



That's a wrap

Celabor offers expert analysis to SMEs on nutrition, packaging and textiles

By Senne Starckx

The Pays de Herve is a popular area for a day out for the citizens of nearby Liège and Verviers. The rolling green pastoral landscape is a reminder of the trade that was for years the economic motor of the region. Indeed, the land here was world-famous for its textile industry, based on sheep's wool.

A large part of that textile industry disappeared in the second half of the 20th century, but other economic activities have come up in its place. That evolution has also shaped Celabor, a scientific and technical services centre based at Chaîneux industrial park near Verviers.

"Our current organisational structure goes back to 1995, when Celabor was re-established on the foundations of the Celac laboratory," says general manager Yves Houet. "You could say that we threw open the centre's narrow focus on textiles to let in the expertise and knowhow from other disciplines."

Celabor's mission is to support the industry – in particular SMEs – to grow and

become better entrepreneurs. Its 40+ staff include scientists, doctors, engineers, graduates and technicians; in short, a multidisciplinary team that companies can come to if they want to see their own technological innovation encouraged or to stimulate the development of new products and processes.

"The R&D service for private companies is a major part of our business model," says Houet. "This corresponds to about 50% of our total revenues. The other half we earn by participating in R&D programmes financed by various regional, inter-regional, national and international bodies – for example the Walloon region and the EU."

One of Celabor's biggest assets, apart from its human capital, is the high-tech laboratory that it operates in Chaîneux. "Thanks to the high performance and responsiveness of Celabor and the ISO17025 accreditation of our lab, we can run a large number of analyses and tests," says Houet. "Testing samples, whether they come from foods, chemicals, materials or organics,

often requires expensive equipment and high-level expertise. Many SMEs can't afford this, so it's our duty to help them."

Food technology is a cornerstone of today's R&D at Celabor. Its agri-food department provides skills and tools for companies in the sector of both human nutrition and animal feed. Chemical analyses play an important role here. Houet: "The food industry is in a state of flux. Healthy foods are on the rise. Consumers are demanding more products without gluten, sugars or fats. Retailers like Delhaize and Carrefour are looking for ways to prolong the best-before date in a healthy and sustainable manner, and producers are also interested in this to increase their capacity for export. Thanks to our ultra-precise analyses, our scientists can help the local food industry reinvent itself."

Apart from the nutritional aspect of food, Celabor is also looking at better ways to extract high-value components from, for example, plants or even waste streams. These components can be used in food supple-

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ments, cosmetics or even medicines. The extraction department has a technological platform – unique in Wallonia – based on green processes like supercritical fluids, which is also able to scale up more common processes in its Atex room. “This is a test hall full of extraction machinery, which we use to optimise extraction processes and to prepare natural ingredients for food supplements, cosmetics and so on.”

Most of the food and drinks we buy at the supermarket are packaged in plastic, cardboard or other materials. Celabor also helps SMEs in the packaging sector to resolve problems relating to the choice of materials and raw materials, processes, production methods and waste. “We are currently studying plastics that have a selective permeability to oxygen and CO₂ – the reason fizzy drinks in plastic recipients

can’t be stored as long as they can in glass bottles,” Houet explains. “On top of that, we’re studying how plastics react with the foods they contain. Indeed, materials we use for packaging can contain additives like phthalates or bisphenol, which can have a detrimental effect on human health.”

Finally, there’s the textile department – a throwback to the not-so-distant past. “The textile industry is currently in the prime of its life due to specific innovations that have occurred in recent years,” says Houet. “Smart clothing, for example, or superb materials used in non-clothing applications. Our team is small, but thanks to our knowhow and our knowledge of expert appraisals and specific studies, we are recognised by the professionals in the sector.”

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• Thermoforming of a container