When Billy Williams founded Williams Laboratories in the 70s, he wanted to listen to physicians and fulfill their needs. He invented the first deflectable catheter, substantially enhancing control and precision. The catheter, which costs about $1-2K, enables electrophysiologists to cure cardiac arrhythmias (irregular heart rhythms) in a simpler manner than traditional medical procedures. In Israel, another pioneer, Dr. Sharon Ben-Yehuda, developed a 3D cardiac mapping and navigation technology for monitoring cardiac arrhythmia. This technology enhanced insight, precision, and safety in diagnosis and treatment of cardiac arrhythmias by offering a 3D view of the electrical pulse in the heart, which replaced traditional approaches that involved complicated integration of 2D X-Ray heart images and inter-cardiac electro-grams. In 1994, Ben-Yehuda founded Betatech, which was acquired in 1998 by Jeopardy that merged it with Williams Laboratories to establish Betatech Williams (BW) as part of its Medical Devices & Diagnostics unit. BW provides to hospitals diagnostic and therapeutic catheters as well as mapping systems that enable both mapping and treating heart arrhythmias. Its OTCAR system uses 3-D imaging technology to map the heart's electrical activity and lets physicians navigate the heart using diagnostic catheters. BW also manufactures therapeutic ablation catheters and systems that destroy faulty electric pathways in the heart that cause arrhythmias. BW is headquartered in California, with its main R&D center based in Israel and its manufacturing arm located in the U.S. It employs more than 1300 employees in about 40 countries, most of whom work in the field (400 in the U.S.), providing support to physicians during medical procedures in hospitals. In 2011, BW's sales reached $1B, nearly half of Jeopardy’s sales in the cardiovascular segment.

BW with its OTCAR and related catheters is the market leader in catheter and electrophysiological (EP) systems, capturing a 40% market share. Its main competitor is St. James Medical (SJM), which holds a 30% market share. BW is considered stronger in ablation catheters whereas SJM is stronger in diagnostics catheters. Baltimore Scientific, Bird, Medex and other companies account for the remaining market share.

Jeopardy’s units operate quite independently and are organized by disease and treatment areas, demonstrating strong market orientation. High-end medical devices such as complex intracardiac catheters, cardiac resynchronization therapy and defibrillators, require BW not only to sell products directly to hospitals but also to provide extensive technical and clinical support. BW’s technicians are often present to aid physicians with maneuvering the catheter and interpreting the diagnostic images, which has enabled BW to accumulate practical expertise. Still, compared to other Jeopardy units, BW has a more technology-driven and flexible culture. Its product release cycle is relatively short since the majority of its R&D is performed in a single site in Israel. BW collaborates with multiple manufacturers to integrate its mapping system with their input systems that leverage X-ray, ultrasound and CT technologies. This enables BW to offer full clinical picture to physicians. Thus, BW partners with companies such as Sunshine, Giant and Physio to distribute their complementary products in different connectivity segments.

When BW considered entering the inter-cardiac ultrasound segment in the early 90s, it debated whether to develop its own ultrasound catheter and dedicated ultrasound system. It produced a catheter prototype which could be connected to an existing ultrasound system, but commercializing it would have been costly, and BW lacked relevant manufacturing competency. Ultrasound system technologies evolve very fast, so manufacturers need to modify their systems constantly. BW's forecast of annual sales of 300 ultrasound
systems did not justify investing in such competency. To reach economies of scale and decrease time-to-market, BW decided to search for a partner. BW sought to collaborate with the market leader in ultrasound systems in order to leverage such partner’s reputation and established position in the industry. Sunshine, Giant, and Physio were considered. Whereas Sunshine was strong in technology development Giant and Physio were considered better in applications and marketing.

In the mid-90s, the fragmented ultrasound industry has gone through consolidation. Large imaging companies such as Sunshine, Giant, and Physio acquired smaller companies. Physio acquired LTA whereas Giant acquired the ultrasound division of Eclectic Imaging in 1998 and developed its own ultrasound system, which was considered the leading in the market but lacked the corresponding catheter. BW considered approaching Giant and offering its own catheter prototype to complement Giant’s system. This could have increased BW’s catheter revenues. In 2000, Sunshine entered this market by acquiring Rhythmus, a small innovative American company that developed the most advanced ultrasound catheter. Following this $700M acquisition, Sunshine replaced Rhythmus’ local management with executives from its German headquarters. The new managers were well connected to the headquarters, but lacked some influence within their local organization. Furthermore, in this market, Sunshine had to offer extensive after-sales clinical and technical support even though its core competencies were in engineering and manufacturing. Sunshine has been organized by technologies with units specializing in ultrasound, CT and MR. It has multiple development centers in various countries. A product may be designed in one center, its software may be developed in another, while manufacturing takes places in a third site, and integration is performed in yet another location. At that time, Sunshine decided to go it alone and produce the ultrasound catheters in its factory in Korea.

BW initiated discussions with Sunshine immediately following its acquisition of Rhythmus. The discussions were infrequent and intense. Managers from the two companies met once or twice a year, exploring possible collaboration. Sunshine did not fully appreciate BW’s value proposition, so BW continued to develop its own product. In 2002, BW and Sunshine were close to reaching an agreement, but management successions in Sunshine’s ultrasound cardiovascular unit prevented the deal. In 2005, Sunshine appointed one of its most experienced executives to lead the ultrasound unit. Franz Koller previously headed the CT and X-ray units and had both technology and business acumen. He realized that the growth in Sunshine’s ultrasound business did not meet its potential due to weak customer orientation. He wanted to leverage BW’s foothold in the field and prevent BW from becoming Sunshine’s competitor in the ultrasound business. Ari Greenbaum, BW’s senior director of business development, was also concerned about SJM’s plans to enter the market with a fully-integrated ultrasound system and catheters. The laborious negotiations between BW and Sunshine ended in 2005, when the parties signed an alliance agreement.

The negotiation of the alliance was not trivial. The parties discussed how BW will distribute Sunshine’s ultrasound systems together with BW’s catheters and mapping system. Franz proposed a joint venture, but Ari insisted on maintaining flexibility by establishing a non-equity alliance. Franz wanted a short-term agreement that would limit Sunshine’s liability in case that BW fails to meet expectations, but Ari was concerned about losing distribution rights after investing in developing Sunshine’s business. For that same reason he insisted on BW becoming an exclusive distributor. Will Sunshine forgo its direct access to the market? Who should provide clinical education about the ultrasound catheter in hospitals? Will BW
discontinue the development of its internal ultrasound catheter? Can Sunshine protect its intellectual property from leaking to competitors that collaborate with BW? The parties considered various scenarios and debated profit sharing, cost allocation, transfer prices, exchange rate conversions, future product development, and enforcement of corporate policies across the supply chain. One of the key issues was whether Sunshine would enable BW to distribute only catheters that are connected to BW's OTCAR technology or allow BW to distribute all of Sunshine's catheters. In the dynamic ultrasound market where products were continuously modified it was difficult to determine whether a product is new or rather a modified version of an existing product. Franz and Ari debated which products would be included under the agreement. Another major concern was the transfer prices that BW was supposed to pay to Sunshine. The parties agreed to rely on average sale price (ASP), but calculated costs differently, so it was difficult for BW to figure out how much Sunshine spent on product development. Once the parties agreed on the calculation method, Sunshine realized that their calculations were erroneous, and that its costs were actually higher than reported. BW thought that Sunshine was inflating costs and enforced the agreement, with Sunshine having to absorb the balance.

Sunshine and Jeopardy are two giant corporations, with their own traditions and formal procedures. As part of the negotiation, the parties engaged in lengthy discussions over corporate policies which had negligible implications for their collaboration, such as corporate policies for minimum age of employees in supplier facilities. After several weeks of intense negotiation, the parties signed a 13-year agreement with automatic extension clause, way beyond the industry standard of 5 to 7-year alliances. The detailed agreement made BW the exclusive distributor of the Sunshine ultrasound system for a 50% profit share. BW was also responsible for training customers, supporting the procedures in hospitals and dealing with customer complaints, while Sunshine was responsible for solving technical problems associated with its product. BW also agreed to transfer knowledge to Sunshine, which enhanced its product design based on feedback from the field.

The parties did not assign dedicated alliance managers, so multiple points of contact served for handling technical and marketing issues. The distinct organizations of the partners hindered effective communication and incompliances emerged. Whereas BW had a lean organization, capable of solving problems promptly, Sunshine handled problems by involving multiple divisions. Whereas Sunshine considered procedures as force majeure, BW regarded procedures as something to handle. BW was more flexible in resource allocation and sought to accelerate product testing whereas Sunshine insisted on formal authorization and numerous approval stages which reduced speed and efficiency. As a result, Sunshine rarely got involved in customer complaints, with most of the cases solved by BW's support team. Being close to customers, Ari knew that each day in which the hospitals were not using Sunshine’s catheter in procedures cost more than providing onsite support, but he felt frustrated for not having Sunshine share responsibility. BW's marketing team was also frustrated as it witnessed Physio making inroads with a new product while Sunshine deferring the release of a new version of its own product that was more technologically advanced and could have been introduced 6 months earlier. In turn, Sunshine’s manufacturing manager was disappointed when BW occasionally placed no orders for ultrasound catheters (due to sufficient inventory levels). Disagreements about transfer prices and pressure to lower costs led the parties to consider transferring manufacturing from Sunshine’s factory in Korea to BW's factory in the U.S.
Amit Raz, who coordinated product development on BW’s behalf was encouraged by the direct communication established with Sunshine’s engineers. The parties maintained weekly and monthly conference calls as well as ad-hoc communication as the need arose. Still, Amit realized that the size and complexity of the Sunshine organization created bottlenecks for resource allocation and product development decisions. In turn, Sunshine became concerned about some of BW’s alliances with Sunshine’s competitors in the ultrasound business. In 2007 BW signed an agreement with Physio to co-develop integrated products that will simplify complex procedures to diagnose and treat arrhythmias. In 2008, BW formed an alliance with Giant Healthcare to develop interventional ultrasound imagining for use in EP procedures and became a distributor of some Giant’s systems in the U.S.. BW also partnered with Symmetry, a designer and manufacturer of advanced cardiology instrument control systems, and with Medex, which is one of BW’s competitors.

In one instance, Sunshine developed a new ultrasound system that was supposed to be integrated with BW’s EP system. However, to prevent leakage of information to competitors, Sunshine informed BW about this product only three months before its release. This did not leave sufficient time for BW to finalize product integration, but BW engineers put extra effort and resources as well as helped Sunshine’s engineers to test and debug the product in Israel. BW’s team had to frequently visit Sunshine’s sites in Germany and Korea. BW’s managers valued face-to-face contact, which was not deemed as important by the Sunshine culture. Eventually, the interpersonal ties helped solve emerging problems. In fact, even though the agreement furnished the right for each company to audit the other party, this clause was never exercised.

The alliance has begun to gain traction, reaching sales of 50,000 catheters in 2011, way beyond both parties’ expectations. However, a new challenge emerged as hospitals began to use the services of vendors that reprocessed BW’s catheters which were originally designed for single use. BW came across rumors about methods for resetting its software and regenerating passwords. BW and Sunshine debated whether to enter the reprocessing business or rather try to fight this trend. The Food and Drug Administration (FDA) has permitted reprocessing, but this process leads to major degradation of the product’s quality and increases customer complaints that BW and Sunshine are still required to handle. This is mostly BW’s concern since its representatives in the field have been receiving these complaints. How should the parties share this mounting liability? If entering the reprocessing business, which party should be responsible for performing the cleaning and reprocessing of the catheters? How will the partners share the costs associated with this process, and how much profit is left to share? How should the support costs be allocated to new versus reprocessed catheter? This is one scenario that the parties did not take into account when crafting their comprehensive alliance agreement.

As it started to rain, Ari and Amit boarded a flight back from Frankfurt to Tel Aviv, debating about the future of the alliance with Sunshine. Should BW reopen the alliance agreement or negotiate a new deal with Sunshine? How should the partners respond to the reprocessing challenge? How can BW and Sunshine regain market share and ensure that the alliance is successful? Ari and Amit knew that to answer these questions they first need to identify the sources of the problems that emerged so far in the alliance and determine what can be done to avoid facing similar problems.