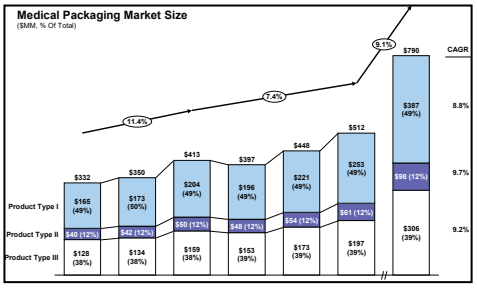
Market Due Diligence Of Leading Medical Packaging Manufacturer:
Validating Domestic/International Growth Prospects & Assessing Supplier Risks

The Challenge: Our clients, co-investing middle market and mega PE firms, were engaged in a competitive Round 2 bid process for a $200MM market-leading medical packaging company with global capabilities. The target had grown rapidly over the last few years (15% 2-year CAGR), with management projecting 10% continued growth over the next 5 years. Our clients, however, were concerned that industry analysts' projections for weak performance in the medical device industry would result in lower demand for packaging, dampening management's projections. Further complicating the investment thesis was the target's dependence on a single-source material, Tyvek, produced by DuPont, which exposed the target to both supply shortage risks as well as to risk of an industry shift to an alternate material. To provide our clients with a more robust understanding of the market and potential risks, Gotham conducted a 2-week market due diligence to validate the target's domestic and international growth opportunities, assess risks associated with its reliance on Tyvek, and identify potential acquisition opportunities to help capture opportunities.

Robust Medical Packaging Market Assessment: We created a robust market fact base from secondary research and our interviews with industry experts (e.g., packaging consultants) and customers (e.g., product managers of large medical device companies), to understand key issues and trends in the overall market. Leveraging our healthcare and packaging market experience and niche market analysis expertise, we were able to rapidly generate fact-based reliable information on the acquisition target.

9% Domestic Medical Packaging Growth Projected As Medical Device Volumes Remain Strong

We **evaluated key drivers of the medical device industry, with a deep-dive analysis of 4 primary device segments** (ophthalmology, cardiology, orthopedic, and general purpose). After analyzing market data to identify key medical device products and their projected unit growth, we established that, while weak medical device market performance forecasted by industry analysts was being driven by pricing pressures, unit volume growth remained strong driven by strong macro trends of an aging population and increasing number of discretionary procedures.



We **built a "bottom-up" market size/growth model** projecting 9% 5-year CAGR in target's overall market based on medical device demand at the product level. Leveraging our packaging expertise and analytical rigor, we identified and profiled packaging demand for a comprehensive list of medical device products – type (e.g., pouches, lids, and rollstock), material (e.g., Tyvek vs. non-Tyvek), and size (e.g., square inches per package) of packaging required. We then developed a robust product-level packaging market model for the medical device industry, analyzing target's transaction level sales data to triangulate material costs across all 3 packaging dimensions (type, material, size) and applying appropriate pricing levels to each device to establish market size at the product level.

Minimal Risk Of Primary Material (Tyvek) Supply Disruption Or Risk Of Tyvek Sbstitution

We conducted robust analysis of DuPont's manufacturing capabilities, leveraging SEC filings and conducting several expert interviews. We discovered that DuPont currently has Tyvek production capabilities at 2 plants, and is in the process of transitioning production to its new flash-spinning process to increase capacity and ensure redundancy. We further leveraged our network of experts to establish that while the medical device end-market accounts for a small part of its sales (housing construction is its primary use), it is easily Tyvek's highest margin end-market, implying priority of supply in the case of any shortfall in Tyvek production.

We assessed the risk of an industry-wide shift to an alternative material to Tyvek, which, if occurring, would open up competition to beyond the current 11 Tyvek converters. Via our robust analysis of industry sterilization techniques (heat-, radiation-, and gas-based) and interviews with senior medical device packaging executives, we found that the likelihood of a substitution is slim as Tyvek provides greater permeability (requirement for gas-based sterilization methods) vs. competing materials. Furthermore, through robust analysis of the medical device packaging value chain, we determined demand for EtO sterilization and medical-grade Tyvek is expected to remain stable, as the 2 players (Sterigenics and Steriss) that primarily control the outsourced sterilization market are expanding their EtO operations.

Additional Growth Achievable Through International Expansion And Laminates Capability Acquisition

We analyzed the medical device market/competitive dynamics in Europe, China, India, and the Rest of Asia and found that both Europe and China are attractive markets. A mature medical device market with characteristics similar to the U.S., Europe covers many high-value-added product categories (target's current focus) dominated by U.S. multinationals with whom the target has established relationships. China is a high-growth market with no strong established competitors, as major multinationals have only recently entered and local packaging companies do not yet have sufficiently sophisticated capabilities.

We also analyzed target's **expansion into the complementary laminates business** and found several benefits for target: increased quality control on current products requiring lamination; growth opportunity into new products and end-markets (e.g., pharmaceutical foil pouches); and reduced manufacturing costs. Gotham's make vs. buy analysis, established acquisition would be more attractive than building it in-house, and we provided our client with a targeted list of 8 potential acquisition targets

The Outcome: As a result of Gotham's due diligence, our clients were confident about the target's ability to sustain growth despite end-market pricing pressure and supplier risk profile and moved forward with their Round 2 bid.