



# UIC Asset Management Global Conference 2015

## Asset Management Strategy and Governance

How to manage the backlog of renewal

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**Session 1 -12 October 2015**

*Putting your assets  
on the right track*



## Summary

- Reminders to clarify our ideas
- Asset management in practice
- Demonstration tools
- Governance

## Reminders to clarify our ideas

A question for all of us, what is Asset Management? Different definitions:

- PAS 55 (UK / for all industries),
- IAM (World / for all industries)
- ISO 55000 (World / for all industries)
- IRS in preparation (World / Railway industry)

## Reminders to clarify our ideas

We can summarise / synthesise as follows:

- Prescribing technical frames of reference and undertaking maintenance (upkeep and regeneration), to ensure prescribed performance is achieved, within resource constraints, route by route (sub network by sub network), keeping overall possession costs to a minimum

## Asset management in practice

### *Main goals:*

- *develop specific methods and tools for the lowest whole life, whole system cost.*

### *Targets:*

- *Define a railway specific framework for asset management activities based on the most widely adopted asset management standard*



## Asset management in practice

- Asset management is the art of striving for high performance in a context of **shortages** – individual resource managers are not aware of overall shortages
- What is we understand by “shortages”, of human, monetary, financial, operational, environmental resources, etc.

## Asset management in practice

Those in charge of resources in each case of shortage are not aware of the broader constraints:

- The State => € funding, long-term view...
- Operation and network access => capacity, temporary speed limits
- Maintenance and work => personnel, technical means (specialised equipment, providers, etc.)...
- All => safety, future network, etc.

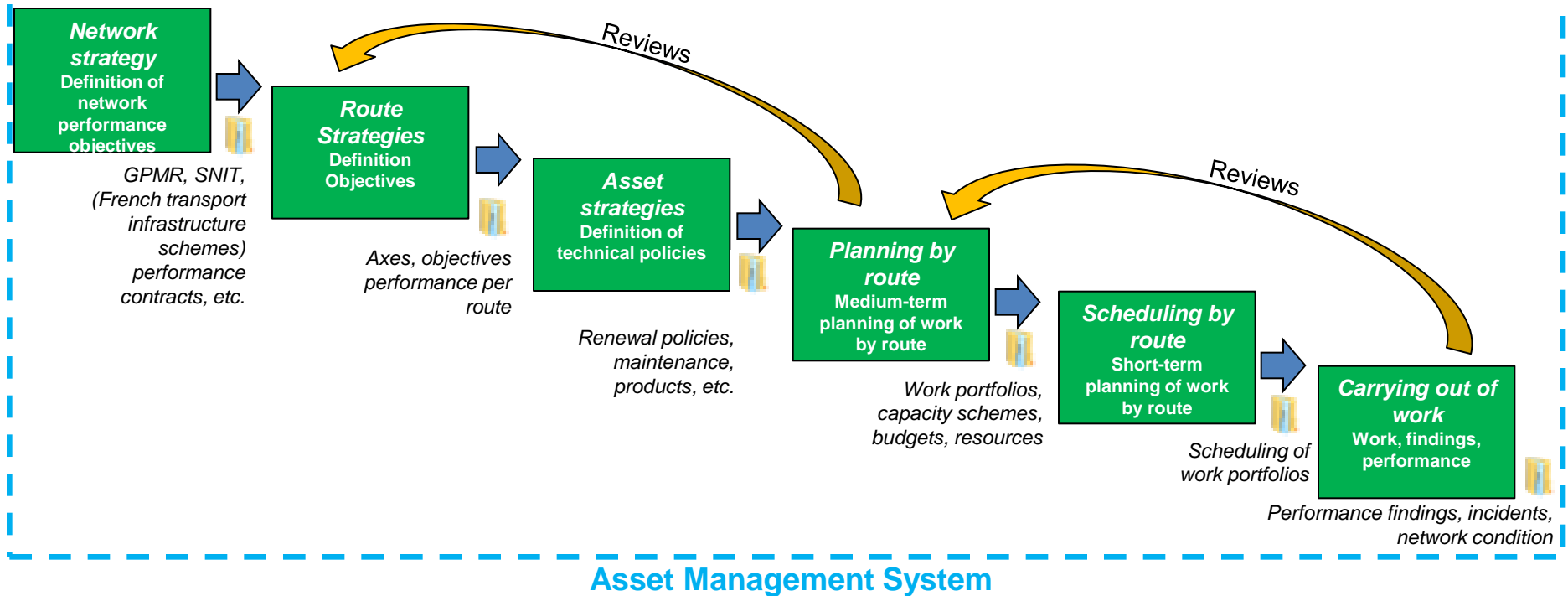
## Asset management in practice

TARGET INDUSTRIAL PROCESS

Network Strategy

Asset manager

Production





## Asset management in practice

- It is a question of making these resources available within a "unique time and space".
  - Project management must be able to synchronise resources and planning.
  - Sales operations continue during work, with inevitable repercussions on capacity:
- Miracles do not happen just like that, they need governance!**

## Demonstration tools

The asset manager uses simulations to:

- represent and assess objectively each possible scenario in the light of the constraints
- anticipate and plan for all future possibilities
- prioritise the action to be taken
- evaluate the impact of the different possible “technical strategies”

## Demonstration tools

For simulations, it is necessary to know the condition of the network, its usage, failure modes and the implications of failures:

- description of assets, usage, environment, established strategic objectives
- feedback from past experience, in particular regarding new designs and components
- laws of asset behaviour

## Demonstration tools

- Simulations enable assets managers to “clarify strategy regarding the consequences of their choices.”
- Insofar as they are maintainers they will have to take responsibility for their choices!

## Governance

Asset managers continually have to make both short- and long-term decisions:

1. They need to have:
  - a technical and economic strategy for the network
  - macro and micro work scheduling
  - control of choices of investment and renewal techniques

## Governance

Asset managers continually have to make short- and long-term decisions:

2. They must anticipate all aspects of issues related to the management of constraints:
  - choice of routes where optimum performance will be ensured, fixing of resource and technical choice priorities on other routes according to the implications of failures

## Governance

Asset managers continually have to make short- and long-term decisions:

3. Structural measures such as definition of designs, functional boundaries, optimum interfacing between maintainer and traffic, to facilitate subsequent maintenance and operation

## Governance

- ➔ It hinges on three processes: strategic and financial; according to route and node capacity; industrial with different stakeholders: the state, railway undertakings and organising bodies, sub-contractors, partners, ourselves...
- ➔ The French system prior to the reforms did not allow for consistency between these processes – the necessary conditions now exist



## Governance

Necessary conditions but not sufficient for asset managers to operate effectively:

- Establishing strategies ensuring long-term vision, in terms of network performance and renewal trajectories (> 5 years)
- Stabilising the impact of maintenance and other work, route by route within a 5-year time frame
- Stabilising production needs (>3 years)

## Governance

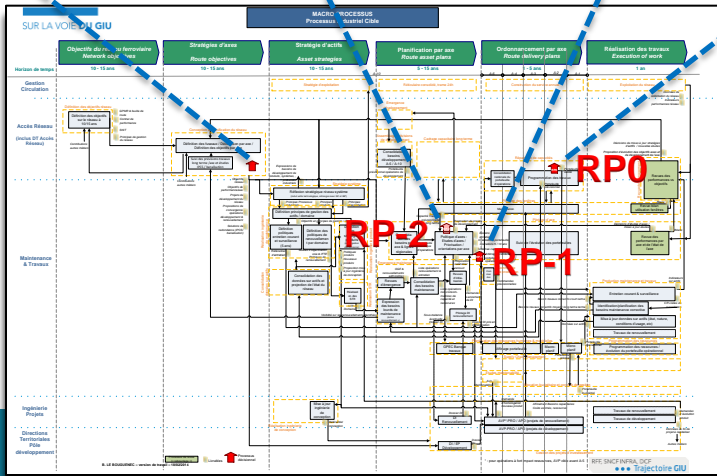
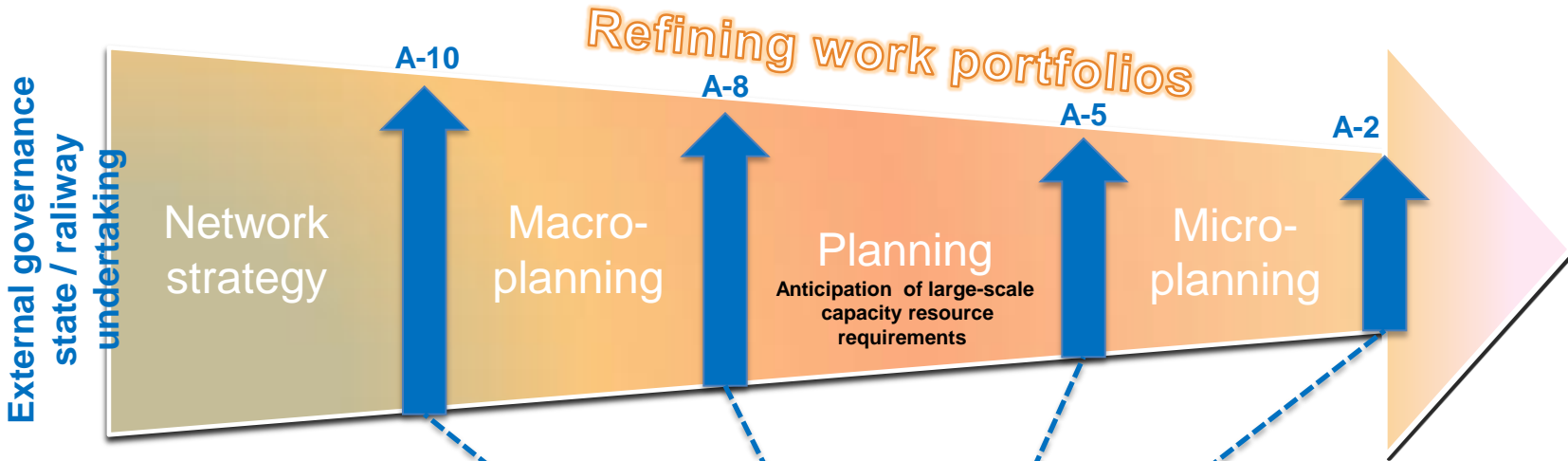
- The conditions are necessary but not sufficient. SNCF is working on:
  - aligning stakeholders on these different time frames
  - flexibility in 5-year programming
  - an iterative process of hypothesis revision in order to adapt the short and medium term permanently to any hiccups

## Governance

- Control over technical choices should make it possible to define the impact on capacity, modes of operation and life cycle costs and so integrate them in these processes. These technical choices must be directed towards bringing greater flexibility to future operations
- Example: rapid follow-up densely populated area; choice of ballasted or ballast-free; modularity of signalling modules



## Conclusion: KEY ARBITRATION MILESTONES





**Thank you for your attention**