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RailTech DTU

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DSB

# Who am I - and who do I work for?



## → Who am I?

- MSc.E (Civil ingeniør) in Engineering Physics (Teknisk Fysik) from DTU in 2008
- PhD. in Quantum Physics from DTU in 2012
- Operations Research Analyst with S-tog/DSB since 2012

## → Who do I work for – DSB?

- The Danish National Carrier
- +7.500 employees
- +190 mio. passengers per year.
- +65 mio. kilometers per year.
- 11.000 mio. DKR turnover per year

# Maintenance planning



- Safety constraints vs. cost
- Have trains in operation – not in workshops
  - Without compromising safety



vs.



# Maintenance planning



## → A transition process

- Maintenance plans based on actual state of fleet
- Data driven decision making
  - Problem formulation
  - Data collection
  - Data analysis
  - Conclusion
  - Recommendation
  - Implementation
  - Follow up

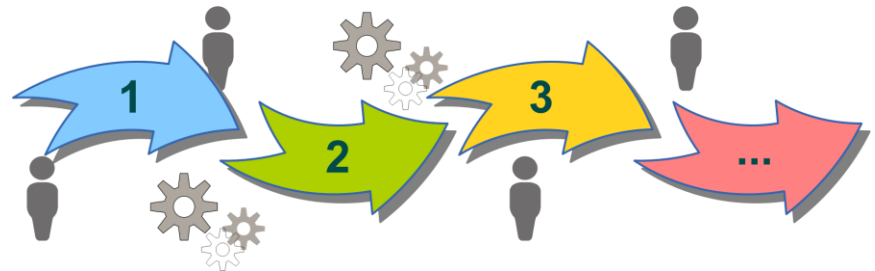


# Process for shuttle bus planning



## → Change Management Project

- From "Dependent on person" to "Documented process"
- Develop and Implement formal process for handling of shuttle bus planning
- Develop process support tools
  - Decision support and documentation



# Student projects



- Planning
  - Timetable
  - Rolling Stock
  - Crew
  - Maintenance
- Optimization
- Data analysis
- Contact Head of Department, Julie Jespersen Groth,  
[jjespersen@dsb.dk](mailto:jjespersen@dsb.dk)
- Also potential student jobs

