

# Improving logistics for the agricultural industry

Not long ago, agricultural produce was transported to the marketplace on a farmer's wagon. Barges and other types of ships were also widely used by Dutch market gardeners. Nowadays, haricot verts arrive in the Netherlands by air from Africa, bananas are delivered in refrigerated containers by sea from Central America, and palm oil seeds arrive by bulk carriers from Asia. Flowers that pass through the Dutch flower auctions in the morning will be on sale that same evening in New York and bought by customers in Tokyo the next morning

**A**part from growing distances between primary producers and consumers, there is an increasing diversity of products on offer. Consequently, the number of kilometres travelled by agricultural products and food is increasing. Over the last 20 years, for example, the amount of agricultural produce and food products transported by road has doubled. If this trend continues, these will double in the next 20 years, resulting in an increase in traffic and thereby leading to more congestion in cities and bigger traffic jams on the motorways.

## Solutions for better logistics efficiency

In the Netherlands, agricultural entrepreneurs, logistics companies and knowledge providers, such as universities and research institutes, have joined forces to tackle the problem in

a government-supported initiative known as the "Agrologistics Platform". The Platform challenges the different players in the field, including farmers, the food processing industry, retailers and logistics suppliers to come up with innovative solutions to improve logistics efficiency. Ideas play a key role and the Platform supports good ideas not by means of funding, but by providing good advice.

"The Agrologistics Platform stimulates innovative projects initiated by the agricultural industry to improve the effectiveness and sustainability of the logistics of agro-products and animals," said Ms Linnie Mackenzie, area director of the Netherlands Foreign Investment Agency (NFIA), based in Singapore. The NFIA assists foreign planning to establish, expand or re-organise their pan-European operations in the Netherlands.

The projects adopted, she said, will be assigned to mentors who will offer valuable support to project participants throughout the development process. This will help to ensure that their embryonic ideas will grow and thrive. The mentors will also offer help to overcome obstacles, such as contradictory regulations, to guarantee that good ideas are able to come to fruition.

## Improving farm-to-fork efficiency

The Agrologistics Platform's activities are designed to support the "Vision Agrologistics", published in 2001 by both the Ministry of Agriculture and the Ministry of Transport. The key to achieving the ambitions expressed in this vision and to improve the efficiency of logistics are:

### Clustering

Combining activities to prevent the spatial scattering of the primary production, processing and distribution of agricultural produce and foodstuffs. As well as minimising the need for transport, clustering will also promote the development of "industrial ecology" by providing companies with opportunities





to reuse each other's by-products. Reducing the movements of plants and animals will also greatly reduce the risk of spreading disease.

### Connectivity

Combining the transport links used for the supply of raw materials between clusters and those used for the removal of products and by-products. These "fat" supply lines require fewer kilometres per vehicle and offer the opportunity to deploy other means of transport, such as trains, boats or pipelines.

### Directing

Directing, managing and organising agricultural product flows, which do not necessarily pass through the Netherlands. Modern information and communications technologies open up opportunities for new ways of cooperation on a European and even global scale, thus improving not only efficiency, but also food safety.

### Making better dollars and sense

Elaborating further, Ms Mackenzie said several initiatives are already in place through the consolidation of manufacturing and transport facilities. "This is proving to be successful, not only in terms of providing greater accessibility to reduce time-to-market, but also minimising waste and improving product flow," she added.

Through initiatives such as the Dairy Park, Agriport A7, Flora Holland and Fresh Logistic Network, many producers are appreciating the Platform's innovative approach as an opportunity to use their resources efficiently and minimise

production costs.

### Dairy Park

The DOC Cheese Cooperative, based in the northeast of the Netherlands, is a medium-sized business that processes 600 million litres of milk annually to produce cheeses, milk powder and whey. The largest proportion of the cheese produced is crustless cheese which is further processed elsewhere into pre-packed slices. DOC Cheese also produces naturally ripened cheeses.

Until 2003, the process of cheese ripening was carried out at various locations around the town of Hoogeveen. From a logistical perspective, this was far from ideal and also restricted growth opportunities. As a result, DOC Cheese decided to consolidate its activities to an area adjacent to the motorway hence enlarging the accessibility to its customer base including Germany.

Building new premises also made it possible to set up production more efficiently in terms of logistics, water and energy use. There are plans to improve efficiency further by attracting related businesses such as cheese slicing and packaging. Shortening the various links in the cheese production chain can significantly decrease transport needs.

### Agriport A7

In the northwest of the Netherlands, the fields exhibiting the straight-line symmetry of green and white cabbages alternating with the more frivolous curly kale and broccoli display an attractive visual canvas of Dutch wealth. By establishing the Agriport A7 cluster, the companies involved try to ensure that this canvas is attractive in both environmental and economic terms.



The aim is to collectively sort and package the vegetables grown on farmland and in surrounding greenhouses and transport them “just in time” to suppliers.

Because the activities of the companies involved are spread over various locations, empty boxes, crates and other packing materials need to be transported. By bundling their activities and creating an Agripark – a business park where related businesses could also find a home – the companies hope to reduce this unnecessary burden to the environment, while at the same time improve their own efficiency and reduce their costs.

Clustering activities reduces transport by an estimated 20%. As well as the environmental and economic advantages, this also results in a significant decrease in the number of trucks that thunder through the small villages in the area. Combining the various product flows will also minimise the order-to-delivery time for supermarkets. In addition, the collaboration between different companies makes it possible to combine certain activities, such as crate washing and automated box folding, resulting in cost reductions for the producers.

### Flora Holland

When it comes to growing flowers, potted plants and trees, the northeast of the Netherlands and the neighbouring areas in Germany are an emerging region. Although Germany and Scandinavia are important markets for these products, producers currently have to travel to auction houses in the western parts of the Netherlands to sell their wares. This results in a large



number of “empty kilometres” on the road between the north and the west of the Netherlands.

The auction organisation, Flora Holland, together with producers’ collective, logistics suppliers and regional governments, are looking for ways to make this transport to and from the north of the Netherlands more efficient. The average load of trucks currently stands at a modest 70% and sometimes even less. Shuttle services designed to improve the transport stream need to be enhanced.





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Achieving this requires effective management. Central planning will initially lead to an improvement of logistics efficiency by around 15%. This could be further improved by collaboration with suppliers and customers dealing with different agricultural products. The Flora Holland auction in Eelde forms a link in the chain of logistics suppliers for ornamental plants. In the near future, it will also provide a location where the plants can be processed, inspected and packed.

### Fresh Logistic Network

The Netherlands is an important producer of agricultural products, such as flowers, meat and dairy products. The country is also a significant player in the trade of both homegrown and imported produce. The country supports a very strong agricultural cluster which forms a link between primary producers worldwide and European customers such as large supermarket chains.

The Fresh Logistic Network aims to strengthen the role the Netherlands plays in the trading of agricultural produce and to improve the efficiency of food transport by separating the information stream of the movements of goods from the actual flow of goods. The agricultural produce can travel directly from the supplier to the client, but the information continues to travel via the Netherlands.

The quality and efficiency of the flow of goods will be improved by the development of "consolidation centres". In these centres the products can be stored, under refrigeration

if necessary, packaged, graded by quality and inspected for plant diseases. The consolidation centres will be located both in the producing regions and at the consuming markets. In addition, a virtual network for the exchange of trade information between suppliers, customers and export managers and for the processing of orders will be installed and maintained. The separation of the product and information flows will lead to a massive decrease in transport requirements, while at the same time allowing farmers from the developing world easier access to the European market.

"Whether it is road, water or rail – the Netherlands approach to logistics efficiency offers innovative solutions by addressing congestion and removing bottlenecks in the supply chain, which could otherwise affect the quality of the product delivered," reiterated Ms Mackenzie. **FBA**

To quote Ms Linnie Mackenzie, area director, NFIA: "Developing sustainable solutions are not new to the Netherlands – the Agrologistics Platform presents an innovative approach to improving farm-to-fork efficiency."

