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MANUFACTURING

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TECHNOLOGY INSIGHTS

APAC SPECIAL

**PROTOTYPE
ENGINEERING**
E D I T I O N

**DELIVERING
UNRIVALLED
MANUFACTURING
EXPERTISE**



**DR. GEORGE WANG,
CEO**

\$15



E BI International



*The annual listing of 10 emerging companies in APAC that are at the
forefront of providing Prototype Engineering services
and transforming businesses in the region*

Prototyping is the first step in the validation of a new product concept. It reveals the practical nature and applicability of a new product idea. However, formulating an ideal prototype can be a painstaking affair for manufacturers, owing to their inability to select the right processes and technologies.

With more than two decades of contract manufacturing experience, E-BI International helps clients tackle this challenge head-on. E-BI's specialty teams advise and provide recommendations on different prototyping techniques that can greatly accelerate clients' product design and development and save them tons of money and time.

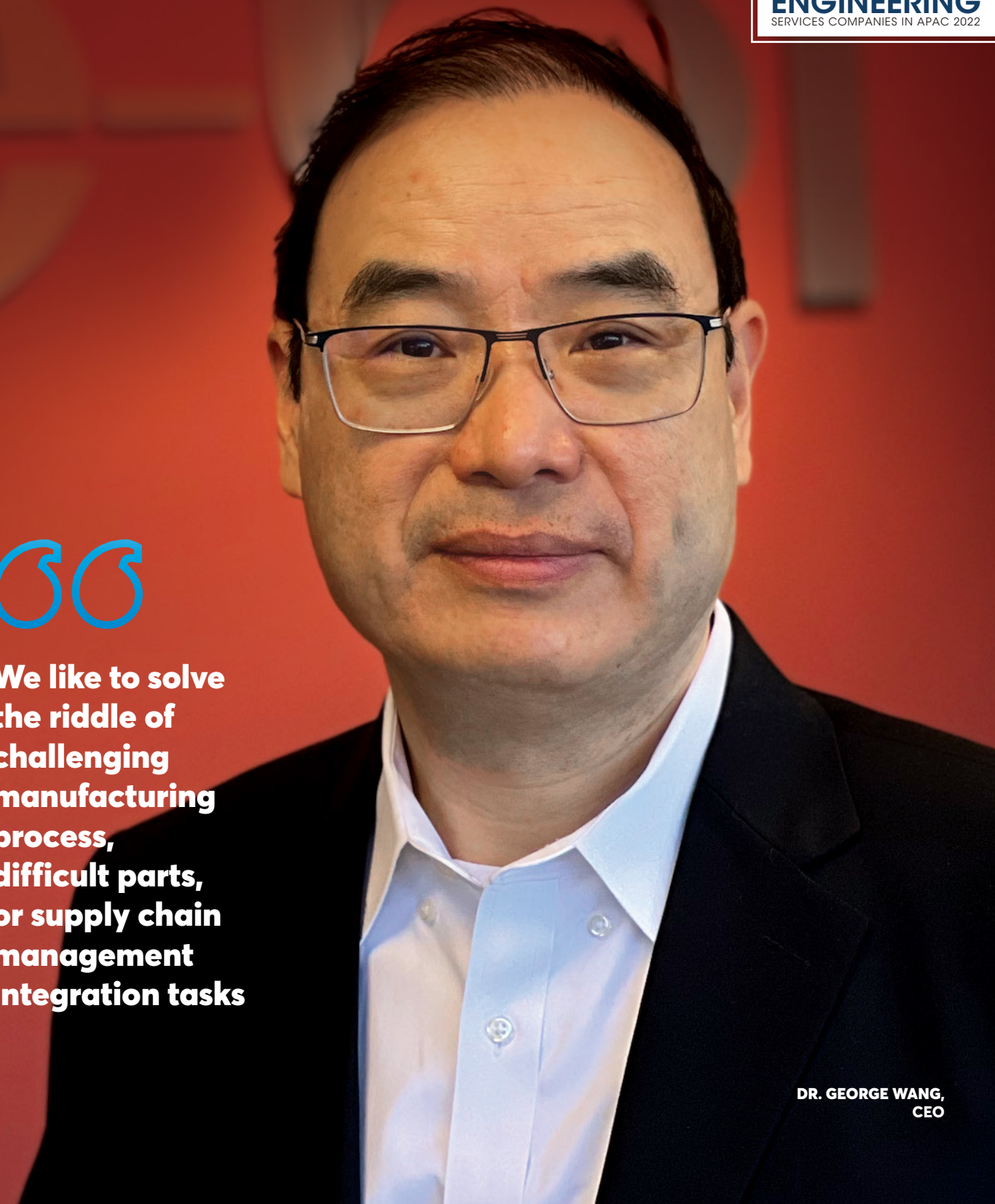
Since its inception, E-BI has always held a keen eye on innovation and R&D. In fact, the company was the first to develop an AI-powered Global Supply Chain Management (GSCM) system that allowed clients to seamlessly conduct global sourcing and manufacturing process management. The solution made the customers' supply chain networks more resilient, minimizing the risk of disruptions. Over the years, E-BI honed its capabilities to become the specialty contract manufacturer of choice for a diverse set of clients. Today, as a total solutions provider, E-BI has created a comprehensive service portfolio, including prototyping, product testing, metrology, and contract manufacturing, among many others.



**DELIVERING UNRIVALLED
MANUFACTURING EXPERTISE**



We like to solve the riddle of challenging manufacturing process, difficult parts, or supply chain management integration tasks



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Promising a Faster and Effective Design Cycle with Flawless Prototypes

E-BI's comprehensive prototype manufacturing services range from initial industrial design mock-ups to trade show-level high-quality prototypes. The company rapidly turns around flawless prototypes that can be used for direct EVT/DVT and market research. More importantly, E-BI has developed a network of more than 500 global subcontractors across sub-continent, including the U.S., China, Vietnam, and India. This Star Factory Alliance equips the company with diverse specialty manufacturing capabilities. Each Alliance member is also vetted and audited—for at least a year—to ensure E-BI delivers the highest standard of manufacturing service to its customers. “No matter how complex the requirements of a project are—casting model, plastic injection, or electronic assemblies—we can deliver high quality prototypes in just a couple of weeks. This enables clients to quickly complete the design cycle and bring products to the market on time,” says Dr. George Wang, President and CEO, E-BI. The company follows a concurrent engineering model where they conduct design engineering and manufacturing simultaneously. It encourages multi-disciplinary collaboration, reduces product cycle time, and increases productivity by preventing mistakes.

E-BI's prototyping services portfolio entails four different services. One is Product Rendering/Virtual Prototyping, where the company generates product images based on industrial design and initial mechanical design. This enables clients to better understand how their products will look when they are finally

manufactured. Secondly, the company offers Electronics Product Prototyping, involving PCBA, firmware, system integrations, display, power, testing, BOM generation, and associated mechanical parts manufacturing.

Next in the line is Mechanical Product Prototyping, which focuses on building structural parts with CNC milling, CNC turning, metal bending, stamping, SLA, and chemical etching. It also entails surface finishing to bridge the touch and feel gap between prototypes and finished products. E-BI uses multiple methods, such as pad printing, laser engraving, brushing, electroplating, anodizing, passivation, black coating, phosphating, sanding, polishing, and blasting.

Last but not least, E-BI offers Retail Package Prototyping. From cardboard level to sophisticated high-end molded packaging, E-BI provides a wide variety of package prototyping.



It protects the product, attracts and informs consumers, and assists at the point of sale. As a general contractor, E-BI takes responsibility for the overall delivery of finished products, including product quality warranty and services. Clients can always take E-BI as a responsible party while benefiting from its world-class resources.

Unwavering Prioritization of Clients' Goals

Having years of experience in the contract manufacturing space, E-BI understands that every product and client has different requirements, and subsequently, there cannot be a cookie-cutter approach to prototyping. The company strives to understand clients' conceptual designs and their budget expectations. It starts from the Design for Manufacturing (DFM) process to design the right parts and components for manufacturing high-quality products at a lower cost. E-BI then moves to the manufacturing process development stage, keeping clients' volume and supply chain requirements in mind. “There is no dearth of manufacturers that can develop a specific part. E-BI integrates them together to form up a customized solution,” Dr. Wang remarks. The company figures out the subcontractors and conducts QA analysis to ensure that every product meets clients' expectations.

E-BI's team of passionate and highly skilled specialty staff at each function

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module complements its comprehensive services. On-time product delivery is always the team's number one priority. The company maintains a 97 percent success rate, which is excellent compared to industry standards.


E-BI serves a plethora of start-ups and Fortune 500 companies, including Honeywell, Thermo Fisher, and GE. The company's clients have experienced the experts' dedication in helping them manufacture products even in the face

of disruptions induced by the pandemic. By overcoming the issues of labor and resources shortage, the company was able to help its clients when manufacturing operations were stagnated worldwide.

For example, during the height of the pandemic, a Seattle-based company was designing handwash stations for orphanages across developing nations. However, they were struggling to maintain the product quality and scale manufacturing capacity. Engaging with the client, E-BI addressed the technical problems and architected new prototypes to resolve the quality concerns at the nascent stage. It just took a few weeks for the specialty engineers of E-BI to help the client develop products and ship them across the globe.

In another instance, E-BI worked with Flowmotion—a gimbal manufacturer—to bring high quality and high precision gimbal to the market using plastic molding, machining, electronics control, gyro, and fiberglass materials. In fact, the prototypes delivered by E-BI exceeded the expectations of the Flowmotion founder. The company also made the clients' products stand out against competitors by creating a high-quality custom travel case. Once full production started, E-BI was able to meet the client's order quantities and ship over 25,000 units to customers worldwide.

Such instances of success always drive E-BI to explore new growth avenues. Currently, the company has clients across the U.S., Europe, Australia, and Singapore. E-BI has drawn a roadmap to make strategic investments in its manufacturing bases to stay a notch above its competition.

“We are proud of our problem solving skills. We like to solve the riddle of challenging manufacturing process, difficult parts, or supply chain management integration tasks. Our goal has always been and will be to go the extra mile to assure clients' success,” Dr. Wang concludes. 



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