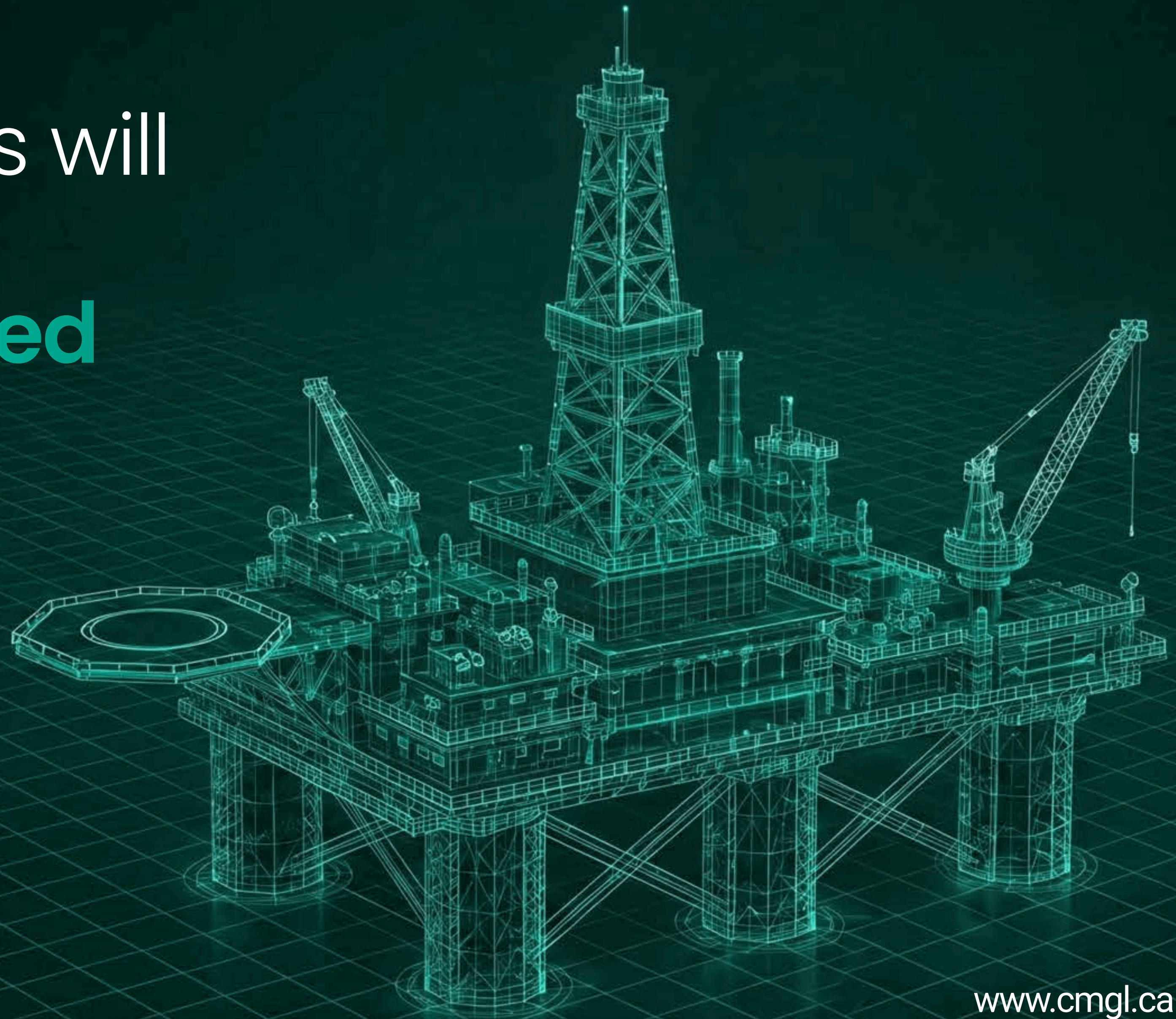


Africa's Next Offshore Barrels will come from **Better Integrated Decisions**

STRATEGIC BRIEFING FOR
AFRICAN OFFSHORE LEADERS



A large offshore oil rig is illuminated at night, standing on a dark sea. The rig's structure is complex, with many levels and a tall derrick. Lights are visible on various parts of the rig, creating a warm glow against the dark background. In the distance, a range of mountains is visible under a dark sky.

Africa's offshore sector is entering a new cycle of strategic importance. New deepwater discoveries, gas monetization projects, and infrastructure-led developments are attracting renewed global attention across Namibia, Angola, Nigeria, and North Africa.

But for many operators, the greatest value opportunity may not come from the next discovery. It may come from making better decisions across the assets already producing today.

The question is no longer simply:

Where are the barrels?

It is becoming:

Can the full production system support the plan economically over time?

| That distinction matters.

AFRICA'S OFFSHORE STORY IS BECOMING A BROWNFIELD EXECUTION STORY

For years, African offshore growth was defined by frontier discoveries, major FPSOs, and new basin excitement. That story has not disappeared, but it is no longer the whole story.

NIGERIA

Shell's sale of its onshore operations at \$2.4 billion highlights shifting value toward offshore assets.

ANGOLA

Kaminho's 70,000 b/d plateau reflects infrastructure-led offshore growth.

- Extending field life.
- Maximizing recovery from existing infrastructure.
- Managing water and gas constraints.
- Sequencing tiebacks.
- Improving facility utilization.
- Reducing production downtime.
- Making faster capital decisions under uncertainty.



DISCONNECTED DECISIONS, UNDER PERFORMING ASSETS.

Mature offshore assets rarely underperform because of a lack of technical capability. They underperform when reservoir, well, facilities, injection, and commercial decisions are evaluated in isolation.



Production targets that facilities cannot sustain



Development scenarios that fail once network behavior is modelled



Injection plans disconnected from surface constraints

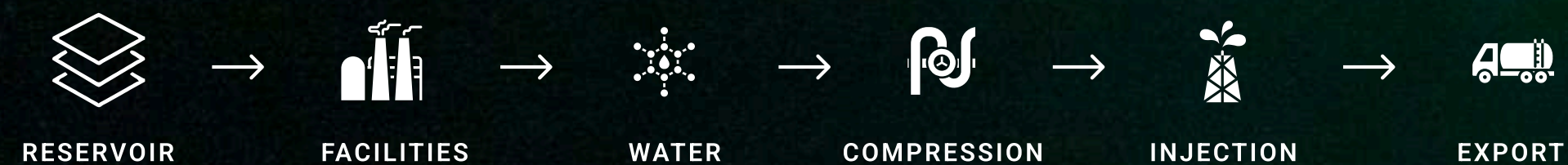


Delayed decisions from fragmented workflows

In a capital-constrained environment, these inefficiencies compound quickly.

THE BOTTLENECK IS MOVING

In early field life, the limiting factor may be reservoir deliverability or oil processing capacity. Later, The constraint moves.



The most expensive mistake is often not a bad technical calculation. It is solving the wrong bottleneck.

That is why static optimization struggles in mature offshore environments. The asset is not static. Every production decision changes the next constraint.

In African offshore systems, this matters because many assets are entering the stage where operational complexity compounds. Tiebacks become harder to evaluate. FPSO capacity becomes more valuable. Water handling becomes a hidden economic limiter. Injection strategy becomes a recovery and facility decision at the same time.

WHY IPSM BELONGS IN THE BOARDROOM

Integrated Production System Modelling (IPSM) is often discussed as a technical workflow.

For senior leaders, IPSM is a capital allocation discipline.

Traditional workflows often optimize fragments. Reservoir teams forecast recovery. Production teams tune operating strategy. Facilities teams evaluate capacity. Finance teams test economics.

But the asset behaves as one system.

What leaders need to know:

- 💡 Are we sizing facilities against the right forecast?
- 💡 Are we optimizing the true system constraint?
- 💡 How does water breakthrough change economics?
- 💡 When should we debottleneck?
- 💡 Which intervention creates the most value?
- 💡 How sensitive is the plan to facility assumptions?
- 💡 Are teams making decisions from one version of the truth?

THE EXECUTIVE VALUE OF INTEGRATED DECISION-MAKING

That is where IPSM changes the decision environment. It connects reservoir behavior, wells, networks, facilities, constraints, and uncertainty into a single decision loop.

The most expensive offshore decisions are often not wrong. They are disconnected.

The executive value is not “better modelling.”
The executive value is:

- ✔ Fewer surprises
- ✔ Better capital timing
- ✔ More credible forecasts
- ✔ Improved confidence before major commitments
- ✔ Faster scenario evaluation
- ✔ Optimization
- ✔ Earlier bottleneck identification



WHAT INTEGRATED DECISIONS CAN UNLOCK

A more integrated workflow allows teams to connect subsurface, wells, facilities, fluid behavior, constraints, uncertainty, and optimization without relying on fragmented handoffs or heavy scripting.

The commercial implication is clearer than the technical one:
Better decisions, made earlier, with less friction.



PETRONAS DEEPWATER

5%
More Oil
Produced

In the Petronas deepwater case, legacy workflows were slow and difficult to maintain, taking more than 24 hours for a three-year forecast. With an integrated CoFlow and CMOST workflow, the case showed 40x faster runtime, 16+ year forecast capability, and 5% more cumulative oil over 10 years.

[Click here to know more >>>](#)



BRAVA ULTRA-DEEPWATER

\$2B
Addition in
Value

In the Brava ultra-deepwater case, integrated optimization identified the most impactful parameters and showed a 21% increase in oil production, equivalent to 2.81×10^7 additional barrels and approximately \$2 billion in added value.

[Click here to know more >>>](#)



ZAMA FIELD DEVELOPMENT

15%
Less water
produced

In the Zama case, integrated modelling revealed materially different field behavior versus traditional forecasts, including 15% less water produced, supporting better facility sizing and lower risk of overinvestment.

[Click here to know more >>>](#)

THE NEXT OFFSHORE ADVANTAGE IN AFRICA WILL BE DECISION QUALITY

African offshore operators are entering a period where value will be won or lost at the interfaces:

-  Reservoir to well.
-  Well to network.
-  Injection to recovery.
-  Network to FPSO.
-  Water handling to economics.
-  Forecast uncertainty to capital allocation.

This is especially important as regional operators scale across borders, acquire mature assets, and inherit legacy workflows along with reserves.

Asset transitions do not only transfer production. They transfer assumptions, bottlenecks, disconnected models, and decision habits.

The strategic question for leadership is...

ARE WE ACQUIRING RESERVES OR COMPLEXITY?

For CEOs, CFOs, and Asset VPs, Integrated Production System Modelling (IPSM) is not another technical tool. It is a way to improve the quality, speed, and confidence of decisions that affect recovery, uptime, facility investment, and capital efficiency.

The future offshore winner in Africa may not be the operator spending the most. It may be the operator that sees the whole system first.

Five Questions for Your Executive Team:

As you finish reading this, please ask your team:

- 1 Where is our true bottleneck today, and where will it move next?

- 2 Are we optimizing production, or optimizing the asset?

- 3 How much value is trapped between subsurface and facility assumptions?

- 4 Are our forecasts facility-aware enough to support capital decisions?

- 5 Are we making decisions from one integrated view of the asset?



Explore CMG's Integrated Production
System Modelling Solution at
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