



CUSTOMER CASE STUDY

NIIK deploys AVEVA Engineering solutions on a common platform to enable collaboration and increase design efficiency by 30%

Company Name - JSC NIIK
Industry - Nitrogen

Goals

- Improve plant safety
- Instill greater confidence in the operator
- Unite the company in their approach to implementing change

Challenges

- Improve change management across departments
- Grow visibility of processes at the design supervision stage

AVEVA Solution

- AVEVA™ E3D Design
- AVEVA™ Bocad
- AVEVA™ Engineering
- AVEVA™ Diagrams
- AVEVA™ Instrumentation
- AVEVA™ Electrical

Results

- Working relationships are improved
- Updates are communicated automatically instead of tracked manually
- Progress is easily monitored and controlled at all stages of design and construction

Dzerzhinsk, Russia – NIIK is a leading engineering company in Russia and former Soviet Union countries, with vast experience in grass-root construction and the revamp of urea plants. The company offers a full range of engineering services, based on its 65 years of experience. These services include laboratory tests, pilot studies, feasibility studies, and the development of Engineering & Design documentation in the field of urea and urea-based fertilisers, as well as detailed engineering for downstream products such as melamine and relative compounds.

Improving change management across departments

NIIK possesses vast experience in the field of engineering and design, yet the company is as eager as ever to implement innovative technologies to improve and continue development. The goal is not just to undertake a large number of projects, but to organise processes so that these projects are carried out as effectively as possible.

Each change in a project requires collaboration and coordination across multiple teams and disciplines. This collaboration needed to improve, especially in engineering and procurement. Existing working standards were failing to support the company's ambitious goals and were not fit for purpose for a 21st century industry leader.

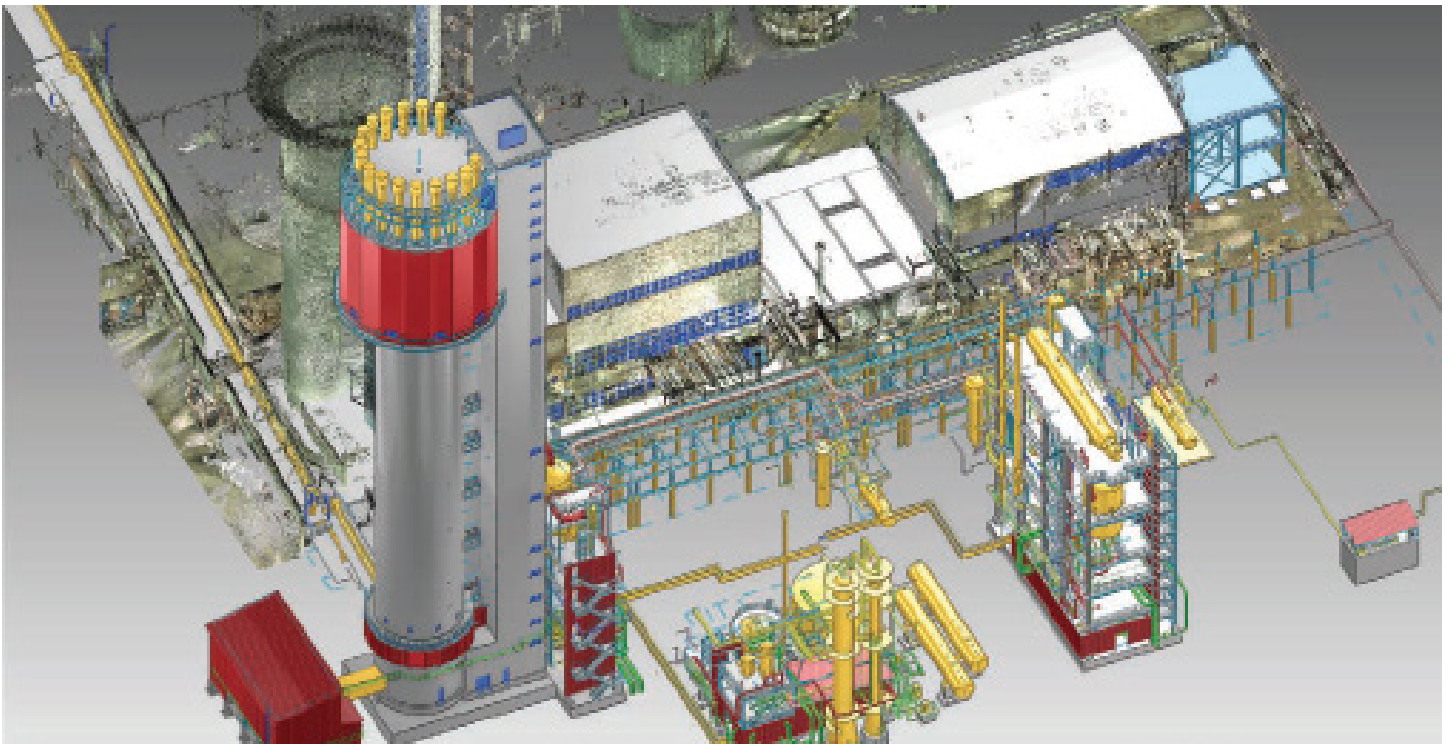
In particular, the process of updating new information from different design departments was holding up progress and pushing back delivery dates. There were misunderstandings between the design and procurement functions, leading to lost time, impacts on the bottom line, and implications for safety.

The solution to make it happen

“IT investments are literally investments in the future. That's how we approach this line in the budget.”

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Oleg Kostin,
Managing Director - NIIK



To solve this, a common information platform was introduced, both in IT and in ways of operating. Here, updates are communicated automatically instead of being tracked manually. NIIK now has a valuable commodity which provides the right information to the right people at the right time, helping its staff to make informed decisions as they carry out Engineering & Design work. By managing and incorporating changes during the design and construction process, it is now possible to monitor and control progress at all stages.

This major improvement also has an effect on operators, who have more confidence now that their partnership is predictable and their plans reliable. Because they have one common information platform they are in control from the CAPEX phase right through to operations, since processes are transparent and change is seamless. For NIIK this is especially beneficial at the design supervision stage. Executing capital projects is now straightforward, because at the heart of each challenge NIIK now has the ability to make the right decisions at the right time.

Right-first-time design

With the introduction of AVEVA E3D and laser scanning, NIIK can execute plant projects faster and with less expense. Some of the improvements are dramatic: pipeline specifications have been reduced from three days' work to one hour. Changes as a whole are managed 15% faster, and corrections for collisions and clashes specifically are 50% faster. It is now possible for their designers to work in a true 3D environment which is seamlessly blended with the actual site situation as represented by the laser scan data. This advance removes unexpected errors and rework on site – typically there are zero corrections required from the production team – and ensures that designs are right first time.



“Now we can proudly say that we have gained enough work experience with AVEVA, and that we have great plans for further development together. AVEVA has become, not just a software supplier, but a true partner. It took some time to introduce the new work culture, but the results have satisfied our expectations and were worth all the efforts.”

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Oleg Kostin,
Managing Director - NIIK

NIIK also uses AVEVA Engineering, a data management tool that allows designs to be created and modified across multiple disciplines. AVEVA Engineering lets NIIK keep its project data consistent and up to date across all departments, ensuring that users have the latest and, most importantly, the correct data to hand at all times.

Another valuable upside is an improvement in safety. Keeping data in shape and manageable ensures confidence in operations at every stage of a plant's life cycle. Technologies such as laser scanners and simulators maintain critical safety and environmental standards. Plus, of course, there are benefits for efficiency, with TX drawings now produced 30% faster, and specifications and drawings delivered in a third of the time overall. The end result is that collaboration across departments is now easy, delays are eliminated and working relationships are improved. Mr. Kostin is delighted.