

DAVID KUSUMA'S NEW JOURNEY

The long-time Tupperware executive changes course for Portland

To many in the plastics industry, David Kusuma has long been the face of Tupperware Brands, the global maker of ubiquitous, durable kitchen and home products. After starting at the company in 2001 as vice president of product development worldwide, Kusuma more recently served as global vice president of research and innovation. So, it shocked many when in mid-May he announced he was leaving the Orlando, Fla.-based company to pursue a new opportunity—and not one that many would have expected. Kusuma joined Blount International Inc., of Portland, Ore., as senior vice president of product management and innovation (PMI). Blount, in business 74 years and with 3,400 employees, is rebranding itself as Oregon Tool Inc. (www.oregontool.com). Decades ago, Blount developed the chains used on modern chain saws and counts metallurgy as its core competency.



But plastics industry folks need not fear that they've heard the last from Kusuma. He is beginning the second year of a three-year stint as board chair of the SPE Foundation and remains on the board of SPE's Injection Molding Division. He is the incoming president (for a two-year term) of the Montreal-based World Design Organization (www.wdo.org), the top umbrella group for design in the world, with some 180 design organizations as members, representing more than 400,000 designers.

Few boast the resume of Kusuma, who is of Chinese-Indonesian descent and whose father worked for the United Nations in New York, where Kusuma was born. He holds five degrees—bachelor's degrees in design and mechanical engineering, two master's degrees in management, and a PhD in materials science—and has been honored as a Fellow by both SPE and the Industrial Designers Society of America (IDSA). Robert Grace caught up with him recently as he was packing up in Orlando to begin his new chapter in the great Northwest.

Why did you leave Tupperware?

Leaving Tupperware was extremely hard. They're a great company. They've given me lots of opportunities to bring innovation into the company, to focus on creating new products, and categories and technologies. They also gave me the freedom to explore and maximize open innovation from an R&D point of view. So, leaving was not easy, but sometimes change is good. I like to have continued challenges. I'm not really comfortable being

Under Kusuma's watch, Tupperware adapted NASA technology to produce this Nano Nature Water Filtration System for households. It filters out 99.99 percent of contaminants and is one of Tupperware's biggest-selling products worldwide.

comfortable. I like the challenge of new opportunities and bringing new innovation into new spaces.

Why Blount International?

Joining Blount was an opportunity to work in a totally different industry. If I ended up working for a similar company as Tupperware, I would end up doing the same thing, just somewhere else. The West Coast was also an opportunity to move to someplace new, as well. I was born in New York and lived my entire career on the Eastern seaboard. My wife and I are really big on being outdoors, so what a great opportunity to explore a new part of the country.

The company is now known as Oregon Tool [to better identify with the brand used on most of Blount's products]. Oregon Tool is an amazing company with a tremendous opportunity for growth. This is a very traditional business—as Tupperware was—until you are able to inject innovation and new thinking. As senior vice president of PMI, several teams report to me, including the engineering teams, R&D and product management. It's an incredible opportunity to work with the new leadership to shape the future of the company and to manage the entire product development enterprise.

What are you most proud of about your time at Tupperware?

We did a huge amount of work on food conservation with universities to learn how to keep food fresher for longer periods of time, and on clean-water technology products, which are now some of Tupperware's biggest sellers and revenue generators. And that led into some of the work that we've done in space with NASA. We also focused on developing technology applications for microwaving, an old technology which was ripe for invention. There is a very high penetration of microwave ovens in households in Western countries—more than 90 percent in the U.S.—and in technology-savvy Asian countries such as South Korea and Japan. But mostly they are used only for reheating. So, we looked at how we could create products that give people the opportunity to use this appliance that nearly everyone has already ... for cooking. For us, that was creating opportunity in an otherwise crowded space.

It wasn't an easy journey, because just about everyone has had bad experiences with cooking in the microwave, whether it's rubbery chicken or rock-hard baked goods. We've had to help customers overcome their bad experiences and see the benefits of microwave cooking. Microwaving is actually the best for cooking because food goes into decline when you heat it up, and microwaving heats it up the least, and cooks

it superfast. With some of these new technologies and products, we've been able to replicate the quality of food that you would get by using other traditional cooking methods. Plastics couldn't do it by itself. We focused on using hybrids, a combination of plastics and metals sometimes, but generally speaking, new composites of some type.

What will your roles be with SPE and the WDO going forward?

I made a commitment to SPE for three years to be the chairman of the SPE Foundation, so I'm going to honor that commitment. I find it to be very exciting, very worthwhile, to work with the SPE Foundation primarily because of its focus on mentoring and on scholarships and on building up the engineers of the future. I've always been a mentor, even at IDSA. At the SPE Foundation, we're focused on making things happen, in terms of raising money specifically for scholarships and grants and building programs for education. I also was re-elected to the SPE Injection Molding Division board a year ago. I have found the SPE-IMD board to be a great opportunity to work with extremely talented plastics professionals from almost every industry.

The WDO used to be known as ICSID, the International Council of Societies of Industrial Design. It changed its name a few years ago to become more inclusive. But I was involved with ICSID for a long time and served on the board from 1997—back when I was working for Bayer Material Science—to 2001, before stepping off for a while. I continued to serve as a regional adviser for ICSID for 18 years, then rejoined the board again in 2017, and was elected as president-elect in 2019. Under normal circumstances I would be assuming the WDO presidency in October, but it will be delayed due to the pandemic until February, when they will hold their next World Design Assembly, which is set for Shunde, China. Their last assembly was in 2019 in Hyderabad, India, and it was a grand event.

What do you see in terms of materials trends in the future?

Composite materials are definitely going to be playing a bigger role in products in the future. In airplanes, for example, they've been documented to get a 20 percent weight savings over typical aluminum alloys.

There's also a strong focus now, of course, on sustainability. The plastics industry has been all over the place in this regard—both good and bad. There are companies that are very responsible, like Tupperware. They have an edict that nothing branded as Tupperware can go into the trash can. They take everything back and they make products that come with a lifetime warranty. We couldn't use mechanically recycled materials at Tupperware because of regulatory [food-contact] issues, but we still continued to search for a solution. We finally were able to do that through chemical recycling, which produces a new polymer from old materials, even though it is more expensive.

But as you know, there are still companies that make single-use plastic bottles and limited-life products like that. Unfortunately, the resulting effect to the environment has given a bad name to the plastics industry. There needs to be a universal discussion and reckoning on how to deal with all of this waste.

What did you learn from the pandemic?

One of the things I learned from the pandemic is that the world screams for sustainability, but health comes first. Single-use plastic bags were starting to disappear from stores and supermarkets, but during the pandemic they started to come back, over safety concerns about people reusing unclean bags. It will swing back eventually, I imagine.

Most of all, I believe the COVID pandemic, which has affected everyone around the globe, has created a renewed focus on returning to what

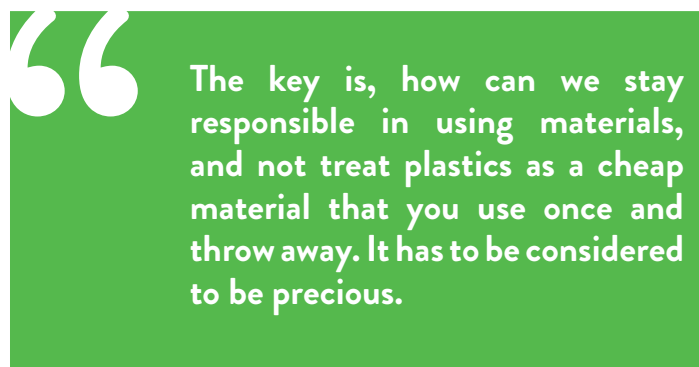
matters most. The hardships of the pandemic have made us all reassess what is important to ourselves. Being "rich" in life does not necessarily mean having more money or more possessions, or even more technology. We can continue to use modern tools, but I believe it has become more about living a simpler, healthier life and having meaningful connections with people, our communities and our planet.

Early in your career you worked in the car industry with the GE Plastics/Bayer joint venture called Exatec. How do you see future trends in that sector?

The automotive industry does tend to drive a lot of the needs of the materials industry. They're always looking for lighter weight, stronger, recyclable materials, and because they have the volumes, other industries will also benefit from that.

I think plastics will continue to have a big role in just about everything going forward. It just depends on how we use it. The key is, how can we stay responsible in using materials, and not treat plastics as a cheap material that you use once and throw away. It has to be considered to be precious. We use metals and other materials very precious; why don't we give plastics the same consideration?

The design industry has a lot to contribute in this area to create value in using different types of materials.



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What role do you see bioplastics playing in the future?

I think bioplastics is an important innovation and has its place. But we have to be careful about promising too much. We have done some life cycle assessments in the past that show that some bioplastics are less environmentally friendly than people give them credit for. That's because it takes much more energy to convert it from raw materials into feedstock than traditional polymers. It's great research, but not the Holy Grail at this time.

Looking forward, you'll be experimenting with different materials than in the past, correct?

At Tupperware, I had an R&D application lab, but at Oregon Tool, we have a metallurgical laboratory that is quite advanced. I'm a materials scientist by education, and I thrive on developing new materials and new material applications. I especially have interest in hybrids and composites where we can blend uncommon materials from different sources and combine them to create new properties and new user benefits. ■