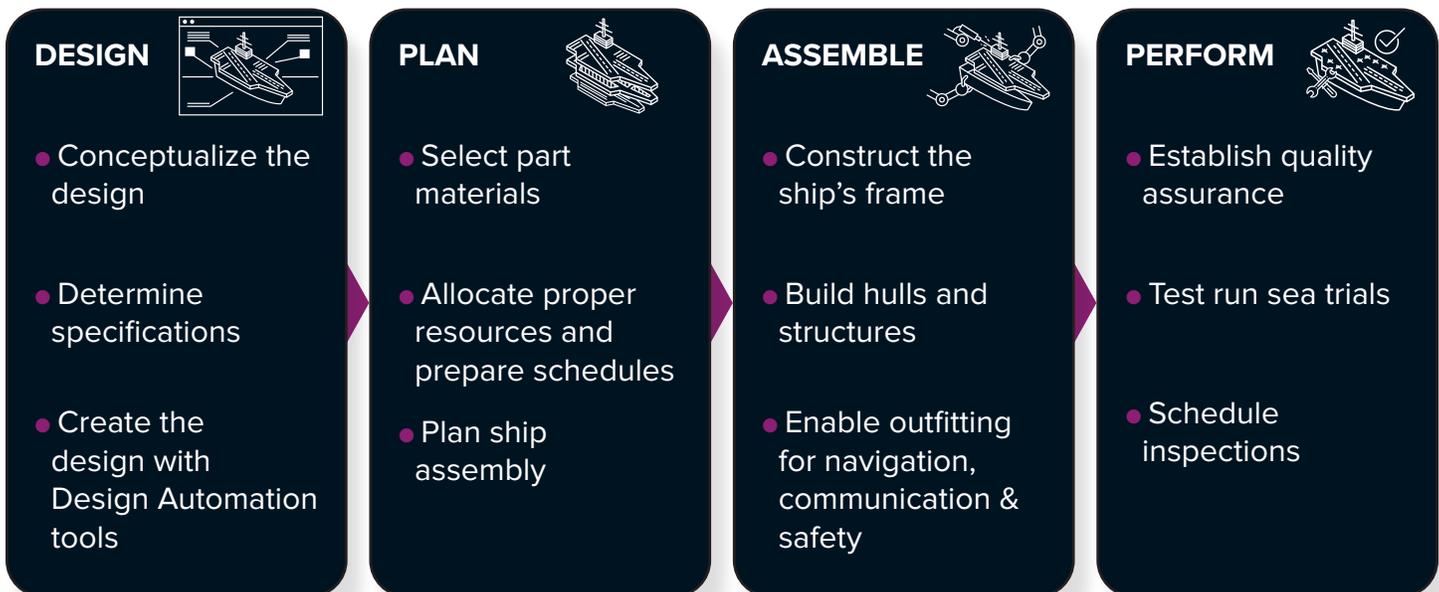


Navigating the Future of Shipbuilding

Digital Innovations for Revolutionary Shipbuilding

The Digital Shipyard is a modern and revolutionary concept in the shipbuilding industry. With the ability to design, assemble, produce and simulate the end-to-end shipbuilding process, digital tools take each stage of development to the next level by eliminating complexities and leveraging new capabilities for efficiency. In this rapidly evolving market, implementing digital solutions is a critical step toward remaining competitive.

In this brief, learn about common industry challenges, the benefits of Digital Transformation and revolutionary ways ships can be constructed and managed effectively.



Graphic: The Journey of Shipbuilding

Explore Challenges

● Complex Design Requirements

In the design stage of shipbuilding, specific materials and parts must be chosen to ensure vessels meet operational excellence, functionality and safety standards.

- **Supply Chain Management**

Companies can struggle to source and locate proper materials, parts, equipment and resources along the production process. Enterprises also commonly struggle to understand the status of work completed. This can cause disruptions in operations that may ultimately negatively impact quality and timely delivery.

- **High Costs**

Producing precise parts and securing an experienced task force may trigger budgeting issues and delays.

- **Ensuring Safety**

Given that ships hold crew members and important goods, teams must verify that all designs, structures, systems and equipment are durable.

- **Environmental Regulations**

In a world striving to decrease carbon emissions and become more sustainable, understanding the latest regulations is crucial.

- **Complex Design Requirements**

In the design stage of shipbuilding, specific materials and parts must be chosen to ensure vessels meet operational excellence, functionality and safety standards.

Discover Key Benefits

1. Design Optimization

The use of Design Automation tools can help shipbuilders create designs and simulations through prototypes within a virtual environment. This helps reduce the amount of time taken to make necessary revisions while testing scenarios risk-free.

2. Cost Reduction

By optimizing processes with digital design and remote monitoring methodologies, teams can easily identify areas that need re-work to minimize downtime and costs.

3. Data Visibility

With Product Lifecycle Management (PLM) solutions in place for increased data accessibility and decision-making, companies can gain insights on the design, material tracking, construction, development and progression of a ship's lifecycle.

4. Streamlined Collaboration

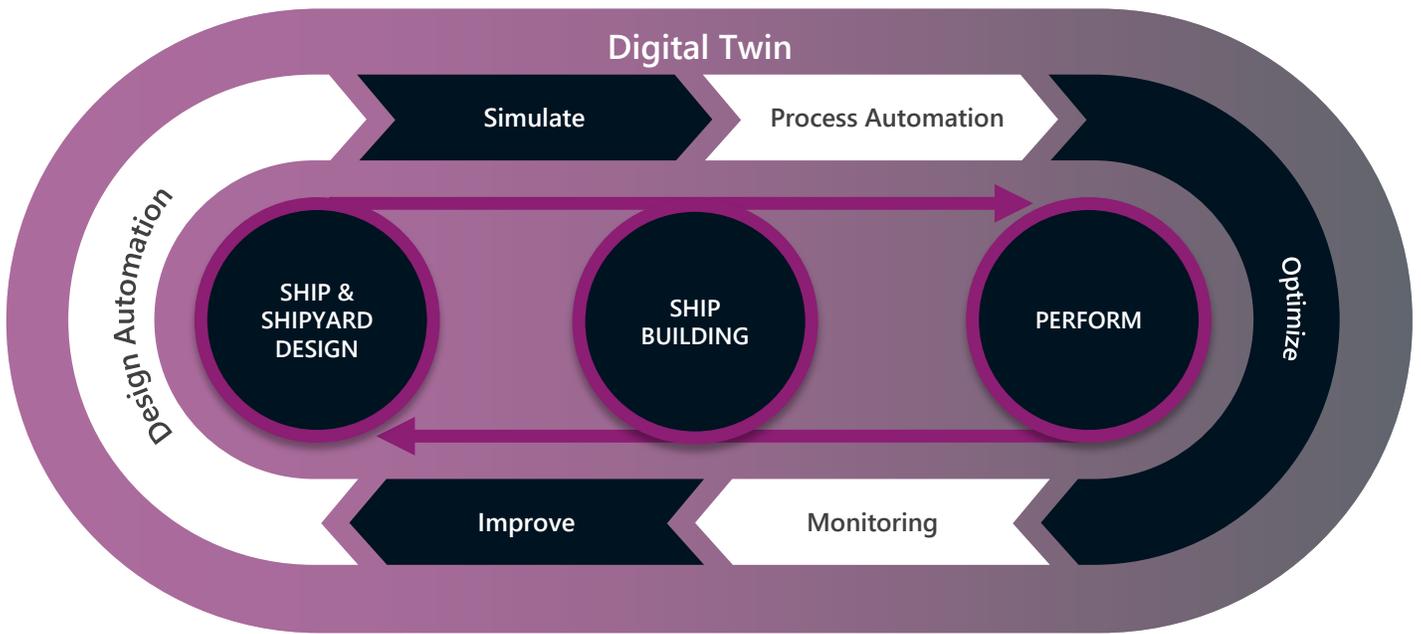
Digital solutions facilitate a centralized way of collaboration and communication across teams including ship designers, engineers, managers and owners, creating an easy way for teams to share the work they've done, make improvements and increase productivity.

5. Sustainability

Digital shipyards can help companies strategically create designs, assign resources and run simulated tests in paperless environments, leading to a reduced carbon footprint and less fossil fuel use during development.

6. Assistance & Planning for Future Projects

Often, enterprises must build and produce a specific number of ships or parts to meet production standards. They may also need to prove how they will meet demands based on contracts. With shipyard simulation, potential manufacturing changes can be identified to hit goals such as the number of people to hire or new equipment needed.



Solution Scope

- Design Automation
- Product Lifecycle Management
- Manufacturing Execution Systems (MES)
- Manufacturing Operations Management (MOM)
- Shipyard Simulation

Our Expertise

Today's shipbuilders are tasked with the need to update production methods, cater to new technologies, integrate planning and improve the configuration management of design and build processes. Engineering Industries eXcellence is a leading global software maker and system integrator with over 20 years of experience providing technology solutions and services within the shipbuilding industry. As there is an increase in demand for high-tech, adaptable and versatile vessels, Engineering Industries eXcellence is a proven value-added partner delivering end-to-end capabilities for the digital shipyard including:



Industry 4.0 Digital Roadmap Development



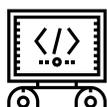
Solution Architecture Definition



Accurate Simulation Model Development & Validation



Support of Legacy Projects



Software Development and Configuration



Training and Mentoring

Interested in speaking to one of our experts?

Contact us at indx.com | info@indx.com