

■ **THEY BELIEVE IT IS A WORLD FIRST: A HYBRID SYSTEM THAT COMBINES WET AND DRY** anaerobic digestion (AD) systems, bringing together the high performance benefits of each. Unveiled at the RWM exhibition last month, the system brings together Eggersmann Anlagenbau's expertise in dry AD with Haase Environmental Consulting's expertise in wet AD systems.

Eggersmann sales director Kai Jedamzyk explains: "It is a new technology that has been developed in response to strong European market demand." Both companies have their own fermentation technologies, but recognised that each system has distinct advantages over the other within different material size ranges of residual organics.

Having worked together on many large mechanical biological treatment (MBT) projects, the firms saw the opportunity in running their wet and dry AD systems in parallel to maximise each technology's advantages. Haase sales director Rolf Sieksmeyer adds that the hybrid plant is unique because customers usually have to choose a wet or dry AD system.

With the pressure in the UK to meet its targets for reducing the amount of biodegradable municipal waste sent to landfill, and the increasing interest in MBT, the two companies feel their solution is timely for the UK and Irish waste markets, although rather late for their home market of Germany.

"In Germany the plants have been built. But in the UK, it is the time for technology decisions and for the tendering of solutions. This hybrid allows you to recover the maximum level of organics and also the maximum gas yield," Jedamzyk says. By running the wet and dry processes side by side, both would feed into a central biogas storage unit (see diagram).

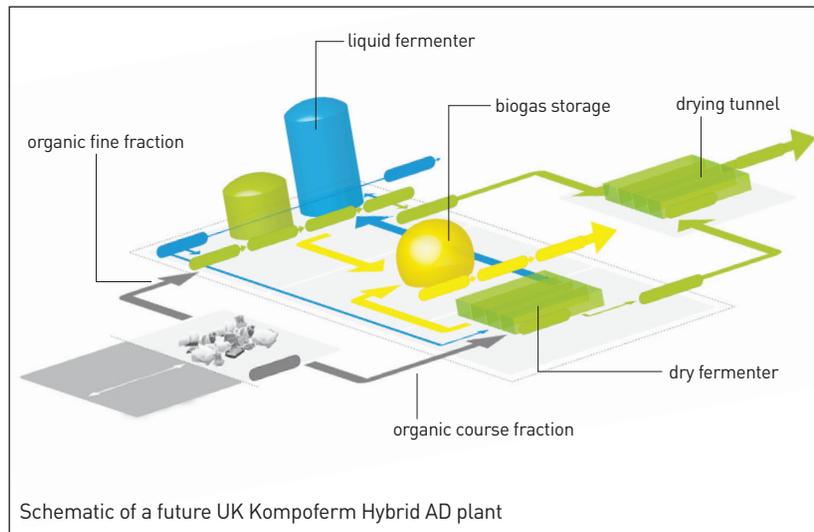
#### Delivering to the UK

The German companies are working in tandem with Kaizen Recycling in the UK to deliver the Kompoferm Hybrid system. Kaizen managing director Duncan Bowett says: "These are complementary technologies that together are very powerful – no one in the world has done this before."

Jedamzyk says: "Each system has a preferred material size, but the hybrid system allows you to take the fine material to the wet fermentation system and the larger material to the dry fermentation process." Dry AD systems typically work best with material that is 30-100mm in size, while wet systems produce better results and yields with fine material of less than 30mm.

The three partners calculate that a hybrid facility would be much cheaper to run than a traditional MBT plant, and that it would generate excess electricity compared with each standalone option because of increased capture of available biogas.

"The Capex and power generation far outweigh the additional build costs," says Bowett. "There is no other technology that would produce as much energy."



# The best of both worlds

Eggersmann Anlagenbau and Haase hope that their hybrid anaerobic digestion system will cause a stir in the residual organic waste treatment sector. **Andrea Height** reports

The firms are also confident that their practical experience stands them in good stead in the market. Haase will be providing three wet AD systems as part of the Greater Manchester PFI project and has built facilities across Europe, while Eggersmann's experience of dry systems extends back 10 years.

Jedamzyk says: "The problem is that so many companies haven't got the experience of the technologies and these projects are for 25-year deals. With Eggersmann and Haase combined, we have that experience." Indeed the three firms feel that their combined forces allow them to offer a 'big picture' perspective rather than the niche views of others.

"We see this as the future of MBT," says Bowett. "A move to such systems in the UK could put the country in a position of being a world leader in waste technology rather than one catching up." ■