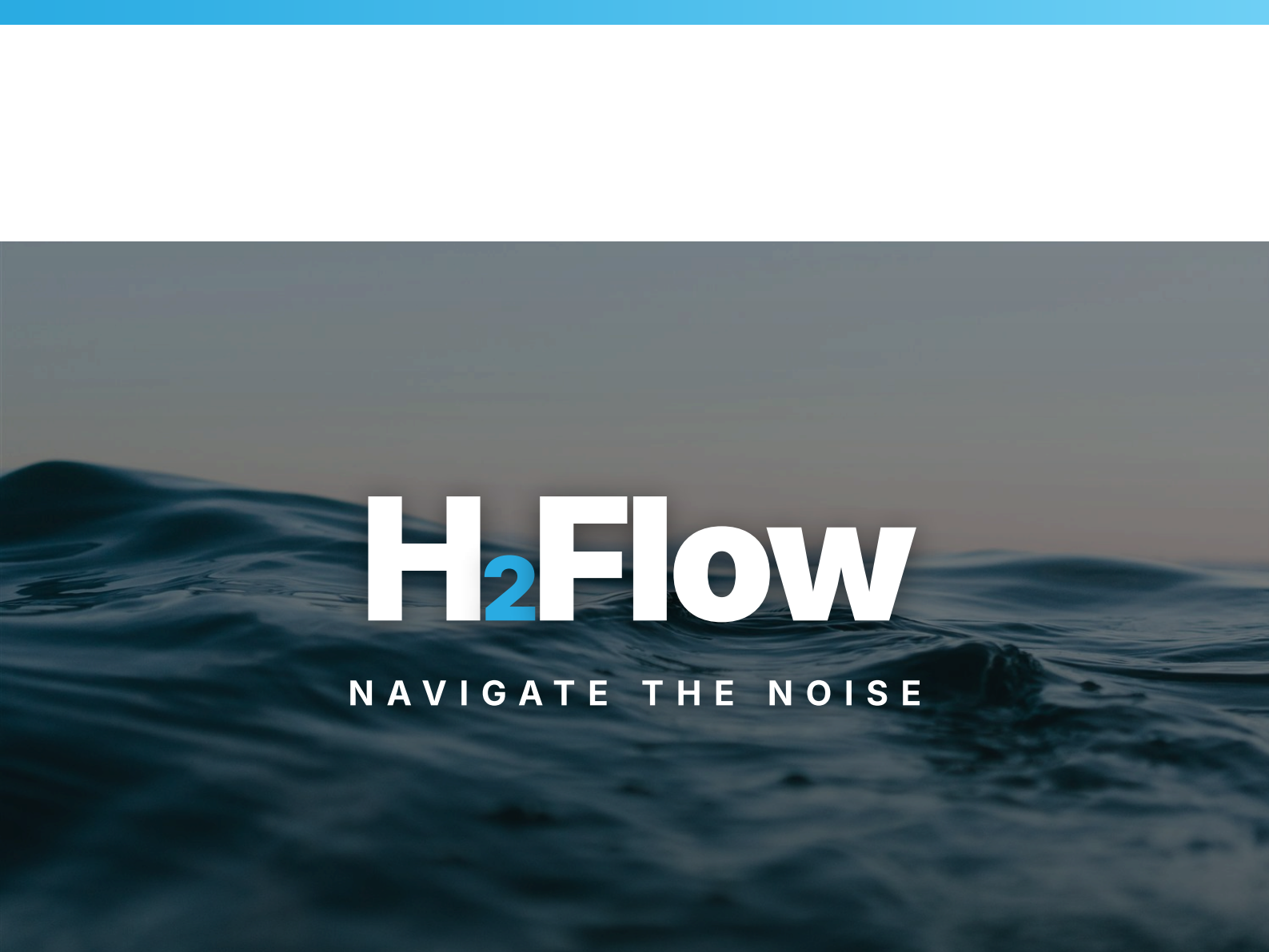




H₂Flow

NAVIGATE THE NOISE

The operating system for offshore operations

PRODUCT BROCHURE

• WHAT IS H2FLOW?

Born offshore, built for offshore

H2Flow is a cloud-based operating system purpose-built for offshore marine contracting — managing the complete lifecycle of assets, maintenance, crew, and vessel operations. Built for the way offshore teams actually work, from the Party Chief managing crew changes on a vessel bridge to the Asset Manager tracking equipment across a global fleet. It replaces fragmented spreadsheets, legacy desktop software, and disconnected tools with a single, modern platform accessible from any browser or tablet.

141DATABASE
MIGRATIONS**130**

DATABASE TABLES

IMCA

C001-C005 ALIGNED

24/7

VESSEL AVAILABILITY

• WHY H2FLOW?

Built by a survey engineer, not a software house

The platforms available for offshore operations were built by people who have never worked the deck — overcomplicated, poorly suited to vessel workflows, and needing significant training for basic tasks. H2Flow was designed by an experienced offshore survey engineer who got tired of fighting the tools and decided to build the right one.

Real operational experience

Every workflow reflects how offshore operations actually run — not how a product manager imagines they should.

Priority surface, depth on demand

You land on exactly what needs your attention today. The full system is one deliberate click away — not buried in menus.

IMCA-aligned compliance

Competency frameworks built around IMCA C001-C005 from day one. Container tracking supports DNV 2.7-1/2.7-2 and CSC requirements.

Natural-language AI

Ask the Bosun anything in plain language — the AI interrogates every module in parallel and surfaces the answer.

• THE MODULES

A platform built to grow

H2Flow is not a fixed product — it is a growing ecosystem of modules purpose-built for the offshore survey and marine contracting industry. Start with what you need today; the platform expands with your operation. The following pages detail each module in turn.

MODULE 01**AMS · Asset Management**

Equipment, locations, documents — the asset register, containers, faults and the document register.

MODULE 02**PMS · Preventive Maintenance**

Location-aware schedules, work orders and ISO 55001-aligned compliance.

MODULE 03**CMS · Crew Management**

Personnel, certifications and IMCA competency frameworks with crew-change planning.

MODULE 04**PCT · Party Chief Tools**

POB, cabins, muster, shifts and crew transfers — the vessel under control.

MODULE 05**PRO · Procurement**

Weekly order sheets with live per-line status, from requisition to receipt.

MODULE 06**TSS · Technical Support**

AI first-line support, grounded in your manuals and every fault your fleet has solved.

• MODULE 01 — ASSET MANAGEMENT

Every piece of kit, always accounted for

Equipment · locations · documents

From mobilisation to demob, H2Flow tracks every asset across your entire fleet — vessels, warehouses and offices. Scan a barcode to raise a transfer, report a fault, or view full documentation. When equipment moves, its documentation follows automatically, so client audits go from stressful to straightforward.

- ✓ **Searchable asset register** with 3-tier equipment categorisation
- ✓ **Barcode & QR scanning** — scan to identify, transfer, fault or maintain
- ✓ **Label generation** — print barcode and QR labels in multiple sizes
- ✓ **Auto-updating Master Document Register** per vessel, with expiry tracking and a renewal-chase workflow
- ✓ **14-stage fault resolution lifecycle** with root-cause analysis
- ✓ **Packing containers** — scan a flight case or pallet box, fill it with scanned assets, ship with a full contents manifest
- ✓ **Location barcodes** — scan a shelf or storage zone to place equipment away without touching a PC
- ✓ **Container & module register** with full certification lifecycle (DNV 2.7-1/2.7-2, CSC)
- ✓ **Sub-location & warehouse 2D layout editor**
- ✓ **Meter & counter tracking** with threshold-based maintenance triggering

• MODULE 02 — PREVENTIVE MAINTENANCE

Maintenance that follows the equipment, not the calendar

Schedules · records · compliance

Most PMS systems treat equipment as if it never moves. H2Flow knows a Macartney winch sitting in a warehouse doesn't need its monthly checks — but it will the moment it's mobilised. Schedules suspend on demobilisation, reinstate with recalculated due dates on mobilisation, and the entire transition is audit-trailed.

- ✓ **Calendar and meter-based scheduling** — running hours, cycles or dive counts trigger maintenance alongside date intervals
- ✓ **Location-aware lifecycle** — schedules auto-suspend at land locations and reinstate with recalculated due dates on mobilisation
- ✓ **Work orders** with parts bill-of-materials, labour assignments, hourly rates and cost tracking
- ✓ **Critical-spares readiness** — nominate the spares each job needs and get alerted when planned or corrective work draws a spare below its minimum
- ✓ **Pre-mobilisation verification gate** — equipment must pass its checks before dispatch to a vessel
- ✓ **Template library** with intervals, checklists and instructions — create once, schedule across the fleet
- ✓ **Bulk schedule actions** — multi-select to reschedule, reassign or mark complete in one operation
- ✓ **Role-based experience** — Asset Managers see fleet-wide schedules; vessel crew see My Tasks scoped to their vessel
- ✓ **ISO 55001:2024 aligned** — lifecycle-appropriate, risk-based scheduling with documented condition assessments

• MODULE 03 — CREW MANAGEMENT

Your crew, certified. Your compliance, watertight

Personnel · certifications · competency

H2Flow tracks every crew member's certifications, competencies and rotation status across your fleet. IMCA-aligned competency frameworks, automated expiry alerts, and crew-change planning that generates travel tasks automatically — so nothing slips through.

- ✓ **IMCA C001, C003, C004 & C005** competency frameworks
- ✓ **Certification matrix** with fleet-wide expiry monitoring
- ✓ **BARS & ILUO assessment methods** with gap analysis
- ✓ **Per-role competency trees** with external assessor sign-off
- ✓ **Training recommendations** generated automatically from competency gaps
- ✓ **Diving records** — IMCA D014, hyperbaric & DMAC medical certificates
- ✓ **Crew calendar** — Gantt timeline, scrum board & planning panel
- ✓ **Crew-change planner** with auto-suggestion of replacements
- ✓ **Travel planning** with auto-generated tasks and batch booking
- ✓ **Self-service personnel portal** for crew

• MODULE 04 — PARTY CHIEF TOOLS

The vessel, under control

Vessel operations · crew logistics

Vessel-scoped operational management for the person running the deck. Everything a Party Chief needs to keep the vessel manned, bunked, mustered and moving — scoped to their vessel, with the crew data flowing straight from Crew Management.

- ✓ **POB tracking & manning-compliance dashboard** — minimum manning per role, live
- ✓ **Cabin allocation** with hot-bunk (TLQ) support
- ✓ **Station-based muster list management** with per-person assignments
- ✓ **Shift management** — day/night patterns and rotations
- ✓ **Crew transfer validation** with batch confirm, travel details and carnet/T1 references
- ✓ **Visitor log** — non-rotation personnel with check-in / check-out
- ✓ **Travel destination requests** raised straight from the vessel

● MODULE 05 — PROCUREMENT

No more operational blindness

Requisition to receipt

The moment a normal purchase order is emailed off, the vessel goes dark — you can't see whether it's been picked up, where it sits, or when it lands. H2Flow closes that gap. Crew add what they need to the vessel's weekly order sheet, and every line carries a live status the whole way: requested, sent to procurement, on order, shipped, received. Anything urgent breaks out of the weekly cycle instantly.

- ✓ **Weekly order sheet per vessel** with live per-line status
- ✓ **Stores catalogue** — consumables, serialised spares & assets
- ✓ **Critical-spares readiness** — per-vessel min/max holdings + automatic low-stock alerts when work draws a spare down, with a fleet-wide spares register
- ✓ **Automated stock & outstanding-order checks** at raise time
- ✓ **Value-threshold approval routing** — routine spend flows; only what matters is stopped
- ✓ **'Urgently Required' breakout** with instant alerts to the people who can act
- ✓ **Suggested suppliers & product links** on every line
- ✓ **Goods receipting** into stock, spares & the asset register
- ✓ **Runs native** — or writes back to your ERM (*write-back in development*)

• MODULE 06 — TECHNICAL SUPPORT

First-line support that's read every manual

AI first-line · grounded in the manual

When a sensor drops out on the back deck at 3am, the watchkeeper wants an answer, not a ticket queue. Every crew member can raise an issue against the exact piece of kit in one tap — and an AI first-line responds instantly. But it never answers from memory: every suggestion is retrieved from your own equipment manuals and every fault your fleet has already solved, and it cites the manual and page so your engineer can verify it. When there's nothing solid to stand on, it escalates rather than inventing an answer.

- ✓ **One-tap ticket against the exact asset** — open to every crew member, no training required
- ✓ **Grounded, never guessing** — every answer is retrieved from your equipment manuals and resolved tickets, and cites the manual & page. No invented part numbers or settings
- ✓ **Learns from every resolution** — each confirmed fix becomes searchable knowledge anchored to make & model
- ✓ **Always the current manual** — new manuals index automatically and superseded ones retire
- ✓ **Per-device reliability tracking** — a unit that keeps failing is flagged automatically, with MTBF and downtime
- ✓ **Automatic escalation** to the right specialism

Opt in to the shared knowledge pool

Your anonymised fixes (make, symptom & resolution only — stripped of vessel, project, personnel and serial) join an industry-wide pool, and you draw on everyone else's. A fault another operator has already solved on the same equipment is answered on yours in seconds — and a single avoided day of vessel downtime can outweigh the platform many times over.

• BEYOND THE MODULES

The foundation every module is built on

Every H2Flow subscription is built on a shared foundation of native tools that every user relies on — the connective tissue that keeps a vessel's information controlled, accurate and audit-ready, whichever modules you run.

Document Control

Upload a new revision of an equipment manual and the old one retires automatically — crew and the AI always work from the current issue. Every change is captured in a tamper-evident audit trail, attributable to the real person even behind a shared login.

Document Register

An auto-updating Master Document Register per vessel: each asset's calibration certificates, FAT certificates, manuals and compliance records, with expiry tracking and a renewal-chase workflow. When kit moves, its documents move with it.

Vessel Network Mapping

Living isometric diagrams of every vessel's switches, servers, survey sensors and satellite links — each node linkable to a real asset. No Visio, no stale rack PDFs.

Configuration Trees

Map any survey spread, ROV system or towed array pin-by-pin on a photo, nest sub-assemblies to any depth, and clone the build across the fleet.

Mobilisation Profiles

Define what "ready" means for each job type — the exact kit, certs and configuration — then check any vessel's readiness against the profile before it sails.

Sub-location Mapping

Know exactly where equipment lives — down to the shelf, rack bay or deck zone. Scan a location barcode to put kit away or find it in seconds.

Cable Pin-out Diagrams

Document every connector and pin-out as a clear visual reference, so terminations are right first time on deck.

Label & Barcode Generation

Print barcode & QR labels in any size for any asset, container or shelf location — the backbone of scan-to-track across the platform.

● PLATFORM

Enterprise-grade, offshore-ready

Built from the ground up for the realities of offshore operations — satellite connectivity, multi-vessel fleets, and mandatory regulatory compliance.

NO MENUS, JUST ANSWERS**Ask the Bosun**

Ask H2Flow anything in plain language — find assets with expiring certs, pull overdue maintenance across the fleet, or check crew availability. Just ask.

LAND ON WHAT MATTERS**Focus Page**

A role-aware command centre. Every user lands on exactly what demands their attention today — scoped to their role and vessel.

FROM FLEET TO DECK**Fleet Hub & Vessel Cockpit**

A bird's-eye view of your fleet with live status dashboards; drill into any vessel for the full picture.

FIND YOUR WAY**The Lighthouse**

Centralised documentation and reference — network maps, cable diagrams, procedures and training, searchable and kept current per vessel.

SCAN, DON'T TYPE**Barcode & QR System**

Browser-based camera scanning across the platform — no specialist hardware required.

PROOF, NOT PROMISES**Tamper-evident audit log**

An append-only audit trail for every change, transfer and access — verifiable for client inspections and regulatory review.

ONE CLICK, CLIENT-READY**Operational Reports**

One-click branded PDF & Excel — asset register, maintenance history, cert expiry, fault register, PM compliance and vessel readiness — generated server-side to stay light on satellite bandwidth.

MAKE IT YOURS**White-label theming**

Full tenant branding via the Theme Designer — colours, fonts, logos and light/dark modes.

- SECURITY & ACCESS

Your identity, your control

Offshore has a thorny identity problem: rotating freelance crew, shared vessel-role mailboxes, and clients running their own directories. H2Flow handles both ends — people sign in with the accounts they already have, and you still know exactly who did what, even behind a shared login.

- ✓ Sign in with **Microsoft 365 / Entra ID or Google** out of the box, with other SAML 2.0 / OIDC providers configured on request — your IT keeps central control of access and offboarding
- ✓ **Per-person PINs on shared vessel-role logins** — the mailbox stays read-only until the individual unlocks it with a PIN sent to their own personal email
- ✓ Every change **attributed to the real person** in a tamper-evident, append-only audit trail
- ✓ **Strict per-company data isolation** via PostgreSQL Row-Level Security, hardened across multiple penetration-test rounds

- INTEGRATION

Works with your ERM. Or without it.

H2Flow is the operational system of record for vessel work — the equipment, the maintenance, the crew, the day-to-day. It sits alongside the ERP/ERM you already run rather than ripping it out: your ERM owns finance and master data; H2Flow owns the operational lifecycle, and the two stay in sync. Bidirectional integration with IFS, SAP and Maximo through an adapter pattern — IFS Cloud integration is in active development. No ERM? It runs perfectly standalone.

• WHO IT'S BUILT FOR

Offshore marine contracting, end to end

Any offshore marine contracting company operating vessels, managing rotating crews, and maintaining survey or subsea equipment.

Geophysical survey

ROV operations

Diving support

Cable lay

Offshore construction

Offshore maintenance

Marine contracting

Subsea inspection

Hydrographic survey

Seismic acquisition

• ON THE ROADMAP

Built from the ground up, by someone who's worked the job

ERM write-back — IFS Cloud

NEAR-TERM

Email & SMS notifications

NEAR-TERM

Bulk MDR export

NEAR-TERM

Power BI integration

MEDIUM-TERM

Lessons Learnt database

MEDIUM-TERM

Custom report builder

MEDIUM-TERM

Equipment status lifecycle

MEDIUM-TERM

Automation engine — H2Flow 2.0

FUTURE

Companion scanner app

FUTURE

DXF deck-plan viewer

FUTURE

• REGISTER INTEREST

Be part of building it

H2Flow is in active development. If you work in offshore survey or marine contracting and recognise the problems this platform solves, we want to hear from you. Early-access partners help shape what gets built, and in what order.

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