## **NESTE**

# HOW NESTE OPTIMIZED TURNAROUND COST MANAGEMENT WITH CLEOPATRA



Based in Finland, Neste is a globally leading producer of renewable fuel, with renewable diesel refineries in Finland, Singapore, and Rotterdam, The Netherlands.

### **Introduction to Neste's Turnaround Project**

For a turnaround at the Rotterdam NEXBTL Refinery, Neste was looking for a software system to support them in cost management activities. Since Neste and Cleopatra Enterprise had previously joined forces during a maintenance stop at their Rotterdam plant, Cleopatra was selected as the **Turnaround**Management Software for the turnaround at the NEXBTL Refinery.

The integrated turnaround solution supported the turnaround from different angles.

Cleopatra Cost Management was used to gain continuous insight into the cost status of the turnaround. At the same time, Cleopatra Cost Estimating provided a solid base for mechanical estimates and estimation of scope changes.

### **Challenges Neste Faced**

#### Time constraints in turnarounds

Downtime is very expensive for a refinery, so turnarounds are typical time-driven projects. Gathering all the information necessary for Neste's cost reporting had to be done in a highly efficient manner. After all, proper decision-making can only happen if it is supported by timely, accurate, and complete information.

#### Lack of turnaround management structure

Another challenge for this project was the fact that this was the first major turnaround for the Rotterdam site. This meant that most of the turnaround cost management processes, like the level of control and cost estimation and the relevant procedures, needed to be developed.

### Insufficient scope change management

There was no formal procedure in place to manage scope changes during the turnaround. As **change management** is an important and large part of turnarounds, this was something that had to be set up in an orderly manner.

### NESTE

Neste was founded in 1948 to secure Finland's oil supply. In the years that followed, the range of the company's business interests steadily grew. Natural gas, exploration and production, and chemicals joined its core refining and shipping activities.

Neste is the world's largest producer of renewable diesel refined from waste and residues, introducing renewable solutions also to the aviation and plastics industries. In 2019, Neste placed 3rd on the Global 100 list of the most sustainable companies in the world.

### **Key Benefits for Neste:**

- Well-informed decision making due to efficient gathering of cost information
- Formal cost management procedures were set up to ensure proper work methods
- Extensive change management allowed for continuous insight into the development of the project scope and cost
- High frequency reporting to provide management with a clear status overview of the project



### **Results of implementing Cleopatra Enterprise**

Cleopatra Enterprise, as Neste's shutdown and turnaround management software choice, resulted in several successes.

### 1. A structured turnaround cost estimation process was created.

The base scope of the mechanical work for both maintenance and project work was estimated in a structured way using Cleopatra Enterprise. In the preparation phase, Cleopatra was also used for **tendering the contracts** and preparing the bid evaluations among contractors. After selecting the two main mechanical contractors, cost estimates were prepared for the base scope of the turnaround work to set the control budget.

#### 2. Effective scope management was ensured.

The pre-turnaround focused on scope deviations, the so-called emerging scope due to design developments. For the turnaround, a Field Change Order (FCO) process was developed to control all changes in the field due to discovery scope or engineering omissions.

The FCO process allowed for clear and structured management of changes in scope and budget. No less than 1400 FCOs, differing in size and impact, were managed this way. These changes were identified separately and reported against the Neste cost breakdown structure with Cleopatra's advanced reporting features.

#### 3. Clear status overview of the project with robust cost reports.

Cost reports provided 3 times a week during the turnaround, together with the flexible dashboard views of Cleopatra, helped the Neste management team get timely updates. Using import scripts greatly facilitated the entry of Neste financial data into the Cleopatra Cost Management system. This integrated system led to the successful execution of this time-driven turnaround project.

"Estimating scope changes with Cleopatra Enterprise has helped us a lot. Managing them is definitely much easier, and the work can later be used as a reference base for other plants or in future turnarounds."

- Neste

"Availability of cost database and a knowledgeable team of Cleopatra experts were a few of the reasons why we selected Cleopatra as our Shutdown and Turnaround solution. Also, Neste's management didn't have faith in doing the reporting in Access and Excel and needed a more robust solution: Cleopatra Cost Management."

- Neste

**Read More Case Studies** 

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### CLEOPATRA

Since 1996, Cleopatra Enterprise has empowered over 500 industry-leading companies across 75 countries to deliver complex projects and turnarounds with confidence.

Cleopatra offers a Total Project and Turnaround Management Software that supports the entire project lifecycle through an integrated project cost management solution. It is the only tool that combines cost estimating, work package management, BIM, scheduling, cost control, form tracking, benchmarking, and more—helping you build robust project controls capabilities to stay on schedule and within budget.

With cutting-edge technology and a team of experienced professionals, Cleopatra enables companies to streamline processes, improve project performance, and achieve their goals with confidence.

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