A ONE-STOP SHOP FOR BIODEGRADABILITY TESTING

Belgium-based OWS (Organic Waste Systems) is a world leading expert in the construction and operation of anaerobic digestion plants, the biodegradability and compostability testing of different types of materials, and in waste management consultancy. Elisabeth Skoda spoke to marketing and sales manager Sam Deconinck to find out more about the company’s internationally successful biodegradable materials testing business.

OWS was founded in 1988 in Gent in Belgium. With its 80 employees, it is made up of two main departments. One department works on the engineering, design and construction of large scale anaerobic digestion plants, treating organic waste to be converted to biogas, which can then be used to produce electricity or can be purified to be put into the grid. Secondly, the lab and consulting department offers services in biodegradability, compostability and ecotoxicity (BCE) testing, consultancy and support in anaerobic digestion, auditing, controlling and sorting of different waste streams and sustainable development.

"The BCE business unit has for over 25 years been working on testing biodegradable materials and products. The focus lies on testing in different environments, such as compost, soil, fresh water and also marine conditions, where we offer degradation tests in sea water as well as toxicity testing. This is a very popular service due to the ongoing issues of marine pollution and the so-called ‘plastic soup’," Mr Deconinck points out.

OWS’s BCS (Biogas Consulting and Support) department offers R&D for large scale anaerobic digestion plants, while the ACS (Auditing, Controlling and Sorting) department offers audits, waste sorting analyses and control analyses focused on quality control, mostly local to Belgium. Finally, the Sustainability Assessment Services (SAS) department offers carbon footprint analyses, LCAs and different sustainability assessments.

Quality pays off
OWS is proud to offer its testing services at an outstanding quality. "We value quality above all else. We had customers who went to different testing laboratories because of price, but returned to us, because they were not satisfied with the quality. The figures speak for themselves. Looking at market, of products that have been tested and certified 70 to 80 per cent of materials on the market have been tested by us. If you look at sales from the testing labs, 60 per cent is within Europe, 20 per cent in the US and 20 per cent in Asia."

Mr. Deconinck is keen to underline the company’s worldwide focus. "As an international company, OWS’s focus is very export oriented. Our head office is situated in Gent, we also have affiliates in the US and Germany, and we have a partner in Japan."

Extensive testing services
OWS holds the position of world leader in the field of biodegradable materials testing. The general operation and activity of compost analyses is certified and accredited to ISO 17025, while the other specific laboratory activities are following ISO 17025 rules as much as possible, this in combination with the rules of Good Laboratory Practices (GLP). We are recognised by all certification bureaus in the field worldwide. We are strictly independent and only offer testing, and no product development, which means
that we are not linked to any company or producer. It is important to be independent in this business,” Mr Deconinck points out.

OWS offers a wide range of independent tests and is very active in standardisation. “All our tests were developed at European, US and international level by experts in the field. As an independent company, we are a member of all different standardisation groups, and regularly discuss test methods,” Mr Deconinck says.

He goes on to explain the testing process further: “In our testing laboratories, we offer different biodegradation tests. For example, a producer who manufactures biodegradable collection bags sends the material to us, we do the testing in line with recognised international test methods, and our customer can use the test report in order to apply for certifications to put a nationally accepted logo on their material to prove it has been independently verified.”

OWS is involved in work developing test methods for materials which can cause issues such as marine pollution, as Mr Deconinck explains. “We continue to grow thanks to our further development of standards and test methods, and we are developing test methods in different marine environments: surface sea water, the shoreline and deep sea water.”

Biodegradation varies from environment to environment. Biodegradable plastics can end up managed or unmanaged in organic waste collection, can be littered, and can end up in beaches or in rivers, and OWS is well equipped for testing in a wide range of circumstances.

“We run testing in different environments, covering composting, home composting, soil degradation for mulching films and agricultural films, which biodegrade in soil, and don’t need to be collected at the end of harvesting. They can be ploughed into the soil. In addition, testing is available in fresh water, for tissues you can throw in the toilet, for packaging of dishwasher tablets, and other items that end up in the fresh water system or sea water,” Mr Deconinck points out.

Valuable experience

Over the time OWS has been in business, the company has gained lots of valuable experience in the industry. “We were there at the ‘birth’ of the industry in the late 1980s, when we started out with major customers such as Procter & Gamble,” Mr Deconinck is happy to report.

OWS performs tests for many major companies who produce a range of different materials, including coated paper board, packaging for consumer goods, inks, bags, drinking cups, straws, cutlery, food baskets and other materials that could be contaminated with food.

Mr Deconinck is keen to point out OWS’s international recognition. “What is unique for us is that we are recognised by all certification bureaux. Customers can apply for certifications in Australia, Japan, Korea, Germany, Europe and anywhere in the world where these certifications exist. We have worked with major experts in the field, such as BASE, Natureworks, Novamont, International Paper, Lenzing, PTT MCC Biochem, etc.”

The company looks back on an impressive success story that looks to be set to continue in the future.

“Over the last ten years, our testing capacity almost tripled to 1000 test reactors, and personnel numbers also tripled. We tested over 3000 samples for 800 different clients all over the world. In the same period, our sales revenue increased by 500 per cent. We are a good parameter for the growth in biodegradable materials and the bioplastics industry. In the last seven years, we achieved double digit growth, which is quite exceptional, and I expect us to continue on this successful path,” Mr Deconinck concludes.

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