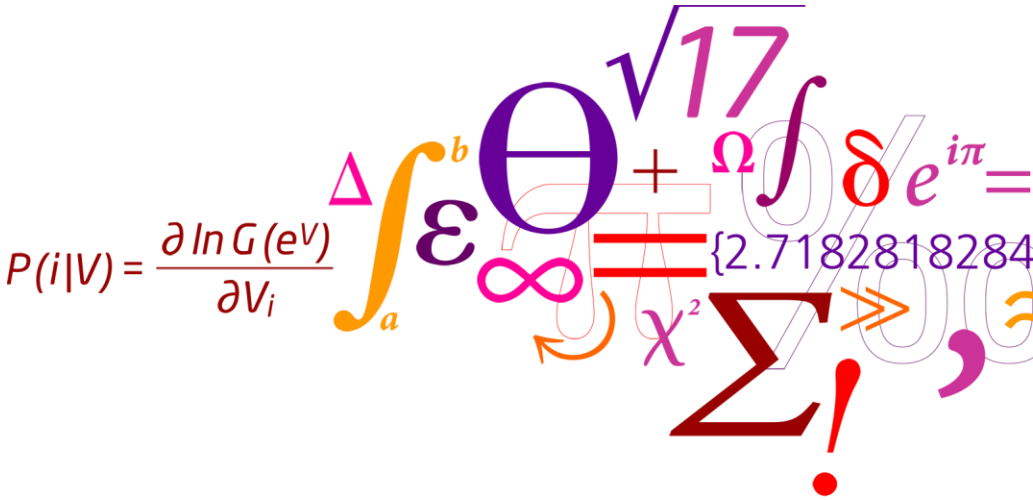
Jernbaneforskning "IPTOP"

RailTech DTU Partner Møde
3 Februar 2016

Steven Harrod – Lektor, DTU Transport



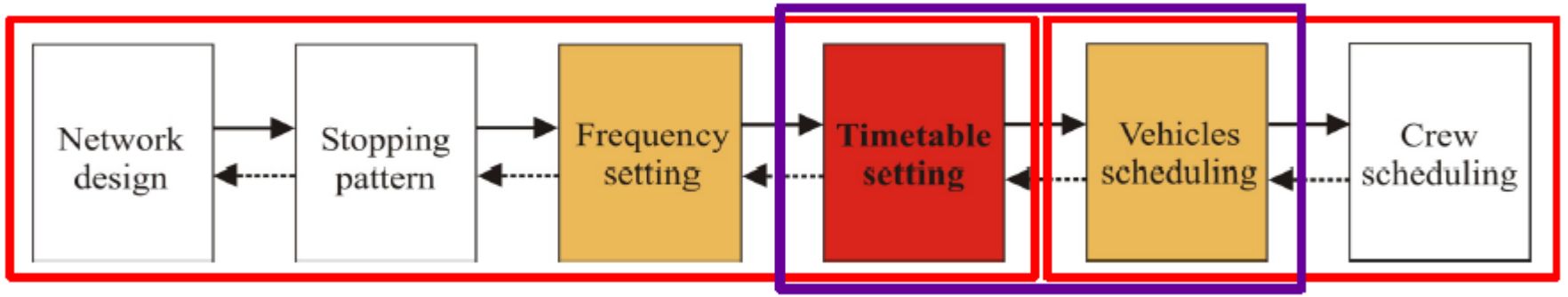
RAILTECH DTU

IPTOP

- Integrated Public Transport Optimisation and Planning
- Støttet af Innovationsfonden
- 13,3 million DKK over fem år
- Blev lanceret i januar 2015
- DTU
  - Transport
  - Management Engineering

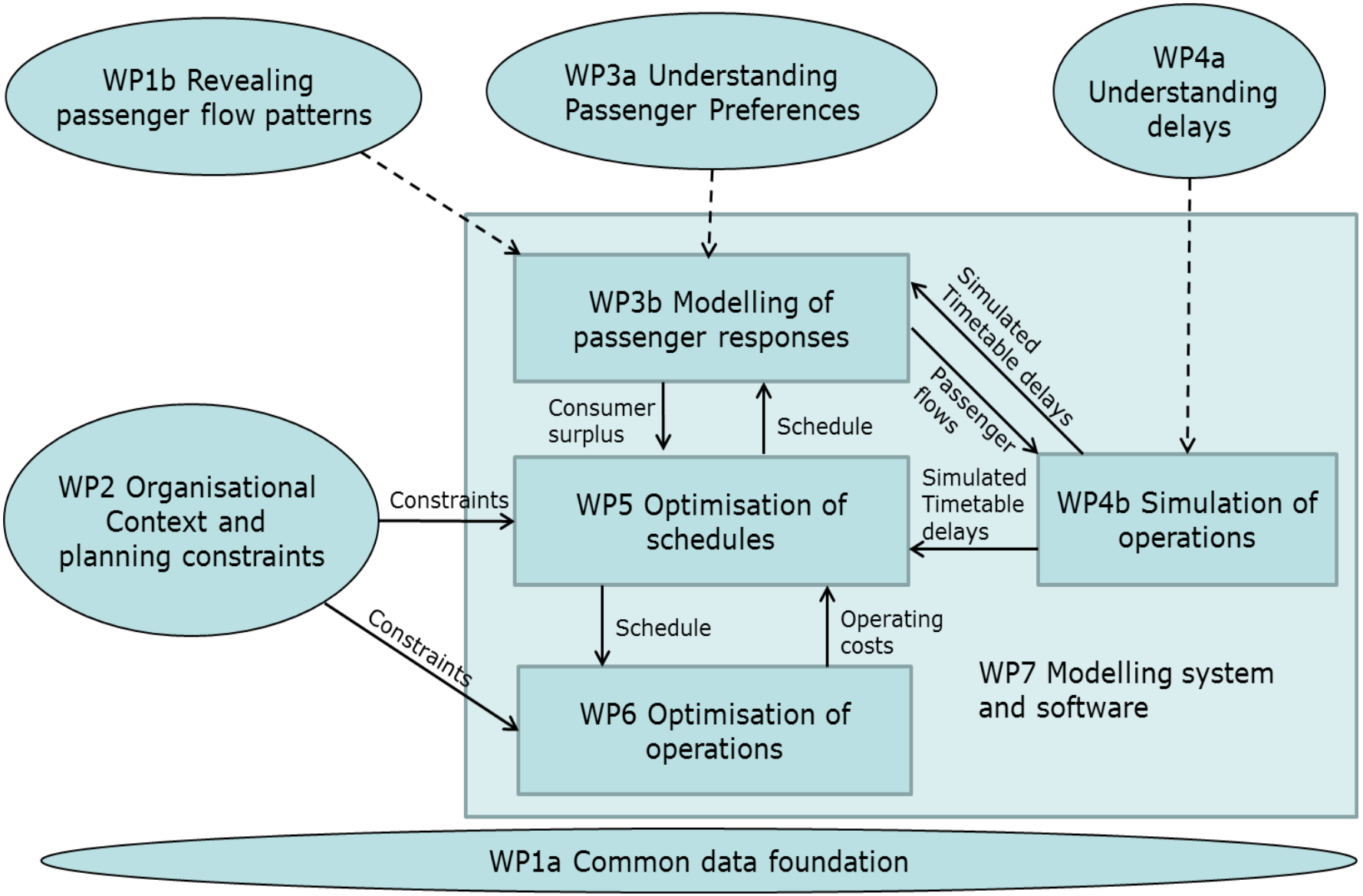
Integrated Planning and Optimisation of Public Transport (IPTOP)

- Femårigt project: 2015-2019
- Optimering og simulation af køreplaner
  - Integreret på tværs af tidstand
  - Integreret på tværs af ressourcer (rullende materiel, bemanding)
- Fem eksterne partnere



Rapidis movia DSB banedanmark Trafikstyrelsen Danish Transport Authority

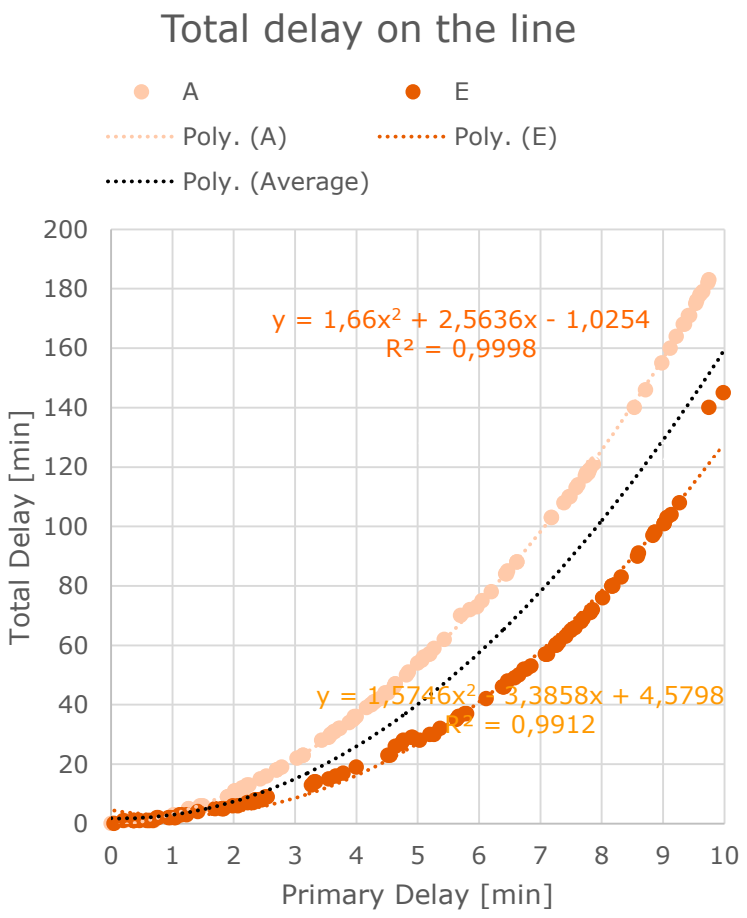
IPTOP – Activities, Work Packages

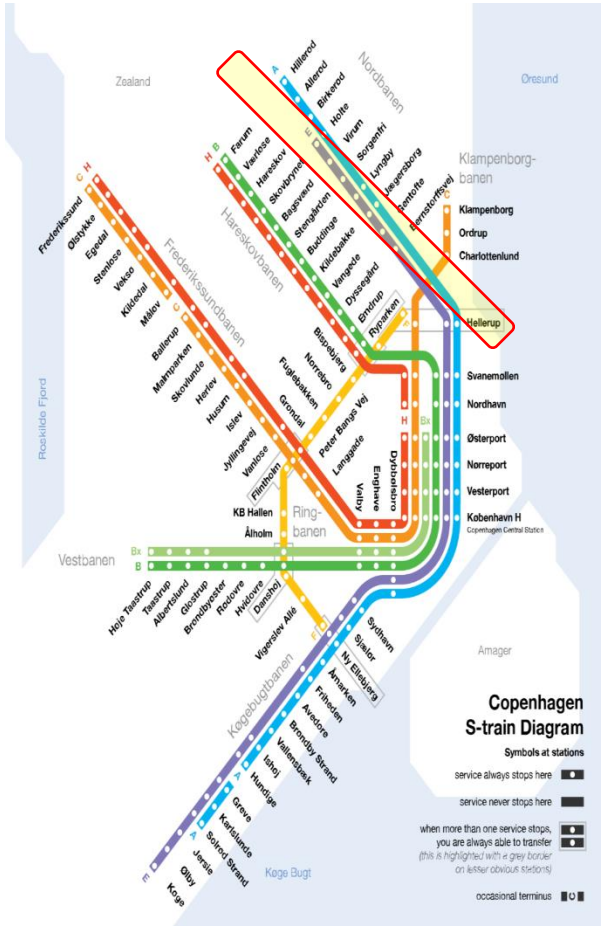


Forskning, PhD'er

- Fabrizio Cerreto
  - WP4
  - Timetable robustness and simulation
- João Fonseca
  - WP5
  - Integration of Bus Timetables with the Vehicle Scheduling Problem
- Federico Farina
  - WP6
  - Algorithms for train time tables and rolling stock plannin

Case study: S-tog Nordbanen





João Fonseca

Integration of bus timetabling considering vehicle scheduling

Bus timetables

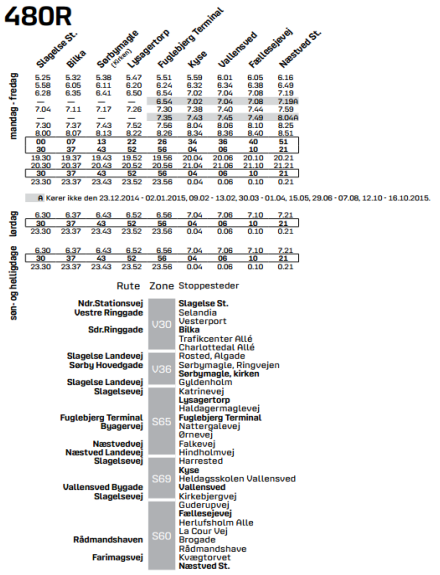
- Flexible dwell times
- Shifts in the original timetable
- Integrate through improving passenger transfers

Vehicle scheduling

- Minimize operational costs
- Create vehicle schedules to perform the improved timetable

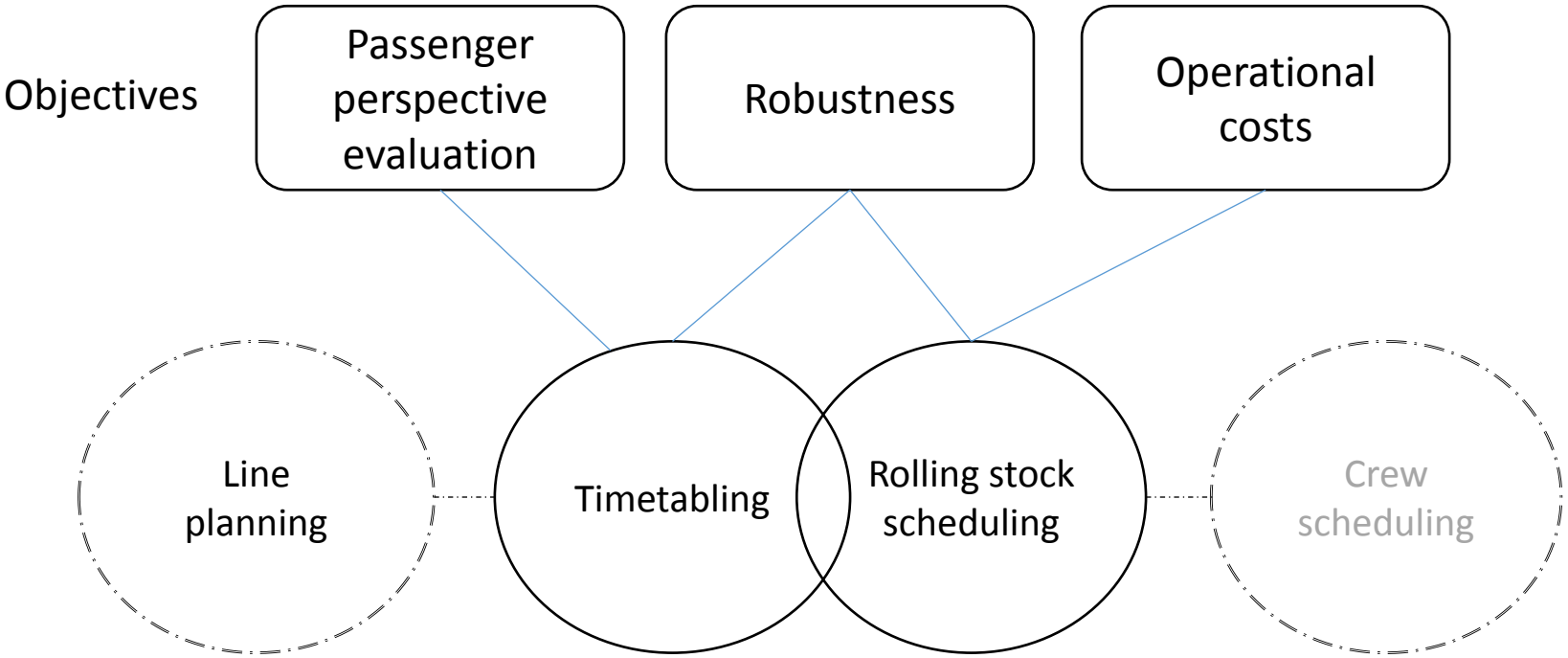






Federico Farina

Rolling Stock Integration



Opsummering

- Tre PhDer
- Mange timer forskning arbejde
- Alle sammen: bus, fjernbane, s-bane, metro
- Data på vej!
  - Movia: 56 million poster
  - Banedanmark: 113 million poster

Tak for nu!





