## About SigmaTron International

SigmaTron International (NASDAQ:SGMA) is a full service EMS provider with a network of manufacturing facilities in the United States, Mexico, China and Vietnam.

We focus on companies who want highly customized service plus a scalable global manufacturing footprint.

We serve a diversified set of markets which include: industrial, consumer and medical/life sciences customers. Our quality certifications include ISO 9001:2015, ISO 13485:2016, IATF 16949:2016 and AS9100D. We are also International Traffic in Arms Regulations (ITAR) registered.

# SigmaTron International Completes Acquisition of Wagz Inc.

On Jan. 3, SigmaTron International, Inc. and Wagz Inc. announced that their pending merger agreement closed on Dec. 31, 2021. Under the final agreement, the current shareholders of Wagz, excluding SigmaTron, received a total of 1,546,592 newly issued shares of SigmaTron common stock. Wagz became a wholly-owned subsidiary of Sigma-Tron. Gary R. Fairhead became the Chairman of the Board of Wagz and Terry B. Anderton remained the Chief Executive Officer and President of Wagz.

This quarter's issue of the SigmaTron Source

looks at the benefits of this transaction in greater detail via a Q&A article with Gary Fairhead and Terry Anderton. There is also a detailed profile of the Wagz team and information on the innovative Wagz® Freedom Smart Collar™.

# IT Improvements Help SigmaTron's Team Work Smarter

To say that today's electronics manufacturing services (EMS) industry is an exception-rich environment would be an understatement of epic proportions. From supply chain to production to fulfillment, personnel are working extra hours trying maintain commitments as key variables change. In that environment, systems can both help and hinder. Systems that provide real-time visibility and automation that aligns with current team requirements are essential. However, system automation which presumes a stable environment can be a hindrance.

SigmaTron's IT team regularly adds improvements to its systems to better align with team requirements. Its latest improvements focus on helping decrease workload in supply chain management (SCM) and increase efficiency in production.

SigmaTron uses a combination of proprietary and internally-developed systems for enterprise and shop floor management. All facilities

utilize a common ERP system plus third-party Product Lifecycle Management (PLM) tools.

The combination of an industry-standard ERP software with an internally-developed iScore suite of supply chain management tools enables all stakeholders to track demand, material on order, inventory, work-in-process, finished goods and shipments. An MRP Share program provides suppliers with complete customer forecast visibility, plus current inventory and material on order.

On the supply chain side, this system enables the purchasing team to view consumption across the company on a given part. SigmaTron's IT team has enhanced system capabilities to help reduce the workload material constraints are creating. All part fields in purchase orders now include a date wanted and supplier promise date. Larger suppliers receive a weekly data file of purchase orders so they can confirm or update promise dates. As constraints develop in a specific part,

# A Deeper Look at SigmaTron and Wagz

While Wagz operates as a wholly-owned subsidiary of SigmaTron, there are significant synergies between the two companies. SigmaTron's Chairman and CEO Gary Fairhead and Wagz Founder and CEO Terry Anderton discuss the benefits of the combined companies in a Q&A format.

*Q: What made this acquisition attractive to SigmaTron?*

**Fairhead:** Our current global footprint works well for our customer base and we have an efficient formula from a systems and operations perspective. If we followed the typical "grow through acquisition of our EMS competitors" model, we would potentially add inefficiency plus strain management bandwidth during the integration phase. Conversely, the acquisition of Wagz puts us in the high growth, pet tech/IoT niche. It diversifies the risks inherent in our business while adding new revenue and profit streams. Longer term, Wagz' proprietary software platforms, strategic telecom relationships and engineering expertise may be beneficial to consumer customers wishing to increase customer engagement and develop additional revenue streams by adding IoT features to their products. At the same time, Wagz' business niche is unique from the rest of our customer base so there are no competitive issues.

*Q: What benefits does Wagz see?*

**Anderton:** Short-term we gain the financial leverage of a larger entity capable of supporting our manufacturing needs. Longer term, both SigmaTron and Wagz have the ability to differentiate themselves by exploiting the infrastructure and expertise we both bring to the equation. As we explore partnerships in the pet care sphere, we find that our ability to provide a total solution from product development through manufacturing and end market support makes us a more attrac-



*The Wagz® Freedom Smart Collar™ smartphone app opens the door to another dimension of interaction among owners and their pets. Longer term, the Wagz expertise and infrastructure behind that app will be available to provide IoT "go to market" support for SigmaTron customers wishing to add IoT functionality to their products.*

tive option to companies wanting to add an IoT solution to their products. This benefits both our model and SigmaTron's model.

*Q: How do customers benefit?*

**Fairhead:** In the typical EMS model, a company like SigmaTron helps customers get their products built and shipped to market efficiently. When design engineering expertise is applied, it is typically related to a technical problem a customer needs corrected. Wagz' team brings a significant amount of IoT expertise from both the technical side and the customer engagement side.
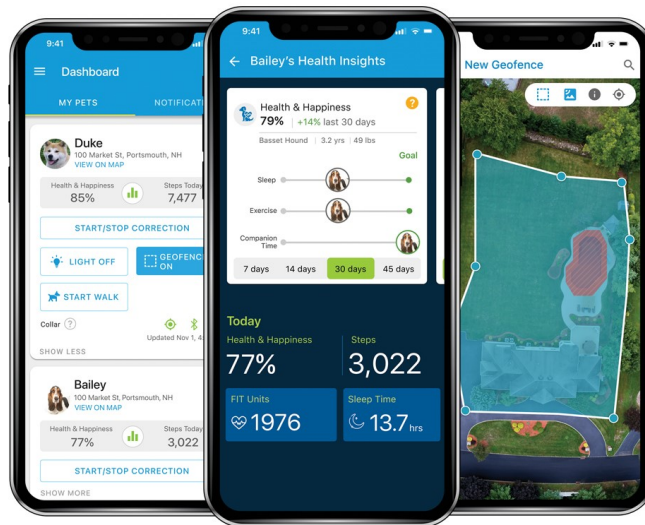
**Anderton:** IoT is growing beyond the stage of simply letting customers control a product with their smartphone. Well-strategized products help simplify or enhance end customers' lives by doing repetitive tasks or enabling the customer to interact with pets, family or their home at a distance. The barrier for many OEMs wishing to enter this market segment is building the infrastructure and third-party relationships needed to maintain connectivity, provide a replenishment solution or add desired functionality. Our proprietary Kognition™ IoT enablement platform, cloud-based services and telecom relationships provide that missing link. Longer-term, we feel we can provide IoT "go to market" consulting and support services to SigmaTron's OEM customers who wish to add IoT functionality to their products.

*Q: Are there any manufacturing capacity concerns?*

**Fairhead:** Since SigmaTron financially benefits from Wagz' success, any growth in their manufacturing needs can easily be supported with additional investment in manufacturing resources. Having some level of captive manufacturing also gives us the ability to more easily offset shifts in OEM preferred manufacturing locations.

**Anderton:** One of the benefits of our combined company model is that SigmaTron's team has total visibility into our product development process and marketing projections. Consequently, plans to accommodate growth can be put in place before capacity becomes an issue.

# Meet the Team Driving Wagz Inc.'s Innovative Strategy

While the Wagz team is predominately focused on giving pet owners peace of mind with the Wagz® Freedom Collar™ in the short term, longer term their innovative IoT infrastructure and expertise combined with SigmaTron's ability to provide a total solution from product development through fulfillment may be utilized to provide unique solutions for SigmaTron customers wishing to launch IoT products. Some of their key team members are profiled here.

**Terry Anderton** is the Founder and CEO of Wagz Inc. and a lifelong dog owner

*Terry Anderton*

with a long history of building disruptive and forward-thinking technology companies. He founded Wagz after attending a Fourth of July party in which his newly rescued puppy, Abby, ran away after being scared by fireworks. Luckily, Abby was found safe a few days later. That incident inspired Anderton's focus on developing a better way for pet parents to keep their dogs safe while giving them peace of mind.

Anderton has been a serial entrepreneur founding Gemr, a social commerce platform which was sold to a private equity firm in 2013; Trunity, a cloud-based textbook and learning platform company which went public in 2012; and co-founding NitroSecurity, a network security developer which was acquired by Intel in 2011. He was also involved in the creation and worldwide growth of the game of Paintball. He earlier led global sales at Cabletron Systems and McAfee.

He is pursuing a Master of Business Administration degree at UNC Kenan-Flagler Business School and received a Bachelor of Science degree in Organizational Behavior from Daniel Webster College. Anderton has been granted four patents. He has also been appointed by the Governor of New Hampshire to serve on the Board of the New Hampshire Innovative Research Council.

*Samuel Stoddard*

**Samuel Stoddard** is Chief Technology Officer (CTO) and Co-Founder of Wagz Inc. He was previously associated with Gemr, Inc., Trunity, Inc., Avid Technology, Pan American Airlines, Opus 2 Revenue Technologies and Cableton in a variety of software engineering capacities.

He received his Bachelor of Science degree in Computer Science and Master of Science degree in Computer Science from the University of New Hampshire.

*Trinnie Cortez*

**Trinnie Cortez** is the Chief Operating Officer at Wagz. For over 25 years, he has been a leader in the manufacturing, retail and wholesale trade industries, as well as the occupational safety and health spaces. At Apple, he helped launch the iPhone and made significant contributions to Mechanix Wear and Bob Dale Gloves. In addition to managing worldwide sales and marketing, product development, commercialization and general management, Trinnie has helped lead industry change by creating ANSI standards, ASTM testing criteria, and developing materials and processes that have been used by the US military, Exxon Mobil and Ford Motor Company.

*Melissa O'Dea*

**Melissa O'Dea** is VP of Product Development at Wagz. She was previously Director of Digital Product Management at Keurig Dr Pepper. She earlier held a variety of executive management and engineering roles at iRobot and American Power Conversion.

She received a Master of Business Administration degree from the University of Massachusetts and a Bachelor of Science degree in Electrical and Computer Engineering from Worcester Polytechnic Institute. She received

the iRobot Chairman's Award in 2016 and holds two patents.

*Kristin Cefalo*

**Kristin Cefalo** is Vice President, Marketing at Wagz Inc. She brings extensive consumer products marketing expertise having previously held executive-level marketing positions at Revolution Cooking, Lucidity Lights, Inc. and Keurig Green Mountain. She was earlier associated with Commercial Ware Inc., Sun Life Financial of Canada, Waterbury Garment Corp., The William Carter Co. and The Dilenschneider Group, Inc. in a variety of product development and account management roles.

She received a Bachelor of Business Administration degree in Marketing from the University of Notre Dame. She received a Master of Business Administration degree with a concentration in Marketing from Bentley University.

*Tom Mason*

**Tom Mason** is Chief Supply Chain Officer at Wagz. Previously, he served in a variety of executive, supply chain and engineering positions for Jabil, American Made, New England Footwear, Telefunken Semiconductor and National Semiconductor.

He received a Bachelor of Science degree in Engineering Technology at the University of New Hampshire, an Associate of Science degree in Electrical Engineering Technology at New Hampshire Technical Institute and an Executive Certificate in Strategy and Innovation from MIT's Sloan School of Management. He

## Wagz Team

serves as an Industrial Advisory Board Member for the University of New Hampshire's College of Engineering and Physical Sciences.

**Kevin Eaton** is Chief Software Architect for Wagz and serves as its technical leader for software engineering and systems architecture. He founded

*Kevin Eaton*

KVSS Technologies/Treelight in 2008. He has served in a variety of executive and engineering capacities in Gemr, Salon Target, Trunity and Endurance International Group, plus been involved in software engineering consulting projects. He also serves as an Adjunct Professor of Computer Science for Purdue University, Kaplan University and Hesser College. He has served in the US Army Reserves for over 18 years and currently holds the rank of Major. He has also founded a non-profit charity, KVSS Charities, focused on mentoring, leading and guiding women, veterans and others in technology.

He received a Doctor of Business Administration and Applied Computer Science degree from Northcentral University, a Master of Science degree in Information Technology Management from Touro University International, a Master of Science degree in Psychology from Kaplan University and Bachelor of Science degree in Computer Science from Touro University. He holds another doctorate and a master's degrees in liberal arts fields.

## Working Smarter

purchasing has the ability to provide early trends warning to program teams who in turn warn customers. The system's auto-replenishment feature is also being monitored for late de-commits. A third-party application programming interface (API) that pulls broker and distributor inventory has been integrated into the iScore system for situations when a supplier de-commits or customer demand changes create potential gaps in the pipeline. This information can be viewed simultaneously with the MRP plan to determine the viability of filling shortages in real time.

The current supply/demand imbalance is driving increasing costs and materials constraints surprises. While it is difficult for any EMS provider to change those dynamics, it is possible for companies to focus on operational improvements that reduce manufacturing cycle time or eliminate inefficiency. The visibility that robust systems can provide, helps in this area as well.

SigmaTron International's proprietary Manufacturing Execution System (MES)

system known as Tango monitors production, quality and warehouse activities. The system provides traceability, is exception-based, has enforced routing capability and integrates with the ERP system and iScore in real-time.

Tango acts as a partner with production operators tracking each assembly through all processes. On assemblies that required serialization in different formats at different parts of the process, the system ensures that the right serial number is associated with that assembly. Additionally, if any process steps are skipped or if an operator attempts to add the wrong serial number, the system notifies the operator of the error. In short, it provides project status visibility and serves as a poka-yoke that prevents errors in manufacturing routing.

It also enhances real-time quality data reporting, enabling the production team to see data by serial number or the entire lot. This helps the team track trends in first pass yield and any repair activities, and quickly identify and correct their root causes. The IT team is also adding an API that will improve test data accessibility and analysis.

The IT team recently enhanced Tango's pro-

duction modeling tools to make it easy for production team members to identify production constraints more rapidly. For example, if there is a kit requirement for 1200 pieces of a part and the stockroom only has 1000 pieces in inventory, the system will warn the stockroom staff to transfer more material before parts are pulled. This gives a team that is managing a lot of daily transactions, a virtual assistant who warns them if a problem is about to occur.

The current supply/demand imbalance issues are systemic and will likely continue through much of 2022. Many best practices and industry rules of behavior have been invalidated by the shortage of chips and other manufacturing capacity. That said, while the response must be agile and creative, it also must be disciplined. SigmaTron's continuing focus on company-wide systems visibility combined with improvements that enable its systems to reduce its teams' exception-driven added workload, are helping to drive better outcomes in a chaotic environment.

*Have a suggestion or article idea?*
*Contact Curtis Campbell, VP Sales, West Coast Operations*
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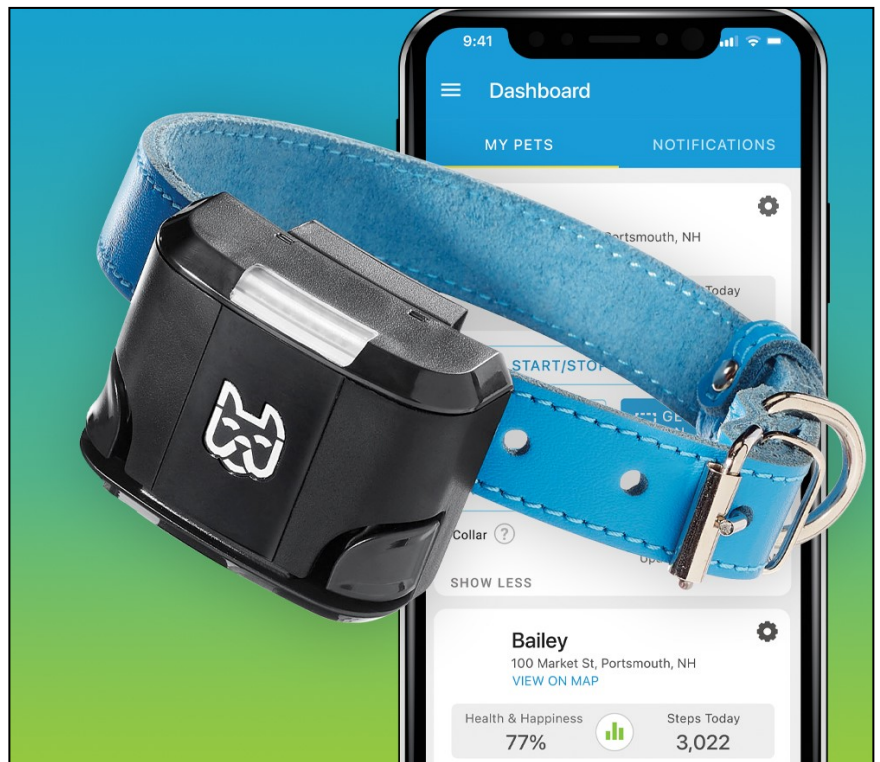# Introducing The Wagz® Freedom Smart Dog Collar™

The Wagz® Freedom Smart Dog Collar™ is the only shock-free wireless fence and wellness system. It enables pet owners to create virtual fences in seconds via the Wagz smartphone app. Automatic, real-time corrections via the smart dog collar keep pets safely contained while keep out zones prevent pets from going where they shouldn't. GPS location tracking lets owners pinpoint pet location with 10 feet. This system also tracks the route, distance and duration of all pet activity, including walks and hikes. The collar is cellular-enabled and requires a subscription.

Training correction cues are humane, using vibration, audible cues and ultrasonic sounds (individually or in combination). Corrections occur automatically when crossing a geofence boundary or can be activated manually in the Wagz App.

The Wagz app also creates a Health and Happiness Score measuring sleep time, exercise and companion time to help pet owners be proactive about their approach to care.

For more information and to order, visit www.wagz.com.



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