

Impact of Shift2Rail - a KPI model for the entire railway system

The Joint Undertaking Shift2Rail comprises five Innovation Programs and five Cross Cutting Activities of European railway research and development within the next years.

A technology and impact evaluation is an essential element within the Shift2Rail Joint Undertaking in order to show the effect that this initiative will have on its key target KPIs: to double the capacity and availability and to reduce the costs of the railway system by 50%.

Indicator Monitoring for a new railway Paradigm in seamlessly integrated Cross modal Transport chains - Phase 1 (IMPACT-1, EC grant No. 730816) is producing a comprehensive bottom-up KPI model with the aim to show the interdependencies between the technological or procedural developments and the high level KPIs of the railway system.

The overall objective is to prove the achievement of the objectives of Shift2Rail by determining to which extent the aims of reducing costs and improving availability and capacity will be reached. First these interdependencies will be analysed as cause-and-effect chains in order to obtain a qualitative model. Subsequently, the qualitative relations will be replaced by mathematical and logical descriptions.

This is necessary in order to apply the model to data of the different market segments like high speed, regional, urban/suburban and freight rail. The analysis of the interdependencies as well as the application of the model is done in close collaboration between industry, infrastructure managers, railway operators and scientific institutions. Thus a KPI model will be generated which covers all aspects of the entire railway system •

