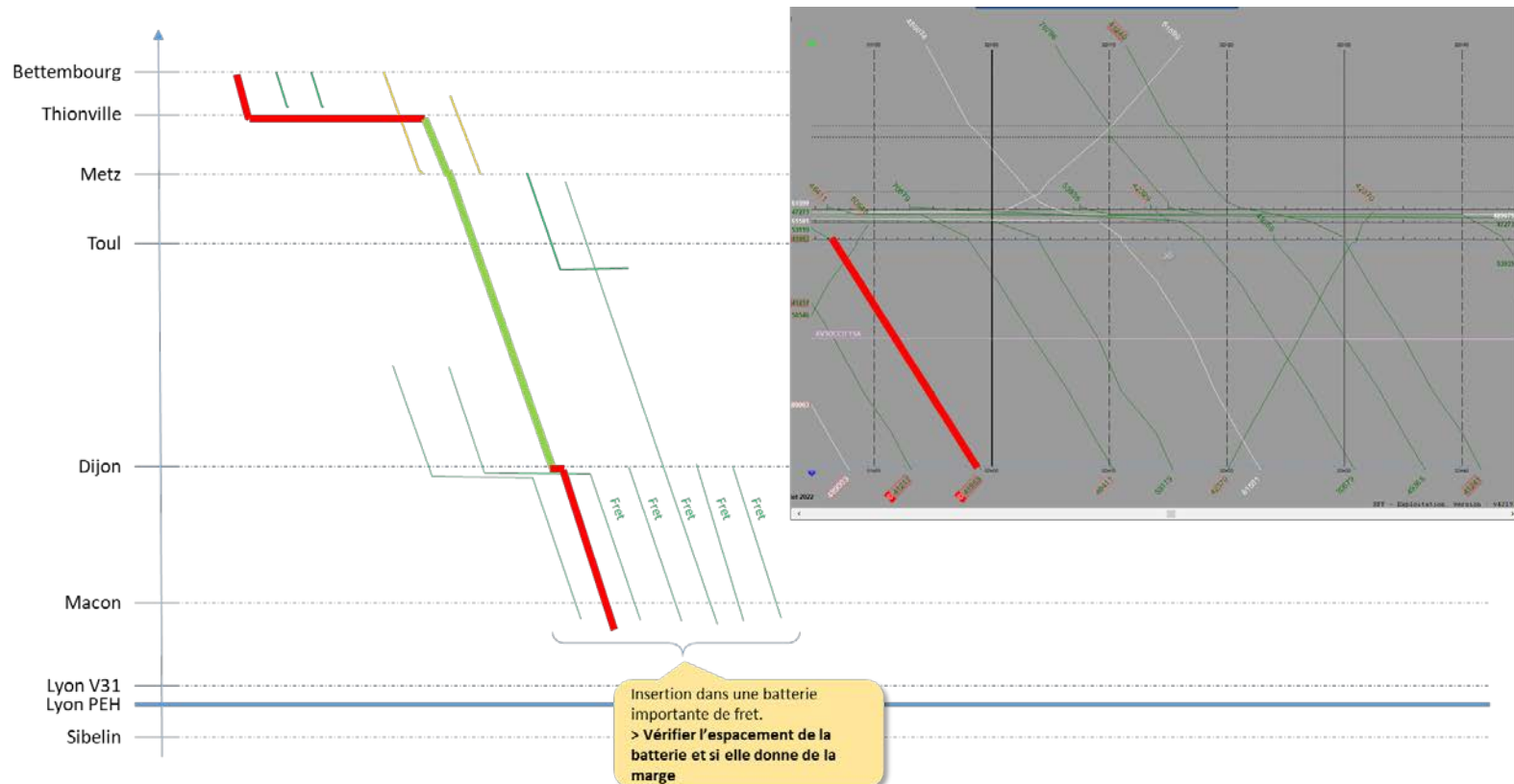
| | | | | | | | | | | | | | |
|------------------|---|------|-------------------|-------------------|-------|---------------------------------------|---|---|-------------------------------------|-------------|---|----------------------|--|
| Automatic Data ? | Yes | Yes | No | No | No | No | ? | Yes | ? | YES | ES | YES | YES |
| IT tools ? | Borne check-in | Mail | Dépeche manuelle | Dépeche manuelle | PCC | PCC | ? | ? | ARAMIS ? | Dispo -lino | ? | ARAMIS | ARAMIS |
| What is measured | Enregistrement au pré-gate (encodage carte chauffeur) | ? | Dde de protection | Fin de protection | Appel | Arrivée de la manoeuvre sur périmètre | ? | Franchissement Trail Gate par 1er wagon | When the loco is detected the track | ? | GPS on wagons our loco with acceleration sensor to detect when loco's touching the convoy ? | Driver GSM-R Request | Automatic detection of signal crossing |

Entities involved in meeting the milestone

| | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| • Shunting dpt | X | X | | X | X | X | | X | X | X | X | | |
| • Terminal | X | | | X | | X | | X | X | | | | |
| • RUs | | | | | | | X | | X | | X | X | X |
| • Visitors | | | X | X | | | | | | | | | |
| • Road client | X | | | | | | | | | | | | |
| • Traffic control | | | | | | X | | X | X | | X | X | |
| • Forwarder | X | | | | | | | | | X | | | |

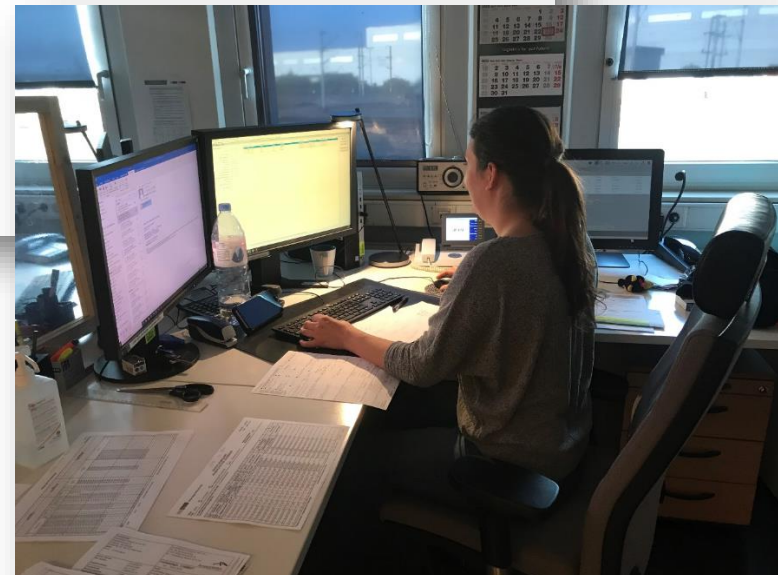
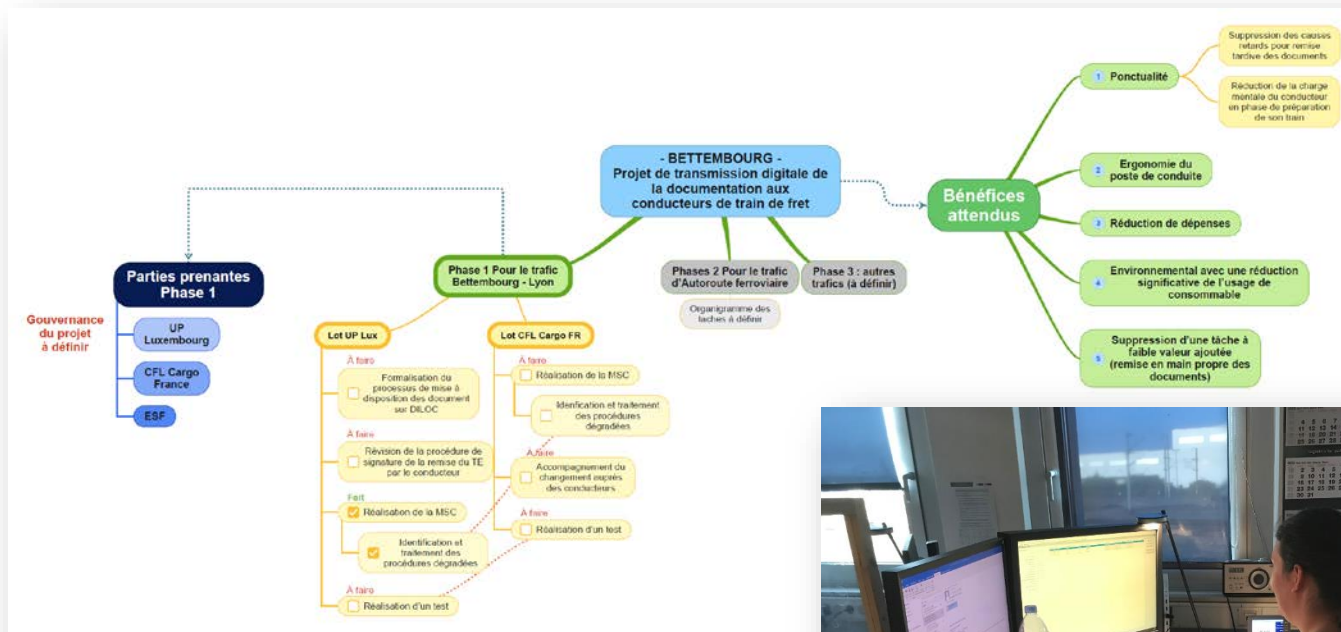
3. Lyon Bettembourg QCO

④ Robustness analysis

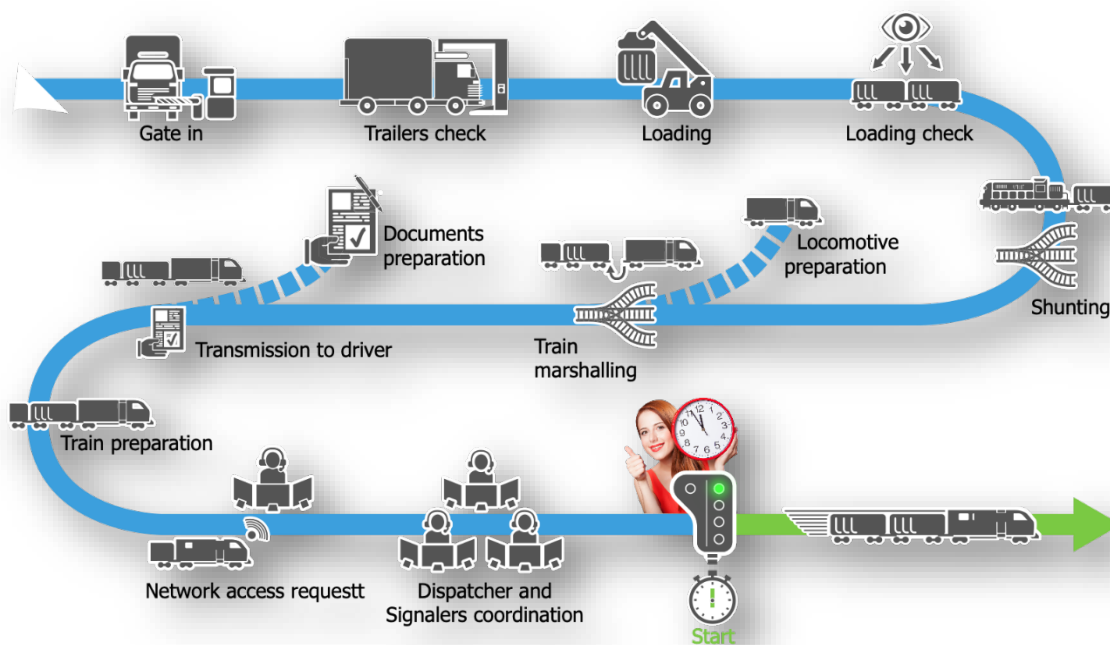
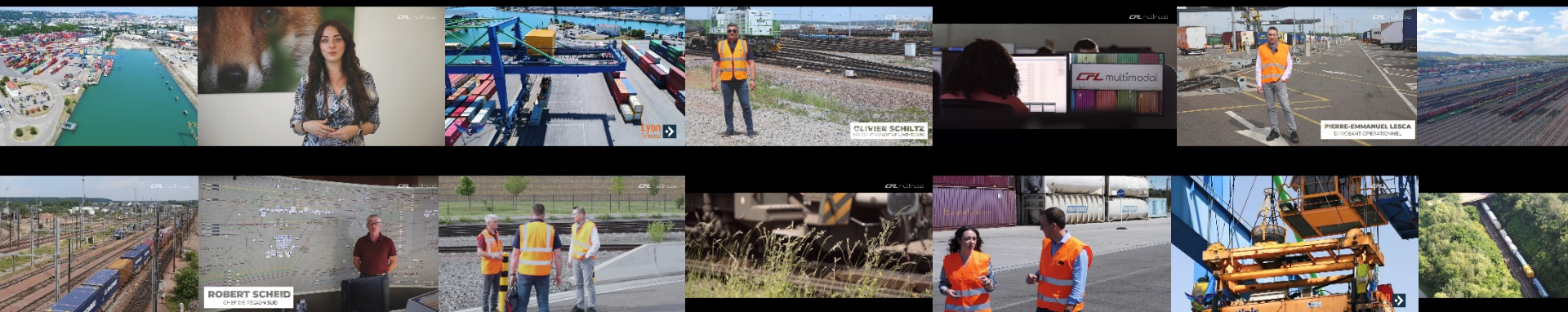


3. Lyon Bettembourg QCO

5 Digitalisation



3. Lyon Bettembourg QCO



CONTACT

www.rfc-northsea-med.eu

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ProRail

INFRABEL

SNCF
RÉSEAU

 **SBB CFF FFS**

TVS
SAS
SAT

 **ACF**

CFL



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