Introduction – What Does the Operator Really Need from an IMR Campaign?

Article Thesis

Operators aren't buying vessel days, or even ROV hours. They are buying assurance, regulatory compliance, and protection from unplanned downtime. IMR contractors who earn frame agreements know this, and structure their campaigns around operator needs – not contractor efficiencies.

Introduction

Opening angle

IMR campaigns usually begin like this:

"We've got DP3 vessels and Work Class ROVs. Our team has 20 years of experience. Let us show how we can help your assets run efficiently."

This approach is great if the goal is to attract a tender. But if the objective is to successfully complete an IMR campaign – it misses the mark completely. Operators care about different things.

Story angle

IMR work is not visible to many. Offshore facilities run hundreds to thousands of feet below the surface of the ocean. The campaigns operate at depths humans cannot easily observe or control. But to the operators who commission them, IMR is one of the most critical control points of the entire subsea system.

If an IMR campaign fails, the repercussions reverberate through the operator's entire organization – from regulatory fines and missed production targets, to investor skepticism, and the very future of the asset itself.

This article cuts through marketing fluff to identify and explain the challenges facing modern operators and the IMR campaigns they rely on.

Section 1 – Setting the Stage

Introduction for readers who may be adjacent to the industry but not necessarily deeply immersed in it

IMR Overview

What is IMR?

Inspection, Maintenance & Repair (IMR) is a planned intervention on subsea facilities, which includes the wellheads, the manifold, flowlines, and any other structures connecting subsea assets to the surface platform or seabed support platform.

Definitions

An IMR vessel is a specialized offshore vessel used for conducting subsea inspections, maintenance and repair work on subsea infrastructure. Such a vessel will always carry specialized equipment (tools, cranes, ROVs), as well as have advanced dynamic positioning for station-keeping.

Scope of Work

The work is complex and diverse: The core function is the monitoring of subsea facility integrity, detection of defects, and making any needed repairs or maintenance work before they turn into catastrophic failures.

Some of the most common types of activities are: visual inspections, non-destructive testing, such as ultrasonic inspections and corrosion testing; structural repairs, including welding or replacement of damaged parts; valve replacements; connector maintenance; and intervention services in emergencies.

Significance of Current Trends

In today's offshore oil and gas industry, fields which were originally designed to produce for 20-30 years might be used for 40-60 years or longer. Thus, the regulators (such as the Bureau of Safety and Environmental Enforcement in the USA, Petroleum Safety Authority in Norway, Health and Safety Executive in the UK) are gradually moving away from traditional time-based inspection schedules and implementing integrity management plans.

As a result, asset owners are increasingly required to prove integrity and reliability of the equipment to the satisfaction of the regulators – and IMR campaigns help them prove the integrity of their assets.

IMR Market Dynamics

The modern IMR market dynamics is characterized by consolidation of contractors around IMR services and development of campaign ecosystems. Large operators (Equinor, Shell, BP, Chevron, and others) structure IMR work through multi-year frame agreements, and subcontract specialized equipment and services on an ad-hoc basis from there.

Thus, the modern IMR market consists of two tiers: large-scale primary contractors who have frame agreements with the operators, and secondary (sub) contractors who specialize in equipment or specific subtasks.

The multi-tiered structure of IMR contractor market has benefits as well as drawbacks – and understanding the dynamics is important for understanding how IMR campaigns are really done.

Section 2 – The Operator's Perspective

Main Reframe: IMR Campaigns are not about vessel days

The reason for this reframe: Operators care about very different things when selecting IMR campaigns

Why Operators Care Differently Than Contractors Think

Why it matters?

Production. Downtime is a real threat in IMR campaigns. Operators want to prevent potential failures to ensure continuity of production. For instance, some of the smallest leaks might cause problems with production flow or safety performance. A small problem today can shut down the entire field tomorrow. A defective Subsea Control Module will force them to shut down the well until it is replaced.

Regulatory compliance. As the regulations shift to integrity management plans, asset owners are becoming much more dependent on their subsea engineers for timely provision of IMR campaigns. Operators must complete IMR campaigns by the specified deadlines set by the regulators – otherwise they will face penalties.

The field-specific context. While all subsea assets must be reliable, maintainable, cost-efficient, and retain their integrity throughout their lifetime – that can only be ensured if the person who designs, installs, and maintains them understands the asset well enough. And vice versa.

Real-world Example of a Failure – IMR Campaign Gone Wrong

The example will illustrate the importance of the above factors in practice

The Setup

An IMR campaign to replace an existing Subsea Control Module (SCM) with a new one.

An IMR vessel (provided by the primary contractor) is sent offshore along with a ROV and the deck crew to facilitate the change out. The OEM of the Subsea Control Module was engaged as a specialized subcontractor for the job.

Failure

Step 1: The ROV Team uses a Standard Class IV torque tool according to instructions provided by OEM and attempts to remove Subsea Control Module into a running tool. No success. They continue applying torque incrementally, but reaches the maximum of 1900 ft/lbs, and the SCM remains locked in place.

Result: First day is wasted.

Step 2: Another day passes, as the team continues attempts and even uses a lipstick camera to determine what holds the Subsea Control Module in place.

Step 3: Decision to unlock the SCM using an override tool, but that too fails.

Step 4: Day 4 passes – OEM's onshore technical project manager reviews the installation documentation for that specific SCM, discovers that it was installed to 2100 ft/lbs, whereas the maximum torque according to the OEM manual is 1900 ft/lbs.

Conclusion: To remove the module, a specialized Class IV Max torque tool was needed – which was not in the standard tooling load out and thus not aboard the IMR vessel. Additional days pass while it is being mobilized to the site.

Campaign outcome

Duration of the campaign: 5 days.

Planned duration of the job: ~6 hours.

Duration of troubleshooting: 4 days.

IMR vessel was standing by the asset during this period: ~4 days of wasted vessel time at around $60K/day each.

The reasons why this happened

Accountability structure. In this failure, each involved party is doing exactly what was in their contract – yet the campaign has failed to proceed smoothly:

1. Primary subsea services contractor (IMR vessel + ROV): Their role was to safely execute the IMR work. They did their job well. They do not have technical authority over the equipment.

2. OEM of the SCM (technical services): Their role was to ensure that the Subsea Control Module will be removed according to the manufacturer's recommendations. They provided their documentation and followed its recommendations carefully – but did not check what the actual torque was at the installation stage.

3. Operator project representative: present on site; knows that there is a problem; waits for the contractors to solve the issue.

Key insights from this real-world example

1. Documentation is an implicit contractual promise that a certain action will lead to certain results. When a technician executes the recommended action from a manual but is unsuccessful, the contractor's job is not done – regardless of their adherence to the documentation. The operator expects that if the manual recommends 1900 ft/lbs torque, it will work.

2. Field-specific context takes precedence over generic documentation. Operators require IMR contractors who are familiar with their asset histories in addition to technical specifications. This requires preliminary asset evaluation.

3. Specialized subcontractors silo information. When the main contractor delegates all responsibilities and decision-making power to a subcontractor, and the latter acts exclusively based on the documentation, no one checks whether the actual situation matches.

4. Escalation protocols are needed. By day one, when the standard procedure fails, the onshore technical project manager should have checked installation records of the subsea facility in parallel with offshore troubleshooting operations.

5. Specialized equipment adds hidden complexity. When the contractor does not anticipate the need to mobilize a certain piece of specialized equipment and the IMR campaign has to wait for mobilization of that equipment, it leads to additional costs.

SECTION 3 — The Five Things Operators Actually Need (But Rarely Say Out Loud)

1. Scope Certainty Before the Vessel Mobilizes

IMR work requires detailed engineering and planning, not only to ensure the correct method and tool is mobilized for the right subsea task, but also to ensure efficient logistics and quality of subcontractor services.

What this means to operators: The work package is a legal and technical document. It's not just a to-do list for the offshore team — it's the basis for:

- Budget approval from management (CFO/VP level)
- Regulatory notification and closure of safety cases
- Scheduling coordination with production planning
- Approval from the operator's subsea/integrity engineering team

What operators hate: Vague scopes ("Perform IMR inspection on manifold region"), scope growth mid-campaign ("We discovered X during the dive, can we add Y?"), or scope that doesn't account for the asset's actual condition ("The flowline had more corrosion than design assumed, so the tool won't work").

What wins: Detailed work packages. Specific task descriptions. Clear assumptions about asset condition. Risk callouts ("If we find X, here's Plan B"). Operators need to *defend* the scope to their organization and regulators.

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2. Vessel Efficiency = Production Protection, Not Just Cost Saving

Unplanned downtime — the silent killer of vessel-day rate economics — falls dramatically when drivetrains have fewer failure modes and provide continuous diagnostic telemetry. Completing an inspection routine and 3D scanning of subsea infrastructure have historically been performed in two separate ROV operations — but simultaneous dual-scope capability cuts vessel days and costs for the operator.

What this means to operators: If an IMR campaign is scheduled to take 10 vessel days, the operator has booked 10 days of downtime risk. Every day the vessel sits in the field — whether productive or troubleshooting — is a day the field is not producing at full capacity. The math is simple: 10 vessel days × ~$60K/day = $600K in direct costs, plus lost revenue if the field is constrained by the work.

What operators hate: Contingency days that disappear (vessel days are consumed, but no actual work product). Equipment failures causing NPT (Non-Productive Time). Contractor crew

turnover/fatigue affecting safety and efficiency. Scope that could have been bundled being split across multiple mobilizations.

What wins: Contractors who deliver predictable efficiency. Who have redundant ROV systems so one failure doesn't kill the campaign. Who bundle related work to reduce total vessel days. Who track NPT against KPIs and are accountable for it. Who remotely support operations (reduce on-vessel personnel, increase focus).

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3. Data They Can Actually Use

Data-driven solutions provide for continuous optimization of actual operating conditions, bringing operators the ability to see their production and understand the potential of their subsea infrastructure in real time — including condition-based IMR services for production optimization, asset life extension insight, and flow assurance.

What this means to operators: An inspection report isn't just a technical document for the file. It's operational intelligence. Is this pipeline corroding faster than expected? Is this valve actuator sluggish? Is this sensor reading consistently off? Operators use this data to:

- Adjust production rates (e.g., slow flow to reduce erosion)
- Plan the next intervention (e.g., "Schedule valve replacement for next campaign")
- Update their Integrity Management Plans (e.g., "Reduce inspection interval from 3 years to 2 years")
- Justify asset life extension to regulators (e.g., "Data supports continued operation until 2035")

What operators hate: Reports written for the contractor's QA file, not the operator's asset engineer. Data in non-standard formats (PDF scans, proprietary software). Lack of historical trending (no comparison to prior inspections). Analysis that doesn't connect to the field's production characteristics (e.g., "Corrosion rate is X" without context to production rates or chemical dosing).

What wins: Standardized data formats. Clear metadata (location, date, method, uncertainty). Trend analysis across years. Commentary that connects inspection findings to production implications. Digital deliverables (not just PDF), accessible through the operator's own systems.

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4. Flexibility Without Chaos

Combining IMR and light construction scopes allows the offshore and onshore workforce to offer flexible and efficient execution planned together with the operator.

What this means to operators: IMR campaigns rarely go exactly as planned. Weather delays the start. An inspection finds unexpected damage. A valve is harder to remove than expected. The operator needs to be able to *absorb these changes into the campaign* without triggering a commercial negotiation every time.

What operators hate: Rigid scope boundaries ("That's not in the purchase order, so we can't do it"). Contractor change order processes that take days to approve. Inability to flex work sequencing when offshore conditions dictate a different priority. Subcontractors who refuse work unless it's explicitly spelled out in their contract.

What wins: Frame agreements structured with contingency scope and budget. Contractors who have a "problems solved together" mentality, not a "that's your scope, this is ours" mentality. Flexibility built into the daily plan (so the team can pivot if needed). Trust that both parties are aligned on getting the work done, not on parsing the contract.

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5. A Contractor Who Understands the Regulatory Clock

A subsea integrity management plan may assist in increasing the original design life through a life extension assessment — greatly benefiting operators where a costly replacement would have originally been required. But the timeline to prove it is not flexible.

Regulators (BSEE, HSE, PSA Norway) have hard deadlines. Whether it's a well plug-and-abandonment mandate, an asset recertification window, or a safety case renewal, these dates don't move. The operator needs the IMR data *when* the regulator needs it — not six weeks later.

What this means to operators: Campaign timing is not just a scheduling issue. It's a regulatory constraint. If the PSA asks "Prove this asset is safe for another 10 years" and the answer is "We need an IMR inspection," then the IMR campaign is part of the critical path to regulatory closure.

What operators hate: Contractors who treat IMR timing as "whenever the weather is good" or "when we have vessel availability." Contractors who deliver data late or in a format that requires operator re-work before submitting to the regulator. Contractors who don't understand what *specific data* the regulator needs (e.g., not just "inspection complete," but "material thickness measured at X locations with Y precision").

What wins: Contractors who pre-align on regulatory deliverables. Who understand the operator's safety case and what evidence it requires. Who schedule campaigns to hit regulatory windows. Who deliver data in formats the operator can hand directly to their regulator.

SECTION 4 — The Gap Nobody Talks About: What Contractors Sell vs. What Operators Need

What Contractors Lead With	What Operators Actually Need
Vessel specs (DP3, 250T crane)	Proven execution on *this operator's specific* equipment
Day rate competitiveness	Total campaign cost certainty + contingency flexibility
Technology portfolio (AUVs, e-ROVs)	Reliable data formats + integration with operator's systems
Global availability windows	Alignment with *operator's production schedule* + regulatory deadlines
HSEQ track record	Zero NPT guarantees OR transparent accountability for delays
Years of experience	Depth of knowledge in *this field, this asset, this operator*
ROV payload capacity	Ability to adapt if conditions change mid-campaign

Why the Gap Exists

Contractors are incentivized to fill vessel days and maximize utilization. Operators are incentivized to minimize downtime risk and hit regulatory deadlines. These are not the same thing.

A contractor can sell a campaign as "10 vessel days, $600K" and deliver exactly that — but if 3 of those days were spent troubleshooting because scope wasn't precise, the operator didn't get value. From the contractor's perspective, they fulfilled their contract. From the operator's perspective, they wasted $180K and delayed a regulatory submission by a month.

Section 5 – The Rise of the Integrated Campaign: Future of IMR Services

The shift to long-term relationships between the operator and a single contractor

The rationale for framework agreements lies in reducing transaction costs and optimizing and further developing the workflow to increase safety and productivity.

Instead of open competition between contractors for every campaign (operators submit request for quote (RFQ); multiple contractors respond with offers; cheapest wins), major operators now sign framework agreements for 3-8 years. Individual campaigns are call-off campaigns inside this relationship.

Why it matters

Framework agreements require much deeper knowledge of the operator's assets, their production, maintenance, regulatory requirements, internal process flows, data standards and IMR strategies. Framework agreements are advantageous for contractors whose expertise covers all of this.

Technological innovation increases campaign efficiency

Example: Oceaneering's remote operations eliminated 10,000 support vessel hours — roughly 400 vessel days — eliminating 19,000 tons of CO2 emissions by eliminating the need for the support vessel to stay on station while the ROV works. This is not a environmental talking point. It's an economics shift. When you can operate a WROv from an unmanned surface vessel or remotely from shore, you collapse vessel costs and NPT.

Next innovations will include:

- electric ROVs, which eliminate need for hydraulic systems;
- autonomous inspection vehicles capable of completing multiple surveys simultaneously;
- digital twins;
- integrated data platform (where the operator will collect, organize and analyze his IMR-related data in real time).

Operators who integrate these technologies into their framework agreements will benefit greatly. Those contractors who will remain wedded to conventional hydraulic ROVs and outdated data documentation processes will fall behind.

Shifting from Time-Based to Risk-Based Inspection

Recent innovations in IMR management include predictive Risk Based Inspection (RBI), which is more effective than traditional Time-Based Inspection (TBI).

Instead of saying "inspect flowline X once every 3 years because this is the standard" and wasting effort inspecting lines, operators will inspect flowlines X in proportion to their corrosion, production rate, etc.

This puts increased responsibility on IMR contractors who need to not just conduct the inspection but predict what needs to be inspected in the future – and persuade the regulators that less frequent inspections are still sufficient.

Opportunities Provided by the Life Extension Trend

Equinor has managed to secure over 130 years of “extended field life” through various methods of recertification and life extension in just three years. This is one of the biggest market drivers.

Fields are designed to produce for 20-30 years. Now they produce for 40, 50, or 60 years. In order to extend the field's life, the operator must prove that its assets are safe to use. The only way to do that is IMR campaigns.

Those IMR contractors who understand the whole process of asset certification and life extension – and create a campaign specifically to facilitate certification and life extension – are the ones who win multiyear frame agreements.

Section 6 – What a Good IMR Campaign Brief Should Look Like

Operator checklist. What every IMR campaign brief needs

Campaign brief for the IMR vendor, submitted by the operator:

1. Task packages with deliverables
    - Not: "Inspect the subsea manifold"
    - Yes: "Inspect connections on subsea manifold. Measure corrosion in places A, B, C using ultrasonic inspection tool. Deliver 3D model in X days after mobilization. Submit report by Y day."
2. Defined data deliverables (format, time of delivery, owner of data)
    - Not: "Submit inspection report"
    - Yes: "Submit raw footage, processed data and 3D point cloud data. Submit by N+7 days. Data owned by operator; can redistribute among regulators/insurance companies, etc."
3. NPT accounting, accountability and escalation protocols
    - Not: "Ensure safe offshore operations"
    - Yes: "Vessel will be on station for 10 days. Contingency reserve of 2 days. Any NPT after two days is recorded, analyzed and categorized. If contractor causes 1 day or more of NPT, operator gets a rebate on the cost."
4. Contingency scope provisions

- Not: "Scope is in the attached work package"
- Yes: "Campaign consists of 10 planned tasks + 2 contingency tasks (pre-approved by the operator). If a new scope emerges during IMR campaign, it will be absorbed within the contingency pool."

5. Commitment of named personnel (not just credentials)

- Not: "Experienced ROV supervisor"
- Yes: "ROV Supervisor: [name], with relevant certification; worked on this facility for X years. In case of inability to send [name] on the project, operator will notify us 48 hours in advance and replace him with an equivalent RO