

— DECISION BRIEFING —

The Next Wave of Sustainable Innovation:

Where the Blue Economy, AI, and Innovation Converge

Most companies will never need an ocean strategy. Many already own a problem the ocean may solve better than anything on land. This brief shows how to tell an ocean-enabled solution from an ocean-themed story before the capital is committed.

ABOUT THIS BRIEF

Developed with **Pete Dulcamara**, former Chief Scientist and VP of Corporate Research & Engineering at Kimberly-Clark, and author of *High-Tech Heroes*.

The decision on the table

Most executives will never own a "blue economy strategy." They will, however, face this decision within the next 24 months: **should we commit capital (a pilot, an offtake, a partnership, or an acquisition) to an ocean-derived feedstock, material, or process? If so, which one, on what terms, and what has to be true first?**

The choice is rarely framed that way. It arrives as a startup pitch for seaweed coatings, a procurement question about cellulose supply, a request from the sustainability team, or a board member's article about ocean plastics. Each looks like a separate conversation. It is one decision, and it is usually made on narrative rather than signal.

This brief reframes that decision around one question: **what important human and industrial problems can the ocean solve better than land-based technologies can?**

The blue economy is usually presented as a catalog of technologies: seaweed packaging, marine biomaterials, ocean minerals, autonomous vessels. That framing generates interest but rarely investment. Startups have solutions, venture capital is behind them, corporations have unmet technical needs, and the pieces seldom connect. The question for leadership is not whether the ocean holds valuable capability. It is whether the ocean solves a problem the business already owns better than land-based alternatives can, and whether that advantage survives contact with supply, economics, regulation, and operations.

Key findings

1. The ocean is not the strategy.

Opportunities framed as sustainability themes land with the sustainability team, where the owners of the underlying problems never see them. Start with a feedstock at risk, a material under regulatory pressure, a waste stream that costs money, or a performance gap.

2. Better beats bluer.

An ocean option earns attention only if it beats the best land-based alternative on function, resource, cost position, or resilience. Some of the strongest opportunities are systems that connect existing technologies and resource streams, not single breakthroughs.

3. The chemistry is rarely the problem.

Most ocean-derived solutions clear technical feasibility. They stall on supply at corporate volume, contaminants and permits, marine operations, and delivered cost.

4. One barrier usually separates attractive from viable.

Naming that pivot point precisely turns a vague ambition into a specification that can be scouted and funded. Sometimes the barrier is commercial: a supplier without committed demand runs underused and prices itself out.

5. Headline value is not decision value.

In one brine analysis, theoretical mineral revenue falls by roughly 95% once market limits and processing costs are applied. AI and desk research surface the headline; expert validation finds the decision.

ATLANTIC SARGASSUM · 2026 38M Metric tons of Atlantic Sargassum biomass recorded in 2026, most of it unused (Source: Yale E360, 2026)	BRINE MINERAL REVENUE 95% Drop from theoretical to net mineral revenue in a modeled brine plant (Source: Smart Water Magazine, 2026)	SEAWEED PACKAGING 35M Seaweed-packaging items replaced cumulatively, against a 100M-a-year goal (Source: Packaging Europe; EU4Algae)	SEAWATER HYDROGEN 14.4% Efficiency gain from pairing seawater desalination with electrolysis (Source: Nature Energy, 2026)
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The ocean is not the strategy

The blue economy tells you where an underused source of capability sits. Humanity-centric innovation tells you which problems that capability is worth pointing at.

Neither is sufficient alone. Make human and environmental outcomes explicit measures of success. Pete Dulcamara's humanity-centric innovation framework, described in *High-Tech Heroes*, starts with the problem worth solving rather than the technology itself. It brings together important human needs, economically viable business models, and enabling technologies. The goal is not simply to invent something new, but to solve meaningful problems in ways that are economically viable and scalable. Applied to the blue economy, that shifts the question from "What can we make from the ocean?" to "What important human and industrial problems can the ocean solve better than land-based alternatives?"

An opportunity missing any one of the three forces is not yet an innovation. Switch each one off to see what remains.

HUMAN NEED

Humanity's needs

The problem worth solving, at a scale that matters, as framed by the 17 UN Sustainable Development Goals. Blue economy lens: food security, clean water, responsible materials, climate resilience, life below water.

BUSINESS MODEL

21st-century business models

The mechanism that turns a solution into durable value. Blue economy lens: waste-to-value, service models (collection as a service), platform chemistries, distributed processing.

ENABLING TECHNOLOGY

Exponential technologies

The enabler that makes the economics work. Blue economy lens: AI, machine vision, autonomous systems, synthetic biology, advanced separations.

RESULT

An innovation	All three forces are present.
Philanthropy	A real human need and a technology, but no business model to sustain it.
A spreadsheet	A need and a business model, but no technology that makes the economics work.
A research project	A technology and a business model, but no problem worth solving.
Not yet an innovation	At least two forces are missing.

The blue economy identifies an underused source of materials, biology, chemistry, energy, data, and supply-chain resilience. Humanity-centric innovation supplies the discipline for deciding which problems those capabilities should solve. Together they define **ocean-enabled innovation**.

EXPERT COMMENTARY

Humanity-centric innovation identifies the important problems worth solving. The blue economy offers new materials, biological capabilities, resources, and design principles. AI accelerates the discovery, development, and scaling of potential solutions.

Technology alone, however, does not determine which opportunities deserve investment. Human needs establish the priorities, and viable business models enable solutions to achieve meaningful scale.



Pete Dulcamara

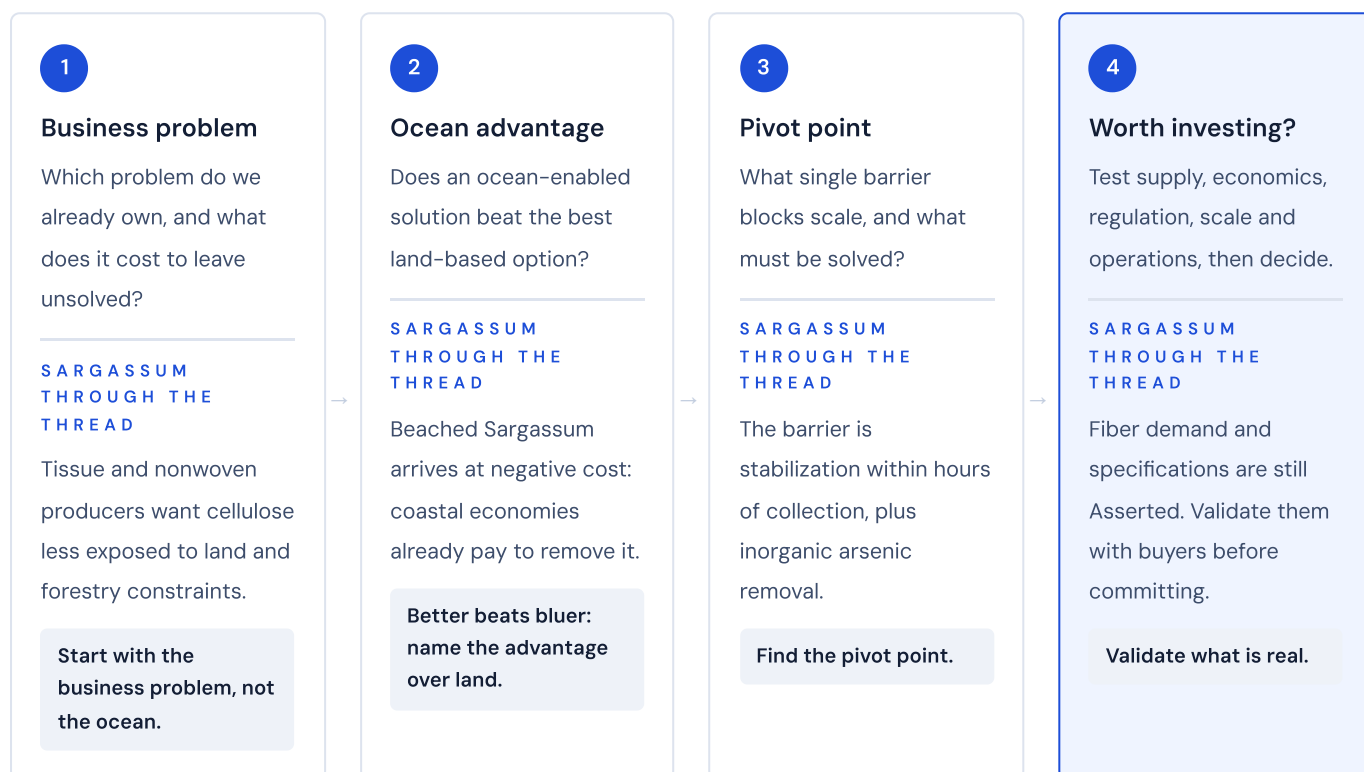
AUTHOR, HIGH-TECH HEROES

Four questions take an idea from ocean story to investment decision

Find the right business problem, determine whether ocean-enabled innovation offers a better solution, identify what is blocking scale, and decide whether it is worth investing in.

Three principles run through every step. **Start with the business problem, not the ocean.** **Find the pivot point:** the specific barrier keeping an attractive solution from becoming commercially viable. **Validate what is real:** use AI and landscape work to identify opportunities, then expert insight to test supply, economics, regulation, scalability, and operating reality.

THE DECISION THREAD, WITH SARGASSUM AS THE WORKED CASE



Step 1: Start with the business problem

Many clients will never see themselves as participants in the blue economy. They will, however, care deeply about the problems below.

The ocean may simply be where the better solution comes from. These problems sit with R&D, procurement, operations, and product leadership, not with the sustainability office. When the ocean is framed as a sustainability theme, the people who own the problems never see the opportunity. When it is framed as a candidate solution to their own problem, they become the natural buyers.

PROBLEM THE CLIENT ALREADY OWNS	WHERE THE OCEAN MAY OFFER A BETTER ANSWER
New and more resilient feedstocks	Biomass grown without arable land, freshwater, or fertilizer
Differentiated materials and ingredients	Marine biopolymers (alginate, carrageenan, chitin) with functions land plants lack
Waste-to-value opportunities	By-products someone already pays to remove: shells, beached seaweed, desalination brine
Lower-cost separations and processing	Seawater and brine as mineral sources; integrated systems that reuse waste heat and water
Supply-chain risk	Regionally distributed marine sources of biomass and minerals
Water and resource scarcity	Desalination, and recovering value from its brine
New biological functionality	Marine actives, and design principles from marine organisms
Sustainable products with competitive economics	Materials that meet performance and cost, with a sustainability benefit as a consequence

THE TWO-YEAR DISRUPTION TEST

A practical starting point, raised in Prescouter's July 2026 Blue Economy webinar: which ocean-derived input in your cost structure would be most disruptive if you lost access to it over the next two years? The same test works for opportunities. Ask which input, material, or waste stream would most improve margin, resilience, or performance if a better alternative existed. That is the problem to carry into Step 2.

EXPERT COMMENTARY

It seems like it's coming down to how risky that ingredient is to your business.

If you're a cosmetic company, "[you] can swap to... a land-based ingredient or... an ingredient from somewhere else. But if you're so regionally dependent, like Cargill, that's a big part of your business."



Garrett Wheaton, PhD
SENIOR PROJECT MANAGER, PRESCOUTER

Step 2: Better than land, or just bluer?

"Ocean-derived" is not a value proposition. Better is.

An ocean option earns further work only if it beats the best land-based alternative on at least one of four advantages. If it wins on none, it is a sustainability story, not an ocean advantage. Pick an opportunity to see which advantages it claims.

Functional advantage

Marine biology or chemistry delivers a property land sources cannot, such as a specific biopolymer structure or a bioactive with no terrestrial analogue.

Resource advantage

It avoids a constrained land input: arable land, freshwater, fertilizer, or a mineral with concentrated supply.

Cost-position advantage

The feedstock or energy is a liability someone already pays to remove. A negative-cost input changes the economics more than most process improvements.

Resilience advantage

It diversifies a supply chain exposed to drought, crop disease, or geographic concentration, in a way procurement can quantify.

Sargassum fiber	Sargassum fiber claims a cost-position advantage: coastal economies already pay to remove it.
Seaweed coatings	Seaweed coatings claim a functional advantage, with regulatory pull from PFAS and single-use plastic rules.
Marine biorefinery	A marine biorefinery claims functional and resource advantages: distinctive bioactives, grown without arable land or freshwater.
Chitosan	Chitosan from shell waste claims a cost-position advantage, but insect and fungal sources can erase it for some uses.
Brine minerals	Brine minerals claim resource and cost-position advantages: a vast mineral stream that plants already pay to discharge.
Seawater hydrogen	Seawater hydrogen claims resource and cost-position advantages: seawater replaces fresh water, and waste heat drives the desalination.

The test also broadens what ocean-enabled means. Algae-derived squalane has replaced shark liver oil in premium skin care, and the shark-skin-inspired Sharklet surface has been explored to resist biofilm in tracheal tubes. Neither requires harvesting the ocean at scale. In some cases the most valuable thing the ocean supplies is a design principle.

A PRECEDENT

Dow magnesium from seawater, 1941

On January 21, 1941, [Dow poured the first ingot of magnesium extracted from seawater](#) at Freeport, Texas. The business problem came first: lightweight metal for wartime aircraft, with Dow's existing supply limited to underground brines in Michigan. The ocean offered a resource advantage, an effectively unlimited source, and [the lime the process needed came from oyster shells](#), a marine by-product. Problem first, ocean second.

A CURRENT EXAMPLE

Hydrogen and fresh water from one system

In September 2026, researchers at the Dalian Institute of Chemical Physics reported in *Nature Energy* [a 250-kilowatt system that co-produces hydrogen and fresh water from seawater](#). The innovation is not direct seawater electrolysis, which still struggles with corrosion and side reactions. It couples a conventional alkaline electrolyzer with low-temperature distillation, so the electrolyzer's low-grade waste heat desalinates the seawater that feeds it. A 20-kilowatt pilot ran stably for 100 days, and the 250-kilowatt system improved overall electrical efficiency by 14.4% compared with electrolyzing fresh water alone. The authors' techno-economic analysis indicates higher profitability than desalinating first and electrolyzing second.

PROBLEM

Electrolysis consumes fresh water that hydrogen producers would rather not source separately.

OCEAN ADVANTAGE

Resource plus cost position: seawater replaces a constrained input, and waste heat becomes the energy for desalination.

PIVOT POINT

Scale and proof: moving from 250 kilowatts to the megawatt-scale systems industrial buyers need, and confirming the economics outside the authors' own model.

The technology is peer-reviewed at pilot scale; the economics remain to be independently tested. The broader lesson is that the strongest ocean opportunities are often systems, not single breakthroughs.

EXPERT COMMENTARY

Some of the most interesting Blue Economy opportunities may come not from a single breakthrough technology, but from connecting technologies and resource streams in new ways.



Pete Dulcamara

AUTHOR, HIGH-TECH HEROES

Step 3: The golden screw

Ocean ventures rarely fail on the science. They fail on one barrier nobody named precisely enough to solve.

Most attractive ocean solutions clear technical feasibility and customer interest, then stall at gates a pitch deck is least likely to cover: consistent supply at corporate volume, contaminant limits and permits, marine logistics and specialist labor, delivered cost against the incumbent, and whether the model survives a tenfold increase. Somewhere in that list sits the pivot point, what Prescouter Technical Director Ryan LaRanger calls the golden screw: the one capability that would change the economics.

Find it by naming the barrier in the investor's words, then asking why until it becomes a discrete technical problem. Try it on Sargassum.

BARRIER	"Sargassum is too expensive as a cellulose source."
WHY?	Transport cost per tonne is too high.
WHY?	The biomass is scattered and rots within days of landing.
WHY?	There is no low-cost way to stabilize it at the point of collection.
SPEC	Stabilize beached Sargassum within hours of collection and remove inorganic arsenic to consumer-product thresholds, at a known cost.

If beached Sargassum could be stabilized at collection and decontaminated to consumer-product specifications at a known cost, we would qualify it as a secondary cellulose source for one product line.

The pivot point is not always technical. A supplier without committed demand runs below capacity and has to charge more, which makes it less competitive, which keeps demand away. A corporate offtake can break that loop before any engineering breakthrough is needed.

EXPERT COMMENTARY

If we can five-why it, we might be able to narrow down to some really discrete, solvable problems.



Ryan LaRanger

TECHNICAL DIRECTOR, PRESCOUTER

FIELD EXAMPLE

Sargassum as an alternative cellulose source

Business problem	Tissue, nonwoven, and packaging producers want cellulose that is less exposed to land and forestry constraints.
Ocean advantage	Cost position. The Great Atlantic Sargassum Belt reached a record 38 million metric tons in 2026 , and Mexico spends more than \$300 million a year clearing it from beaches.
Pivot point	Consumer goods companies have evaluated Sargassum and stopped at logistics. Asking why produces a precise specification: low-cost stabilization within hours of collection, plus validated contaminant removal. Pelagic Sargassum accumulates arsenic; one study cut total arsenic from 62.2 to 0.8 mg/kg , enough for animal feed, but consumer products need tighter control of inorganic arsenic.
Already moving	Ventures such as SANDS, founded by Jon Wettack , are attacking the first half of that pivot point with containerized processing at the point of collection. Demand and specifications for the fiber remain the open question, which is exactly where a corporate partner's qualification capacity can change the outcome.
Investment statement	<i>If beached Sargassum could be stabilized at collection and decontaminated to consumer-product specifications at a known cost, we would qualify it as a secondary cellulose source for one product line.</i>

EXPERT COMMENTARY

The one issue was just supply chain. It's so scattered. How do you collect it all? And how do you keep it from rotting before it gets to wherever it's going? ... But if you can localize some of that, [it] might solve some of those problems.

**Pete Dulcamara**

FORMER CHIEF SCIENTIST, KIMBERLY-CLARK

Step 4: Validate what is real, then decide

AI can find ocean opportunities in an afternoon. It cannot tell you which ones are real.

The facts that decide these opportunities are mostly not public, and the facts that are public are often the most optimistic version of the story. AI is genuinely useful at the start. It scans patents and literature, maps a startup landscape in hours, and surfaces analogues from adjacent industries. It is weakest at exactly the judgments that separate signal from narrative.

WHAT A DESK OR AI REVIEW TENDS TO REPORT	WHAT CHANGES THE DECISION
A startup's stated volume target	Delivered volume, which often trails the target by a wide margin
The theoretical value of a resource	Sellable value after market limits and processing costs
An abundant, free feedstock	Harvest restrictions, contaminants, and seasonal variability
A large company "explored" a material	Why the program stopped, which lives with the people who ran it

Two examples from our research show how wide the gap can be.

TARGETS VS. DELIVERY

Seaweed packaging: stated goal versus reported delivery

Items replacing single-use plastic. The goal is annual; the reported figure is cumulative.

In 2024, Notpla set a goal of replacing over 100 million single-use plastic items a year within two years. By March 2026 it reported more than 35 million items replaced cumulatively. That is real traction, and a normal gap between a funding narrative and a commercial ramp. A buyer should price it in.

2024 goal, items per year (within two years)		100M
Reported by March 2026, cumulative		35M

Sources: Packaging Europe (September 2024); European Commission EU4Algae (March 2026).

THEORETICAL VS. SELLABLE

Desalination brine: theoretical versus sellable mineral value

Modeled 100,000 m³/day plant, annual revenue, before extraction capital.

One analysis of desalination brine mining models a 100,000 m³/day plant at about \$376 million in theoretical mineral revenue, roughly \$73 million once limited to what markets can absorb, and about \$18 million net of processing costs, before extraction capital.

Theoretical gross mineral revenue		\$376M
Limited to what markets can absorb		\$73M
Net of processing costs		\$18M

Source: Smart Water Magazine, "Brine's second act" (May 2026).

EXPERT COMMENTARY

The flashiest solution might not be the one that makes the biggest environmental or financial impact.



Gareth Armanious, PhD
TECHNICAL DIRECTOR, FOOD & BEVERAGE, PRESCOUTER

The discipline that closes the gap is simple to state. For each gate from Step 3, rate the evidence as Verified, Supported, Asserted, or Unknown. An Unknown on supply, regulation, operations, or economics should block capital, not delay it. Every Asserted claim deserves a conversation with someone who has operated in that space.

Verified	Supported	Asserted	Unknown
Independently confirmed with data or expert validation.	Consistent evidence exists, but not tested for this case.	Claimed by the company or its investors, not yet tested.	No evidence either way. Blocks capital on critical gates.

EXPERT COMMENTARY

How do you pre-validate? How do you get people to come to the table and say, all right, here's your array of prospective opportunities, and I have faith that they are real and not just very well-engineered slide decks?



Ryan LaRanger
TECHNICAL DIRECTOR, PRESCOUTER

Choose how to commit

If an opportunity survives validation, the remaining choice is the commitment model. Procurement and partnership are not opposites; the question is which instrument fits the goal, and when to enter.

IF THE GOAL IS	THE USUAL INSTRUMENT
Secure supply of a proven input	Offtake or long-term supply agreement
Shape a material or process to your specification	Joint development agreement with a defined exclusivity window
Influence design and lock in the relationship after validation	Strategic equity
Keep options open on an early technology	Corporate venture investment, a technology transfer partnership, or monitoring

Timing matters as much as the instrument. Ocean ventures are financed as a stack: philanthropic and public capital absorbs early science and regulatory risk, blended finance sits in the middle, and corporate capital enters at the top. Large companies do not need to fund the science. They need to arrive at the inflection point where a supplier has retired technical risk but needs a corporate partner to cross the capital threshold to commercial scale. Many ocean businesses also grow by replicating proven local models across sites rather than building one large plant, so assess suppliers on whether their model replicates, not on single-plant size.

Field analysis: Seven opportunities, seven pivot points

Run through the same four steps, seven commercial opportunities pass the ocean advantage test, and each stalls at a different pivot point.

That difference, not the technology, should shape where a company engages first. Filter by sector.

BUSINESS PROBLEM	OCEAN-ENABLED SOLUTION	ADVANTAGE	PIVOT POINT	NEAR-TERM POSTURE	MOST RELEVANT SECTORS
Cellulose exposed to land and forestry constraints	Fiber from beached Sargassum and seaweed residues	COST	Stabilization at collection; contaminant removal; fiber specifications	Fund qualification with a conditional offtake	Tissue, nonwovens, packaging, apparel
PFAS and plastic linings under regulatory pressure	Seaweed-based barrier coatings	FUNCTION REGULATORY PULL	Barrier performance and cost parity on existing lines	Pilot or partner now; the advantage is speed of qualification	Foodservice, consumer goods, converters
Single-source specialty ingredients	Marine biorefinery fibers and bioactives	FUNCTION RESOURCE	Consistent farmed feedstock at plant scale	Offtake-backed partnership, stage-gated	Food, nutrition, personal care
Petrochemical and hard-to-trace actives	Cultivated marine bioactives and biosynthetic replacements	FUNCTION	Traceable, cultivated supply; evolving High Seas Treaty rules	Audit marine ingredient provenance; scout cultivated sources	Cosmetics and personal care
Absorbents, coatings, and antimicrobials	Chitin and chitosan from shell waste	COST	Allergen purification; substitution by insect and fungal sources	Compare marine, insect, and fungal sources before committing	Personal care, agriculture, packaging
Brine disposal cost and concentrated mineral supply	Magnesium and bromine recovery from desalination brine	RESOURCE COST	Low-energy concentration; high-purity grades	Selective entry; wait for audited operating data	Chemicals, water, mining
Fresh water demand and energy losses in hydrogen production	Integrated seawater desalination and electrolysis using waste heat	RESOURCE COST	Scale beyond pilot; independently tested economics	Track and scout integrators; validate before committing	Energy, chemicals, water

Two patterns stand out. The binding constraint in most cases is supply or economics, not chemistry. And several pivot points are shared: solving contaminant removal improves the case for Sargassum, chitosan, and wild-harvested seaweed together, which gives a single scouting investment there the widest option value.

EXPERT COMMENTARY

In cosmetics, there's an untapped reservoir of new ideas, actives, or unique bacteria that exists in the ocean. And this provides a source of inspiration for our clients in CPG.



Daniel Morales, PhD

TECHNICAL DIRECTOR, CONSUMER PACKAGED GOODS, PRESCOUTER

Where the pivot points are: Ten technology gaps

Each gap below is a specific barrier that, once solved, would move a class of ocean-enabled solutions from interesting to investable.

We ranked them on three tests: a corporate buyer with budget already exists, regulation or supply risk is creating pull, and the solved state can be specified precisely enough to scout against.

- TIER 1: ACT NOW
- TIER 2: BUILD A POSITION
- TIER 3: HOLD AN OPTION

TIER	TECHNOLOGY GAP	WHAT SOLVED LOOKS LIKE	FIRST ENGAGEMENT
TIER 1	Purification of contaminated marine biomass	Inorganic arsenic, heavy metals, and allergens removed to food, feed, and personal care thresholds at known cost	Technology landscape and supplier vetting
TIER 1	Marine-safe high-performance materials	Seaweed-based and marine-degradable barriers matching PFAS and polyethylene performance on existing lines	Opportunity assessment and supplier qualification
TIER 1	Next-generation antifouling	Biocide-free surfaces, including biomimetic textures, with multi-year performance in service	Technology scouting and partner search
TIER 1	Desalination brine valorization	Low-energy concentration and high-purity mineral recovery that offsets disposal cost	Commercialization study and CapEx stress test
TIER 2	Integrated marine biorefineries	Multi-product cascade economics at commercial scale with contracted feedstock	Partnership and offtake diligence
TIER 2	AI-enabled marine feedstock characterization	Rapid, field-deployable assay of composition and contaminants per batch	Technology scouting
TIER 2	Distributed marine biomass processing	Modular stabilization at the point of collection that stops degradation within hours	Opportunity assessment and pilot scoping
TIER 2	Biodiversity measurement and monitoring	Low-cost, auditable measurement suitable for disclosure and permitting	Technology landscape
TIER 3	AI-accelerated marine bioactive discovery	Validated hit-to-lead pipelines for marine actives, with benefit-sharing obligations resolved	Landscape plus regulatory mapping
TIER 3	Autonomous ocean harvesting and manufacturing	Marine platforms with the endurance and payload to harvest economically offshore	Technology watch and expert panel

The Tier 1 gaps are enablers for several opportunities at once, which is where a single scouting investment has the widest option value. The Tier 3 gaps are where AI narratives run furthest ahead of evidence; treat claims there as Asserted until experts have tested them. As the seawater hydrogen example shows, several gaps may be closed not by a new invention but by integrating technologies that already exist.

EXPERT COMMENTARY

The mineral resources are every time more and more difficult to get ... the easy ones are already out.



Christian Salles

TECHNICAL DIRECTOR, NATURAL RESOURCES & ENERGY, PRESCOUTER

Strategic questions

Seven questions for your next ocean opportunity review.

01 Are you solving a problem you own, or adopting a theme?

An ocean initiative that cannot name the business problem it solves, and the executive who owns that problem, will be evaluated as a sustainability project and funded like one. Every emerging domain has the same trap: the theme attracts attention, the problem attracts capital. Start with the input, material, cost, or risk that the business already measures.

02 Does it beat the best land-based alternative, or does it just sound better?

Ocean-derived is a description, not an advantage. If the option does not win on function, resource, cost position, or resilience, it is unlikely to survive a procurement review. Compare against the best incumbent, not the average one.

03 Are you looking at a single technology, or a system?

Some of the strongest opportunities come from connecting technologies and resource streams that already exist, such as using an electrolyzer's waste heat to desalinate its own feed water. Ask what your operation already discards (heat, water, by-products) and what could turn it into an input.

04 Have you named the golden screw?

"Too expensive" and "not enough supply" are symptoms. Until the barrier is specified as a discrete technical or commercial problem with a performance threshold, it cannot be scouted, funded, or solved. If you cannot finish the sentence "if a technology could do X, we would commit Y to achieve Z," you are not ready to invest.

05 Is your evidence verified, or only well-written?

Stated targets, theoretical resource values, and pilot results on ideal feedstock are the most visible facts in any emerging market and the least reliable. AI makes them faster to find, not more accurate. The decision turns on what is delivered, sellable, and permitted, and those facts usually live with people rather than documents.

06 Are you funding the science, or arriving at the inflection point?

Corporate capital earns its best return where a supplier has retired technical risk but needs a partner to reach commercial scale. Arriving earlier means paying for risk others are better placed to carry; arriving later means competing for terms others have already set.

07 Who in your organization owns this decision?

Ocean opportunities cut across R&D, procurement, finance, operations, and sustainability, and they move more slowly than land-based projects because the spaces are public, heavily regulated, and physically harsh. Assign the decision to the owner of the problem it solves, supported by a cross-functional team and external expertise.

Where Prescouter fits

Start with one problem. Name one pivot point. Validate before you commit.

The first two steps of the thread can start with internal knowledge, AI-assisted research, and a landscape scan. The last two cannot be answered from a desk. They require conversations with the people who have run the programs, validation of supplier capacity and startup claims, regulatory mapping by jurisdiction, and stress-testing of cost and capital assumptions. Prescouter combines AI-assisted landscaping with that expert verification layer and states confidence explicitly at each gate, so leadership teams can decide with the evidence in front of them. Each of the ten technology gaps above can become a technology landscape, opportunity assessment, scouting project, partner search, or commercialization study.

IMMEDIATE ACTION

Run the Two-Year Disruption Test across your top ocean-linked inputs, materials, and waste streams, and name the business owner for the one that matters most.

THIS YEAR

Write one investment statement, "if a technology could do X, we would commit Y to achieve Z," and validate every Asserted gate behind it with people who have operated in that space.

[Get in Touch](#)

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Leads Prescouter's work with chemicals, packaging, and physical sciences clients, helping corporate teams connect emerging technologies to measurable operating value.

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Pete spent 35 years in industry, 18 at Dow and 17 at Kimberly-Clark, where he served as Chief Scientist and led corporate research and engineering. His humanity-centric innovation framework, developed from his TEDx talk on redefining a billionaire as someone who helps a billion people, is the foundation of this brief.

References

[Dow: Mining the Blue Economy](#) · [Dow: Texas](#) · [Nature Energy](#) · [Yale Environment 360](#) · [Phycology \(MDPI\)](#) · [Packaging Europe](#) · [European Commission Maritime Forum](#) · [Smart Water Magazine](#)