



Ministry of Economic Affairs

Capitalizing on Knowledge



in International
Public-Private Partnerships



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Preface

Seed money is a meaningful knowledge instrument for the Ministry of Economic Affairs, as well as for the Top Sector Agri & Food to foster international public-private partnerships (PPPs) and the valorization of agricultural knowledge. As a learning exercise, researchers from Wageningen UR have analyzed a number of research projects in Africa, Asia, and South America for their role in generating successful PPPs. In addition, concepts of knowledge-earning models have developed, through which Dutch stakeholders have capitalized on their knowledge. The findings were discussed in a lively expert meeting. This brochure reflects the interesting results.

There is practical evidence that seed money is indeed a useful instrument for initiating PPPs. Some very concrete recommendations for policy makers and funders can be derived from this. The first is to provide flexibility: there is no one single blueprint for setting up PPPs, so seed money initiatives must respond to changes. Second, it is an illusion to think that the formation of a partnership can be realized in one year. Generally, finding the right partners and building trust will take more time. Moreover, the results indicate that the Ministry should be well involved in facilitating this process of partnership building, in particular through

embassies and local authorities. Third, I have learned that developments ‘by chance’ can also deliver very good results; hence, space is required for these developments to work. Finally, awareness of each other’s specific role in a partnership must be acknowledged; in time, the roles of even a single person may change from researcher to manager, moderator, or entrepreneur. Personal leadership and commitment is crucial across the board.

The general conclusion confirms the importance of seed money in the process of setting up PPP projects, as they come with many risks and uncertainties. Seed funding can provide the time and space required to set up a solid basis for the partnership. The keys to success in a partnership are the balancing of short-term and long-term priorities and the expected added value for each partner, besides the role of personal relations. To significantly capitalize on knowledge, one should anticipate opportunities for spin-offs even in the early stages.

This brochure highlights lessons learnt from Dutch studies on capitalizing knowledge in international agrofood public-private partnerships. I can confidently say that it will also be a source of inspiration for non-Dutch professionals working in this setting. I wish you pleasant reading

and inspiration for future initiatives addressing research activities in international public-private networks, contributing to food and nutrition security. Thanks to all who contributed!

*Patricia Wagenmakers,
Policy coordinator at the Ministry
of Economic Affairs,
Agro and Nature Knowledge*

Introduction



The Netherlands is among the world's top knowledge economies in the agrofood sector. The Ministry of Economic Affairs (MoEA) wants to maintain this position and to stimulate knowledge development and innovation to support policy and implementation.

The challenges in the agrofood complex require the joint effort of the so-called Dutch Diamond (government, knowledge institutes, private sector, and NGOs) and collaboration with international partners. One of the programmes under which international public-private partnerships (PPPs) have been established is the Policy Support Cluster International (BOCI) programme, which ran from 2007 to 2012.

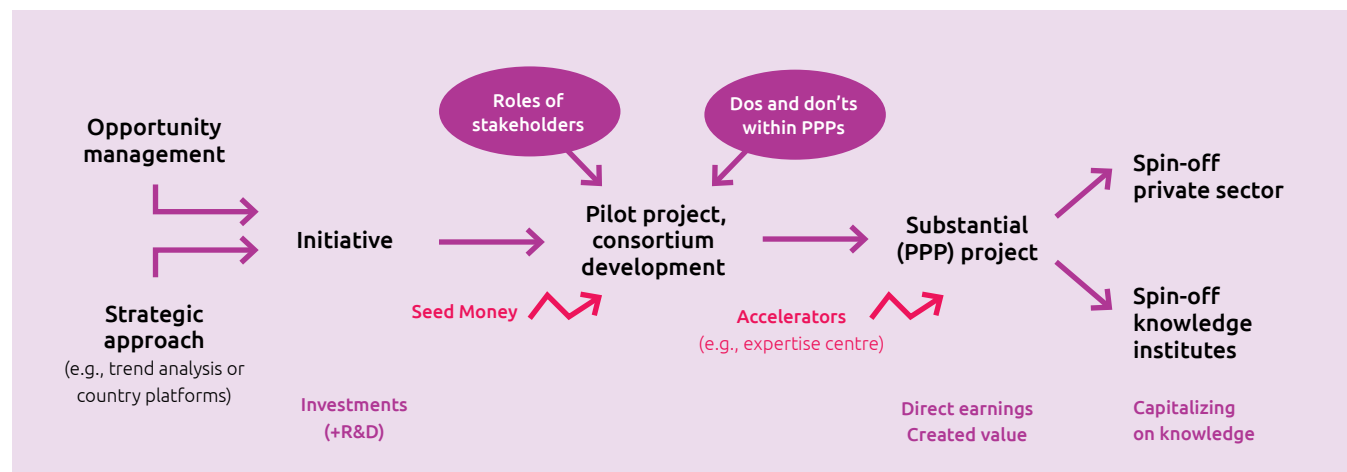
Two studies

What are the 'business models' for capitalizing on knowledge? And how can the value and the effectiveness of international partnerships of knowledge institutes with the private sector and government be increased?

To learn from the past, the Ministry wishes to analyze the role of seed money projects and to draw conclusions on success factors, the establishment of international consortia, and new initiatives. PPPs are now a key element in the Top Sector programmes and the conclusions in this study may help to optimize future seed money projects.

To keep the Dutch knowledge infrastructure strong and competitive, sufficient financial resources should be available. Many research institutes complain that it is difficult to achieve a financial sustainable business model, because it is difficult to capitalize on knowledge in a structured way. Investment in R&D often outweighs the income they produce. Selling or valorizing knowledge through just one project, advice, or training programme is, in most cases, not sufficient. In that respect, the 'return on investment' is often negative. Therefore, government, Top Sectors and the Food & Business Knowledge Platform (F&BKP) are seeking a more robust and comprehensive approach to better capitalize on knowledge.

Main issues in capitalizing on knowledge



Two approaches

Leading questions

1. **What are critical success factors for the formation and continuation of international PPPs in which knowledge generation and capitalization play a role?**
2. **What roles have seed money programmes played in the past in generating successful projects?**
3. **How can (pilot) projects lead to upscaling, such as follow-up research and additional public-private collaboration?**

Two studies have been undertaken by Wageningen University and Research centre (Wageningen UR). Each had a different starting point, yet both focused on the effectiveness of international partnerships and the upscaling of initial projects with positive spin-offs for research and companies.

The first study, Seeding PPPs, focuses on understanding the relation between seed money and fostering success for PPPs. Success is defined there as the ability for PPP members - whether research or government or private sector - to sustainably utilize value created during the partnership. The seeding, as well as the value created by five individual projects, was analyzed.

The second study, Capitalizing on Dutch knowledge in Agro & Food, offers five examples of successful concepts of knowledge-earning models through which Dutch stakeholders have capitalized on their knowledge in foreign countries. It looks at the costs and spin-offs, but also at the mechanisms that have played a role and contributed to the realization of the result and the success.

Both studies are intended to inform future policies and partnerships that address research activities in international public-private networks and which aim at food and nutrition security. The aim was to provide a quick inventory of the insights that have been gained. These two studies were presented during an Expert Meeting (Wageningen, May 27, 2015) on the development of international PPPs and the valorization of knowledge by knowledge institutes and the private sector. Conclusions and recommendations were discussed, and refined and complemented where needed.



"Seed money is used in many different ways, which is what people are looking for. It is therefore important to maintain different opportunities for seed money."

Jan van der Lee (WUR-CDI)

Study



The premise of public-private partnerships (PPPs) is that the private sector can help deliver on public objectives through such collaborations, while also creating new prospects for business development in upcoming markets.

To stimulate this type of collaboration, the Top Sector Agri & Food has called for seed money projects to seed and implement PPPs in their thematic domain. The main policy objective is to stimulate innovation in international business development, which in turn contributes to social and economic development.

Seeding public-private partnerships

Partnerships that concern the collaboration between research institutes and private sector organizations.

Focus of the partnership case studies

This brochure looks specifically at partnerships that concern the collaboration between research institutes and private sector organizations, which were brought together through government funding into a PPP. A couple of cases that include partners from the NGO sector have also been brought in.

All of the selected partnership case studies have operated within the context of international private sector development. They took place in countries that are on the list of nations supported by the Dutch government under its international cooperation policy for low- and middle-income countries.

Each case study examines how partners combine value from contributing organizations, to jointly create new forms of value. The intent is to show how partnerships were formed, and how the jointly created added value contributed to the longer term overall viability of the business models of each partner involved. The success of a partnership has been defined as the degree to which each partner involved was able to sustainably utilize the new form of value created in the partnership.

	Rift Valley fever	Potato GAP	Secured Growth	Small-Scale Fisheries	International Seed Sector
Instance of private sector involvement	Addition to existing project	At the start	At the start	Addition to existing project	Addition to existing project
Consortium project focus	Product	Product	Service	Sector	Sector
Consortium size	Small	Medium	Small	Small	Large
Project complexity	High	Low	Medium	Medium	High
Business model perspective after project	Private	Private	Private and public	Public	Private and public

Selected cases

- 1: South Africa - Rift Valley fever**
A veterinary medicine R&D collaboration between a research institute and a commercial manufacturer.
- 2: China - Potato-GAP**
Developing an integrated value chain approach to business development in the Chinese potato sector.
- 3: Burundi - Secured Growth**
Research and implementation project for developing and marketing a crop insurance product to smallholder farmers.
- 4: South Africa - Small-Scale Fisheries Development**
Aiming at creating a multi-stakeholder platform to develop the small-scale fisheries sector.
- 5: Ethiopia - International Seed Sector Development**
Creating opportunity to integrate private sector involvement in seed sector PPPs that aim to foster Seed SME development in multiple African countries.

Characteristics of the selected cases

Each project has its own tale. To provide an overview of these various tales, five general characteristics were deduced from the cases. These are:

Instance of private sector

involvement: There are two starting points at which private sector parties can join a research or government collaboration. One instance is at the inception of the project. It is then jointly started with both public and private sector parties on board. The other instance is when the private sector steps on board an existing project run by researchers.

Consortium project focus: There are two types of orientation a consortium can have. The first is a specific orientation to jointly create a new product or service. The second orientation is broader, addressing the need to achieve development on a sector level or scale.

Consortium size: Consortia vary greatly in terms of the number of participating entities. Some consortia may be very small, consisting of only two or three members. Others are more extensive, containing dozens.

Project complexity: A PPP project's complexity is determined by various factors. It is an interplay of some consortium characteristics already mentioned, like consortium size, the project's state of development, and consortium diversity. However, it can also be influenced by outside factors, such as political uncertainty.

Business model perspective after project: A successful partnership creates value for each partner involved. Each partner would obtain an addition to their business model that contributes to the viability of their operation. There are three ways that the value created by a partnership can sustainably create value for the partners. There are private results, where each partner obtains value that they continue to utilize themselves. For instance, this could be a new methodology, an addition to their track record, or validation of the working of a product. There are also public results, for instance when a new institution or platform is created where dialogue and information exchange takes place. Lastly, there may also be a mix of business model outcomes in the range between public and private results.

The table on the left illustrates the diversity and types of cases in terms of these general characteristics of the public-private partnerships that were studied.

Cases Seeding public-private partnerships



"In general, the seed money process should really not be too short. You often see that within a tender, different parties have to be brought together in a relatively short time. Yet, the preliminary process can be very important, since you can already involve certain local parties, such as the government, to create local ownership."

Hans Smolders (RVO)



1: South Africa - Rift Valley fever

Seeding the partnership

Rift Valley fever is a mosquito-borne viral disease of domesticated ruminants and occasionally humans. The spread of Rift Valley fever virus (RVFV) can cause wide-scale abortions, as well as mortality in adult animals (though to a considerably lesser degree).

Humans, too, can become infected through mosquito bites or contact with contaminated animal products - predominantly during the slaughter of sick animals. Most human infections result in flu-like symptoms that resolve without treatment. In a minority of patients, severe complications may develop.

The virus is currently confined to the African continent, the Arabian Peninsula, and several Indian Ocean islands (Madagascar, Comoros, and Mayotte). Although the virus does not pose an immediate threat to Europe, a suitable vaccine should become available for emergency vaccination. In addition, vaccines of improved efficacy and safety are needed to control the disease in endemic areas.

The RVFV programme began as a small project in 2006 with €20,000 of seed funding. This money was used for preparative work, such as background reading, the writing of permits and

plans for the appropriate laboratories and animal facilities (biosafety level 3), and making contact with potential African partners. South Africa was selected as a preferred partner country, as this country has experienced multiple introductions of the virus that have resulted in severe outbreaks. Crucial financial support for the maintenance of the collaboration between the Netherlands and South Africa was provided by the Policy Support Cluster International (BOCI) Programme, established by the former Ministry of Agriculture, Nature, and Food Quality. In subsequent years, additional funding from this former Ministry (now part of the Ministry of Economic Affairs) facilitated the development of two vaccine candidates that are currently being further developed by pharmaceutical companies in the Netherlands and South Africa.

Partnership setup

The first collaboration between the Central Veterinary Institute (CVI, part of Wageningen UR) and a South African partner was established with Onderstepoort Veterinary Institute (OVI); this was soon followed by a collaboration with the National Institute for Communicable Diseases (NICD). Continued financial support from the Ministry of Economic Affairs enabled the initiation of two PhD projects, one of which has already successfully completed; the second is expected to complete later this year. In addition to academic partnerships, two collaborations with industry were also initiated. The first of these was established with the South African company Deltamune, and the second with Merck Sharp and Dohme Animal Health (MSD-AH), located in Boxmeer, the Netherlands. The latter company was established within the framework of the Castellum project, a PPP that also involves the National Institute for Health and the Environment (RIVM) and Utrecht University.

Created value

The Castellum project can be considered a spin-off of the initial project, which has additionally resulted in novel international collaborations between CVI/Wageningen UR and

NICD, the University of Pretoria and Deltamune. Apart from the scientific knowledge on RVFV shared between the Netherlands and South Africa and the successful completion of two PhD studies, the projects have resulted in two experimental vaccines that are being further developed by pharmaceutical companies. The partnerships have also enabled collaborations on other topics, such as vaccine development for Bluetongue and African horse sickness.

Successes, challenges, and pitfalls

The success of this partnership at the academic level can mostly be attributed to strong personal relationships. The successful collaboration between academia and industry (PPP) was mostly due to transparency and a thorough and realistic assessment of project objectives on both sides.

The projects were facilitated by continuous investment from the Dutch Government. Continued support via programmes such as the former BOCI is of vital importance to maintaining and expanding international partnerships.

2: China - Potato-GAP

Seeding the partnership

This partnership began to form in 2009, initiated by the Dutch Agricultural Counsellor in China through a seminar series on Integrated Pest Management. During this seminar, the partners jointly identified potato blight as a major constraint on the future growth of the Chinese potato sector. This resulted in a partnership made up of five partners who have jointly committed to tackle the issue of potato blight in Chinese potato production.

Though this was a promising start, the consortium was only able to fully secure funding from the Dutch Top Sector programme for their partnership project in 2013. An earlier attempt to obtain the required funding did not come through. The seed money that enabled the consortium to align around a common problem was deemed critical for coping with this funding setback, keeping the mission alive.

Partnership setup

The consortium was designed to be compact, and included members that were not competing with each other. The members are organized in a hub-and spoke system. This implies that partners do not collaborate autonomously, but that coordination and action is all relayed through a central member - in this case Wageningen UR, even though it is not the formal consortium leader. All partners have a unique and complementary, noncompetitive role in the value chain.

The partners in the project are:

- DACOM: a Dutch sensor technology company for arable farming.
- APH: a Dutch potato machine manufacturing and sales company.
- HAAS: a Chinese applied research institute for agricultural science.
- Wageningen UR: a Dutch university and applied research institute for life sciences.
- Syngenta: an international seed and crop-protection company.
- DLV: a Dutch commercial agricultural extension agency.

Created value

Most of the consortium members have a direct business interest in this project. Syngenta, APH, DLV, and DACOM all hope to be able to use the project's field trials to demonstrate their

products and services in the Chinese context. Wageningen UR and HAAS aim to extend their research collaboration through experiments and publications, which will be conducted in the field in 2015.

Successes, challenges, and pitfalls

One of the main challenges for this PPP is the focus on research topics. Whilst research institutes have a natural tendency to invest in long-term and open-ended research, private sector parties prefer to see incremental progress and immediate results from their work. The consortium has to deal with the tension on these two ends.

The seed phase was one of the greatest enablers of this partnership. Without the initial bonding in the consortium, the setback in funding would have posed a greater risk to the continuation of the consortium.

Another challenge to the consortium was the fact that the Chinese partners are not accustomed to close collaboration between the private and public sector. Both the staff at HAAS and the Syngenta office in China consider this partnership as more of a project than an equal collaboration.



"To get from planning to implementation is often very challenging, especially for researchers since they do not immediately think of a business model."

Bart van Gogh [WUR FBR]

3: Burundi - Secured Growth

Seeding the partnership

Secured Growth is a project that aims to develop crop insurance products for small-scale farmers in Burundi. The Secured Growth partnership was initially started on the basis of a personal relationship between an employee of the Achmea Foundation (a nonprofit affiliated with the Dutch insurance company Achmea) and a researcher at Wageningen UR.

This personal relationship led to the definition of a common objective for the two organizations: to contribute to food security by increasing farmers' production potential and insuring them against production risks.

The partnership was granted funding from the Dutch Facility for Sustainable Entrepreneurship and Food Security (FDOV) early 2013 to implement the idea. This was done together with two NGOs in Burundi. However, the project soon encountered a problem, in form of the lack of field data needed to build a solid insurance product. At that point, it was decided to expand the research partnership in order to create this data resource. This was done using a soil analysis company called Soil Cares and Envista, a farm performance management application. Top Sector funding was used to fund this additional R&D.

Partnership setup

Initially the consortium consisted of Achmea Foundation, Wageningen UR, and two NGOs, but was soon expanded to include Soil Cares and Envista. In this collaboration, Wageningen UR (though not formally the consortium leader) played a central role, but the partners worked together on subprojects.

Created value

Some of the partners have a direct business interest in the partnership. Soil Cares hopes to be able to expand their soil advisory. Envista aims to develop a new soil fertility feature for their farm performance software.

Achmea Foundation does not intend to directly sell the insurance product to be developed in the project. Their goal, as with the two participating NGOs, is to contribute to social cohesion in rural communities by enabling local insurance agencies to offer the product.

Lastly, Wageningen UR is looking out for the new software that will be built, which could be incorporated into other research projects.

Successes, challenges, and pitfalls

Shortly after its beginning, the consortium was faced by a lack of data necessary to design the insurance product. This was not foreseen in their planning, but fortunately the partners were able to overcome this by tapping into Top Sector funding. This adaptation has in fact strengthened the setup of the whole project. It now consists of an R&D component that feeds into an implementation component.

One important insight from the project's partners collaboration is that partners provided space for each other's contributions, even though there was technically an overlap in capabilities (for example, Wageningen UR contributed knowledge of insurance modelling, which was also available within Achmea), there was still ample opportunity to learn from each other.

Lastly, the big challenge was in shaping and starting the project. It took personal leadership of the project leader at Wageningen UR to seed the project, even though there was no direct funding for it. Persistence was also needed to overcome a period of competitive calls with associated uncertainties from the Top Sector programme in getting the project off the ground.



"Establishing a PPP is very complicated. Often seed money has unintended positive effects which could not have been taken into account in advance but are nevertheless very useful."

Cara Govers [NWO-WOTRO]

4: South Africa - Small-Scale Fisheries Development

Seeding the partnership

Fishery policy in South Africa is designed for large-scale operations. The policy is not inclusive towards traditional fishery, which operates outside of modern value chains, but nonetheless represents a substantial part of the sector. This raises the issue of how to make the existing policy more inclusive of traditional fisheries and to foster the formation of new, more modern value chains that would meet their needs. The objective of the project was therefore to address both social and environmental sustainability and to create market opportunities for small-scale fisheries in South Africa.

The project was conceived in 2009 by the Dutch agricultural counsellor in South Africa, together with a local environmental consultancy firm. During a global gathering of agricultural counsellors and researchers in The Hague, a connection was made with Wageningen UR, and funding was made available through the BOCI funding programme of the Ministry of Economic Affairs. Wageningen UR and the consultancy agency identified all the relevant fishery stakeholders and attempted to bring them together around the project's core concern of environmental and economic sustainability for small-scale fisheries.

Partnership setup

Initially, both Wageningen UR and the consultancy firm operated as separate contractors for the Dutch agricultural council. Their mission was to build a wider sector partnership with small-scale fishermen, traders, and retailers. This project did not begin as a partnership, but rather set out to create one.

Created value

The project team aimed to create a multistakeholder partnership. The idea for this partnership was to build a dialogue structure that would enable the development of policy for the small-scale fisheries sector, both at the level of government policy and for the market. This was done through facilitation of workshops on small-scale fisheries. Although this dialogue did open up definite market access opportunities for fishermen with Ocean Basket, a seafood restaurant chain, it did not result in commitment to a broader sectoral partnership.

Outside of the initial focus of the project on the west coast of South Africa, it also had spin-off results to other platforms, like the WWF's Kogelberg fisheries project, the multilateral New Partnership for African Development (NEPAD), and other international fishery development projects.

Successes, challenges, and pitfalls

Because there was no dialogue on traditional fisheries, and there were no value chains that could include them, the project needed to start from scratch. With the limited seed money that was available, the project needed to search for an opportunity to structure the dialogue. It should always be considered that the beginnings of these partnership dialogues are complex, and that there is no clear guideline on how to set them up, other than to engage and begin the search process.

Although the project did not fully succeed in achieving its original intent, the unexpected return on investment is still considerable. Firstly, the policy dialogue for including small-scale fishery in the allocation of quotas and stock assessment in South Africa initiated in the project is still relevant and ongoing. Secondly, the project created new insights into the fisheries sector in South Africa and demonstrated the benefits of a multistakeholder approach. People involved in the project have also been asked to contribute their experience to fisheries development around Lake Victoria.

The project created an awareness of the topic of sustainability in small-scale fisheries that extends even beyond the South African context. In all, the experience was that the project was a small risk to take for all of the useful learning outcomes it generated.



"Sharing experience and information about the projects is important, but there is not really one blueprint on how projects should be set up. Some projects encountered different problems than others, so in that respect for each project there will be different bottlenecks to deal with."

Gert Stiekema [RVO]

5: Ethiopia - International Seed Sector Development

Seeding the partnership

The Integrated Seed Sector Development (ISSD) programme consists of a complex array of partnerships that involve various forms of funding and subsidies. The ISSD story began in 2006 with a modest project funded by the Netherlands Universities Foundation for International Cooperation (NUFFIC) between Wageningen UR and ICARDA, aimed at developing the seed sector in Ethiopia. This was followed in 2009 by the creation of an ISSD umbrella concept for Ethiopia. Under this umbrella, Wageningen UR-CDI would be responsible for coordinating two of the five programme components. For implementation, they partnered with five local research partners - four universities and the NGO Ethio-Organic Seed Action (EOSA).

In 2010, this ISSD umbrella approach was endorsed by the AUC (African Union Commission), the African Seed and Biotechnology programme (ASBP) and Self-Help Africa. Consequently, opportunities were sought to expand the programme to more countries. This was started through ISSD Africa I and ISSD Africa II, which involved the assessment of the seed sector in a total of nine countries, covering two types of different seed systems. MoEA funded part of this assessment in the form of seed funding. Based on these

assessments, the ISSD programme was formally launched as an integrated multinational programme in 2012. Its mission was to pool ongoing initiatives, of which the most mature were the Ethiopian and Ugandan projects, and to facilitate the start of new national programmes. Recently, ISSD has also started to create an opportunity for more private sector involvement and has begun to dramatically out-scale its activities to other African countries. In 2013, ISSD Ethiopia began collaborating with Incotec Group BV and Rhea Composites (two Dutch companies involved in polyester manufacturing) to support seed coating activities in Ethiopia. Wageningen UR-CDI applied for seed money to support the development of an FDOV proposal, which is now through to the second round.

In 2014, more ISSD national initiatives were launched. Burundi was initiated, as was the pilot phase of an integrated ISSD Africa, intended to expand with national initiatives beyond Eastern Africa. To achieve this, the ISSD Africa initiative accessed funding (proposal development grant) from the Bill & Melinda Gates Foundation, which has opened doors to further a deepening and growth of the programme. In 2015, ISSD programmes will be launched in Tanzania, Ghana, and Mozambique.

Partnership setup

ISSD runs as a network, in which each country has its own consortium of partners. There is no single leader for all the national consortia. National leadership depends on which organization has the best network locally available to connect the different components of the ISSD programme, such as Seed Business Development, Partnership with the African Union, Seed Policy, Private Sector Engagement, and Farmer Development.

Created value

The ISSD has developed into an integrated sector-level approach and involves a large number of very different partners. The number of partners in each country reflects the diversity of actors involved in the sector. These include operators, supporters, and enablers of different seed value chains. Their participation is key to sustainability, and their endorsement and ownership of interventions and new ways of working thus needs to be facilitated. Project experience has taught Wageningen UR that cutting the pie into many pieces increases cooperation and buy-in. Offering too large a piece of the pie to one partner often leads to resistance from other sector stakeholders. A pluralistic and inclusive approach to sector development therefore lies at the heart of ISSD.

Successes, challenges, and pitfalls

ISSD (whether Ethiopia, Africa, or elsewhere) is not strictly the result of seed money. Seed money has, in effect, been accessed to fund part of what is a much-larger programme. In addition, seed funding is currently being applied to provide opportunities within the programme for private sector participation. At this stage, large returns on initial investment seem to be imminent, given the dynamics in the ISSD programme. Political backing has played an important role in the development of ISSD. This is evident in the adoption of ISSD Africa by the AUC, pending concrete results. Partners have been chosen with a strategic long-term vision of improving the sector in mind. This 'bigger vision' has been catalytic in generating return on investment, scaling, and public policy backing stories, and reflects the importance of the inclusive approach referred to earlier.

While ISSD is a broad sector-level approach, the country-specific programmes are dependent on each country's context for financing and selection of local partners, as well as other details. The only prescribed elements of the ISSD model are its guiding principles, which allow for flexibility and adaptation to local contexts and demands. There is no blueprint.



Dutch knowledge institutes in agrofood are internationally renowned for their role and contribution in sector development and innovation. Having a strong incentive to export their knowledge, these institutes are often mentioned as stakeholders in public-private partnerships for developing a systemic approach to the improvement of global food security.

The following section of this brochure will look into a number of case studies of international knowledge projects. The phrase knowledge projects is used here to emphasize that the primary driver in these projects is, in fact, the development and transfer of knowledge.

Capitalizing on Dutch knowledge in Agro & Food

Examples of successful earning models that have contributed to the capitalization of Dutch knowledge in foreign countries, or to competitive positions for Dutch stakeholders, are presented. In other words, these are models with a positive return on investment.

The knowledge projects that were selected in this study have been successful in capitalizing on knowledge in agrofood, in different countries and to different degrees. In total, five case studies in three countries have been analyzed with the aim of gaining insight into the elements that have contributed to the capitalization of Dutch knowledge. What can be learned from the successes and failures of these projects? And how can Dutch stakeholders benefit from this in their knowledge positioning in an international market?

In the context of earning models, the researchers have looked into the costs of the knowledge projects and the revenues in terms of spin-off projects (that is, follow-up projects with the same contractor, in the same country) and spin-out projects (similar projects commissioned by another contractor or in a different country). Equally important is the pinpointing of the mechanisms or processes that have contributed to the results and successes.

Selected cases

The case studies were selected from a range of international projects recently implemented by the contract research institutes of Wageningen UR. In these projects, knowledge is the primary driver that is developed and applied within a new value chain context or new environment. The common denominator is that these projects deal with the issue of food supply and potentially have a societal impact, affecting stakeholders from both private and public sectors. The following case studies or projects have been reviewed and analyzed to identify the elements of success and the mechanisms that have contributed to these successes.

Selected cases

1: Chile - Wageningen UR Chile International Centre of Expertise

Developing a national programme to strengthen the R&D capacity in the agrofood sector in Chile.

2: Chile - FruitChange

A value chain approach to increasing the sustainability of fresh export chains in the Chilean fruit and vegetable sector.

3: Mexico - Metropolitan Food Clusters

Feasibility study and conceptual masterplan development for agroparks in Mexico.

4: Mexico - National Agrologistics Programme

Development of a national policy programme on agrologistics with a roadmap to safeguard domestic and export food supply.

5: Ethiopia - Holland Africa Poultry Partners

Sector development programme that serves as a platform for stakeholder cooperation and capacity building.

Characteristics of the selected cases

The case studies were selected to illustrate the variety and complexity of knowledge as a product to be delivered to a client in another country. In this respect, the projects show the variation in the knowledge requested by foreign parties of the institutes of Wageningen UR. Likewise, the scope of each of the knowledge projects is very different.

The inspiration that may follow from these projects emanates from the extent to which other private and public partners can link with these knowledge projects, and how this could be done.

The five projects have different starting questions, related to the purpose of the knowledge product that is being developed and delivered.

The International Centre of Expertise project in Chile, for example, aims to develop and manage a multiyear R&D programme for the Chilean agrofood sector.

The two projects in Mexico also originated at a governmental level, but were more focused on the development of knowledge as input for agricultural reform policies, as well as for new concepts and structures for sustainable agricultural production.

The Holland-Africa Poultry Partners (HAPP) project in Ethiopia provides an interesting example of how public-private partnerships can contribute to sector development, as well as of how development assistance to less developed countries can be organized.



“Personal relationships are very important: it revolves around a small number of people who can hold the partnership together.”

Bart Doorneweert (LEI-WUR)



Cases Capitalizing on Dutch knowledge

*"We should not only build
the partnership from here,
but look at local parties as
well."*

Cara Govers (NWO-WOTRO)

1: Chile - Wageningen UR Chile International Centre of Expertise

The project

The Wageningen UR Chile International Centre of Expertise (ICE) is a PPP for the food industry, focusing on scientific excellence and industrial relevance. The institute is carried out under the current ten-year Chilean programme to develop R&D capacity, with the objective of strengthening the Chilean agrofood sector. The programme was set up in 2012, when Wageningen UR won the international tender and was assigned by the Chilean authorities as the organization to develop and manage the programme. The programme is funded by the Chilean government, has a US\$31 million budget, and includes seven Chilean knowledge institutes and, to a certain extent, local business partners.

The original idea of ICE was to develop PPPs within the programme, similar to the Dutch TI Food & Nutrition. Whereas one of the strengths of the Dutch approach is the PPP model and the involvement of business partners in R&D programming, the transferring of this model to Chile did not take place by default. Chilean companies from the agrofood sector were hesitant to enter into an R&D programme structure that involves other colleague companies. The program was altered so that the participation by Chilean business partners was linked to individual projects.

Project result

In the first phase of ICE, (2012 - 2015), the programme focused on four research themes: 1) food processing and structuring, 2) consumer and health, 3) food safety, and 4) supply chain sustainability. The concrete output from a number of projects that ran under the ICE programme was:

- a decrease in product heterogeneity in the supply chains of avocado and table grapes;
- a realization of a professional and robust supply chain for quinoa;
- a consensus with the involved ministries to improve the food safety monitoring system;
- a basis for the development of knowledge of the reformulation of food products (including reductions in sodium, saturated fats, and the taste of stevia).

In the second phase (2016 - 2018), the programme will expand its research focus to include primary production, along the research lines of sustainable food intensification and food processing. The possibility of developing a pilot and demonstration centre for food processing and horticulture in Chile is considered.

Knowledge spin-off

The ICE has acquired status and reputation as an institute in Chile and

other Latin American countries. Overall, the ICE has made a considerable contribution to strengthening the Wageningen UR brand name in Latin America. The government of Ecuador is interested in setting up a similar research programme in agrofood.

Success factors

First of all, it has been important during both the tender and implementation phase that the programme gained some form of prestige or status. The high level of commitment personified by the president of the Wageningen UR executive board made an important contribution to this status during the preparation of the bid, as well as after winning the tender. This stature of the programme was enhanced by the visit of the President of Chile to Wageningen UR. The size of the budget of the programme (US\$31 million) adds to its prestige and to that of its partners. Secondly, the personal drive and motivation of the people involved has made a difference. The presence of a local office of Wageningen UR in Santiago and the availability of the Wageningen UR alumni network in Chile, contributed to the establishment of a strong local network.

Constraining factors

Chilean business entities have been hesitant to participate in the ICE research

programme. As a consequence, the initial plan to develop the ICE as virtual knowledge centre, modelled on the Dutch TI Food & Nutrition, did not take root. Copying the Dutch model and successfully exporting it to other countries, does not happen automatically. Another constraining factor in the development of the Wageningen UR Chile centre was the restrictive financing terms for the contributions by Dutch partners in R&D projects. The terms, as defined by the Chilean authorities, exclude the reimbursement of research costs for work that is executed in the partner organization's home country.

Recommendations

Thanks to its local presence in Chile for a number of years, Wageningen UR has established a formidable network of local public and private parties. Other key sectors and institutes can capitalize on this network by uncovering opportunities in their field of expertise (e.g., water management). The investment in country knowledge and language may, in that case, serve multiple purposes. Likewise, the Wageningen alumni network is a potential easily accessible and powerful entrance to foreign countries for other Dutch stakeholders. A final recommendation is funnelling of resources and efforts to create impact in specific countries or regions, rather than dispersing these resources.

2: Chile - FruitChange

The project

The FruitChange project was one of the first to be cofunded within the framework of the scientific R&D programme of Wageningen UR Chile institute. The purpose of the project was to strengthen the export chains of fresh fruits and vegetables to Europe. The research in this knowledge project focussed on two important export products and their respective supply chains: avocados and table grapes.

The research was developed by knowledge institutes in the Netherlands, Wageningen UR Food & Biobased Research (Wageningen UR FBR), and in Chile by INIA and Usach. The objective of the research activities in the project was to obtain and exchange knowledge of product characteristics, quality development, and supply chain structures for the selected products in Chile.

Project result

During two years of research, the knowledge partners have gained specific knowledge that has led the way to tangible improvements for Chilean companies of their export supply chains for avocados and table grapes. The cooperation and the exchange of knowledge between the partners has contributed to the scientific knowledge and capacity building ability of local Chilean researchers regarding fresh supply chain research. Wageningen UR FBR has developed valuable input for the development of the quality model for fresh fruit and vegetables.

Knowledge spin-off

The specific product knowledge that was developed in the research project has opened up opportunities for follow-up assignments for FBR from Dutch import companies. This knowledge has proved to be valuable for companies that import fresh products from overseas areas like Chile. In addition, the FruitChange project contributed to the knowledge basis that formed part of the foundation of a €3 million multiyear research and innovation project for developing and validating improved quality systems for fresh fruit and vegetable supply chains.

Success factors

The project was successful in generating new knowledge of specific supply chains based on scientific chain analysis and product research. Secondly, the knowledge-to-knowledge (K2K) cooperation between Dutch and Chilean knowledge institutes not only enabled the development of local knowledge and research capacity regarding fresh supply chain research, but also ensured that research results became locally embedded. In this respect, facilitating K2K cooperation can be considered equally important as generating the knowledge itself.

Constraining factors

The FruitChange project itself, as well as the follow-up to the project, was hindered by the financial condition from the Chilean programme that only research costs incurred in Chile itself were eligible for reimbursement. As a consequence, Dutch knowledge partners were obliged to bring their own cofinancing to the project - a condition that they were unable to meet with the structuring of new knowledge projects in the Wageningen UR Chile ICE programme. The result was that even though leads and ideas for follow-up research were available, these research projects did not proceed.

Recommendations

The availability of financial resources for the cofunding of participation by Dutch knowledge partners in these research projects will enable these types of bilateral K2K projects to be realized. Bilateral programmes with shared funding will facilitate the development and exchange of new knowledge. The knowledge of specific products and supply chains that will be acquired in these projects will not only contribute to follow-up research, but will also benefit Dutch business parties, which will be able to gain a commercial advantage from it.

Investment in fresh supply chain research by a consortium of Dutch-Chilean knowledge partners can create win-win situations for both parties (for example, improved product quality and knowledge development for improved quality monitoring and control).



IN AGRO AND FOOD

"I think you should look at which funds are available for finding seed money, be creative, not only look for funding from the government, but the private sector can also be considered. Also look for local funding opportunities."

Ingrid Korving (MoEA)

3: Mexico - Metropolitan Food Clusters

The project

The Metropolitan Food Clusters (MFC) project began in 2010 with an email from a government agency in Mexico, the Secretariat of Agriculture, Livestock, Rural Development, Fisheries, and Food (SAGARPA), to Alterra Wageningen UR with reference to a thesis on the development of food clusters or agroparks as a concept for securing food production and supply to metropolitan areas. This MFC concept was developed by Wageningen in response to the worldwide growing disparity between urban and rural areas, and the impact of this on food production capacity and demand.

The MFC contains a methodology to design and create intelligent agrologistic networks with consolidation centres, agroparks, and rural transformation centres. The MFC project in Mexico developed into a five-year research process from 2010 to 2015, establishing agroparks in three provinces: Aguascalientes, Nayarit, and Chiapas. During this period, the agricultural counsellor and other embassy staff were closely involved in communications and negotiations with the Mexican authorities.

In all three cases, Wageningen UR was in charge of drawing up feasibility plans and schemes to realize the MFC concepts. Based on the requests from the provincial authorities (pre-) feasibility studies were executed for the development of agroparks as networks of private agribusiness and nodal points in food production and distribution. Following these feasibility studies, conceptual masterplans were prepared, containing more detailed design, quantification, and planning, in advance of the agroparks' building plans. The 280-hectare agropark in Aguascalientes has progressed to the phase of building engineering, civil works planning, and financing.

Project result

The project has yielded several direct and indirect knowledge results on different levels. In the first place, the MFC concept was validated for Mexico, and for the three Mexican provinces in particular. The projects have also contributed to the awareness among Mexican businesses of producing food in a different way, of processing waste streams, and of organizing training and education for company personnel and staff.

Knowledge spin-off

The MFC project created a platform for follow-up assignments from the Mexican government to develop an action programme on agroreform. A direct spin-off of the MFC projects was Wageningen UR's assignment to draw-up a national agrologistical agenda that is connected with the development of agroparks in Mexico. In their turn, the results of this National Agrologistics Programme (NAP) have also resulted in supplementary assignments from the national government of Mexico, and also from Mexican companies that intend to invest in the agropark development. The NAP project will be reviewed in the next case study.

Success factors

One of the factors that contributed to the success of the MFC project was the creation of communities of practice in Mexico. These new networks of private and public stakeholders have contributed to the development of coinnovation processes and partnerships between stakeholders in agropark design and building plan development.

Constraining factors

During the five-year project period, the MFC projects had to deal with changes in key personnel in the projects, on both national and provincial levels. In some cases, this had an impact on the pace of the development process. Another constraint was that political interest and political deadlines in the development of agroparks sometimes interfered with the conceptual approach and process of MFC modelling and design. National ministries needed to adapt their own roles and attitude to the new multidisciplinary approach in the development process, and they encountered internal debates on this matter.

Recommendations

Multistakeholder processes can be complex, in particular when different nationalities and cultural backgrounds are involved (both in terms of business and governance). It is therefore recommended that time and resources be invested in the management of expectations when entering into a process with multiple stakeholders. Also, invest sufficient time in the process of obtaining engagement and support from private parties and in the (political) synchronization of interests. Finally, high-level political commitment to the process and to the results gives valuable exposure to the knowledge retrieved through the project.

4: Mexico - National Agrologistics Programme

The project

In 2014, Wageningen UR developed the National Agrologistics Programme (NAP) for the agrofood sector in Mexico. This research project is a spin-off of the MFC project and followed the decision by the Mexican government to facilitate and support the private sector in Mexico in investment in selected agroparks. At the request of the Mexican Ministry of Agriculture, Wageningen UR developed and managed a codesign process for the drawing up of a long-term vision and strategy for Mexico on agrologistics. This process involved a range of local stakeholders from the public sector (ministries, agencies and services), private sectors in the agrofood chain (production, processing, trade, wholesale, and retail), knowledge institutes, and international experts. Researchers retrieved and analyzed data for the different building blocks that form the starting point for the agrologistical strategy. These building blocks included market analysis, infrastructure and connectivity, transport modalities, institutional and regulatory frameworks, technology, and knowledge dissemination.

Project result

NAP produced scientific input to the Mexican government's national policy programme for agrologistics. This includes a five-year action plan that

contains a number of strategic steps on agrologistics directed towards ensuring food supply in the long term and a strengthening of the Mexican export position for food products. In the process of formulating the policy programme, a framework of public and private partners was established as a foundation for the country's national council on agrologistics. For Wageningen UR, the project yielded knowhow of the Mexican agrofood sector's capabilities and potential and a valuable local network of key players and organizations in the sector.

Knowledge spin-off

The positive results contributed to the international branding of the Netherlands as an expert country in agrofood, logistics, and the combination of these three fields of expertise. In this process, Wageningen UR has positioned itself as the scientific platform for this expert position. This has led to the start of exploratory discussions with other countries on similar approaches to developing an action programme on agrologistics. In Mexico, Wageningen UR obtained a framework contract from the Ministry of Agriculture for the implementation of the action programme. In addition, Wageningen UR provided input to local agribusiness for drawing up investment plans in agroparks.

Success factors

The outcome of the project has made agrologistics a theme of importance on the national agenda in Mexico and has stressed the contribution of agrologistics in the reform of the Mexican agrofood sector. The involvement in the process by the Dutch Ministry of Economic Affairs and its representation in this by the Dutch ambassador and agricultural counsellor in Mexico has enabled good communication on the topic with the Mexican administration at a high political level. Both this and the visit by the Dutch Minister of Agriculture to Mexico in 2015 generated much public exposure of the project's results.

Another important success factor in the research project was the codesign methodology that proved to be valuable in producing momentum in the multistakeholder process and in organizing support from local stakeholders.

Constraining factors

The fact that the project was developed from a policy point of view and was supported politically also increased the vulnerability of the process to internal policy issues. In some cases, this caused delays in the progress of the research project.



"Very often parties are not in their appropriate role. We should be aware of the roles we have and not trying to take on the role of the partner."

Arthur Vernooij [FME]

Recommendations

Involve the Dutch Agricultural Counsellor or embassy representation at an early stage of the communication with local government counterparts. Work with a local team of experts, especially when the time zones of the Netherlands and the project country are not synchronized.



"The private sector often doesn't have a problem in investing in a partnership as long as it is clear what the risks are. The role of the government in the seed money phase is therefore probably very essential."

Joost Guijt (PPPLab)



5: Ethiopia - Holland Africa Poultry Partners

The project

The Holland-Africa Poultry Partners (HAPP) project is somewhat different from the previous cases, because this project was set up as a public-private partnership project. Partners were involved in the project from both the Dutch public sector and private companies, as well as knowledge institutes. The HAPP project was seeded from a Dutch trade mission in Ethiopia in 2011 and, although the prospects of commercial success were small, the partners decided to invest in a partnership that would serve the development of the Ethiopian poultry sector. The HAPP project contained three components that were developed to assist the sector in growing towards a professional production sector:

- building capacity through the transfer of knowledge (for example, regarding animal health) and the development of specific curricula (such as hatchery technology and management);
- setting up facilities for practical training and demonstration;
- establishing trade relations between businesses.

The decision of the Animal Sciences Group of Wageningen UR to participate in this PPP-project was partly motivated by reasons of strategic investment, which might result in the gaining of knowledge and access to networks in

the Ethiopian animal husbandry sector.

A second reason was the interest in 'experimenting' with PPP projects and in developing partnerships with stakeholders from the private and public sector in a developing country with high Dutch government priority.

Project result

The combined efforts of the HAPP project have contributed to the development of the poultry sector in Ethiopia and induced a slight growth. The Dutch partners have contributed to the development of a training curriculum in poultry farming. In combination with the three practical training facilities that were built with financial support from the Ethiopian authorities, the training curriculum will have a positive effect on the sector's future performance.

Knowledge spin-off

After the three-year project, the partners in the HAPP project have expressed their interest to invest in the further continuation of the cooperation in Ethiopia. The HAPP project has formed a basis for bringing this cooperation between stakeholders to a more sustained level. The Ethiopian authorities have requested the building of six additional training centres in Ethiopia.

Success factors

The combination of expertise and input from both knowledge institutes and business partners proved to be a strong and valuable concept in the training of local experts. In addition, connecting Dutch and Ethiopian knowledge institutes in the Holland-Africa partnership resulted in a strengthened poultry farming curriculum in Ethiopia. The involvement of the local poultry producers association provided the association with a role and position in the development of the poultry sector. It is expected in the longer term that the association's involvement will increase the impact of the efforts made as part of the HAPP project. One of the leading Dutch partners in the partnership already possessed a local network in Ethiopia as a result of its own activities; this included good contacts within the government administration. The partnership as a whole benefitted from these good relations, which have had an overall positive effect on the project impact.

Constraining factors

It is difficult to sell knowledge when the knowledge question comes from a sector or supply chain perspective. Despite common interests, the resources for investing in sector knowledge are often not available. Extension services in Ethiopia are not well developed.

There was a lack of transparency at the start of the project in the roles and interest of the individual partners in the consortium. Insight and good alignment of these interests would have increased the impact of the efforts in the project and of the available resources. Project bureaucracy by the Dutch government agencies slowed down the project progress, and on one occasion gave misleading results with regard to the expected outcome. In fact, the project has had a limited outreach to small-scale subsistence farmers, although they form the majority in countries such as Ethiopia. The consortium thus intends to put more effort into improving this in the second phase of the partnership project.

Recommendations

Dutch governmental support programmes that are focused on a specific component of the PPP project should complement the overall planned objectives and results. Local presence in the target country of one or more consortium partners is essential in accessing and managing local networks. Insight should be established in (and awareness should be gained of) the decision processes of the national governmental authorities where the project takes place - this might include, for example, insight into the hierarchy of the decision process and the culture.

Observations and recommendations

Seeding public-private partnerships

Setting up large PPP projects is a daunting task. It is a process that comes with many risks and uncertainties. If one thing has become clear during discussions on the role of seed funding in setting up PPPs, it is that many projects needed to go through their own unique paths of development before they turn into fully fledged PPPs. Seed funding provided the time required to mature the partnership and to transform it into a solid proposition for onward funding.

Partnership design

The cases examined in the study on seeding PPPs illustrate how value was exchanged and created in the various linkages between the members of the partnerships. The designs of the partnerships showed some common general patterns:

1. Each partner provides unique and complementary capabilities to a partnership collaboration. It is essential to activate these capabilities through practical activities on the ground. If these activities do not occur, the partnership stands to lose cohesion.
2. Although the pool of capabilities in a partnership is accessible to everyone in the partnership, the value created

by utilizing these capabilities will have different outcomes for each individual partner.

3. Some partnerships set out to accomplish a specific objective and are designed to be dismantled when that objective is reached, as in the case of Secured Growth. Other partnerships, such as ISSD, can only create value through their continued existence. These partnerships are designed for continuity.

Partnership evolution

The cases in this study of seeding PPPs show mixed levels of priority definition when it comes to obtaining results from the partnership for their own business models. Most of the participating businesses have defined some really tangible and clear expectations regarding what the partnership should provide - for example, contributing to their product value proposition or helping to open up a new market.

There were also some parties that took a more exploratory position in their partnership. These used the available funding to figure out what the partnership could deliver in terms of structural results for themselves. This involves the risk of not achieving tangible results.

There is no right or wrong in these two approaches. Most partnerships have shown that they are open-ended arrangements where the objective becomes more defined over the course of the project. Sometimes, the objective is to apply the partnership to create a new contribution to each other's business models. Sometimes the partnership increases in size and complexity and evolves into a completely new entity, such as a multistakeholder platform. Regardless of these variations in context, a search process needs to take place in many partnerships in order to arrive at sustainable outcomes. It is never all about execution. It is therefore important to provide solid modes of communication to help navigate the partnership towards a fruitful outcome.

Success factors

The following factors have been found to be critical for achieving success in a partnership.

• Role of personal relationships

In most of the projects, the personal networks of the people involved have proved crucial in orienting the consortium on its joint mission. Informal connections provide flexibility in finding initial direction on where the consortium needs to be heading. They also help in reaching out to new partners, in order to expand the team.

• Scope of the partnership objective

The case studies show that the more focused the project objective is, the more suitable it is to work in a PPP consortium. Projects with a wider scope have it the other way around - they tend to develop into multistakeholder dialogues, rather than PPP configurations.

• Priorities on research or on implementation

Consortia should determine whether they are ready to implement their idea or whether some research is still needed to better understand their problem context. If a solution is implemented in a context that still contains some fundamental unknowns, then the project faces a high risk of failure.

Value of seed funding to partnership formation

• **Balancing short-term and long-term priorities**

In cases where there was direct collaboration with business actors, project leaders mentioned the tension between the desire for quick wins from the business end and the desire for addressing larger, wicked problems from the research end. Overall, the tension was considered to be constructive, as it required researchers to become very practical about their contribution.

• **Organize for practical results**

It is important that PPPs plan for very practical fieldwork to take place during the project. This contributes to the consortium's motivation, both as a milestone to work towards and as tangible feedback on the results and impact of the collaboration.

• **Partnerships and cultural differences**

International partnerships need to take the effects of cultural differences into consideration. Some partnerships even refrain from emphasizing the relation with the public sector, because this is taboo with some partners. Project coordinators need to balance between making practical headway with the project on the one hand and safeguarding the public interest on the other.

In all the documented cases, seed funding has played a critical role. The following recommendations are relevant to parties interested in applying seed funding to start up a PPP collaboration.

For research institutes and private sector parties:

1. Seed funding has been shown to reduce project risk in the later growth stage of the partnership, because much of the project's risks can be identified early on. Seed money provides more preparation time for projects to lift off. It helps define, develop, and test what the opportunity is that underlies the partnership objective, as well as the balance that is needed between research and implementation. In addition, seed money provides the opportunity for involving important stakeholders that are generally hard to reach, like SMEs and local government representatives. This should be considered part of project risk management for implementing large PPPs.
2. Bonding has been demonstrated to be a crucial factor in creating partnerships, and enhancing their sustainability. Seed funding provides an opportunity for face time between people and creates

strong social relationships that can bridge cultural differences and will carry the partnership idea onwards during potential setbacks in project formation or funding acquisition. Any seed funded project should be sure to utilize part of this budget to enable face time between partners.

For government:

3. As governments are responsible for the public utility of PPPs and are also funders, it is advised that they apply specific factors that foster success, such as those mentioned above, in addition to the general criteria that are currently employed in granting seed money. By engaging with consortia on these broader terms, government can expand its involvement and influence in PPPs. These criteria can potentially be exercised in seed project incubation activities where project consortia, including governments, can interact with and learn from each other on the challenges and opportunities in early project definition activities.
4. Government also has a role to play in active diplomacy to operationalize PPPs on the ground - f.i., through the role that agricultural counsellors have played in preparing the ground for some of the PPPs in this study.

5. It is advised that governments participate in the process of scope definition in order to ensure that public priorities are adequately addressed by the implementing partners.

For all parties involved in the PPP:

6. Seed funding helps to build an actionable scope for collaboration for both the research and business partners. This is essential for balancing short-term and long-term priorities. It also provides funders the opportunity to define their ambitions for the partnership.

The early seed phase has shown to be critical, both for creating a stepping stone to a larger partnership and for generating spin-off opportunities in cases where consortia do not succeed in creating the larger PPP. In order to improve the understanding of seed funding for PPPs, it is advised to look more closely at the value that is created during the initial seed phase, and to trace this value as it contributes to the other, new initiatives that are created along the way. Only from such insights can the value of seed funding to PPP formation be better defined, and can advocacy for a funding mechanism that is widely regarded as essential by practitioners architecting PPP collaborations be strengthened.

Observations and recommendations

Capitalizing on Dutch knowledge

The analysis of the five cases in Capitalizing on Knowledge revealed that there is a large variation in the type of knowledge projects, as well as in establishing their accomplishments in the capitalization of Dutch agriculture and food knowledge in other countries.

One of the lessons is that building and executing a planned strategy for developing knowledge projects in other countries can work, but that some of the most successful opportunities and projects may also occur by chance. In addition to this, it is difficult to identify in advance which knowledge earning models are successful and which are not in terms of costs and revenues. It is not always possible to link revenues to a particular investment in a place and time, or to express these revenues in economic value.

Knowledge institutes benefit from other stakeholders in the Dutch knowledge triangle (knowledge, business, government), and vice versa. Each stakeholder has a role to play and can add its share to mutual benefit. Economic diplomacy has the potential to create additional impact in terms of the positioning and support of Dutch knowledge abroad.



“Investing in a partnership is also a strategic move since you see chances for the future.”

*Tomek de Ponti
[WUR-Alterra]*

Success factors

The following elements can be discerned as ingredients for successful knowledge projects in foreign countries.

Preproject and acquisition phase

- High-level support within the knowledge institute and additional high-level support by other stakeholders e.g., government officials - this is especially true for large projects.
- People with high motivation and personal drive, who are committed to obtaining a good result.

Project phase

- Local presence in the form of a branch office or local representation.
- The use of foreign networks with a low threshold in accessing local knowledge and valuable contacts, such as a network of foreign alumni.
- The availability and committing of local financial resources (subsidies or grants) for setting up a multiyear research programme.

Spin-off phase

- International exposure of the project results through publications and press releases, with the involvement of high-level officials.
- Good stakeholder management contributes to the knowledge result in the project phase, and forms the basis for continued cooperation in spin-off projects.

Accelerating the capitalizing on knowledge

The following recommendations are relevant to parties that are interested in the challenge of applying Dutch knowledge abroad and going beyond the single project by anticipating spin-offs.

For government:

1. Economic diplomacy: Royal Netherlands Embassies - and especially Agricultural Counsellors - have a complementary and strengthening role in identifying leads, facilitating local contacts, and exposing and sustaining results. As such, they contribute to the positioning of Dutch knowledge institutes and to the potential generation of spin-offs.
2. Government-to-Government: Dutch embassies can provide intelligence and advice on potential administrative, and hence financial, complexity in recipient countries (especially in case of multiyear programmes).
3. Cofinancing: The impact of Dutch knowledge can be strengthened when the availability of local government funding (subsidies) is supplemented by Dutch funds for international knowledge development and dissemination.

For all parties involved:

4. Strategic agenda: A coordinated strategic agenda for the international positioning of Dutch knowledge in agrofood in a selected number of countries can be facilitated. A strategic choice of the countries one wishes to excel is needed, as is an investment in country knowledge, relevant local contacts and networks, and language.
5. Networking: Making use of the available local knowledge networks, including alumni networks.
6. Partnerships: Concerted actions by the knowledge, business, and government partners may support the positioning of Dutch knowledge in other countries.
7. Creation of synergy: International knowledge projects create a platform and local network for overall exposure of Dutch knowledge, expertise, and technology products.
8. Anticipate spin-off: Publications in international and scientific journals on specific topics are relevant to the international agrofood agenda. When results from knowledge projects are expected to be valuable for other Dutch stakeholders, they can be involved at an early stage, at the same time generating positive exposure for them. Dutch knowledge

institutes that work abroad are in a position to identify opportunities for other knowledge disciplines and to capitalize on these, for example water, health, infrastructure, and ICT.



"Also create room for safe-fail investment: being able to do a small study that can go wrong. This will create a more explicit role for the government as well."

Joost Guijt (PPPLab)



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