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Assignment 2A Capstone Team Report: Metric Marine New Go-to-Market Strategy

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Customer Needs

In its current state, Metric Marine almost exclusively services large cruise liners and charter companies based in the United States, mainly through an online marine trading platform called ShipServ, where suppliers make bids on requests for parts by cruise companies (Felton). One issue that Metric Marine often experiences with their commerce on ShipServ is the difficulty in providing quotes quickly, which limits the amount of business that the company is able to do with customers. Another limiting factor of their current business model is that most cruise liners place a limit/cap on the percentage of equipment that they acquire from a single supplier in an effort to diversify and mitigate their risk. Bigger suppliers are often able to meet the limit for each cruise liner and take up a greater percentage of their business. Taking this into consideration, Metric Marine has brought on our team to help address these issues with their current business model.

There are two main needs for Metric Marine: to find markets outside of the cruise industry to sell its products to, and to increase its current share of business with cruise liners. To meet these needs, Metric Marine has set forth the following initiatives to help the company improve its position in the Marine Supplies industry. Firstly, the company has set forth the objective to perform market discovery on industries outside of U.S. cruise lines and develop go-to-market strategies for each new industry. Specifically, Metric Marine has an interest in adjacent markets like Commercial Fishing and Yachting, where the company would not have to alter its product line. Research is being done to determine the best ways to gain exposure in these new markets and which platforms would be the most effective for outreach. Secondly, the company has set forth the objective to interact with its current customers more through surveys and interviews to understand customer needs better and find opportunities for growth in their current system.

From conducting these surveys, our team has found that Metric Marine's customers most valued feature when selecting a marine supplier is high-quality parts. Other features, like fair pricing and quick order turnaround, were viewed as secondary priorities, while bulk order capabilities and distinct catalogues were valued the least when making a supplier selection. These surveys also showed that the biggest pain points that customers faced when procuring equipment were associated with inaccurate lead time projection, complications during the quotation process, and when items were discontinued or unavailable. While customers associate Metric Marine primarily with high-quality parts, speed of quoting and delivery remains the most influential factor when choosing suppliers in general.

Explore and Prioritize Technology Options

From the data gathered in the ethnographic study, the greatest challenge that procurement officers face when placing equipment orders is found when filling out Requests for Quotations (RFQs). Forms like these are often used by buyers to receive

pricing estimates to help them make a decision on which supplier they want to source parts from. Without this form being filled out, the procurement process cannot continue, which causes a great need for urgency during this part of the process. On average, it was found that it takes around 25 steps for a company to purchase and receive a part order. This can take up to 2 months for each transaction (Grainger). Metric Marine's struggle with the quotation process is directly tied to the fact that orders are being manually appraised and then must be improved internally before they can be sent out.

There is a great opportunity to expedite this process by leveraging AI to develop an algorithm that can automatically appraise orders based on a database of previous orders. This can then be sent to one person to be approved, reducing the time spent on each order and making Metric Marine's bids more desirable. The incorporation of a tool like this would have a shorter timeline for development and require fewer resources than other options, like building out the company's website, but would still have a great impact on the company's performance and directly address the customer's need to have a quicker turnaround time.

Technology

The proposed technology would utilise an AI algorithm to make price estimates based on previous orders and reduce the time spent generating quotes by automating the RFQ process. One obstacle that Metric Marine currently faces in pursuing this technology is that the company does not have the capabilities to develop a tool like this in a timely manner, so for this solution to be feasibly applied, Metric Marine would need to outsource the work to external parties. General companies like SAP or Salesforce offer Configure, Price, Quote (CPQ) software services that may be applicable to marine equipment. There are also established companies in the marine industry right now that offer similar services to expedite the quoting process. From this, our team can confidently say that the necessary technology is mature enough to make this solution feasible.

This technology, in its current state, could be classified as Technology Readiness Level (TRL) 4 because, although the core software behind data-trained models has been validated, Metric Marine's specific use case and systems have not been validated. To progress this technology to TRL 8, the company would need to first document the current RFQ process and define the requirements for the algorithms, noting exactly what it should be able to achieve. After defining the current process, Metric Marine would then have to select an external partner that can help them develop the algorithm. Then, through collaboration with the partner, the company can create an MVP that can be validated by feeding it sample RFQs. Once the MVP is validated, a pilot of the tool can be run alongside manual assessment of RFQs until the tool is proven to effectively save time during the quoting process and proven to make very minimal errors when

used with real customers. At this point, the tool would be proven to work and could then be fully integrated into the company's process, making the quoting process easier and allowing Metric Marine to address RFQs more quickly.

The uncertainty that would come from the pursuit of this technology is the accuracy of the model. If the model inaccurately estimates the price too low, it can cause the company to lose money, and if the model estimates the price too high, it could cause Metric Marine to lose out to more competitive bids, costing them business. To best address this uncertainty, Metric Marine should continually monitor the output of the tool and confirm that the quote is reasonable prior to sending the quote to higher management for approval.

R&D Strategy and Plan

Our team's primary research efforts have been exploring who the procurement officers are for different companies within these new markets and figuring out the proper channels to engage with them. We've used LinkedIn to determine procurement roles at different companies within these markets to see if there are commonalities or trends within these markets. Additionally, we were tasked with identifying how companies within this industry leverage social media to attract customers and seeing if procurement officers are involved with this process.

The sequence of activities for Metric Marine is to compile a list of procurement roles across their target customers for each of the markets and use a third-party database to contact these individuals. Additionally, Metric Marine needs to be more active on social media and engage with potential and adjacent customers to interact with them within the cyber domain. They need to build relationships over social media to help boost their credibility within these new markets. Milestones for the social media account will initially be hitting specific follower goals and will then shift towards engagement metrics once the accounts are more established. The anticipated result is to build a better relationship within these markets and establish Metric Marine as a credible marine industrial supply vendor. This objective will be measured through tracking a correlation between social media engagement and increased orders.

Market

Market Opportunity

Metric Marine is looking to expand into new markets. The CMU Team is helping them to break into the commercial fishing, yacht, and European cruise industries. Commercial fleets operate under strict regulatory timelines and seasonal pressure, making "*Zero Downtime at Sea*" and a reliable supply of critical equipment a strong fit for Metric Marine's positioning as a marine industrial supplier focused on speed, stocked inventory, and technical support. We believe the yacht charter and management

industry is a strong fit for Metric Marine because it relies on constant sourcing of parts, supplies, and logistics support, which will create recurring demand that aligns with Metric Marine's core capabilities. Finally, European cruise lines are an ideal market for Metric Marine because centralized procurement, combined with frequent port-by-port resupply, creates an opening for a reliable supplier with consistent SKUs and strong documentation. Because of these reasons, we believe there is a significant market opportunity for Metric Marine to break into these markets.

The commercial fishing industry presents a strong and steadily expanding market opportunity for Metric Marine, supported by a global CAGR of approximately 3.9% and a fleet size estimated at 25,000 vessels worldwide (HTF Market Intelligence 2025). The U.S. alone accounts for nearly 5,000 vessels, which is roughly 15% of global capacity, making it one of the most concentrated and accessible markets for suppliers. Fleet structures range from medium operations with 10–20 vessels to large fleets with 20 or more, creating consistent, high-volume demand for industrial marine supplies across maintenance, repairs, and onboard operations. Market growth is driven by rising seafood consumption in urban regions, rapid vessel modernization, and ongoing investment from both governments and private stakeholders in fisheries infrastructure. These trends increase the need for reliable suppliers of tools, hardware, safety equipment, and other products within Metric Marine's catalog. As fleets scale and upgrade, the demand for durable, standardized, and easily replenished supplies positions Metric Marine to capture recurring revenue and build long-term relationships with operators in a growth-oriented segment.

The yacht charter and management industry represents a high-value growth opportunity for Metric Marine, driven by a global market estimated at approximately \$9 billion, with the United States accounting for \$1.5 billion, or roughly 18% of total demand. The sector is expanding at a healthy pace with a CAGR of 5.1% in the U.S. and 7% internationally, making it one of the fastest-growing segments in the marine economy (Fortune Business Insights 2025). In the U.S., demand is fueled by rising luxury and experiential travel preferences, an increase in charter-based ownership models that offset vessel operating costs, and significant investment in coastal marinas and supporting infrastructure, particularly in Florida, California, and the Caribbean. Global growth is reinforced by Europe's dominance as a premier cruising destination and rapid expansion in regions like the Indian Ocean, Southeast Asia, and the Middle East. These dynamics create sustained demand for high-quality supplies, positioning Metric Marine to become a trusted supplier for charter operators and management companies seeking dependable, recurring, and service-oriented procurement partners in a premium service-intensive market.

The European cruise line sector represents a significant expansion opportunity for Metric Marine as well, anchored by the region's role as the world's largest cruise deployment market with an estimated value of \$3.0–3.5 billion and approximately 35–38% of global itineraries. Europe's dense network of major cruise ports creates a procurement environment where vessels require frequent, recurring resupply of technical spares, hotel and galley items, bonded stores, and safety equipment. At the

same time, most cruise lines operate under centralized procurement structures, often based in Switzerland, the UK, or Germany, while fulfillment is executed across multiple ports within the Mediterranean and Northern Europe. This creates a strong opportunity for suppliers who can provide consistent SKUs, accurate documentation, and reliable multi-port delivery, aligning closely with Metric Marine's strengths in speed, stocked inventory, and technical responsiveness. Additionally, rising regulatory pressure from the EU ETS, IMO, and EEXI is increasing demand for compliant technical parts, retrofits, and eco-friendly consumables, further expanding supply needs. Combined with Europe's robust newbuild pipeline and year-round cruising activity, these dynamics make European cruise lines an attractive, recurring, and strategically aligned market for Metric Marine to capture as part of its broader expansion plan.

Competitive Landscape

Across commercial fishing fleets, yacht operators, and European cruise lines, the competitive landscape is defined by legacy suppliers that succeed through scale, catalog breadth, or entrenched relationships. Metric Marine's competitive strategy needs to be to win on speed and reliability. They need to focus on offering rapid pricing by leveraging technology and implementing fill rate guarantees. Once they have built up a footprint, they need to document their success and leverage social media to share their progress to increase their overall credibility within these distinct markets. Metric Marine should emphasize their ability to deliver the right parts faster, provide clear information, and reinforce reliability, which will allow customers to trust Metric Marine with a greater portion of their purchasing needs.

The competitive landscape for the commercial fishing industry is shaped by a mix of specialized distributors, large equipment brokers, and multiproduct marine supply companies that operate across key coastal regions in the United States. Imtra functions as a highly visible importer and manufacturer with strong social media exposure and direct online purchasing, which gives it broad brand recognition among commercial and recreational operators. First Choice Marine Supply and Commercial Marine Pro operate as wide-ranging marine and hardware suppliers that offer nets, electronics, safety gear, engines, generator components, and other essentials, and both require customers to contact the company directly for pricing and purchasing, reflecting a relationship-driven sales model. Fisheries Supply, located in Seattle, provides deep technical knowledge and an extensive catalog across anchor, electrical, galley, engine, and plumbing systems, supported by both online and in-store purchasing, making it accessible to large fleets and small operators. MiltonCAT represents the heavy equipment segment of the market and provides engines, generators, batteries, and maintenance machinery with options for new, used, and rental equipment, along with programs to buy back used gear. Together, these competitors show an industry where purchasing convenience, technical expertise, geographic reach, and the breadth of available equipment are critical differentiators, which creates an opening for Metric Marine to compete through reliability, product depth, transparent purchasing experiences, and strong relationship-based service in a sector that depends on consistent supply and operational uptime.

The competitive landscape in the yacht industry is dominated by several highly specialized distributors located largely in Fort Lauderdale, which serves as the center of the global yachting ecosystem. National Marine Suppliers provides more than forty thousand stocked items along with custom fabrication and global yacht logistics, and it focuses entirely on yacht operations, which gives it strong credibility with captains and crew. Yacht Chandlers positions itself as a premium provisioning and logistics partner with a strong account-based model that serves captains, chefs, and fleet managers and reinforces its brand through a very active social media presence and a reputation as a one-stop shop for superyachts. West Marine Pro is the largest scale competitor with more than one hundred thousand items, national store coverage, and an omnichannel model that combines retail, ecommerce, mobile app purchasing, and dedicated professional fleet support. Mega Marine emphasizes global shipping, a wide range of machinery and deck equipment, and a sourcing philosophy that promises delivery in any situation through an extensive partner network. Marine Hardware Inc focuses on custom and standard fabricated parts such as deck fittings, rudders, and shafts, and serves as a go-to supplier for yacht refits and specialized component replacement. Together, these competitors illustrate a market where convenience, global shipping reliability, specialized provisioning, technical depth, and the ability to support superyacht-level customization are essential. This creates an opening for Metric Marine to compete by offering dependable product availability, responsive customer relationships, and a streamlined procurement experience for yacht managers and charter operators who require both consistency and tailored support.

The European cruise line supply market is defined by a small group of highly capable marine technical and provisioning distributors that operate across Europe's busiest ports and support both EU and US-based fleets. National Marine Suppliers maintains a significant presence with offices in Fort Lauderdale and Rotterdam and provides an extensive catalog of more than forty thousand items, along with custom fabrication, global shipping, and compliance support, making it a preferred partner for cruise lines needing consistent technical and hotel supply coverage across EU ports. MSP positions itself as a multilingual, multi-hub platform with locations in Miami, Nantes, and other European cities and offers marine technical equipment, hotel and galley supplies, bonded goods, and drydock support with a global logistics network that serves major cruise lines and routinely handles newbuild projects. LIMAN Supply Group operates from Madrid and Rotterdam and is the largest multi-port European technical provider, supporting 145 European ports with consolidated ordering, customized logistics, and strong compliance capabilities that align with European cruise line procurement needs. AVS Global Ship Supply supports more than 1500 ports worldwide and specializes in technical and hotel logistics with a strong cruise partnership model that enables rapid response across EU routes. Wrist Ship Supply functions as a global omnichannel distributor with both local and international coverage and is recognized as the world's largest marine supplier with a network designed for cruise lines that require integrated hotel supplies, provisions, bonded stores, and technical consumables. Taken together, these competitors create a landscape defined by scale, multi-port reach, twenty-four-hour support, and highly compliant logistics systems, which highlights a

clear opportunity for Metric Marine to compete through reliability, technical depth, and a strong service model tailored to cruise operators that value consistency, responsiveness, and broad port coverage.

Product and Value Proposition

The overall product and value proposition that Metric Marine seeks to offer new markets hasn't changed since our initial assessment of the company. Metric Marine describes their service as white-glove procurement support. They characterize themselves as offering concierge-like service and leverage strong relationships with suppliers to source niche and hard-to-find items. Their motto is "if you can't find it, there is a good chance we can" (MetricMarine). They recognize that their customers primarily value two things: speed and price. Customers value the speed of the quote as well as the delivery time and want the price to be reasonable and competitive. Though it is hard to quantify their exact value add when compared to potential competitors, they consider themselves a one-stop shop with the ability to source 95% of what customers need on hand, with the ability to quickly source anything else their customers need. For their product sourcing strategy, they don't have anything white-labeled. The tools they provide include Wiha, Bahco, Gedore, and Knipex, renowned for their European-quality metric hand tools, along with everyday essential consumables from brands such as Loctite, Sika, Mapei, WD-40, and 3M, covering adhesives, sealants, lubricants, and maintenance solutions (Metric Marine). These trusted names ensure cost-effective reliability and consistency for the 150+ cruise and merchant vessels they serve (Sundy 2025). Metric Estimates that these new markets will engage with their service the same way their current traditional customers interface with them. Metric Marine can differentiate themselves from their competitors in these new markets by emphasizing speed and reliability.

Commercialization

Metric Marine's commercialization strategy should center on positioning itself as a high-reliability, high-responsiveness supplier capable of outperforming legacy vendors on speed, communication, and operational consistency. The strategy begins with a pilot-led entry approach, where Metric Marine launches in a small number of high-density ports or customer clusters and uses SLAs such as fill-rate guarantees, delivery time standards, and documentation accuracy to establish credibility. Once reliability is demonstrated through these controlled pilots, Metric Marine can expand SKU coverage and increase port presence, scaling gradually across larger fleets. To strengthen market penetration, Metric Marine should also become an active member of key industry associations across commercial fishing, yachting, and cruise segments—such as IMPA, CLIA Europe, Marine Industries Association of South Florida (MIASF), and regional fishing and yacht management networks. Membership in these associations increases visibility, enhances legitimacy, and provides direct networking access to procurement officers, fleet managers, and industry decision-makers who influence vendor selection.

Parallel to these activities, Metric Marine should invest in building credibility through transparent communication, rapid quoting, and documentation of early wins. Sharing metrics such as on-time delivery rates, cost savings achieved for pilots, SKU consistency, and successful multi-port fulfillment will help differentiate the company from

slower, more rigid competitors. These proof points can be repurposed as marketing collateral—digital catalogs, case briefs, procurement-focused whitepapers—and shared through LinkedIn account-based marketing campaigns, CLIA/IMPA directories, and marine trade publications. Over time, Metric Marine should formalize its commercialization playbook around four pillars: reliable pilot execution, strong association-based visibility and procurement relationships, a differentiated service model emphasizing speed and accuracy, and disciplined geographic and segment expansion. This approach positions Metric Marine to scale sustainably while deepening trust across all three targeted markets.

Business

Revenue

Metric Marine's growth strategy centers on expanding beyond U.S. cruise lines into three adjacent markets: commercial fishing fleets, yacht charter and management companies, and European cruise operators, all of which already purchase the same industrial marine supplies Metric Marine stocks today. Revenue will continue to come from product sales, but through more diversified channels: recurring replenishment orders from fishing and yacht operators, and consolidated multi-vessel procurement agreements within European cruise fleets. Because these markets already demonstrate steady demand, first revenues from commercial fishing and yacht operators could begin within the first 6–9 months of outreach, while European cruise partnerships may follow after longer relationship and compliance cycles. Revenue growth assumptions are grounded in increasing share-of-wallet rather than new SKUs, supported by strong supplier relationships that already allow Metric Marine to fulfill approximately 95% of customer needs.

Costs

The cost structure for this expansion remains relatively lean because Metric Marine does not manufacture its own products. The primary cost drivers include business development activities, procurement outreach, digital marketing investments, incremental logistics and international shipping, and limited additional staffing in sales and customer support. These costs are largely variable rather than fixed, allowing the company to scale based on demand. With no capital-intensive R&D or equipment requirements, the expansion can be financed gradually through operational cash flow.

Broader Impacts

Broader impacts extend beyond financial return. Expansion into adjacent maritime sectors enhances supply chain reliability, reduces vessel downtime, and strengthens safety and operational continuity for fleets. Growth will also generate jobs in sales, logistics, warehousing, and digital operations, supporting regional economic development and aligning with investor expectations for scalable, employment-generating businesses. Additionally, increased procurement transparency and digital engagement can modernize traditionally relationship-driven industries, creating momentum for future enabling technologies such as automated quoting or customer procurement portals.

Financing

Metric Marine is positioned to follow a staged, low-capital commercialization path because it already operates with an established product catalog, strong supplier relationships, proven fulfillment processes, and a stable revenue base. Based on current market assumptions, the income trajectory over the next three to five years is expected to progress gradually. Year 1 will focus on foundational outreach and pilot orders, resulting in a modest 5–10% revenue lift, followed by more meaningful growth of 15–20% in Year 2, driven by repeat purchasing from commercial fishing and yacht operators. As European cruise partnerships begin maturing, Years 3–5 are projected to generate accelerated scaling, with revenue increasing approximately 25–35% year-over-year through larger order volumes and expanded wallet share. Under this model, Metric Marine could reasonably reach breakeven within 18–24 months, assuming disciplined hiring and phased investment in logistics. Because the company's cost structure is not capital-intensive, expansion can be financed primarily through internal cash flow, reinvested operating profits, and gradual team expansion, avoiding the need for external equity funding. However, if European market growth exceeds expectations, short-term bank-backed logistics financing or a small working-capital line may be used to temporarily support increased inventory and cross-border shipping, ensuring continued service reliability without disrupting operating capital.

Recommendation

We recommend that Metric Marine pursue a phased expansion strategy beginning with U.S. commercial fishing fleets and yacht management companies, followed by European cruise lines. These segments demonstrated strong demand for high-quality, reliable sourcing supported by fast quoting and recurring operational supplies, aligning directly with Metric Marine's existing strengths, inventory, and service model. This sequence minimizes risk, shortens the sales cycle, and enables learning before entering more complex procurement environments.

Execution should follow a 12–18 month roadmap. The first 3 months focus on building procurement contact lists, strengthening digital presence, and initiating outreach. Months 4–6 prioritize pilot engagements with select fleets or yacht operators to validate pricing, quoting speed, and fulfillment expectations. Months 7–12 emphasize relationship scaling, repeat orders, social proof, and onboarding playbooks. European cruise expansion should begin only after initial traction, given longer contracting and compliance requirements.

A lean team can execute this plan: a business development lead for procurement outreach, a marketing resource to build industry credibility, and existing sourcing and logistics staff to support faster quoting and order fulfillment. Leadership oversight, ideally from the founder or a senior executive, to strengthen negotiation leverage and ensure strategic alignment. No new equipment or product development is required. Current warehouse, supplier relationships, inventory access, and fulfillment infrastructure are sufficient. External tools like CRM software or list-building databases may support outreach, but do not require major investment.

Financial needs are modest and primarily tied to operational scaling, like travel, CRM implementation, digital marketing, and pilot engagement costs. Expansion can be funded through operating cash flow, with short-term working capital used only if order volume accelerates. This approach preserves flexibility while enabling market entry. This plan reflects customer needs, current organizational capabilities, and market evidence. By prioritizing segments where Metric Marine already offers clear value and sequencing growth deliberately, the company can enter new markets efficiently, build credibility, and grow revenue without compromising reliability or service quality.

References

Fortune Business Insights. 2025. Yacht Charter Market Size, Share & Industry Analysis, by Yacht Type ... and Regional Forecast, 2025-2032 (Report ID FBI105123). Last updated November 3.

<https://www.fortunebusinessinsights.com/yacht-charter-market-105123>.

HTF Market Intelligence. 2025. Sea Fishing Market Research Report: Global Sea Fishing Market Size, Growth & Revenue 2023-2030 (Report ID 3528945). Published October 15. <https://htfmarketinsights.com/report/3528945-sea-fishing-market>.

Metric Marine. "Metric Marine | Equipment and Supplies for Maritime Industry." Accessed 2025. <https://www.metricmarine.com/>.

Metric Marine. "MetricMarine." LinkedIn. Accessed 2025.

<https://www.linkedin.com/company/metricmarine/about/>.

Sundy, Robert. 2025. Assignment 1A: Individual Written Capstone Report. Unpublished manuscript, Carnegie Mellon University.

Grainger. (2025, July 21). *Smooth Sailing: Grainger Optimizes Procurement for Carnival Cruise*. YouTube. <https://www.youtube.com/watch?v=2RTXZxGCUb8>

Felton, Devin. 2025. Assignment 1A: Individual Written Capstone Report. Unpublished manuscript, Carnegie Mellon University.