

Feed Design Lab celebrates 5th anniversary

# ‘We are still hungry for knowledge’

The Feed Design Lab factory is five years old. “We want to continue working with the sector to fill the knowledge gaps. We are still ‘hungry for knowledge’ and looking for new projects,” said outgoing chair Mia Eeckhout at the celebration of the first five years of Feed Design Lab.



The doors of the Feed Design Lab (FDL) factory opened five years ago

The Feed Design Lab (FDL) factory opened its doors five years ago. In 2014 the organisation started with 25 affiliated partner companies. In the meantime, that number has risen to 108 partners.

“A fantastic result,” says director Trudy van Megen with pride. In November the organisation celebrated its five-year anniversary with a symposium for the partners. The central focus was the

impact of datafication on the agri-food chain, presented by Paul Goethals (Wageningen UR) and Wilbert Hilkens (FoodInsights). “In the data-oriented landscape everything is increasingly interconnected and these links

are becoming increasingly faster, thanks to the 5G network for instance. The emergence of these network technologies will have a severely disruptive effect over the next five years," says Goethals.

### Opportunities

Data development and a greater connection intensity will disrupt existing systems, but at the same time Goethals believes a wealth of opportunities will be opened up. "This will reduce the dependency of companies on the status quo and enables a more agile and dynamic response to market opportunities and demands." According to Goethals, artificial intelligence will determine the course of future events in the world. "This includes things like facial recognition, but also the way we watch TV nowadays. Consumers have increasingly more autonomy in this respect."

Goethals signals an increasing trend towards consumption-driven production. This phenomenon is also manifesting in the food chain. As is personification. Reliability and provenance are not determined by the brand, but by the availability of background information about the product. Smart links can reveal the producer right back to animal level. "Mutually linking data systems will unleash an incredible amount of information and offers opportunities for smart management decisions," says Goethals.

### Feed industry

What does this mean for the feed industry? According to the WUR professor there are opportunities for both feed companies and for data exchange in the animal production chain. "Feed companies can make advances in process optimisation by leveraging the opportunities offered by combining multiple data flows."

Goethals has noticed a knowledge gap on various fronts in that respect. "We still lack exact knowledge of what actually happens in many machines. This is maybe an area in which Feed Design Lab can play a role." One option offered up by Goethals is creating a so-called 'digital twin', a digital model of



"Fast networks will be severely disruptive over the next five years," Paul Goethals expects.

physical machines. "That gives an experimental platform where natural variations could also be investigated and tested".

In the animal feed production chain, the industry can contribute to precision farming through data exchange. "Personalised consumer products are on the rise. Wouldn't it be great if a QR code on a pack of Maria84 milk could provide more information about what she has eaten?" As well as being used for marketing purposes, a particularly promising area according to the WUR researcher is the far-reaching optimisation of feed in line with the genetic potential of individual animals. Data exchange can also be used in service provision, for example for information about how the silo was filled on site. "If the data is available 24/7 in the cloud, you can proactively respond."

### Systems

However, one thing that stands in the way of this development is that various partners often operate different data storage systems. This complicates the smooth exchange of data, even within your own company. Other limiting factors that make parties reticent to utilise the existing possibilities are the competition sensitivity of the information and privacy regulations. Blockchain technology is widely assumed to be the appropriate channel to facilitate data



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exchange while maintaining data integrity and safeguarding privacy. "After all, parties shouldn't be allowed unrestricted access to each other's information, or be permitted to modify or share data other than with parties who have given their consent," explains Hilkens.

To many people, blockchain still sounds complicated, but according to Hilkens the concept is comparable to a traditional ledger account. "In that specific ledger, the parties involved are constantly kept informed of

what is going on. This fosters a sense of mutual trust." According to Hilkens, the 'crucial or limiting' factor in a blockchain is trust. "It all depends on how you look at it."

### Trust

He assumes the optimistic approach: creating trust. "Trust is at the very core of the food chain. If anything goes wrong, the necessary data will be available instantly, whereas with the current system this can take several hours." Hilkens also suggests keeping the data with the product as a possibility, for example via a digital product passport. "In this way, the data accompanies the product through the entire chain." But it is still difficult to predict the extent of this development. "Food brands constantly work on building and maintaining consumer confidence. The necessary conditions for that will be the guiding factor. Transparency is the key here." However, some of the participants were not entirely convinced. "Transparency can also work against you," they believe. "Take stating E-numbers on labelling for example. All of a sudden, all E-numbers are synonymous with undesirable additives, even though that is not always the case." According to Hilkens, the challenge lies in presenting the right information to the various links in the chain. "Not everyone needs to know everything. Blockchain offers the possibilities to access differentiated data and share information only on relevant and legitimate aspects"

In the product market, blockchain is still rarely used admits Hilkens. He expects that, for the time being, data exchange will primarily be used for information that is not competition sensitive. Han Swinkels, the new chair of Feed Design Lab (see box), sees perspectives in data sharing via blockchain. "But I expect that developing countries will gain more ground than we will. They are not hampered by existing infrastructure or embedded practices which makes it easier for them to embrace and adopt the new technology."



Feed Design Lab is still 'hungry for knowledge'.

### A new chair

During the meeting held to celebrate the five-year anniversary, Han Swinkels was presented as the new chair of Feed Design Lab. He succeeds Mia Eeckhout, who has held this role since 2015. In FDL, Swinkels sees a dynamic link between parties in the sector that strive for innovation and progress. As chair, he would like to contribute to this process. He believes that meetings such as the five-year celebration are vital as platforms to stimulate the exchange of knowledge and ideas. "It's good that this group of companies has a physical setting, the factory here in Wanssum, to encourage and drive collaboration. It provides a robust joint basis for making progress," says Swinkels.

Eeckhout has been involved in the development of Feed Design Lab from the very beginning. "In 2012 I became programme manager," she recalled. The factory was opened in 2014 and a year later Eeckhout was appointed to succeed Yvan Dejaegher as chair. Eeckhout, professor at the University of Ghent, was also one of the initiators behind the first courses organised by Feed Design Lab. Over time the range of courses has evolved into an important part of the organisation's activities. "Mia has a warm heart for the food industry. She has devoted that dedication to the development of our organisation," according to director Trudy van Megen.

In recognition of her commitment, Eeckhout was appointed first 'honorary partner of Feed Design Lab'. Eeckhout was honoured by the appreciation shown for her efforts. "When the conceptual plans for this initiative were unveiled I, like many others, thought it was a 'man on the moon' project. A futuristic plan with questionable feasibility. But just like the lunar mission, Feed Design Lab has landed. And just look at us now. With all we have achieved to date, I am confident that we can take Feed Design Lab to Mars," concludes Eeckhout.



"We want to fill knowledge gaps in the sector with Feed Design Lab," says departing chair Mia Eeckhout.



"The factory in Wanssum provides a robust joint basis for making progress," says chair Han Swinkels.