



CATHY CHENEY | PORTLAND BUSINESS JOURNAL

LeanPath's Andrew Shakman and Stephen Rogers have helped David Pruyn, corporate chef at Southwest Washington Medical Center, cut food waste by 30 percent in the past year.

Two local tech startups focus on sustainability

BY ALIZA EARNSHAW
BUSINESS JOURNAL STAFF WRITER

When it comes to sustainability, technology is key to many of the changes that industries must make to become greener.

Curiously, though, few established technology companies focus on sustainability as a discrete goal.

Instead, most technology companies look to cutting costs, and if being greener is a byproduct of that effort, well, that's all the better.

"Mostly they respond to regulation," said Scott Marshall, director of design and innovation for the business sustain-

ability center at Portland State University's business school.

There are some notable exceptions, of course. Intel Corp., the world's largest maker of microchips, is known for its programs to cut back on water and energy use. Xerox Corp. has long made sustainability a core concern, as has Hewlett-Packard Co.

But when it comes to the new technologies, start-ups and other small companies often do the heavy lifting.

Here are two in the Portland area:

PLAS2FUEL INC.

If Chris Ulum, Kevin DeWhitt and Brent Bostwick have their way, someday the car you drive could be running on former milk cartons and cottage cheese tubs.

Their Kelso, Wash., company, Plas2Fuel Inc., is developing a system for recycling plastics into a synthetic sweet crude oil that could ultimately be refined to power vehicles and for use as industrial lubricants.

"Fundamentally, plastic is made from natural gas, so it's like we're converting it back to its natural state," said CEO Ulum.

Incorporated almost four years ago, Plas2Fuel now has seven employees. The company has raised a little more than \$1.5 million in capital, and plans to increase that to \$2 million by the end of June.

Plas2Fuel is also creating an economic system that makes use of the system already in place for recycling plastics.

Recycling companies already pick up plastic waste from commercial and industrial customers, where most of the 55 billion pounds of plastic put in landfills every year are generated, in the form of packaging for components and other materials used by commercial enterprises.

Rather than having those recyclers tote the plastics to a central location, Plas2Fuel is designing a small-scale closed system that recyclers can purchase or lease for their own premises.

Recyclers will still be able to sell clean plastics of a single type, such as polystyrene, to their current buyers. But the Plas2Fuel system will give them an option for effectively recycling — and selling the byproduct of — unsorted and dirty plastics they can't sell now.

The system was designed to compete with petro-based oil that costs \$60 per barrel.

LEANPATH INC.

You may think of plastics as the worst thing that can go in a landfill. But for waste managers, there's a much worse problem: food.

Food can't compost in traditional landfills. Instead, food waste goes through an anaerobic cycle that produces methane gas. Methane traps 23 times as much heat in the atmosphere as carbon dioxide, making it a huge contributor to global climate change.

LeanPath, started four years ago in Portland by Andrew Shakman, Stephen Rogers and Bill Leppo, has designed a system that helps big commercial food operations figure out how much food they are throwing away and cut back on that waste.

LeanPath's customers include food service companies like Aramark Corp., Compass Group North America and MGM Mirage. The company has two clients in the Portland area: Southwest Washington Medical Center and Nike Inc.

Seattle's public utilities department is running a pilot project with Seattle University and Swedish Hospital, paying for LeanPath's consulting services to help these two institutions cut back on their food waste.

"Our approach with food is to reduce, reuse and recycle," said Shirli Axelrod, senior environmental analyst with Seattle Public Utilities.

aearnshaw@bizjournals.com | 503-219-3433



ON SUSTAINABILITY,
AMERICA LOOKS
TO PORTLAND.

WE'RE PORTLAND
STATE UNIVERSITY,
AND PORTLAND
LOOKS TO US.

www.pdx.edu

 Portland State
UNIVERSITY