

Capacity Allocation –
incremental planning

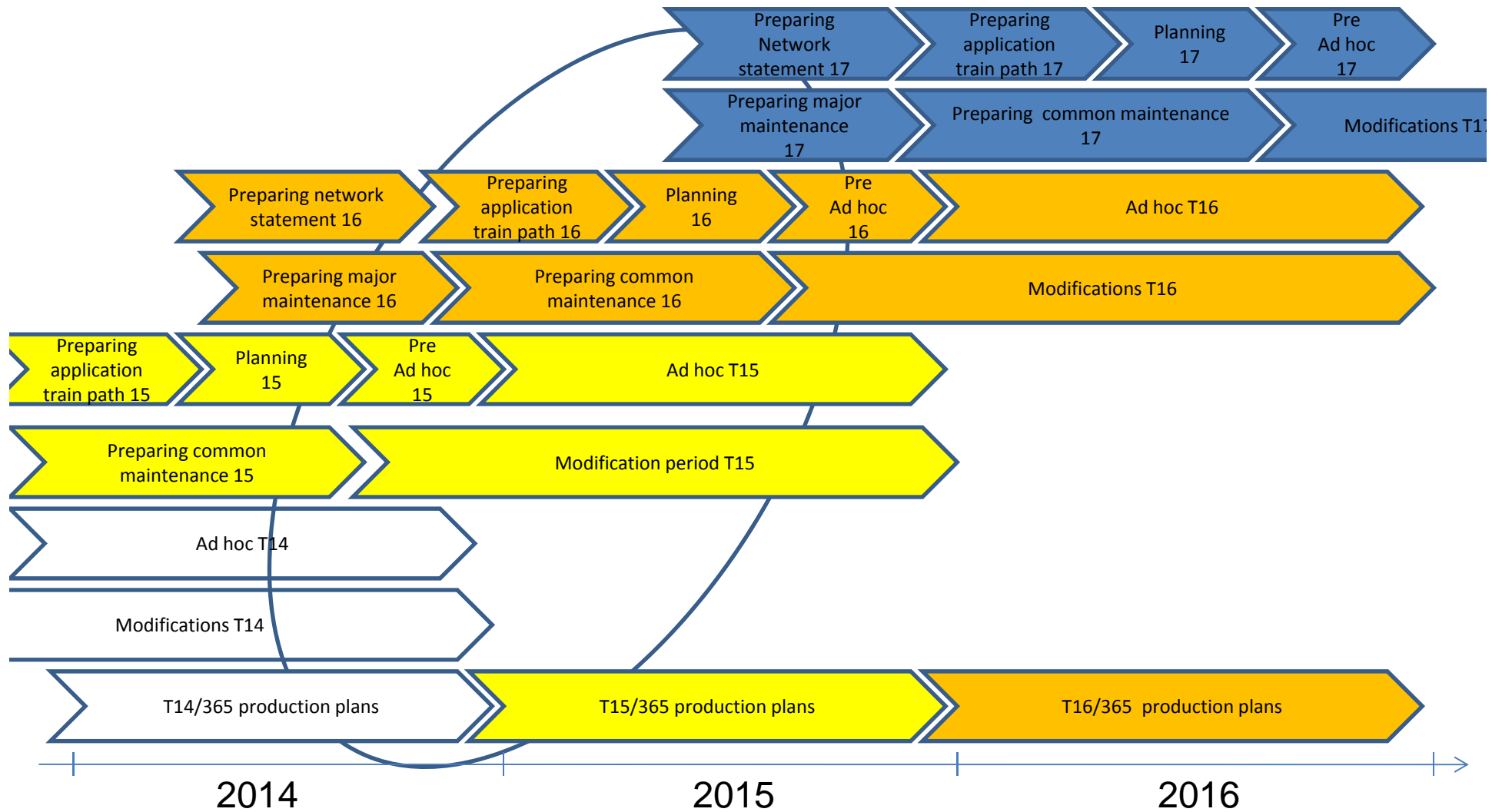


TRAFIKVERKET

SWEDISH
ICT

SICS

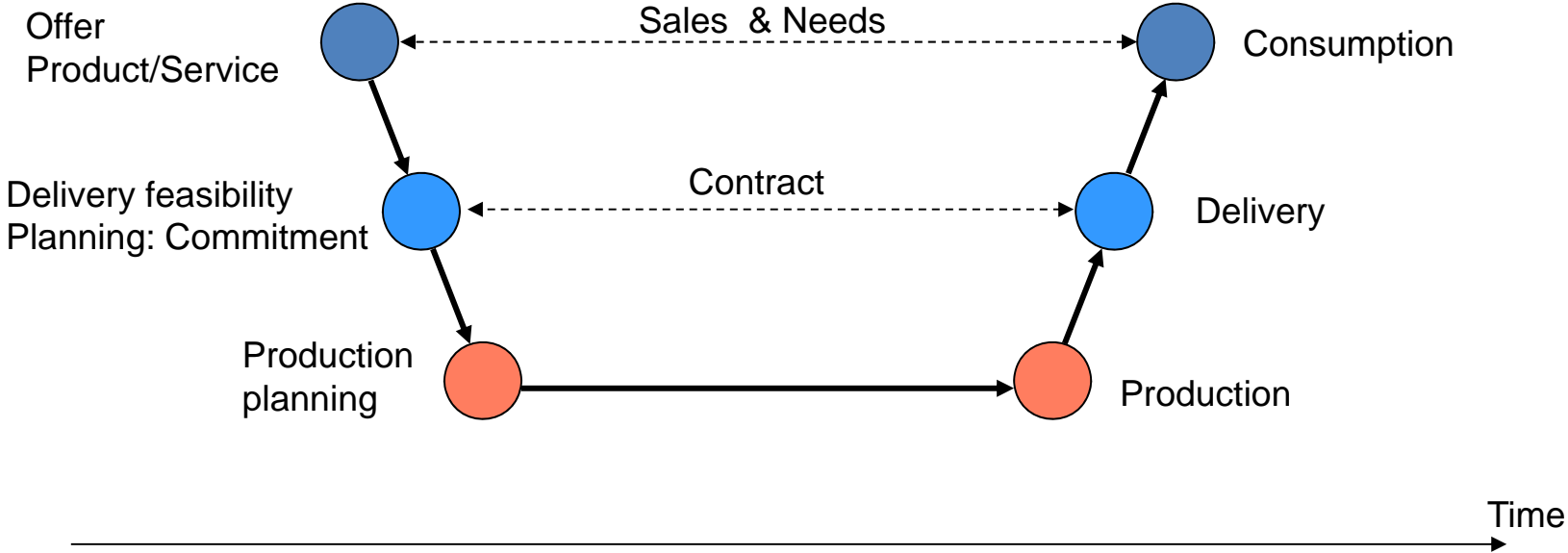
Process parallelism



Incremental planning

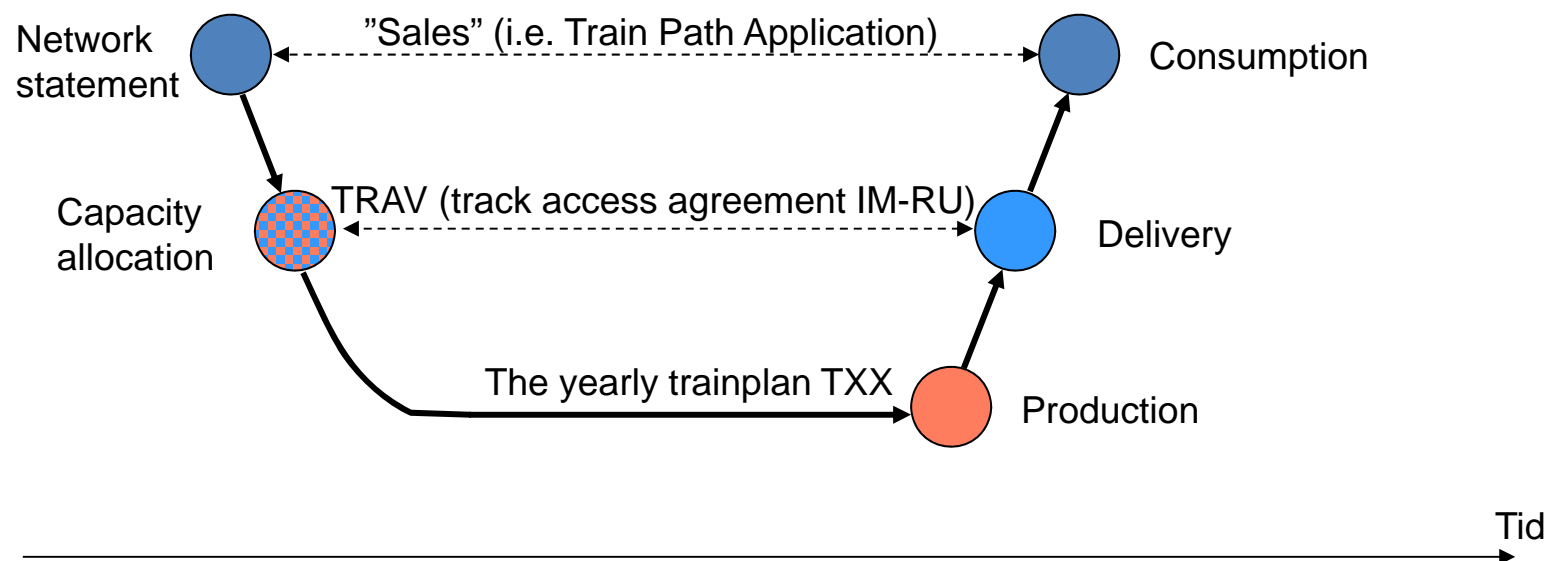
Researchers point of view...

Commitment, production and delivery



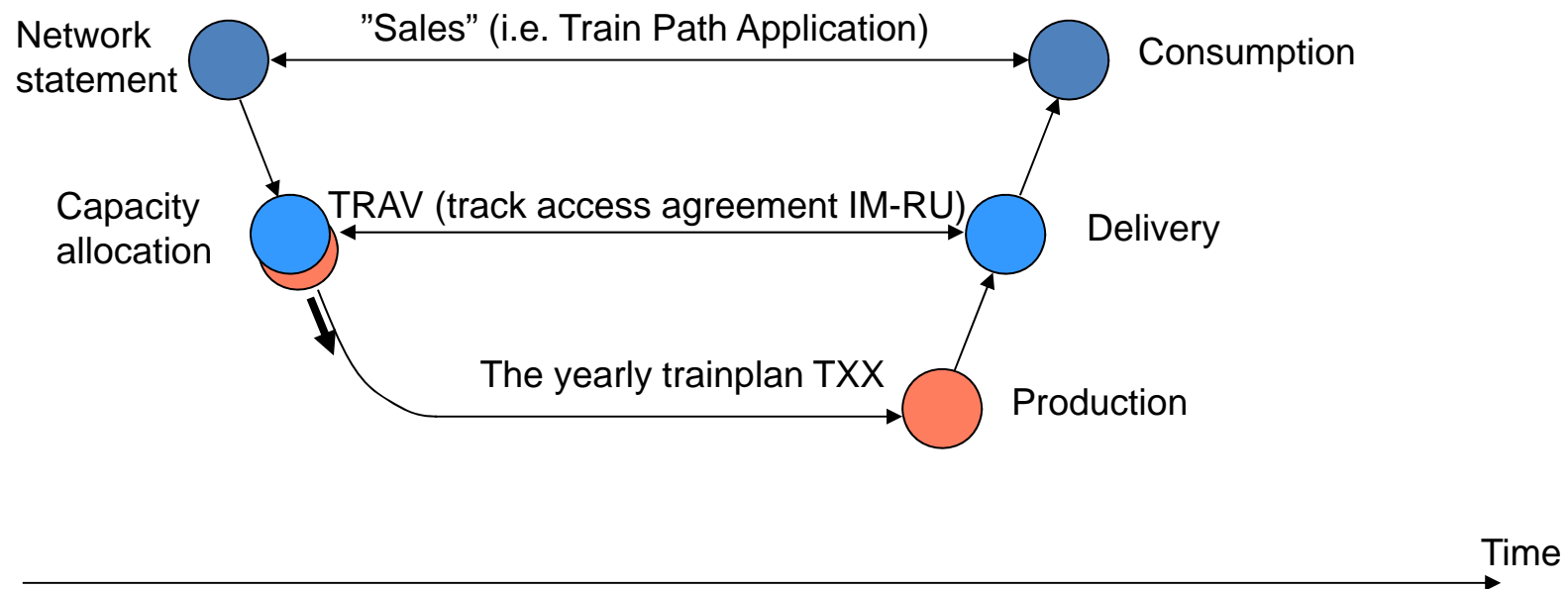
Commitment, production and delivery

The railway approach...



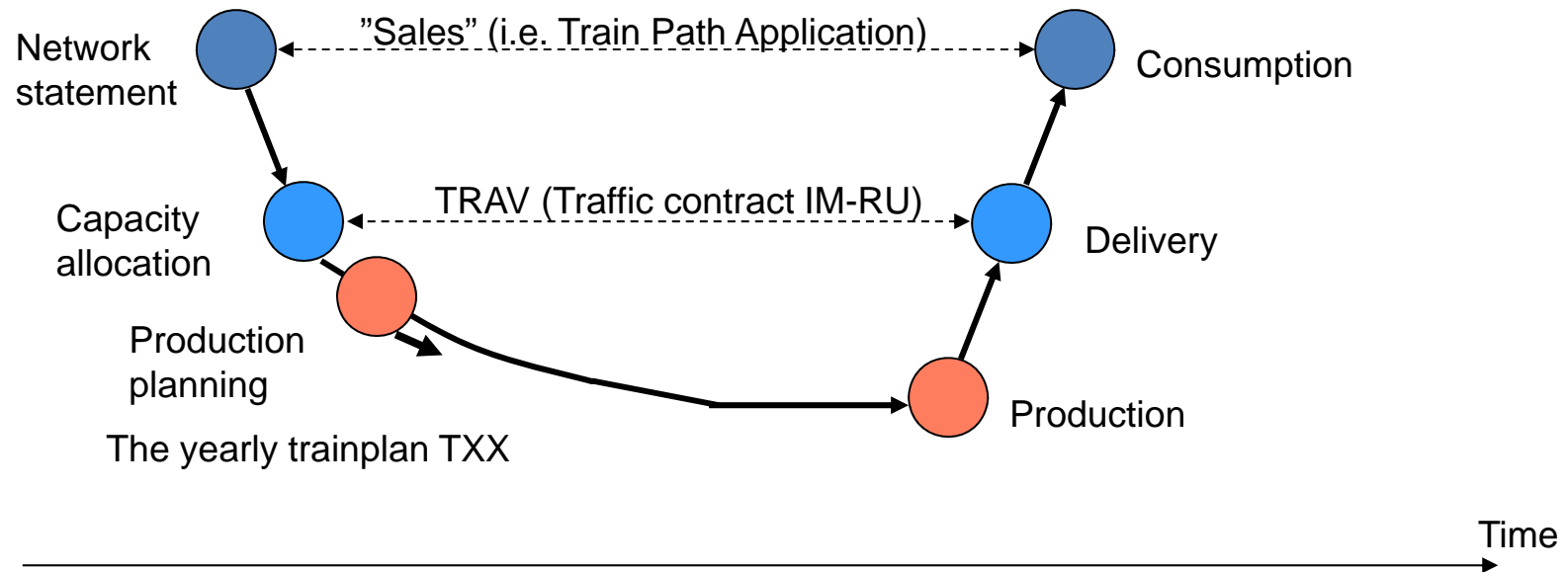
- The capacity allocation is both the plan and the commitment
 - IM **promise** to **produce** the service in a certain manner, not to **deliver** the service
 - This situation occurs inside a body, not between bodies...

Time for a change!

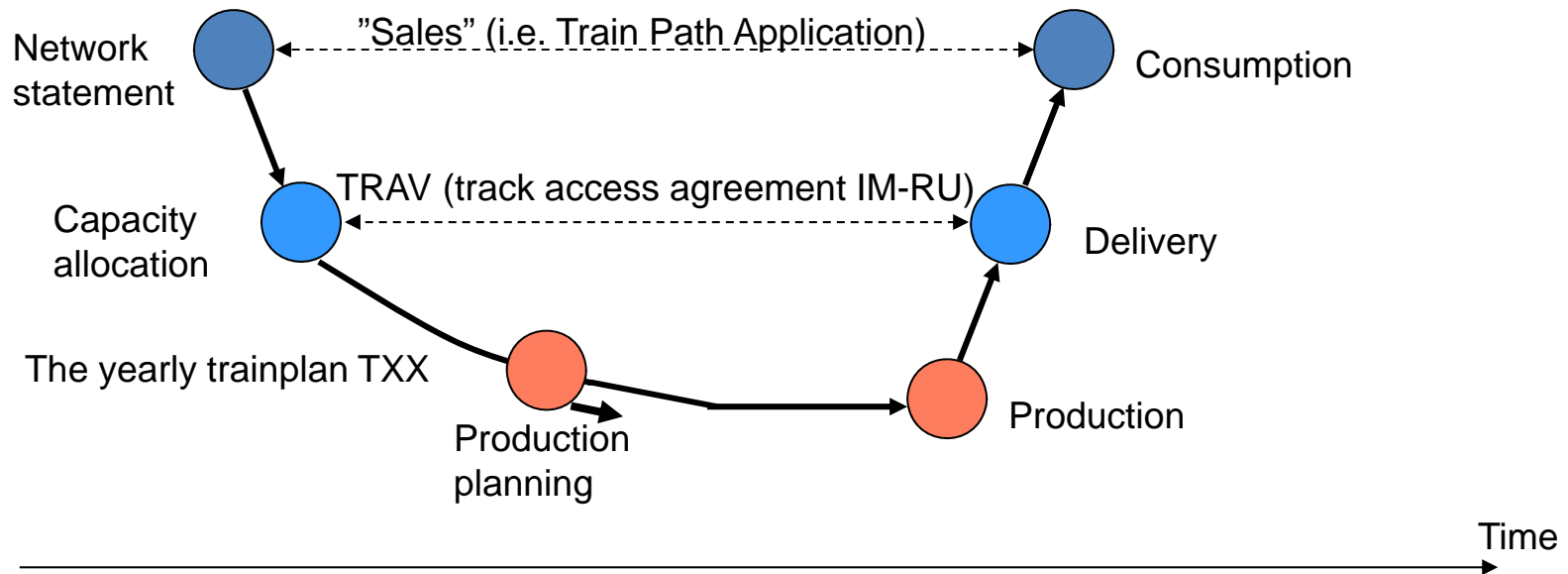


- Clarify what to deliver ("sales")
- Clarify how to deliver (production)

Delay finalization of the production plan



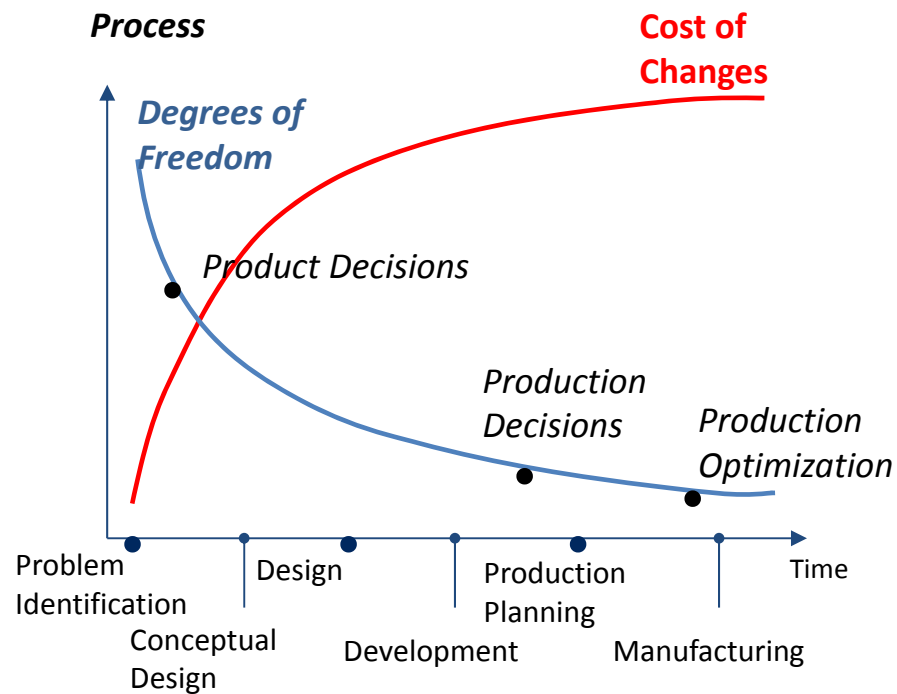
Delay finalization of the production plan *later and later...*



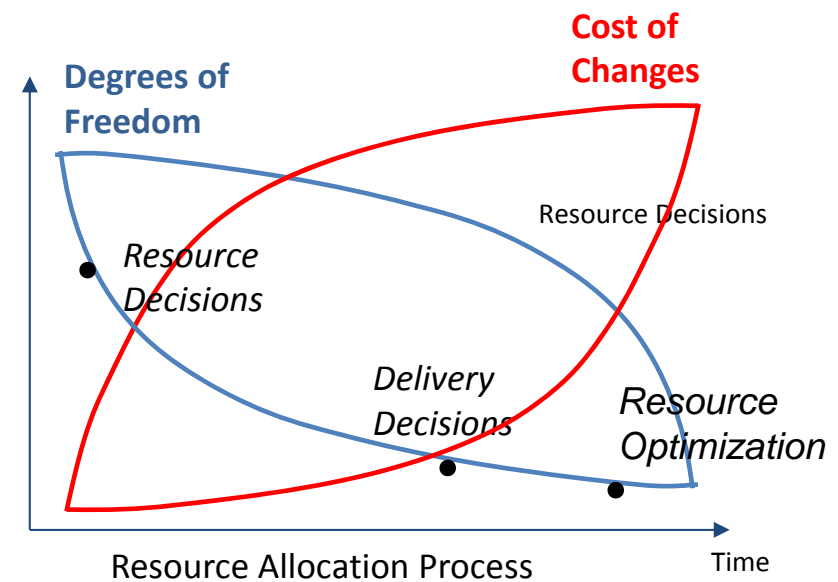
Comparing decision making *key for flexibility*

- Early decisions impacts flexibility and cost.

Product Development Process

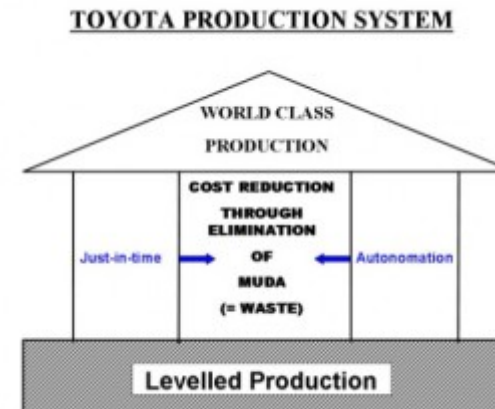
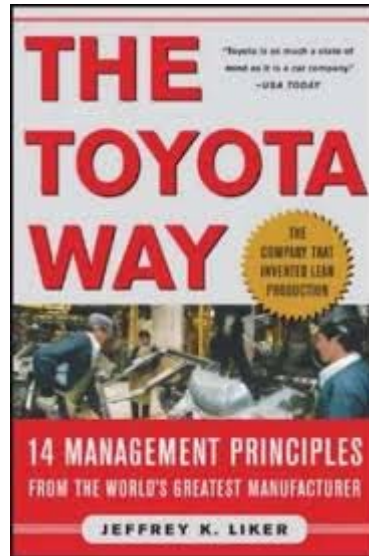


Resource Planning



The principles behind are not new...

but may be new when applied to planning

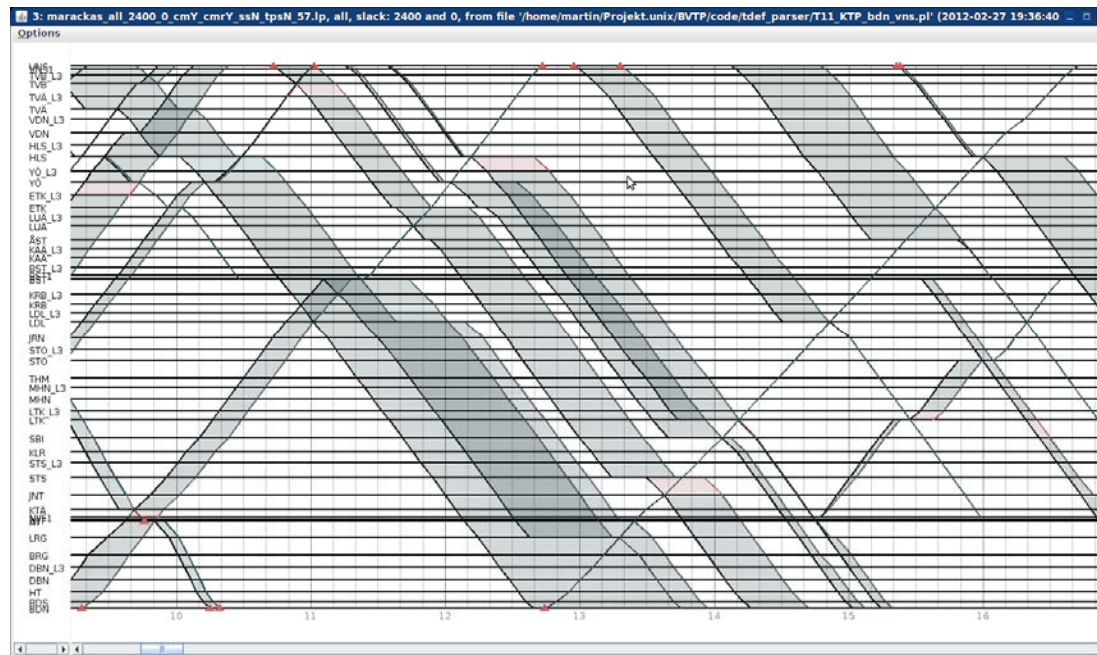
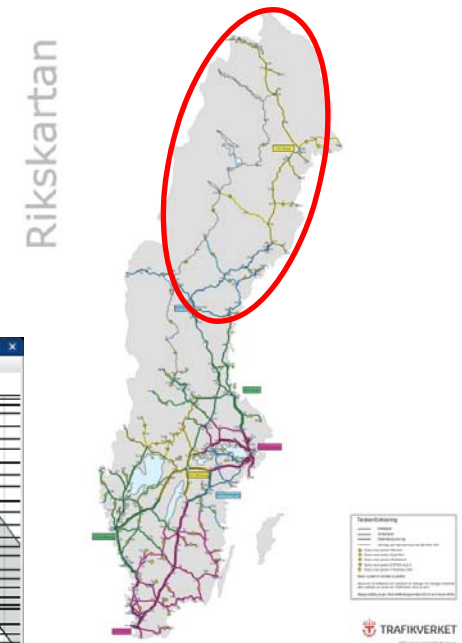


- Replanning is “muda”, waste
 - The goal is to do no replanning in the process
 - Properly design the process, methods and tools

Potential in production planning

optimize single day before production

- Bräcke, day 200, total delay times in seconds
 - Difference: 34 416, **12 %**
- Bräcke, year, total delay time in seconds
 - Difference: 3 871 061, **4.3 %**



Potential in robustness

- Difference production – delivery
 - Visualize the dispatching possibilities
 - Focus on delivery, not the plan itself

