Lina Sakai is the president of Fermenstation—a firm whose name combines the words “fermentation” and “station”—which links traditional Japanese fermentation processes with modern technologies to connect businesses and people in new and exciting ways. Her business model of focusing on establishing and branding a circular economic system in local communities has gained her high-level attention: In 2014, Sakai won both the British Business Award for Community Contribution and the Creative Business Cup Japan, and her rice ethanol-based products received the Social Product Award.

Sakai’s entrepreneurial skills come from her years of experience in the financial industry. While working the trading floors, she also had the opportunity to assist energy-based NPOs with their programs and grants. She decided to leave the banking world and enter the Tokyo University of Agriculture (TUA) after seeing a television program in which a professor from TUA discussed the process of fermentation and changing raw waste into energy. Studying the scientific methods was challenging for Sakai, but she says: “Fermentation is a part of Japanese tradition, so I was also able to focus on the cultural aspects of the field. And I wanted to find a way to create a business out of it.”
As luck would have it, Aguri Sasamori—a local farming cooperative in Oshu City, Iwate Prefecture—had a similar idea: to plant rice in unused fields and turn it into energy. Based on discussions with the group, Oshu City approached TUA with a request for joint research, and Sakai, graduating from TUA in 2009, took charge of advising on the project. In July of that year, she established Fermenstation with the vision of making ethanol fuel from rice. While they succeeded in doing so, high production costs made it impossible to create a profitable business. Sakai later realized, however, that the high-quality organic ethanol they’d made could be used in the cosmetic industry, and built a business out of selling it to companies as well as creating her own original line of products, including soap and air freshener.

At the same time, Sakai became interested in the cycle of local production for local consumption in Oshu City, partly because producing ethanol from rice was generating a lot of byproduct. “I thought we should try offering the byproduct for animal feed,” Sakai recalls. “We brought the feed to a nearby chicken farm, and as soon as we put it out the chickens quickly ate it up. It was very popular with them.”

The chickens also began to produce higher-quality eggs, which were used at a local bakery to create delicious pastries. Furthermore, the feces from the chickens turned out to be an excellent fertilizer for the rice fields. And now

Aguri Sasamori rice is even being sold for human consumption, rounding out a self-sustaining cycle in Oshu City.

“If the business doesn’t circulate, there’s no meaning in doing it,” Sakai says. “And I feel like I’ve finally got the business on track. I’m thrilled to talk to people about the cycles of fermentation and business and continue to spread the word about Fermenstation.”

More people are beginning to perceive the benefits of fermentation and waste reduction. Other local communities throughout Japan have already approached Fermenstation for consulting and creative branding services related to recycling. Sakai says she would be happy to see this model used around the world.

1 Lina Sakai with the Oshu rice that supplies Fermenstation
2 The company’s all-natural ethanol is popular with aromatherapists due to its affinity with natural oils
3 Essential partners—the farmers of Oshu
4 Staff members at Fermenstation