



How INNOTRACK Uses ALD's D-LCC to Reduce European Rail Infrastructure Life Cycle Cost by 30%

CASE STUDY

D-LCC by ALD

For INNOTRACK

The Goal: Doubling passenger traffic & tripling freight traffic by 2020, while reducing rail infrastructure Life Cycle Cost (LCC) by 30%, according to a call from The European Community White paper on Sustainable Transport (September 2002).

The Challenge: Reduction of the track costs, the most significant cost component for Infrastructure Managers, is one of the greatest challenges for the railways in Europe. Reduction of track costs is crucial for competitiveness of railway operators, since competing modes of transportation (e.g. aviation, automotive) have seen a tremendous reduction in LCC in the last 30 years, while railway maintenance costs have not significantly decreased during the same period of time.

The Solution: In order to meet its goals, INNOTRACK has chosen D-LCC (Decision by Life Cycle Cost), a comprehensive and proven tool for Life Cycle Costing and Total Cost of Ownership developed by ALD. D-LCC makes INNOTRACK's LCC analysis easy and flexible. It offers LCC-state-of-the-art features and options, such as Net Present Cost, Cost Profile Analysis, Sensitivity Analysis and Dynamic Dashboard, which form the basis for efficient and effective decision making.

Life Cycle Cost is defined by creating a Cost Breakdown Structure (CBS), and allocating cost variables to each CBS primary element. The CBS is created through a process of cooperation between European rail operators. The result is a transparent, unified cost model which facilitates decision making and the comparison between different alternatives over time. It also forms a solid benchmark for all future projects. D-LCC combines the Cost Breakdown Structure (CBS) with Product Breakdown Structure (PBS) and applies the bottom-up calculation incorporating the time-scale (life cycle phases).

Through utilizing ALD's D-LCC, INNOTRACK performs the necessary analysis in order to implement track design solutions, towards creating common European standards that respond to the demands for higher traffic volume and higher performance in terms of LCC without compromising safety.

The INNOTRACK project is a joint response of the major stakeholders in Europe's rail sector – 36 partners from 11 European countries, including rail operators, infrastructure managers and railway track industry suppliers – for the development of cost effective high performance track infrastructure, aiming at providing innovative solutions towards significant reduction of both investments and maintenance of infrastructure costs.

