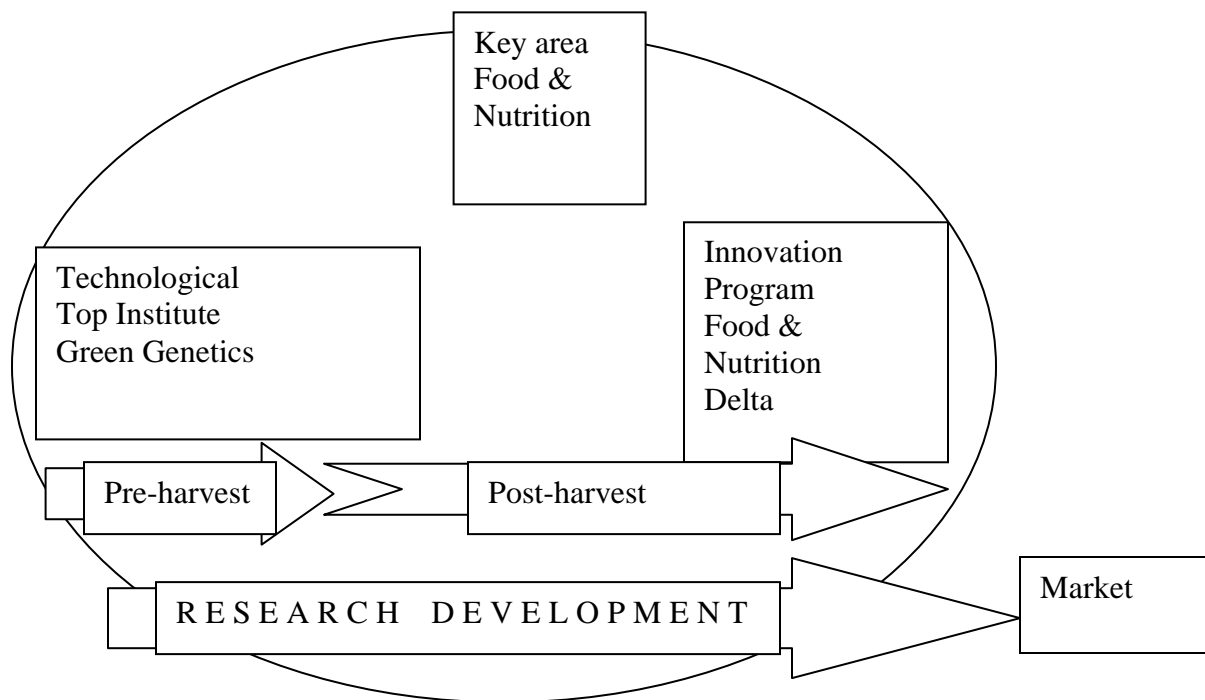


China – The Netherlands Cooperation in Innovation Focus on Food & Nutrition

Win-win opportunities for Sino Dutch cooperation

Information Paper: Food & Nutrition



Economic importance of Food & Nutrition key technology area

The food and drinks industry is extremely important to Dutch economy. It generates a turnover of around 48 billion Euros per annum, with added value of 12 billion Euros. This is 22% of the added value of all industrial activities. Moreover the sector generates 20% of Dutch export, which makes the Netherlands Europe's largest exporter of food and related products.

There are more than six hundred innovative companies within the Dutch food sector. The intensity of R&D activities is high compared to other countries, and over double the European average. The communication between the large companies and the research institutes is good, and the knowledge institutes are of high quality. There is also good communication and cooperation with research institutes throughout Europe.

Innovation programs within key technology areas

A special government body called the Innovation Platform, has indicated the key technology areas High-tech Systems & Materials (HTSM), Flowers & Nutrition, Water, the chemicals industry, life sciences & health, energy transition and the creative industry as most potential for sustainable economic development. Within the key technology areas several innovation programs are developed: Point One within HTSM, Food Nutrition Delta within Food & Nutrition, Water technology within water, Creative Industry.

Food & Nutrition entails

A key technology area can entail different things. For example within Food & Nutrition it entails the Innovation Program Food Nutrition Delta, the Technological Top Institute Green Genetics and Horticulture 2010.

Innovation Program Food Nutrition Delta: Food and Health

The Innovation Program Food Nutrition Delta (FND) focuses on the post-harvest section of the chain and departs from consumers needs (end-user). This is based on the Dutch situation that pre-harvest is already fully controlled. Food products can be traced from the final product back to the farm. In the Food Nutrition Delta the demand of consumers (end-users) is leading and translated to issues for the whole food chain. The programs research addresses especially the post-harvest section of the chain, the market driven innovation. The pre-harvest research and knowledge is covered by excellent institutes and universities throughout the Netherlands, among other by the WUR.

The FND program concentrates on the topic of “Food and Health”. In particular attention will be devoted to food quality, flavour and safety under the general head of “healthy, convenient and tasty”. It is assessed that this area offers the best opportunities for the Netherlands to strengthen its international market position. The FND program targets to contribute to the quality of life for the general public by producing food products which are appropriate to a healthy diet and lifestyle.

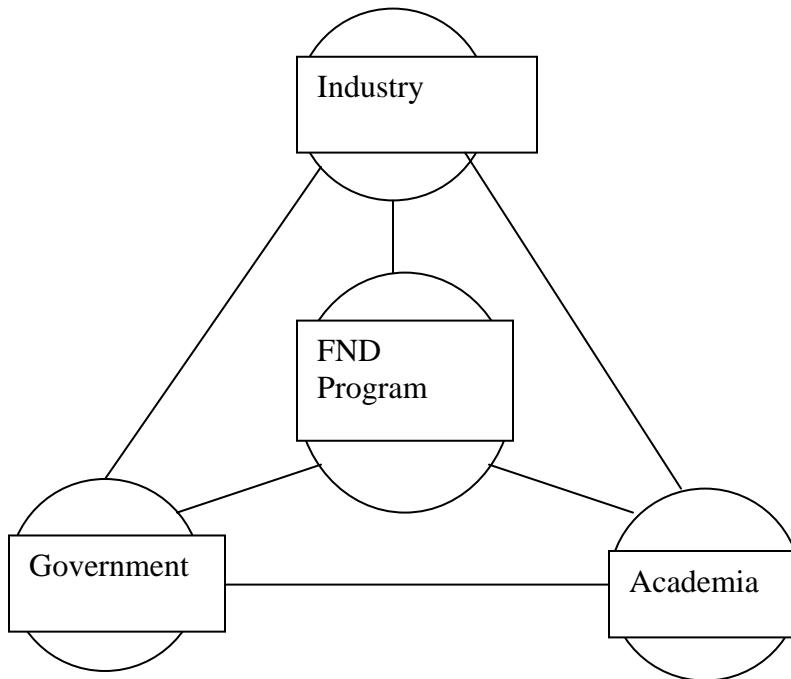
Interactive network

Institutes involved are the Wageningen University Research (WUR), Netherlands Institute for Dairy Research (NIZO), University of Maastricht, The Netherlands Organization for Applied Scientific Research (TNO). The following companies are active as DSM, Campina, Friesland Foods, Numico, CSM, Sovion, Spencer Foods (f.i. probiotics) and Unilever. The innovation program FND has also ties with Food Valley and the University of Maastricht (functional food/nutraceuticals). So large, mid-sized and small industries and companies are involved as well as government, education & research institutes.

International ambition and links

The program has also a number of international ambitions. The European Technology Platform “Food for Life” has a direct link with the Food & Nutrition Program, and international ambitions are to be fully integrated into the national innovation program. Components such as international (technological) cooperation will be anchored in the vision and strategic agenda of the partners of the Food & Nutrition Delta.

The Dutch Approach: Programmatic Approach



Sustainable economic growth requires a programmatic approach with quality performance by business organizations and research institutes at its core. This makes innovation and excellence in the marketplace an absolute necessity. The aim of such a programmatic approach is to encourage research institutes and the private sector to achieve excellence in those areas which have most influence on the growth potential of the economy. This process entails both cooperation – a joining of forces – and choices to be made. It is a private and public partnership to gain a leading position on a key technology area.

In the Netherlands innovation programs have been modeled to achieve international excellence. They focus on those areas of markets and technology in which the Netherlands can truly excel. The programs are demand driven; the initiative comes from the private sector itself and the government has a facilitating role. The participants in a program are all parties within the technology area concerned. They are asked to establish a joint vision and formulate their common ambitions. The programs therefore go beyond R&D projects and also include activities that support the application and valorisation of new knowledge. Furthermore, actions which are not technology related, but which are of importance to realize the goals that have been set, can be part of the program. It is important that the SME sector is given due encouragement, and that best use is made of the available human capital by matching labour market supply to demand more effectively. The successful implementation of the programs calls for a high degree of financial commitment on the part of private sector, which must be willing to make sometimes substantial investments.

The programmatic approach has three phases:

- A strategic phase: determining the innovation themes, development of a vision and ambition on a topic. The vision is the future scenario within which the ambitions will be achieved. And formulating a strategic agenda: how the vision is to be attained and how the position will be realized. It stipulates the steps required in the short as well as medium term: a roadmap.
- A programming phase: designing the innovation programs: a custom-made portfolio of innovation projects and fill in of the strategic agenda.
- An operational phase: implementing the innovation programs