

As Det Norske prepares to take on its first large field development, Iver Aasen, AVEVA Software proves crucial in developing the necessary Digital Asset.

Det Norske  
[www.detnor.no](http://www.detnor.no)

INDUSTRY  
Owner Operator

## Goals

- To ensure staged, incremental flow of validated data, based on data maturity.
- To gain early availability of information for operational readiness.
- To complete the first stage to full Asset Life Cycle Information Management.

## Challenges

- Traditional event-driven handover from the project phase into operations was risky.
- Continual assessment and reporting of information status were necessary throughout the project.

## AVEVA Solution

- Progressive Handover Solution
- Digital Information Hub
- NET

## Results

- Handover costs have been significantly reduced.
- Operational readiness has been accelerated.
- Information retrieval time in operations has been shortened.
- Processes are now better organised.

## AVEVA Helps Det Norske Tackle its Largest Project

**Fornebu, Norway** – In 2008, Det Norske Oljeselskap discovered a major hydrocarbon deposit in the North Sea. Now known as the Ivar Aasen field, it contains the equivalent of around 210 million barrels of oil.

Because Ivar Aasen was Det Norske's first large field development, the company did not have all the IT infrastructure and business systems that are common among Owner Operators (OOs) in the industry. Not only would they need to quickly upgrade their technology systems, they would also need to deploy the business processes and workflows necessary to effectively manage such an important and complex project.

They turned to technology consultancy VisioNova for advice. Together, VisioNova and Det Norske identified AVEVA technology as the tool of choice.

### Life cycle information of the Digital Asset

Recognising the importance of life cycle information management to the success of this project, VisioNova advised Det Norske to adopt AVEVA's Progressive Handover solution, which accelerates and de-risks the transition of a new facility from its EPC-managed CAPEX project phase into production by the operations team.

This introduced Det Norske to the concept of the Digital Asset. As the project progressed, it was essential to control and coordinate all the technical information, drawings, documents, databases and 3D models pouring in from the various design teams around the world. Not only must all of this information meet predefined requirements, it must also be kept up-to-date throughout the life cycles of both the project and the in-service asset. The information forms a Digital Asset, an accurate representation of the continually evolving condition of the real physical asset.

“A key element of a Digital Asset approach is to understand that OPEX costs are largely determined during the CAPEX phase. So, future operations, maintenance and modification needs must be properly considered from the very beginning of the project. Now that EPCs are able to hand over good quality information, too often it is left to go out of date once it has reached the OPEX side. Best practice would be for the OO to define, long before handover, how they will exploit and maintain this Digital Asset throughout the life of the asset. That way, not only can the contractor deliver a more operations-friendly asset, the operator will also be ready and able to accept and deploy all of its associated information assets.”

**Asbjørn Mangerud,**  
Head of Business Development, VisioNova

### Progressive handover

Progressive Handover, an AVEVA Digital Information Hub solution, accelerates operational readiness by populating systems in time for first production, and reduces information retrieval time in operations. Handover changes from the traditional discrete event into a progressive incremental flow of approved data into the operations systems, well in advance of commissioning.



“By asking important questions before handover, you can have Information Management and plant maintenance strategies already in place, potentially saving you a lot of money. OOs need to ask: Should I maintain my 3D model? What should I do with my instrument database? How should this information be maintained? How should I handle the period from first oil to my first modification project? Do I have work processes for this? And did I also do my tagging at the end of the field development? If you can trust the information that you have, and can plan modifications based on it, you can save a lot of money.”

**Asbjørn Mangerud,**  
Head of Business Development, VisioNova

To achieve this, Asbjørn asserts that the EPC must understand, and be committed to, what the OO is trying to achieve. The Progressive Handover solution enables information submitted by the EPC to be monitored and automatically validated against contractual standards at regular stage gates.

This enables the operator's CAPEX team to know exactly what information it is receiving and that it conforms to their operational requirements. Progressive handover not only eliminates the resource overload common

during transfer to operations, it also provides key metrics on information completeness and progress through the CAPEX project phase, and delivers a validated and readily accessible source of actionable information in operations.

It is extremely important to have this infrastructure in place.

“Often the problem is that, by definition, managing handover effectively is not an OO's core business. But this phase of the project will impact their core business by either saving or increasing operating costs.”

**Asbjørn Mangerud,**  
Head of Business Development, VisioNova

Mangerud also believes that to be successful and efficient, handover must be a continuous process that runs alongside the design and engineering stages of the project. Ensuring that all the necessary information is verified and accurate is vital to achieving right-first-time construction. AVEVA NET, which powers the Progressive Handover solution, enables this by ensuring that information is consistent and is validated against predefined criteria. Engineers can know, not only how up-to-date information is, but also how much they can trust it; discrepancies are highlighted, while any design already released for fabrication requires explicit approval of any proposed modifications.

With help from AVEVA, Det Norske was able to take on this large project with confidence.

## About AVEVA

AVEVA is a global leader in engineering and industrial software driving digital transformation across the entire asset and operational life cycle of capital-intensive industries. The company's engineering, planning and operations, asset performance, and monitoring and control solutions deliver proven results to over 16,000 customers across the globe. Its customers are supported by the largest industrial software ecosystem, including 4,200 partners and 5,700 certified developers. AVEVA is headquartered in Cambridge, UK, with over 4,400 employees at 80 locations in over 40 countries.

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