**Supporting construction processes with mathematical optimization**

Targeted students: Computer Science Master (project or thesis)

Abstract: Construction projects are often still planned in an ad-hoc manner, based on expert knowledge. But for large projects, not even experts can oversee the full effect of investments in machinery or workforce, or changes in the scheduling of steps.

This Master thesis project is offered together with BII (Building Information Innovator GmbH), a company that develops a software to visually model and simulate construction processes, and can be used to shed light on the effect of changes in parameters and construction templates.

The task of the project will be to use mathematical optimization to propose parameter changes and/or changes in the scheduling of steps in order to positively influence construction time.
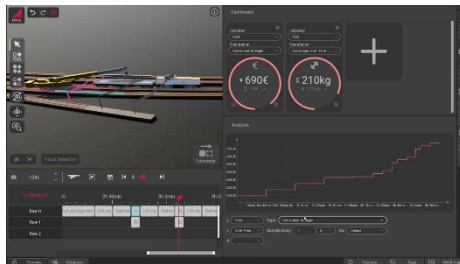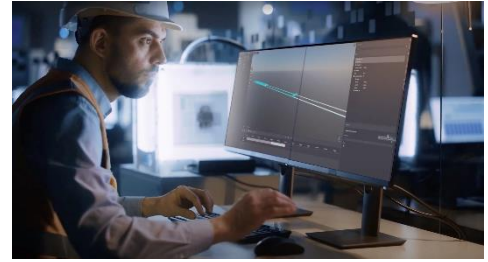
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Industry Partner: Building Information Innovator GmbH