Alan Rozich: Sustainability expert sees commitment in China

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By MAY ZHOU in Houston |   
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He’s a scientist and an engineer with a strong interest in resource sustainability. And China is where Alan Rozich has chosen to work because, he said, China ``has it’’.  
And ``it’’ is more opportunities for sustainability projects and a national commitment.  
``Everyone in China is on board for sustainability’’, said Rozich, a sustainability and environmental technology expert. In 2018 he became executive foreign expert for sustainability for the city of Zibo in Shandong province, then chief science officer for Shandong Borun Process Industrial Technology Company.  
“The thinking is down to the whole population. For example, when I go to a Chinese hotel, I would notice this small detail that Chinese hotels only provide two pieces of paper for writing. In the US you would get a full stack of paper. Sustainability seems deep in Chinese society’s thinking,” Rozich said.  
Rozich’s connection with China started when Borun’s Lexington, Kentucky-based Birtley Industrial Equipment contacted him to work on some environmental projects in China.  
“About two and half years ago they were trying to recruit professionals who are interested in being a foreign expert. I went to the first symposium in 2016 and they started to file for grants for environment related projects. By the time the grant came, I disconnected with another company and joined them,” Rozich said.  
With a PhD in environmental engineering, Rozich first worked as an assistant and research professor at the University of Delaware, then he joined ERM first as its program manager then principal to run wastewater technology program. Later, as principal at PMC, chairman and CEO at BioConversion Solutions, he accumulated vast experience in applying advanced biological conversion technologies.  
Before joining Borun, Rozich primarily focused on consulting work, providing quantitative sustainability insights and technologies and crafting craft strategies that address the mega-trends in the sustainability, environmental, and resource spaces.  
Rozich has numerous patents and published and presented more than 100 technical and research papers. With a keen interest in global sustainability, Rozich recently published Other Inconvenient Truths Beyond Global Warming to address key science and engineering needed for resource sustainability.  
In contrast to China, Rozich views sustainability in the US as just too much talk and slow progress.  
“We have Hollywood stars that talk about it. After the talk, they fly private jets to go back to their 15,000 square-foot houses and they produce big carbon footprints,” he said.  
“I feel like I have more in common with Chinese in sustainability. People feel the sense of urgency in China, and China is trying to do it for the economy,” Rozich said.  
He said that the sustainability contrast between the US and China is also reflected in infrastructures: “China is interested in moving a lot of people efficiently, but the US is still stuck with highways. It’s more energy efficient to have bullet trains than individual automobiles.”  
Rozich was involved with $100 million of installation of projects for creating renewable resources, energy, high-grade fertilizer, and water from diverse biomass feedstocks over a 20-year period. But he finds that working with Borun in China is much easier to turn his vision into reality.  
“I started in 1980s, put the technologies into systems in the 1990s. By now I have improved it and find its useful for China. It’s a natural fit. I have a group of my own engineers at Borun I can rely on. We are not reinventing the wheel for each project and we can get it right,” said Rozich.  
He admires Borun’s founder, Chen Bing. “He is visionary. He might not get the recognition like Alibaba’s Jack Ma, but he learned from ground up, he saw some of the needs in China, what it takes to meet the needs and also does it in a way to make business sense. He got that internal will or moral compass to do it right.”  
Rozich and Borun have worked together to put a few projects into motion. A couple of waste-water projects are helping pharmaceutical companies clean their dirty water and recycle it. Other projects involve treating municipal waste.  
To Rozich, those projects are more about reclaiming resources for sustainability than simply cleaning up the environment. “I often tell people to forget about environment. If you think about how people characterize pollution, it’s bad stuff in air, water and ground.’’ However, that’s the wrong way to look it, he said.  
"What we are doing is that we are taking resources we can otherwise use, resources we misplace in water, air and ground. We are recovering those resources to make it renewable, to enable China to manage the resources revolution that China and the rest of the world will face,” Rozich said.  
He thinks what he is doing will help the world to deal with growing demand of energy and resources from a growing middle class population in Asia and around the world.  
“McKinsey on the West Coast has forecasted that China and India, in the next five years, will put another 3 billion people in middle class. That’s progress, but that one class will require not double but four to five times more resources. The strain on fossil fuels, other finite resources, and the economy will be unprecedented and unpredictable. What’s your option? Renewables of course,” Rozich said.  
He believes that if people push the economy to renewable, the world will get rid of pollution and solve global warming at the same time: “When people look at wastes as misplaced resources, suddenly there is a whole new set of resources to get the economy going.”  
Take phosphorus for example, Rozich said. Only China, the US and a couple other countries have a few major mines of phosphorus remaining. However, by applying biological conversion technologies, society can get plenty of renewable phosphorus from human waste and other feedstocks, he explained.  
“Now China can use Borun technology to get all the phosphorous they need to grow its economy. When you look at human waste, it’s fantastic resource for water, fuel and nutrients for agriculture industry. We can turn it into energy and make a profit,” Rozich said.  
Making renewable resources makes more money than just getting rid of pollutants. “A few projects that Borun is planning can make more money selling fertilizers [obtained from waste treatment],” he said.   
Even though Rozich said that it’s harder to develop sustainable projects in the US, he believes that there is a market for his technologies, especially in municipal waste treatment.  
"We are working on project to turn a city’s organic sludge to fertilizer in the US. Borun will be there to execute these projects in the US," he said.

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