

A 100% FOCUS ON SHIPYARD EFFICIENCY

WITH SHOP FLOOR CONTROL AND
INTEGRATED PLANNING
FOR NEW BUILD AND REPAIR



A manufacturing Execution System
(MES/MOM) for the shipbuilding industry

Live connections to Primavera P6,
MS-projects and your ERP-system

More than 300 vessels were already
built with Floor2Plan



AN INTEGRATED APPROACH TO CORE SHIPBUILDING AND SHOP FLOOR CONTROL PROCESSES



"Floor2Plan allowed us to shift our yard from a project- to a process centric approach which added significantly to the predictability, control and profitability of our projects."

– Tom Roos, manager planning and production control, Royal IHC



Since 2012 over 300 vessels were built using Floor2Plan:

DECREASE PROJECT
THROUGHPUT-TIME >15%

DECREASE PROJECT
HOURS WORKED >13%

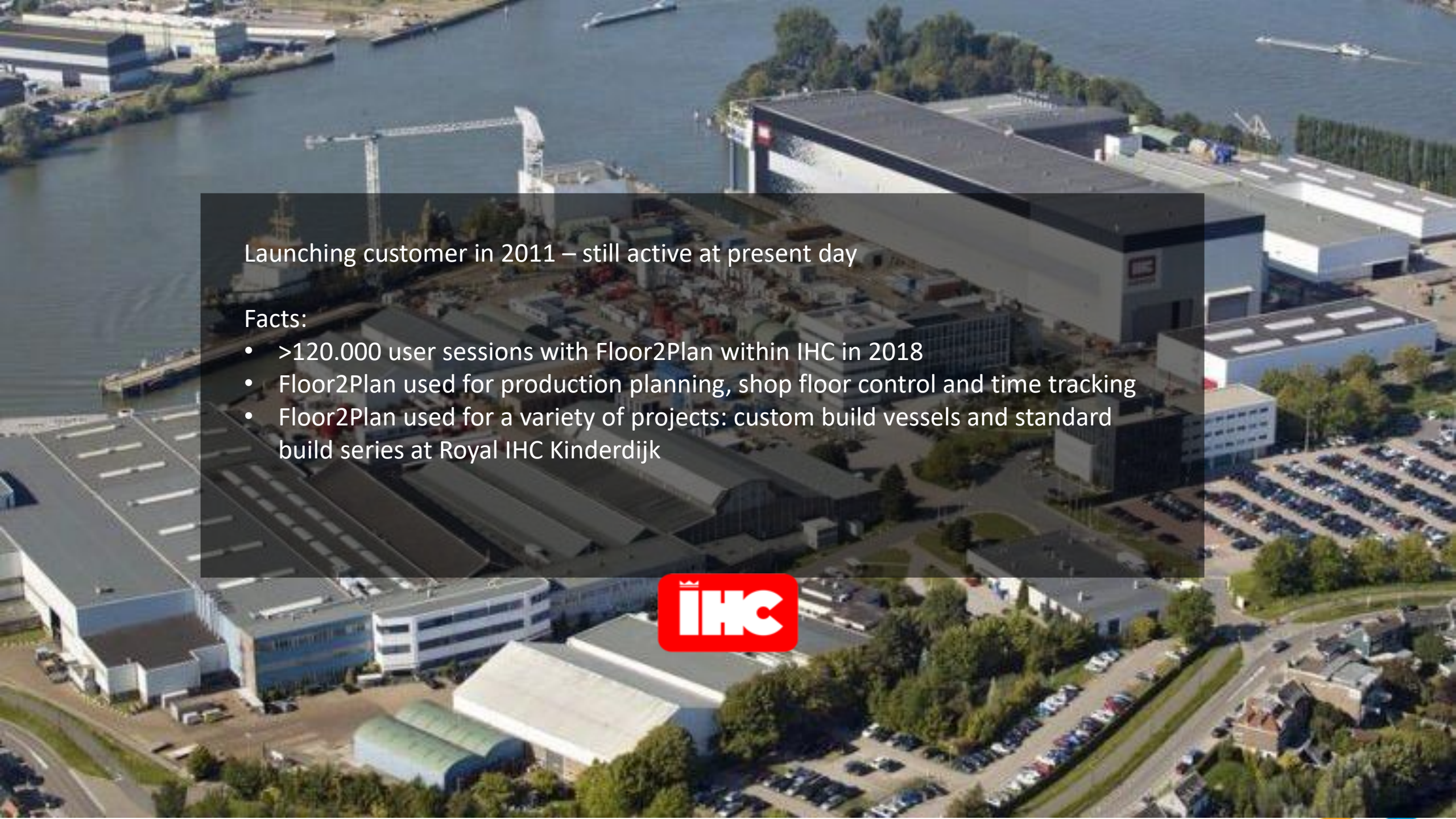
DAILY ACTUALS ON PROGRESS /
RISKS / RESOURCES ↑

ALL HOURS WORKED
ARE ACCOUNTED FOR 100%



Triggering Smart Shipbuilding




An aerial photograph of a large industrial complex, likely a shipyard, situated along a body of water. The facility features several large, modern industrial buildings with dark roofs and white walls. A prominent crane is visible on the left side of the image. The foreground shows a large parking lot filled with cars. The background includes a river or canal with a few boats and a distant shoreline with trees.

Launching customer in 2011 – still active at present day

Facts:

- >120.000 user sessions with Floor2Plan within IHC in 2018
- Floor2Plan used for production planning, shop floor control and time tracking
- Floor2Plan used for a variety of projects: custom build vessels and standard build series at Royal IHC Kinderdijk



The background image shows a large-scale industrial manufacturing environment, likely a shipyard. A massive, dark-colored steel component, possibly a ship's hull section or a large mechanical part, is being worked on. A welder in protective gear is visible near the base of the component. The scene is filled with industrial equipment, including cranes, scaffolding, and various tools. The lighting is bright, typical of an indoor industrial facility.

"Floor2Plan allows us to save over 8 manhours per ton. From work preparation to delivery this adds up to around 13%. A vessel with a reasonable size demands around 3.000 tons of steel. So obviously with an internal hourly rate of EUR 55,- this amounts to significant savings.

In addition; the duration of projects is also cut back with >15% for multiple projects"

William Leeuwestein,
lead production planner at Royal IHC Kinderdijk / Royal IHC Sliedrecht





ROYAL

VAN LENT

SHIPYARD



FEADSHIP
ROYAL DUTCH SHIPYARDS

FEADSHIP
ROYAL DUTCH SHIPYARDS



FEADSHIP

ROYAL DUTCH SHIPYARDS



NIESTERN // SANDER

POWERPICTURE.NL

FOTOGRAFIE



NIESTERN // SANDER



NICHOLS
BROS. BOAT BUILDERS

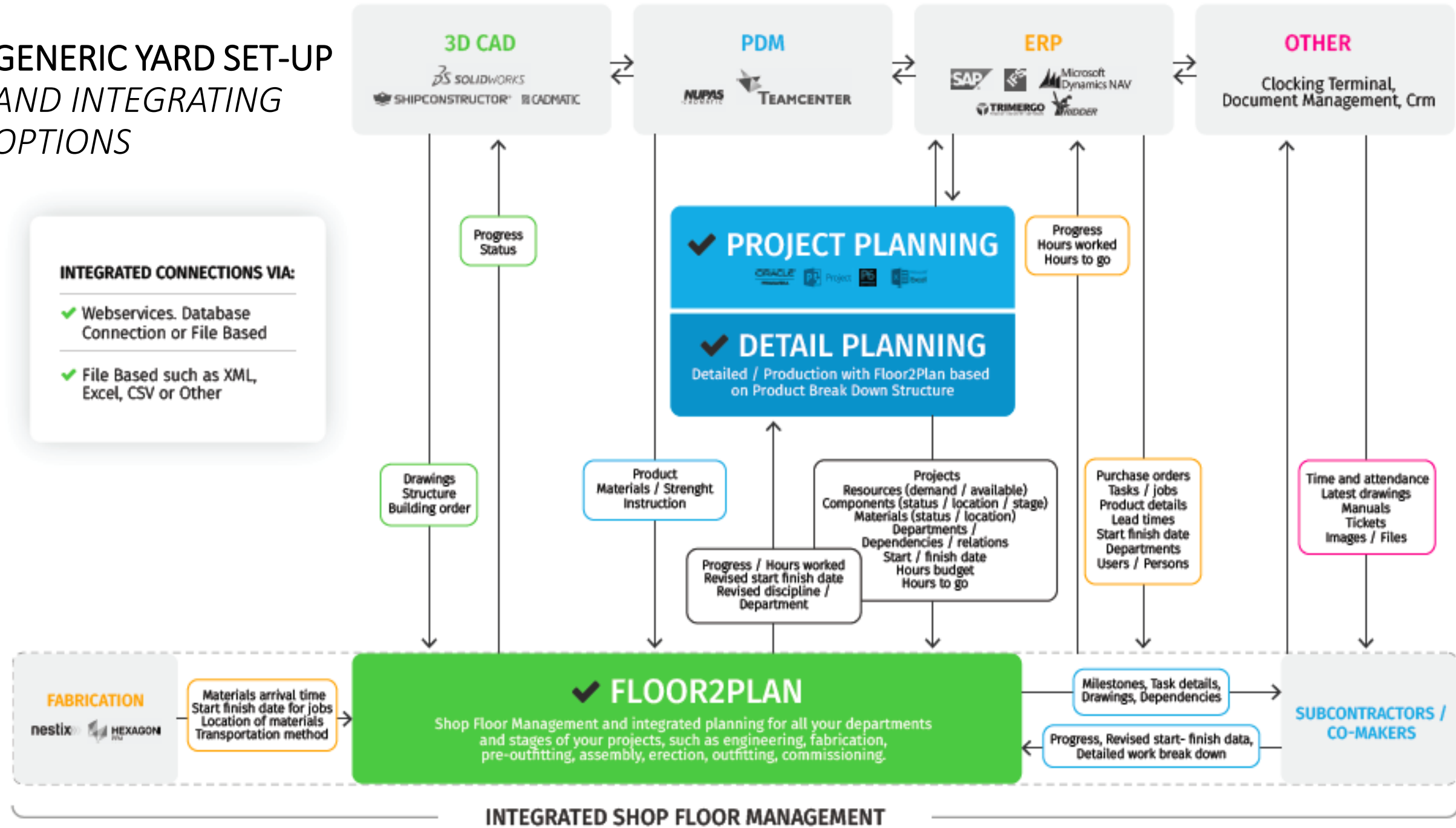




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GENERIC YARD SET-UP AND INTEGRATING OPTIONS



SHOP FLOOR CONTROL CHALLENGES



Some of the challenges that we address:

- Project risks and deviations are **recognized rather late or inaccurate**
- **Uncertainty** about reaching **deadlines** and delivery dates
- **Wrong prioritization** of **crucial tasks** caused by unawareness
- Estimating new projects carries more uncertainty than necessary
- Progress reporting relies to a large extent on **subjective assessments**
- Spending more hours than budgeted / **overspending hours**
- Abundance of excel sheets or **separate lists** on the shop floor
- **Multiple schedules** per project (separate planning for each department)
- **Postcalculation** and earned value management is often too late and too complex
- **Production standards** are difficult to establish





program-, project and area management

Daily actuals on progress, changes, risks and performance for:

- Your projects
- Your executing departments
- Your subcontractors
- your area, block, zone, system, room or deck.



project planners, work preparation, production planners or pmo

Extend the use of ERP and Primavera P6:

- Add more detail, dependencies and relations to your plan
- Apply a product break down structure for additional smart application
- Add insights on work package or pallet status and keep track
- Validate or apply your production norms and assess performance
- Signal relevant changes, issues and risks to mitigate them ASAP



production managers, supervisors, trade leads and charge hands

Retrieve a multi project overview of all your relevant activities and priorities

- See all your assigned work and its priorities
- See all relevant details of your work package (material, component, predecessors, successors, scheduled start / finish, budgeted hours, progress)
- Assess your current performance and capacity needs
- Look ahead in time for resource utilization
- Submit hours, progress, risks, changes and issues



real-time productivity and performance assessment

Keep track of daily actuals on progress, performance and changes

- CPI SPI and other EVMS insights
- Apply the break down from project level all the way to root cause
- Monitor progress, remaining to complete
- Manage recovery, changes and risks



return on investment and delivery



Our experience:

- Return on investment, depending on the active modules (current processes / labour costs) within 3 months after implementation
- Default approach for delivery:
Technical implementation; ~6 weeks after the go-ahead
- Organizational implementation; in two week sprints after technical delivery



INTEGRATED (MULTI-)PROJECT CONTROL FOR SHIPBUILDERS

1. PROJECT AND DETAIL PLANNING

2. PRODUCTION -/ OPERATIONS MANAGEMENT

3. PROJECT MANAGER/ AREA MANAGER / PROJECT CONTROL

4. SUBCONTRACTORS

5. ENGINEERING



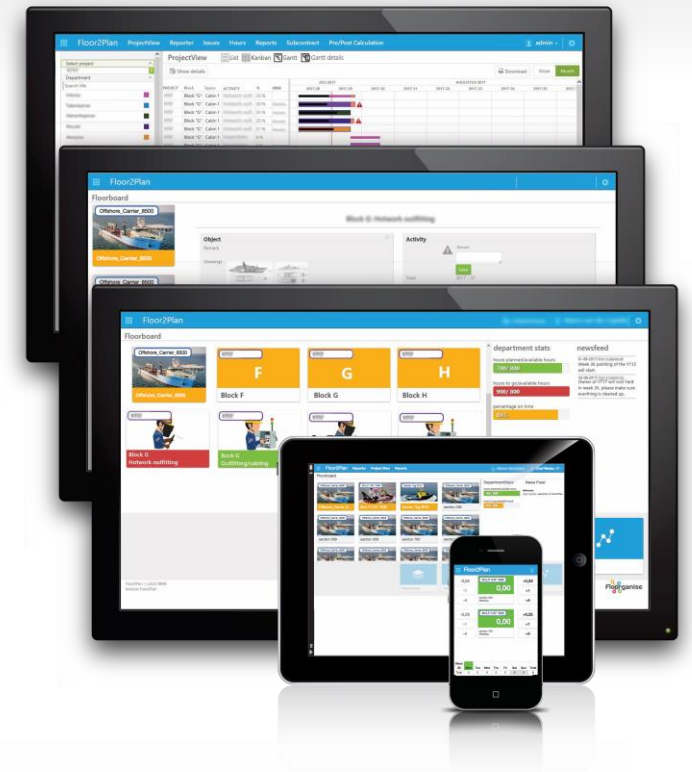
planningtools for shipbuilders



Easily add more detail using an integrated and interconnected planning

4 Scenario's to level 4 planning

1. Conventional project planning
 - *We read your P6/MSP and distribute tasks*
2. Hybrid project planning (lvl 3) with added detail (lvl 4)
 - A. *We read your P6, distribute tasks add detail by production dept.*
 - B. *We read your P6 ,apply smart templates and distribute tasks*
3. PBS planning from F2P (integrated project and detail planning)
Automated level 4 planning engine based on product break down and vessel specific knowledge (build strategy) applied



project planners, work preparation, production planners or pmo

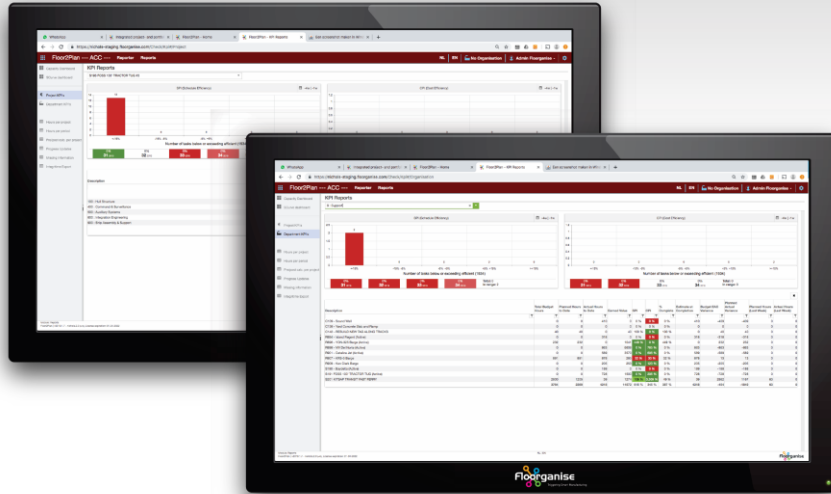


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- Signal relevant changes, issues and risks to mitigate them ASAP

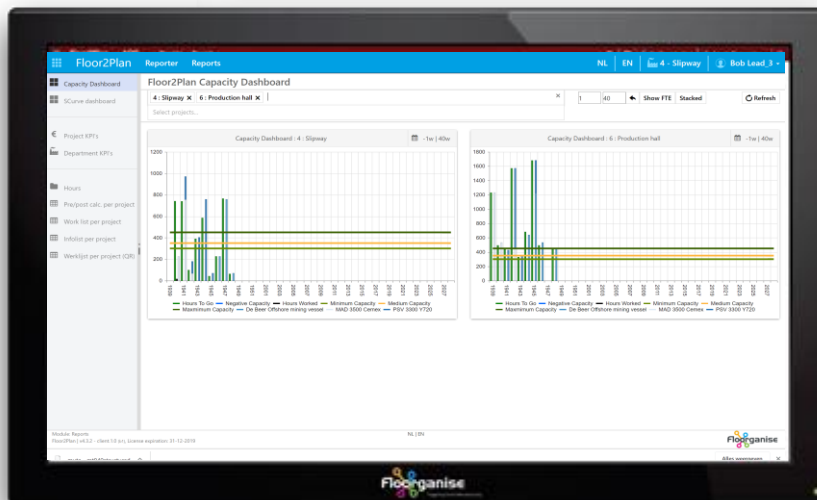


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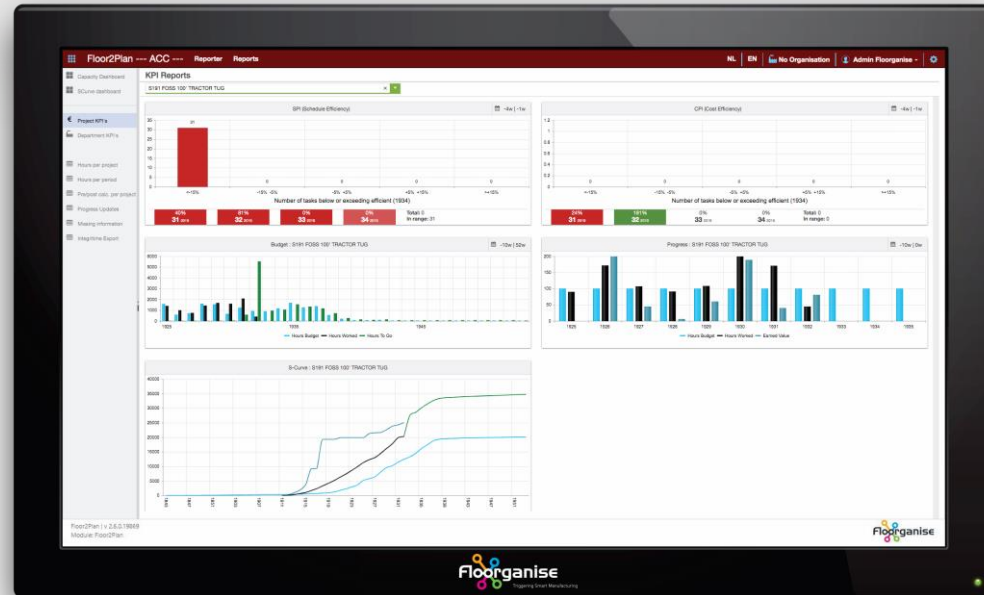


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LIVE DEMO ON [DEMO.FLOORGANISE.COM](http://demo.floorganise.com)

