

PROSTEP RECOMMENDS THAT ABEKING & RASMUSSEN RESTRUCTURE ITS PLM LANDSCAPE

By Matthias Grau

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Abeking & Rasmussen (A&R) was founded in 1907 by Georg Abeking and Henry Rasmussen in Lemwerder, near Bremen. The shipyard initially built boats for collecting practice torpedoes, minesweepers and other naval vessels for the Imperial Navy. Minesweepers are still part of the portfolio today – along with pilot boats and other SWATH vessels, which are less susceptible to wave motion, especially in rough seas, thanks to their special design. However, A&R is best known for building large sailing and motor yachts and so-called megayachts, which can be up to 125 meters long. The company, which is now in its fourth generation of family ownership, has launched more than 6,500 ships since it was founded.

In recent years and despite the pandemic, A&R has enjoyed the benefit of well-filled order books, which has resulted in an increasing number of engineering jobs being outsourced. It became apparent that collaboration with suppliers was not functioning as well as it could have. The existing IT infrastructure was soon stretched to its limits in terms of capacity. In addition, ensuring the requisite level of process reliability was becoming increasingly complicated. The company therefore turned to PROSTEP's shipbuilding PLM experts with the aim of developing a sustainable PDM/PLM strategy for efficient, process-oriented and technical partner collaboration.

INFORMATION FLOW ANALYSIS AS THE STARTING POINT

With the support of our consultants, the shipyard's partner environment and information flows were analyzed, i.e. what types of partners the shipyard has, what volume of work it takes on, what information they need in order to carry out this work, and how they exchange data and with whom. The issue of what form a process-oriented technical solution that provides support to the different partners might take was also investigated. Discussions with the specialist and IT departments revealed that the way in which internal PDM/PLM processes and data management practices had been designed did not provide the partners with the best possible support. The joint project team from A&R and PROSTEP therefore made a recommendation to the executive board that the internal prerequisites for collaboration first of all be improved.



A&R manages articles and BOMs in its ERP system and also makes use of a PDM/PLM system. The latter, however, has up until now tended to be used as an extended document management system and therefore has no dedicated configuration and change management facility for CAD and engineering data. Nor does it have a roles and rights concept with enough different levels to control access to the information. CAD and engineering data reside on shared network drives, there is no version control, and the data is replicated to partners as needed. Communication takes place via a portal solution, which is also used to store projects, a function for which it was not designed. This has a negative impact on performance and thus also on user acceptance.

AREAS THAT REQUIRE IMPROVEMENT

Based on the information flow analysis, our consultants identified a number of areas where there is room for improvement and grouped them together into five fields of action:

- Collaboration model
- Need-to-know principle
- Status-based data
- Change management
- Traceability and quality assurance

“Collaboration model” addresses the categorization of suppliers, from risk-sharing partners to simple component suppliers, and the creation of the basis for collaboration, from contractual structur-

ing to technical connection to integration in the shipyard’s processes. The field of action “need-to-know principle” includes the definition of a roles and permissions concept for internal and external access. This also includes defining how sensitive the individual business objects are in order to determine which roles are allowed to view which information.

“Status-based data” covers the issues version management, status management and configuration management, as well as how to move unmanaged data from where it is currently being stored to the managed PDM/PLM world. This includes the question of how to version the data from the database-supported CAx system Cadmatic, which does not have its own version management facility. There is also a need for improvement in “change management”, especially in the context of integrating partners. “Traceability and quality assurance” involves ensuring quality and process reliability when working with partners.

EXPANDED FOCUS OF STRATEGY CONSULTING

The focus of the strategy consulting expanded during the course of the project in the direction of PDM/PLM and internal processes. This resulted in several options that were presented to the A&R board in the final meeting. The original plan, which involved rolling out a separate collaboration platform with a clear demarcation between internal and external processes, was put on the back burner. Instead, the project team recommended to the board that the first step should involve exploiting the potential for improving in-



ternal PLM processes. A&R followed this recommendation and decided to first revise the existing internal PLM landscape.

The executive board also followed the recommendation about not only giving thought to restructuring the existing PDM system but also to possible alternatives. This decision is currently being implemented: A&R has launched the process of selecting a system with the support of the PLM experts. Focus in this benchmark is being placed on the strategic positioning of the PLM vendors and their shipbuilding expertise. A total of four vendors are on the shortlist and they will be presenting their systems during the course of the next few weeks. A decision in favor of one of systems will then be made. After that, project planning and implementation will then be tackled together with the vendor selected.

The first consulting project was completed in less than six months. "This was a great benefit because it helped us recognize early on that we needed to approach things differently," says executive board member Matthias Hellmann. "The project team made it clear that we would only be able to improve collaboration with external suppliers over the long term if we first made our internal PDM/PLM processes more efficient by reexamining our system landscape."



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