

## Going Global By Going Green

### Garbage-Disposal Maker Finds Environmental Pitch Sinks In in Europe, Asia

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**J**acqui Sheldon tossed a banana peel and some orange skins down her kitchen sink, threw the switch on her government-subsidized garbage disposal, and, to her way of thinking, helped create a better planet for her children.

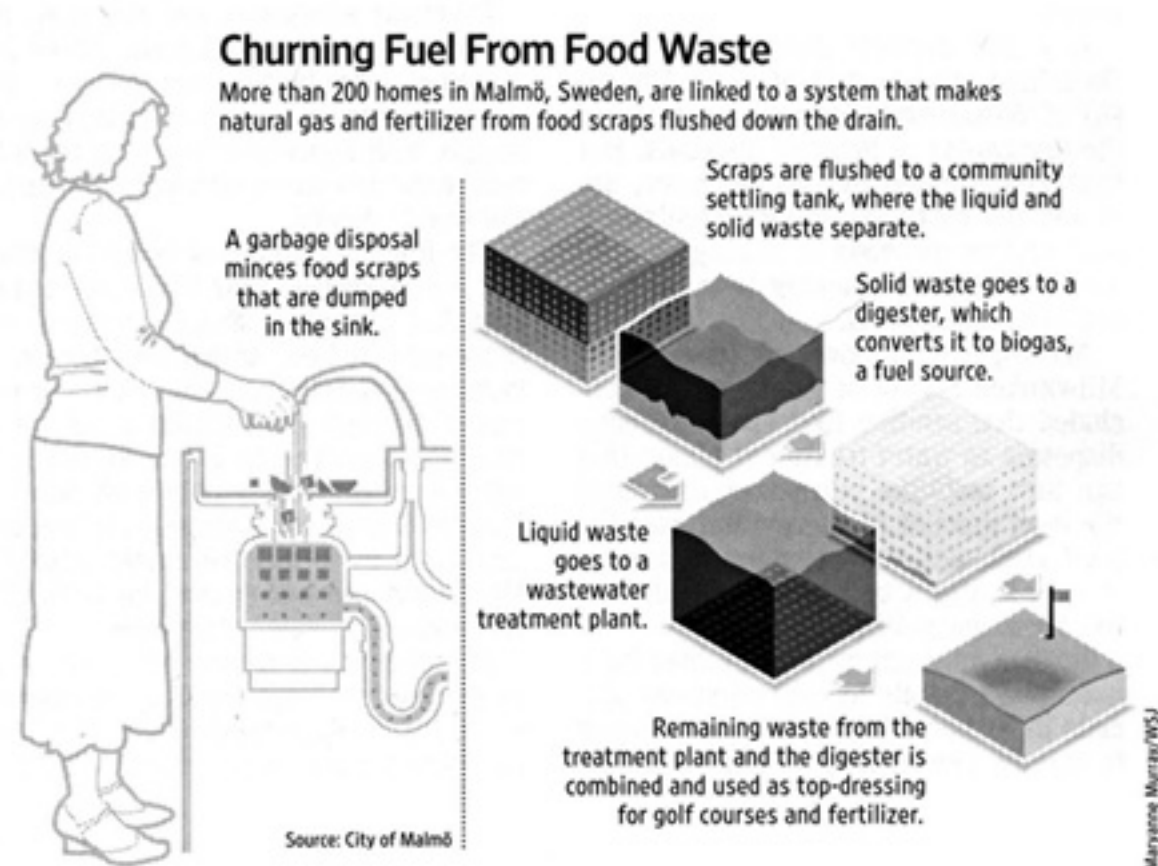
After struggling for decades to get a foothold outside of the U.S., the lowly garbage disposal is picking up some new fans: environmental engineers and local government planners. InSinkErator, a Racine, Wis., unit of Emerson Electric Co., has been lobbying local governments in Europe and in parts of Asia in the hope of altering the perception that garbage disposals are a water-guzzling convenience that can clog pipes and overtax sewage-treatment plants.

InSinkErator, which says it makes about 80% of the garbage disposals in use worldwide, had virtually no sales in Europe in the early 1990s. Many municipalities resisted the idea of garbage disposals, maintaining that composting was a better way to handle food waste. But as governments there have tried to come to grips with global warming and reduce their environmental impact, the company spotted an opportunity and crafted a new message. "We didn't invent disposers to be an environmentally friendly solution" to waste problems, says Joe Ferrara, director of European operations. "But they do have all these positive impacts on the environment."

The green strategy has helped InSinkErator to nearly double its worldwide sales in the past decade to close to \$500 million annually, say people familiar



Joe Ferrara



with the situation. The company, which still accounts for a small fraction of Emerson Electric's yearly revenue of about \$22 billion, now sells more than 100,000 disposals in Europe each year.

In the U.S., where about half of households already have garbage disposals, InSinkErator has largely eschewed the environmental pitch. It lately has been pushing to boost domestic sales by focusing on potential new customers and on marketing to upscale consumers who might want to upgrade their existing model. Newer versions can better handle stringy foods such as celery that tended to gum up the older disposals.

John Hammes, a Wisconsin architect, invented the sink-connected garbage disposal in 1927 in his basement workshop, according to InSinkErator. He was looking for a better way to clean up after meals and to eliminate flies and odors from garbage bins. He started the company in 1938, and sales took off amid the post-World War II housing boom. Some U.S. cities mandated their installation in new homes.

InSinkErator has pitched disposals as

an especially good fit in densely populated Europe, since the devices could help reduce congestion from garbage trucks. But critics contend the approach merely shifts the waste-handling burden to already overtaxed waste-water treatment systems.

Gauging the environmental pluses and minuses of garbage disposals is complex. Carting organic waste to landfills contributes to several problems. It requires using garbage trucks, which spew pollutants. In addition, mixing food waste into garbage can make it more difficult for sanitation workers to sort out recyclables, and more energy is required to incinerate the water-laden refuse. And most importantly, landfills themselves produce a lot of methane, a potent greenhouse gas.

Sending food waste through a kitchen garbage disposal, however, creates a different set of headaches. It increases water usage slightly, according to several studies. Engineers worry that as the waste passes through municipal sewer systems to treatment plants, the ground-up food sometimes contributes to clogging. And after treating the waste-water,

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**DOW JONES**

plants are left with more sludge, which is costly to dispose of.

After studying disposal use in the United Kingdom, John Henry Looney, an independent environmental consultant based in Maisemore, England, became an advocate of the devices for urban areas. "You reduce the garbage runs and the carbon footprint, which is important," he says.

The U.S. Green Building Council, which certifies environmentally friendly structures, is currently considering allotting points to homes that include disposals.

In a 1998 doctoral dissertation, Carol Diggelman, then a student at the University of Wisconsin in Madison, crystallized the arguments in favor of disposals. Her research, funded by InSinkErator, analyzed the costs and environmental impact of five methods of managing food waste, including trucking it to landfills and to compost yards.

Ms. Diggelman, now a professor at the Milwaukee School of Engineering, concluded that sending food scraps through disposals to water-treatment plants that can turn methane into power consumed the least amount of energy and used the least land, although it added to sewage sludge. It also was the cheapest alternative for municipalities.

InSinkErator executives say they have used those results to help persuade officials in Sydney, Australia, and in Japan to largely repeal longstanding bans on

disposals. Studies conducted in both places were favorable to disposals, the company says.

In Malmö, Sweden, a government-sponsored project designed to be environmentally sustainable includes more than 200 disposals in apartment buildings. The disposals aren't linked to sewer lines, but to a separate system for turning food scraps into methane, which is then burned to produce power. A similar system is under consideration for a proposed 2,000-home development in London.

Disposal advocates see the U.K. as particularly promising terrain. About 5% of homes already have the devices, and municipalities have been struggling to comply with legislation requiring them to reduce the amount of biodegradable material sent to dumps.

The English counties of Worcestershire and Herefordshire, near Wales, started to subsidize garbage-disposal purchases by consumers in 2005. Anticipated decreases in waste-disposal expenses will cover the cost of the subsidies within about three years, according to an analysis last summer of previously published data by Timothy Evans, an environmental consultant hired by local government officials. Mr. Evans also has worked for InSinkErator and waste-water companies.

Ms. Sheldon, a 42-year-old midwife in Worcestershire, says her disposal enabled her to reduce the number of garbage bags her family puts on the curb every two

weeks from four to one. The ground-up waste is processed at a local sewage-treatment plant. The methane that is produced in the process is then harnessed for power generation.

"When you have children, you are thinking . . . what kind of world are they going to grow up into," says Ms. Sheldon. The disposal "really decreased our amount of rubbish going to landfill."

Still, persuading people around the world to view disposals as a waste-management tool remains a struggle. Bans in Portugal, Austria and the Netherlands remain in place. Some policy makers and environmental groups complain about the added water and electricity that disposals consume, and say the devices detract from nascent efforts to encourage composting of organic waste.

In the U.S., where InSinkErator sold about 6.9 million disposals in 2006, according to Appliance magazine, many engineers say that using more disposals would require revamping waste-water treatment plants, which often already receive about as much organic waste as they can handle.

"If I was building a new town or city infrastructure from scratch, disposals would be a wonderful approach," says Ed Clerico, a Hillsborough, N.J., consultant who advises companies on water-efficiency technology. "When you're confronting existing systems . . . it becomes a much bigger challenge," he says.