Creating a common Danish list of railway timetable evaluation criteria and revising the timetabling process accordingly

With the liberalization of the European railway sector, the number of national railway timetable stakeholders has increased drastically. A need arises for reaching a common consensus about the timetabling criteria and their priority which the timetabling process should be based on.

To create a common Danish list of railway timetable evaluation and optimization criteria a two step process was launched. Individual interviews were conducted with selected Danish stakeholders: DSB, Arriva, DB Schenker Rail, The Danish Transport Authority and Rail Net Denmark. Each stakeholder made a list of five prioritized timetabling criteria. These lists were input for the second working step: A timetabling criteria workshop at the Technical University of Denmark, where a first agreement on timetabling criteria between stakeholders was achieved. The result was a three layered list of prioritized criteria. Rank 1 criteria: capacity consumption on line sections and systematic timetable. Rank 2 criteria: robustness of the timetable and societal acceptance of the timetable and rank 3 criteria: travel time of trains and attractive transfer options.

With this new tool a revised timetabling process at Rail Net Denmark is proposed. The very basic structure of the process cannot be changed due to EU legislation and Rail Net Europe guidelines. Key performance indicators derived from the identified timetabling criteria are introduced. As is a more iterative approach to the timetabling process due to the assumption of major improvements within timetable planning systems. This new iterative timetabling process using key performance indicators will result in improved future timetables and in lower levels of disagreement between timetable stakeholders.

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