

# Automated AI Solution Helps Optimize Capital Investment for a Leading Telecom Operator's Network Infrastructure



Can you work within today's budgetary limits while providing for tomorrow's needs?

When you're one of the world's largest mobile telecommunications companies – serving over 200 million subscribers globally – it's important to keep your network in top condition. The client is not only one of the most admired brands, it's also a key player in the world's fastest-growing region for mobile telecommunication. How would they optimize their multi-national network, maintain customer experience, and get maximum ROI out of their efforts?

By applying AI to the problem.

## Forecasting Payload, Cost, and Revenue in a Rapidly Growing Market

Mobile telecommunications market in the region is growing at an amazing rate and seeing a 40% increase over its previous subscriber base. Clearly, proper network planning is essential in this environment. But so is balancing tomorrow's needs with today's budget. To help our client achieve this balancing act, we built them an AI-powered solution that:

- Provided a realistic network payload forecast at carrier technology, location, and BTS (Base Transceiver Station) levels
- Determined the next steps for network expansion
- Recommended the best network plan with financial metrics and NPVs (Net Present Value)

## Automated Solution Framework Gives Users the Power

This up-to-the-minute tech was packaged in an intuitive dashboard that allowed business users to explore what-if scenarios and visually compare the projected revenue, market share, cost, and payload outcomes for various actions. It also gave them the option to use additional capabilities (input data feed/preview, sensitivity analysis, reverse engineering) in their analysis. Underneath, an automated, modular KNIME workflow kept this complex process manageable and enabled it to seamlessly meet the business requirements.



## Meeting the Needs of Fast-Growth Industries with AI

Many factors go into network optimization and capital expenditure planning. With AI-enhanced data analysis, our client could see how various factors would influence the outcome of their optimization efforts. This enabled them to make smarter, data-backed decisions that lay a foundation for ongoing success.