



Thematic Paper



Food

For this thematic paper we talked to:



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Thematic papers

The goal of the thematic papers is to present Flemish scientific research internationally. They focus on fundamental and applied research.

The thematic papers are published by Research in Flanders, a project run by Flanders Knowledge Area.

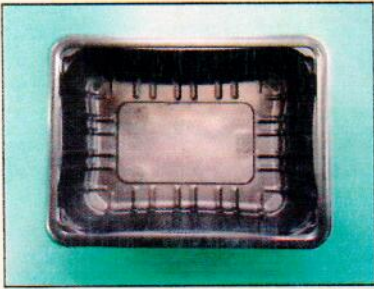
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A SEAL OF APPROVAL



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We don't always think about it, but packaging is a piece of top technology making sure our food stays fresh. Amazingly there are even researchers working on the seal on packaging: the places where it is closed before it rolls off the conveyor belt. Bags of crisps have one at the top and bottom, but also the film on the tray of lasagne you bought in the shop earlier is held in place with such a seal. So think about all the research that went into the seal on your bag of crisps next time you open one.

One of those researchers making sure our packages stay in good condition and nicely closed is Bram Bamps. He is project engineer at Hasselt

University's Packaging Technology Centre/ IMO-IMOMEC and occupies himself amongst other things with testing commercial packaging like bags for crisps and trays for ready-lasagne. 'This research is important,' he says. 'Many companies are confronted with losses during production or transport, because their packaging has failed. This can be because small hairs, dust or just food get onto the sealing surface so the package isn't closed well enough or the seal isn't as strong as it should be. By developing better packaging and seal technologies we can tackle the waste of food and packaging alike.'

Neither too strong, nor too hot

There are a lot of things to take into account: a seal shouldn't be too strong, because it'll be too difficult to rip open. And yes, of course, a package can

be sealed by heating the material up locally, but that isn't much use if the heat you need is going to dry out the food or make it go off. Sealing can be done with sound waves to avoid this problem, which is what Bamps is working on. The sound waves heat up the sealing surfaces through friction, the two layers are pressed on top of each other and melt together.

Companies are helping

Once they are done experimenting, the researchers put together guidelines in co-operation with Pack4Food so the industry can use their results. 'We'd like to develop a tool for companies to help them with their choices for innovation and explain how they can switch from the one to the other technique,' says Bamps. Hopefully packaging will break less easily that way so we will end up wasting less food and packaging material.