The challenge

Zublin is working in all areas of construction, including turn-key construction, civil engineering underground, bridge and tunnel construction. Among them, turn-key construction is their main market. However, the conventional contractual forms to turn-key project often lead to conflict-laden project execution, some of the causes are:

- Inefficient and insufficient planning processes.
- Inconsistent definition of contractual scope of works.
- Increasing number of parties involved.
- Undefined risk handling.
- Budget conflicts.

On the other hand, price competition in the construction industry has not brought about the expected good price/value-ratio for the parties involved. On the contrary; product quality, confidence in the performance capability, customer satisfaction as well as the necessary economic cost-efficient performance of the contracted companies have all suffered.

The solution

To tackle the challenges brought by traditional forms to turn-key project and the competition in the construction market, Zublin has been changing their approach to project initiation over the last few years, they have been taking the teamconcept approach to turn-key project.

The team concept is based on the idea that all parties involved compile the contractual, commercial, and technical aspects as well as deadlines and goals of a project together and as equal partners. It establishes a binding partnership that generates trust and guarantees for a continuous optimisation of costs, schedules and quality. Zublin believes only if all parties involved in a project collaborate in a constructive partnership and in an open and trusting way, the project goals of high quality, customer satisfaction and efficiency can be fully achieved. This is in line with the theory of iTWO technology as an integrated solution for all stakeholders collaboration and project lifecycle management.
Based on the teamconcept principle, Zublin has developed guidelines for project initiation and execution. They have created their common project standards, which include structured process, cross-group standard and tool implementation. iTWO technology has been used as the backbone for their core processes, which enables BIM models management, and forms the basis for quotation, awarding and billing of subcontractor works, as well as estimation and construction management within the Group.

Within the scope of ZÜBLIN teamconcept, they work with specialised tools with clear guidelines to handle all the important aspects of construction projects successfully. They define a clear aim of approaching project, how they get there and which tools they use.
Cost management

In cost management, they have defined their goal clearly with their workers and towards customers as reliable cost certainty and risk minimization. They have achieved their goal through transparent depiction of construction costs, continuous planned/actual comparisons, effective control mechanisms and regular extrapolation of costs with the support of iTWO.

Procurement management

In procurement management, they aim to promise to their customers the best and most economical supplier or subcontractor at the right time. They have used iTWO procurement modules for the procurement processes, plus their in-house procurement solution through cross-regional and regional market exploration, team-oriented networking for procurement processes, early awarding of contracts and fair code of ethics to achieve it.

BIM

In regards of BIM, their goal is model-based ensuring of buildability and optimized management of construction processes. With iTWO, they are able to do model visualization, model-based quantity takeoff and estimation, and model-based collaboration.

With BIM models exported from Revit to iTWO, they can use formulas created in the platform to carry out automatic quantity takeoff and estimation. The benefits are: The 3D-Objects are linked in iTWO with the formulas, so that you can see which object belongs to which quantity or costs; the bill of quantities can be automatically generated; and you can easily make comparisons between different constructions and related prices.
“The modeling is the thing which changes a lot, first change the estimation process. It becomes quicker. We’re able to run alternatives very quickly to search for optimization. And what it allows us to show the client, to discuss with the client, and let the client without being engineer without the knowledge can understand what impact of the decision is making.”

Ulrich Weinmann  
Executive Board Member, Zublin

One of their flagship project using the BIM method is the Adidas World of Sports Campus which is located in Herzogenaurach, a little city near Munich. The Adidas Campus is a very modern area, with several fantastic buildings, lots of green, sportsgrounds and a little lake. The Project is about 140 to 120 meters. The gross-floor-area is about 50,000 square meters.

iTWO was used for the cost estimation of the project’s complete shell construction. The steel work consisting of 9,500 tons was completely modeled and estimated in iTWO.
The conclusion

Zublin started to use iTWO 5D technologies since 2009, and they see RIB as a long-term partner, see iTWO as the core of their process interfusion. Within the Group, more than 6,000 users are using iTWO technologies in hundreds of projects. For their company internal process, with iTWO technology, they have high control of which software they do use, what methods they do apply, and which tenets they want to implement, which means they can create lean structures with integrated processes, and a consistent data management. This leads into a significant improvement of their processes.

“About iTWO 4.0, we see it as one of the key strategic development in the industry, it's going to be an enabler to interlink our key processes with our innovation strategy”

Dr. Ian Quirke
Business Unit Manager, Zublin