

3 Dutch knowledge infrastructure for organic agriculture

Stakeholders in Dutch organic agriculture have a very strong voice in determining the research and knowledge agenda. An innovation network called Bioconnect has been established to act as an intermediary between research and the knowledge demand of the organic sector. Through Bioconnect, the government has delegated decision-making about research-projects to the end-users of the research. The positive interaction between all parties in the network leads to successful and fast innovation.

Let the users decide which knowledge is needed! This is the main idea behind a unique network for research and development governance in organic agriculture in the Netherlands. This network, called Bioconnect, functions as an instrument to improve the effectiveness and relevance of research by creating full participation of industry and farmers in projects. Bioconnect facilitates the planning, funding, monitoring and user participation in Dutch research and knowledge transfer for organic agriculture. In addition, it serves as a platform for discussion, a sounding board for opinions, a link between commercial agro-food chains and policymakers, and as a social network.

Although Bioconnect has only been in existence for a few years, notable results have already been achieved. Research is increasingly tailored to the needs of the organic sector. The overwhelming enthusiasm with which this new approach to research governance has been received is a strong incentive for the further development of this type of cooperation for innovation. The main organic processors and approximately 50% of the farmers are involved and connected in one way or another.

Supportive government policy

The Dutch government has clear objectives with respect to agriculture in general, and to organic agriculture in particular. Its policy is directed toward sustainability, and the organic agricultural sector is presented as a 'best practice' and source of inspiration. The Dutch government's objective for the entire organic sector is a 10% annual increase in consumer spending and a 5% annual increase in the area under cultivation. To support knowledge development and exchange, there is a standard allocation to the organic sector of 10% of the budget for policy support research and statutory research tasks, which amounted to a total annual budget of €9.6 million in 2008.

To achieve greater input, involvement and ownership from the users themselves, a new type of governance for research, knowledge development and transfer was introduced in 2005. This

change was proposed by Biologica, the organisation which represents the interests of the organic sector in the Netherlands. From 2005 onwards, the government delegated the responsibility of setting the research agenda for organic agriculture to the stakeholders. The government thereby established the framework and, as much as possible, left implementation to the network of stakeholders, which is called Bioconnect. The government is involved as a participant in this network and is the initiator of strategic research for policy aims. The network is being financed through public funding until it is capable of standing alone in 2011. The government considers Bioconnect to be a pilot project. Does this type of delegation of research governance to networks work? Ultimately the same type of networks could be created for other areas of public-funded applied agricultural research.

Framework of Bioconnect

The heart of the innovation network is formed by the Thematic Working Groups (TWGs) or Product Working Groups (PWGs). These groups are organised according to different market sub-sectors (such as dairy production, arable farming, glasshouse horticulture), or according to important themes (such as plant breeding and seeds, multifunctional agriculture, market and chain). Farmers, suppliers, processing companies and manufacturers in the agro-food chain are all represented in these working groups. Representatives from research, consultancy and the government also take part in these groups in an advisory capacity.

Within specific themes (each earmarked with a certain budget), the TWGs and PWGs can decide which particular topics they want researched. Their representatives from farming and industry are expected to propose topics based on a broadly shared demand from their grassroots. Each working group has set their ambitions, and subsequently their activities, for the long term to achieve their goals.

Every TWG and PWG reports their suggested package for research and knowledge transfer to the Bioconnect Knowledge Committee. This committee, which is made up of representatives similar to



the various actors involved in the TWG or PWG, coordinates and balances the total research package. The Committee checks compliance of prioritised research proposals with long-term programmes and budgetary requirements. The Knowledge Committee advises the financier (the Ministry of Agriculture, Nature and Food Quality) about the total research package that is to be carried out.

Each research project is directed by a project team in which representatives of the relevant stakeholders take part. In this way, a participative approach is guaranteed. For every PWG or TWG, a knowledge manager takes the role of facilitator. This knowledge manager streamlines the information flows and mediates between the different groups of actors involved.

In addition to their role in research and knowledge transfer, the Bioconnect working groups have developed a long-term vision about the future of organic agriculture in the Netherlands. Ambitious targets have been set for a wide range of topics, including improving animal welfare, improving biodiversity on every farm and climate-neutral production. Based on this long-term vision, the TWGs and PWGs are not only capable of setting the research agenda, but also the agenda for improving legislation and implementing market strategies. Moreover, this long-term vision prevents them from focusing only on short-term bottlenecks.

Because of their expertise and status, the Bioconnect working groups also operate as a sounding board and advisory board for various matters concerning organic agriculture. By request or on their own initiative, the Bioconnect working groups give advice on topics such as market strategies, policy regarding organic agriculture and legislation. Discussions focus specifically on regulations involving the certification of organic production. Although the Bioconnect working groups have no

formal role in these themes, their opinion is taken seriously because of the network's expertise and status.

Knowledge circulation

Bioconnect also takes responsibility for the dissemination of knowledge concerning organic agriculture. This involves knowledge transfer to farmers and chain partners, as well as to the agricultural education system. In knowledge circulation among farmers, an important role is played by farmer networks. These are mostly regional networks which are organised according to a sub-sector or theme. In these farmer networks, farmers meet on a regular basis and exchange knowledge and experience. They organise farm visits, excursions and on-site knowledge exchange. The groups are facilitated by a professional advisor, and there is regular input from researchers. The farmer networks are also a source of information for the TWGs and PWGs about current bottlenecks, new developments in farming practice or common opinions held by a large group of organic farmers.

The backbone of knowledge transfer is the communication service called BioKennis. The website www.biokennis.nl provides access to all publications and news items relevant to Dutch organic agriculture. For the international exchange of information, the website www.organicholland.com has been set up. BioKennis utilises various forms of media that were developed according to the wishes of the end users. Its products are news bulletins, e-newsletters and brochures containing practical information about various topics. These knowledge products are tailor made and adapted to the information needs of the users.

Bioconnect: the facts

Bioconnect is a network of actors in organic agriculture. Its primary task is to govern research, development and knowledge circulation in organic agriculture. The formal commissioner and financier of the agricultural research initiated by Bioconnect is the Dutch Ministry of Agriculture, Nature and Food Quality. This governmental body has delegated the tasks of research governance and knowledge circulation to Bioconnect, but is still the financier and remains intensively involved as a participant in the network.

Thematic and Product Working Groups

The Thematic and Product Working Groups are the heart of the Bioconnect network. A Product Working Group focuses on a group of products (such as beef, dairy or fruit), and a Thematic Working Group focuses on a certain theme (such as soil fertility).

Bioconnect currently has fourteen product and thematic working groups. These groups are composed of representatives of the various actor groups in the organic food chain: farmers, chain partners, advisers, researchers and the government. A thematic or product working group gives advice on the research and knowledge transfer needed for their topic.

Knowledge Committee

The Bioconnect Knowledge Committee coordinates and balances the total research

package of the various product and thematic working groups. It advises the Ministry of Agriculture, Nature and Food Quality about the desired research package, about new topics and about the allocation of funds between research themes.

Knowledge manager

The administrative and coordination processes for every working group are supported by knowledge managers who are facilitated by Biologica. They are the secretaries of the working groups and act as information brokers between research contractors/service providers and users to stimulate dissemination and uptake of research results. Moreover, they play an important role in matching the activities in the short term with the long-term ambitions of the working groups.

Farmer networks

Farmer networks are the 'roots' of Bioconnect in the day-to-day entrepreneurial activities and are an integral part of the total network. These groups of farmers –mostly regional – are an important tool in knowledge circulation. They act as platforms for the exchange of practical knowledge and experience and for the dissemination of research results. Experiences, research questions and bottlenecks are reported to the product or thematic working groups.

Submission of ideas

Ideas for research and other activities are submitted to the working groups by farmers and the other network partners. With regard to research projects, the working group commissions researchers to develop the relevant proposals, and then decides which proposals are eligible for implementation.

Rapid exchange of knowledge and experiences

The Bioconnect network links organisations in various ways and at all levels. All of these organisations make use of Bioconnect to test ideas, learn from others' experiences, distribute knowledge and express opinions. The network offers a way to rapidly exchange knowledge and experiences.

List of Product and Thematic Working Groups

Product Working Group	Knowledge Manager	Contact
Arable crops and field-grown vegetables	Marian Blom	blom@biologica.nl
Greenhouse vegetables and mushrooms	Mari Marinussen	marinussen@biologica.nl
Flowers and flower bulbs	Mari Marinussen	marinussen@biologica.nl
Trees and ornamentals	Maaïke Raaijmakers	raaijmakers@biologica.nl
Fruit and wine	Marian Blom	blom@biologica.nl
Dairy and beef	Clemens Oude Groeniger	oude.groeniger@biologica.nl
Pork	Clemens Oude Groeniger	oude.groeniger@biologica.nl
Poultry and eggs	Clemens Oude Groeniger	oude.groeniger@biologica.nl
Aquaculture	Mari Marinussen	marinussen@biologica.nl

Thematic Working Groups

Soil fertility	Sjors Willems	willems@biologica.nl
Propagation material and plant breeding	Maaïke Raaijmakers	raaijmakers@biologica.nl
Energy and greenhouse gasses	Mari Marinussen	marinussen@biologica.nl
Biodiversity and landscape	Sjors Willems	willems@biologica.nl
Multifunctional agriculture and direct sales	Sjors Willems	willems@biologica.nl
Markets and chains	Arjan Monteny	monteny@biologica.nl

Literature

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Klerkx, L.. 2008. Matching demand and supply in the Dutch agricultural knowledge infrastructure. The emergence and embedding of new intermediaries in an agricultural innovation system in transition. PhD thesis, Wageningen UR.

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