

HORTICULTURE CENTRE OF EXCELLENCES

Introduction

An HCoE can form an important tool to facilitate cooperation between Dutch and local private sector, knowledge sector, NGO's and/or government in realizing commercial and development cooperation goals. It can be used as a centre for technology display, technical trials, information retrieval, networking, training, organization of events and such from both sides benefit. The HCoE concept is an initiative that is open to all sector parties, has a function in the pre-competitive phase of commercial parties and forms the stage for new initiatives to grow and develop from.

However, development and establishment of an HCoE will demand a long-term perspective and willingness to invest and co-operate on a multi annual basis from the Dutch and local partners. Private sector, knowledge institutes and Governments should share the same goal of sustainably developing the local horticulture sector, to work on capacity building and to support the international activities of Dutch companies and organisations in the sector.

The best set-up and the effectiveness of an HCoE is depending on the local sector situation in relation to what Dutch sector parties have to offer. The challenge is to find the best match between the local development drivers and commercially viable business models. Depending on the type of sector, the accent varies between more focus on local sector development or on Dutch commercial benefit.

An HCoE with Dutch private sector involvement has to be able to reach the local target groups via which contribution to sector development is achievable. The other way around, the Dutch parties need to be relevant counterparts for local target groups. Developing inclusive horticulture value chains with Dutch private partners can be a challenge as a large part of the Dutch private sector players do not directly match with activities of SME's, or at least smallholders, in developing sectors.

In a sector with various sized players, usually there is an important role to play for both the Dutch private sector, knowledge institutes and NGO's to be able to reach all players in the sector.

From previous studies and experiences the importance of 'the business case' as the starting point for horticulture sector development processes has been accepted as the key to a sustainable approach (Joosten, 2014). The business case being both the business case for the Dutch private sector as well as the business case for local companies. Ideally a win-win situation is created whereby Dutch companies that are investing in an HCoE will be able to establish a better position in the market, while on the other hand the centre supports sector development by offering new knowledge and (technical) solutions that fill in the gaps locally.

However, for successful development cooperation activities, aiming at direct profitability is not always realistic as the match between the Dutch private sector offer and development needs of all target groups locally is not always perfect. It is therefore important to keep the local requirements for sector development as the starting point for HCoE development, or that is, first focus on the 'pull factor' instead of the 'push factor'.

The exact definition of an HCoE can vary. In general a Centre of Excellence is a team, a shared facility or an entity that provides leadership, best practices, research, support and/or training for a focus area. It is usually known as a competency centre or a capability centre, but the term may also refer to a network of institutions collaborating with each other to pursue excellence in a particular area. For the purpose of this study a basic working definition has been formulated. For the purpose of the review a "Centre of

Excellence” is considered a platform, network or entity with a shared facility that can be used for demonstration and training:

- to support the development of the sector with the input of adapted Dutch knowledge and technology
- provide a basis for Dutch horticulture suppliers of products and services, NGO’s and knowledge institutes to start up and expand their activities in the sector

Centre of excellence as a tool for international activities of the Dutch sector

The way Dutch sector parties can use an HCoE in starting up and expanding activities in a developing sector obviously varies significantly for private sector parties and non-for-profit organizations and knowledge institutions. Especially in the case of a physical demonstration site with Dutch technology, NGO’s and knowledge institutions can benefit greatly from working with a HCoE in their capacity building activities and training of large groups of farmers and linkage to the Dutch private sector. For university and research centres, HCoE can provide good opportunities for research projects for Master students, PhD’s and staff. Working on a centralized location however will limit their reach throughout the country, but the HCoE can form a foothold from where further roll-out of knowledge and skills can be stimulated.

For the private sector, benefits of working with an HCoE are depending on their specific type of business and usually changes over time. The involvement of the Dutch private sector in international horticultural development can be grouped in three categories: trade and logistic partners; input, equipment and technology suppliers; and producers and investors (Joosten, 2014).

For many developing horticulture sectors, especially in Africa, the Netherlands has been the main export market in Europe. As trade partner, the Dutch importers of flowers, fruits and vegetables and the Flora Holland auction system have much to offer to exporters in emerging and developing countries. Several African governments have prioritized development and facilitated the export of fresh produce to Europe and the Netherlands for the sake of generating foreign currency.

Interest of importers for quality products is usually always present, but the specific demands and potential for a developing sector vary between the different subsectors. An HCoE can form a tool for importers as an entrance to a new market, enabling network activities, information exchange and training for their suppliers. In the reviewed HCoE initiatives however, few importers or logistic partners were part of the Dutch consortia involved.

Dutch horticulture suppliers have seen their nearby markets decreasing over the past decade, forcing them to become more internationally oriented. The front runners started exploring new markets in developing countries such as Africa and Latin America. As the horticulture supply sector consists of SME companies mainly, exploring these markets was a large investment of time and efforts. Many ‘complicated’ markets were too much of a risk to operate in solely.

As an answer to these challenges several consortia of companies started exploring new markets through joint efforts. The Dutch Ministry of Economic Affairs government stimulated and supported this development by offering co-funding for business-to-business activities in a pre-competitive stage. To improve the impact of these activities, government-to-government projects were set-up to improve the conditions for doing business in the target markets.

The HCoE concept forms a valuable tool for the private sector as it creates the opportunity of showcasing their products and services. In all of the reviewed HCoE initiatives, the largest part of the

consortia existed of horticulture suppliers of products and services, often supported by a knowledge institution.

With the decline of the horticultural production acreage in the Netherlands an increasing number of producers also started invest in emerging economies to establish their own commercial horticultural farm for export production. Favourable climatic conditions for year-round production, availability of labour, land and other production facilities, and the possibility for low-cost production have attracted many Dutch horticultural investors and producers. An HCoE can be very valuable for them on the aspect of capacity building and training of practical skills of the horticulture labourers in the sector and/or their personnel in specific. It can also provide support to smallholders in situations where the large farms work with smallholders in “out growers” schemes. The larger the farms become, the more their owners usually support sector-wide concepts that help raise the level of knowledge and experience of employees and possibly linked smallholders.

In some cases importers also invest in a local farm to have a base for sourcing and handling fresh produce from local growers, and also various breeders invested in farms in developing sectors to be close to their clients, demonstrate their varieties to the sector and be able to deliver propagation material locally. Breeders of vegetable seeds for the local sector were most involved in the reviewed HCoE concepts.

COOPERATING IN A CENTRE OF EXCELLENCE

Introduction

For the review of Centres of Excellence, initiatives were selected that have started up as a Dutch initiative and/or have a strong Dutch connection. The selected Centres of Excellence are located in developing countries or upcoming markets and have a focus on horticulture. The identified centres answer to the above given general definition of an HCoE, however several of the initiatives have initially not been started up from the perspective of setting up an HCoE but gradually developed into it. The centres included in the review are Ceickor in Mexico, GhanaVeg, Journey 2 Sustainability in Guatemala, KALRO-PTC and Latia Resource Centre in Kenya, SEVIA in Tanzania, Smart Adaptive Sustainable Horticulture in Rwanda, Sultan Sera in Turkey and Utz Samaj in Guatemala.

Based on interviews with Dutch project leaders and participating companies, NGO’s and knowledge partners in HCoE initiatives information has been collected on critical factors for development and long-term management of a HCoE.

The review has been based on the study “Horticulture Centre of Excellence Zimbabwe” of Brightface and Green Works Consultancy (2017). In the study for Kenya, the two local initiatives, KALRO-PTC and Latia Resource Centre, were studied in greater detail, and additional HCoE participants and initiatives were included that differ in organizational set-up and business model. The information has been categorized divided over the following topics:

1. Goals, ambitions and expectations
2. Dutch sector participation and financial contribution
3. Local partner selection
4. HCoE management and organization

The findings are described in more detail in the following paragraphs. Annex 2 gives an overview of the contacts that were interviewed for the HCoE review.

Goals, ambitions and expectations

The development of an HCoE usually involves various types of partners in the private and public sector and all have their goals, ambitions and expectations in relation to the success of the HCoE and the benefits for their own organization or company. **Setting the right goals at the start**, or that is, goals that are possible to realize in the given time, is of utmost importance. Next, **managing the ambitions and expectations of all parties involved** throughout the various stages of the process is important for the success of an HCoE. Therefore sufficient time and attention should be paid to process management aspects.

The type of activities that are chosen and the way they are organized determine the amount and types of companies that can be supported through an HCoE to a great extent. It also determines the organizational 'load' of the HCoE that needs to be managed. In the phase of planning and budgeting it is important to **link realistic goals to a manageable set of activities that match the budget**. Financially supporting and coordinating too many projects or involving too many new, unknown companies in key projects poses a risk on the successful operation of an HCoE.

For Dutch private sector partners the main reason for participation in any form of an HCoE is business generation, or that is, direct orders. The best matching route to direct orders varies per type of company. It is important to know at the start of participation in an HCoE that the term in which a company needs to and expects to generate income from their investments or efforts is realistic in the local market.

When establishing an HCoE, the definition of the target groups on the local and Dutch side will determine the type and number of farmers that can be supported or should be reached locally. On both sides the benefits should be clear. Optimal results are realized when the local partners have concrete questions that match what the Dutch side has to offer. **Creating a situation that is demand-driven is usually the best set-up for a successful cooperation.**

In developing countries often the local private sector needs often do not entirely match with the Dutch private sector's offer. Here it is important to define which 'gap' needs to be bridged from the start of cooperation and **be transparent about the expected 'business case' for the Dutch private sector**. In some HCoE initiatives, participating Dutch companies only find out during the course of their participation that the farmers that are reached, will not be ready for their products and services in years.

Several interviewed (commercial) knowledge partners experienced that the Dutch hardware suppliers involved in HCoE projects seemed only willing or capable to adjust their products to local sector demands to a certain extent. In various cases the resulting technology set up at the HCoE was still too much 'high'-tech and/or still too expensive for a large part of the target group.

Private sector participants should be aware of the fact that they will realize the **best results from their participation is they are pro-actively involved**. The more energy a company puts in the initiative itself, the more chance the HCoE activities will become successful and revenues will follow.

Disappointing results lead to companies opting out more easily which can be detrimental to the financing model of the Centres of Excellence activities, spreads a negative vibe among the group of participating companies and can damage the 'image' of the HCoE on Dutch and local side.

Preparations by designing a phased action plan for HCoE development is very valuable. Based on the experiences gained in the reviewed initiatives **the development of an HCoE requires a time path of 4 to**

7 years. From that moment on the Centre should be in full operation and be heading towards a financially sustainable business model. During all different phases of design and development, construction, implementation and further growth, various parties will play different roles. **Often knowledge partners play an important research role in the first phases while hardware suppliers have to wait till later.** Timelines in private sector activities are usually very short. A limited level of patience on their side, especially when delays occur, can become a seriously undermining factor in the further commitment to the initiative.

Management of expectations of Dutch parties involved throughout the process thus is an element that needs serious time and attention from the leading organization(s). Also the expectations of local partners should be taken into account. On the one hand programs that are aimed at supporting local development with the help of the Dutch private sector are often seen as marketing programs. The concept can sometimes be hard to grasp by the local private sector. Also, experiences in the past with foreign companies acting in the sector with a 'hit and run' approach, not providing long term support, can bring about some distrust.

On the other side, in some developing countries, sector parties have become used to receiving donor support to such an extent that sometimes their mind-set towards cooperation programs can become insufficiently pro-active.

Another key element in relation to starting off with the right expectations is **not to overestimate the learning curve of local partner and the farmers** participating in HCoE activities. When it comes to the host of the HCoE the starting knowledge and understanding of all the aspects involving operating a HCoE have to be taken into consideration carefully. From the interviews with the Dutch HCoE project leaders and participants it became clear that the learning curve in relation to the use of new technologies, plant production, management and organisation of multiple activities was usually slower than they had anticipated. Especially the required support on cultivation management practices was usually underestimated. **Very regular local presence of a knowledgeable advisor is advisable.**

The same experience with respect to the learning curve and adoption of new technologies and practices is observed in farmer training and capacity building programs in the sector. **The target groups for training also vary in their responsiveness and uptake of the trained matters.** Especially in sectors where a significant proportion of the farmer population is of older age, interviewed parties claimed that training of this group is almost more about realizing behavioural changes. The main determining factors mentioned were the costs involved in changing management practices or implementing new technologies and their "ease" of implementation in comparison to what the farmer was used to. Adult learning mechanisms can be quite complicated demanding more than just technical training on a technology. The above mentioned aspects relating to the learning curve of a local partner and sector parties should be taken into account to determining the required amount, the best timing and type of support required from the Dutch partners.

Dutch sector participation

Based on the experiences gained by participating in the reviewed centres of excellence **most of the interviewed are positive about the cooperation between Dutch sector parties** in supporting local sector development and exploring horticulture markets. The reviewed centres often formed an important tool to start up and expand activities in a developing country.

Private sector

A large role for the private sector in an HCoE is usually considered positive in terms of their pro-active and practical approach, good understanding of the financial aspects and the (technical) needs of local farms. Private sector commitment and willingness to finance is however usually directly related to the professional level and size of the sector. **Commitment and attention for a market can quickly decline if no gains are expected in the short to medium-long term.**

In a highly competitive sector made up of mostly medium sized companies such as the horticulture sector, the individual effort in terms of time and money that can be spend on entering a new, relatively difficult market is limited. For the private sector entering into precompetitive activities in partnership with other Dutch companies is therefore an accepted and often appreciated way of starting up business in developing countries.

The best way of entering a new market for private sector players is usually depending on the client types they are targeting at. **The target groups that Dutch companies expect to reach via an HCoE will define their participation in an HCoE** in terms of:

- Type of participation; incidental/activity-based versus longer term, structural partnership to buy-in
- Type of contribution; 'in kind' contributions versus financial support
- Period of involvement

Participation of Dutch hardware and service suppliers in the activities (and financial model) of an HCoE is often restricted to the number of years the companies need to establish their own network and client base. For the longer term sustainability of an HCoE a model should take that into account and perhaps include several phases (e.g. including new subsectors, changing the accent of activities and/or gradually decrease the activity level and through that financial needs).

Companies that are forced to go for the relatively 'quick wins', or that is, companies with limited available resources to invest in developing a new market are usually interested in a HCoE for a short period of time. Preferably in the form of participating in activities for a few years, not in longer-term structural commitment or financial support. Also some commercial advisory parties limit participation to the period needed to start up their own network as they are restricted in participating in shared activities that require knowledge exchange.

The desired HCoE functions or type of activities organized via the centre also vary based on the client types the private sector parties are targeting at. Dutch horticulture suppliers that can work well with (S)ME's in developing countries, provided they are commercial farmers with a certain level of knowledge and experience, are **suppliers of irrigation driplines, fertilizers, seeds and small equipment**. Local demonstrations of technologies, practical trainings, field days and such will match the wishes of this type of companies.

Importers of fresh produce are also among the group of Dutch companies that can become active in a rather early phase. For them these activities can also be relevant as it can improve the supply of the produce in various manners; e.g. volumes, quality, continuity.

On the other side of the spectrum there are for instance suppliers of greenhouses and installations that are locally being considered high-tech, or suppliers of cold storage facilities at farm or sector level

(distribution centres). This group best relates to large farmers, co-operations and governmental bodies. In case the number of this type of clients is low in a sector, matchmaking with relevant local counterparts is often most interesting. The demonstration of technology at a horticulture Centre of Excellence is usually not expected to lead to sufficient new clients.

However, some of the interviewed CoE participants that fall in this group have developed adjusted products and ways of service provision based on their experiences. For these companies participation in demonstration and training activities with their new “mid-tech” assortment is very interesting in new markets, provided a sufficiently large potential client base is present.

Several of the interviewed participants in HCoE initiatives explained their understanding and acceptance of the long term commercial perspective of their participation. These companies decided to invest in terms of time and money in a future potential market and often their reasons were twofold. Participation was important from the perspective of individual company gains on the one hand and often also support to the Dutch sector development on the other hand. **Keeping up the level and international importance of the Dutch horticulture sector** can also form an important reason for companies to participate in HCoE initiatives. The latter reason usually starts to become relevant when a sufficient number of fellow companies of importance are interested in the HCoE as well.

The bulk of **private sector parties active in HCoE initiatives in developing countries usually remain involved for 2 to 4 years**. Usually this is also the term that government co-funding was available for the employed activities. In several of the reviewed initiatives, the private sector made significant contributions both in cash and in kind over this period of time.

In some of the reviewed initiatives **long term, structural commitment (>4 years) was observed** by groups of companies. This was usually the case for groups that already had or managed to build up a working relationship for a specific region with a **complementary group of companies**. Based on yearly subscription fees and a reduced level of activities, various initiatives based on private funding manage to remain in the air for periods longer than 5 years. Often large investments had been made in the first few years of the initiative.

In general the more pre-competitive the HCoE's activities in which companies can participate, the higher the number of participating companies, but the lower the commitment and the financial contribution will be. This rule of thumb can be applied for the development of the best suitable business model for starting up an HCoE initiative in a developing country.

The above has been gathered from horticultural suppliers of products and services, not investors. Some of these companies however have started up working via an HCoE in a new market and used the HCoE in kick-starting the establishment of a local office or company demo site, the latter was mostly the case for seed companies.

Non-governmental-organizations and knowledge institutions

Participation of NGO's and knowledge institutions is usually a necessity in case the sector development goals, target groups and the planned activities of an HCoE initiative do not fully match those of participating private sector.

Interviewed **NGO's and knowledge institutions notice that their organization often 'fills in the gaps' in public-private partnership programs on topics that do not fit the core business activities** of the other

partners involved. Over the past years several programs aiming at involving Dutch private sector in sector development and supporting local SME's have been quite ambitious on the aspect of linking the Dutch private sector to smallholders. Knowledge institutes and NGO's have usually formed the linkage to the smaller farmers in the end, while actual cooperation or interaction with the Dutch private sector becomes limited.

In one of the reviewed HCoE's an NGO functions as the host for a centre with positive results. The HCoE focusses on SME vegetable farmers as a target group. The NGO already had a good track record and set-up of this CoE is relatively small and concentrated on specific activities. The Dutch private partner provides structural support in how to organize activities and how to become financially self-sufficient.

Local partner selection

In each of the reviewed initiatives the choice of the local partner was mentioned as one of the critical factors for success. Also **local 'ownership' of the HCoE and having someone in charge whose priority it is to manage the HCoE** came up quite regularly. In case of a physical demonstration site with various crops and technologies on display a critical factor for success is to **have a knowledgeable grower on the site**. Ideally the owner himself has experience with the demonstrated crops and technology, or the company has well trained and continuously supported greenhouse management.

Based on the statements of several interviewed parties involved, least successful in developing the Centre of Excellence within the given timeframe is the initiative with local multi-stakeholder ownership; KALRO-PTC. The various local organizations involved struggle with the mandates and benefits of their own organization, and the high expectations and ambitions of the initial set-up of the concept. Formalisation of an independent entity for the Centre of Excellence during the development and implementation phase has not been successful. From this experience it can be concluded that it is advisable to have either a single local partner involved or **make sure that at the start of any initiative a formal entity is set-up and a local leader is assigned with decision making power who has the support of the founding partners**.

Selection of a local partner to host a HCoE is a process that demands a lot of time and effort. In most of the reviewed Centres of Excellence the host is a **commercial party**. In some cases the local partner was found relatively quickly. This was usually the case when the local partner was a large scale farm or company that already matched with what the Dutch sector had to offer. The following situations were observed in successful cooperation between the Dutch and local large private partners:

- The local partner was already a commercial client of the participating Dutch companies
- The local partner was an exporter and already had a relationship with the Netherlands
- The local partner was a renowned player in the sector and became a client by co-investing in a large part of the required hardware for the HCoE.

In these situations the (longer term) experience in working with the local partner provided **sufficient information and trust** in this partner to host the HCoE. The other way around, the acquaintance with the Dutch sector as leading sector in horticulture technology and longer term cooperation with Dutch sector partners gave sufficient confidence to enter into a partnership. In the last listed situation the large financial contribution demonstrated a sufficient amount of commitment and understanding of the undertakings for a host to be selected.

In other HCoE initiatives the local partner was found during a search for candidates among smaller sized and/or unknown farms. From the reviewed experiences it becomes clear that in such a process sufficient time has to be taken into account.

Positive experiences came from initiatives that worked with a clear set of selection criteria to be met by the local partner. Selection criteria preferably included information on

- Business performance in terms of appearance of the facilities, cultivation experience, image in the sector
- Potential to contribute in kind and in cash
- Financial and legal indicators such as year accounts, land ownership
- Farm location, production conditions such as climate, soil and water parameters
- Infrastructural requirements and room for facilitation of technology demonstration and training of groups

In several of the reviewed initiatives the HCoE was hosted by an already existing demo- and training centre. In these situations the experiences went both ways; negative in the case of KALRO-PTC and very positive for Latia Resource Centre. Usually the local partner had (almost) all capacities, facilities and infrastructure organized sufficiently well to undertake the role of host for the HCoE. Another positive aspect of this set-up is the fact that the site is an open location where the whole sector can meet and where farmers already come to for trainings and information.

Risks however lie in the number of initiatives the host is already involved in with other technology and knowledge providers. The question is to what extent the Dutch contribution to the existing demo- and training centre will receive priority. And also the possibility to communicate the centre a showcase and business hub for the Dutch sector only should be questioned.

HCoE management and organisation

A large role for the Dutch and local private sector in the development and organisation of an HCoE is usually considered positive in terms of the pro-active and practical approach, and good understanding of the important financial and technical aspects to make it a sustainable activity. Most of the interviewed therefore indicated that **Centres of Excellence should best be hosted by private partners**. It is also advisable to ensure a **sufficient level of 'ownership' of the HCoE locally and to have someone in charge whose priority it is to manage the HCoE**. In case the local partner's activities do not fully overlap the activities of a HCoE, there could best be another partner involved on the ground as a driving force to keep these activities 'in the air'.

Looking at the two Centres of Excellence in Kenya, these factors played an important role in the very different performance of the centres. At KALRO-PTC the struggle between the 'host' being a public-private partnership between a government research body and a producers and exporters association caused the centre not to perform as expected. No separate entity for the HPTC Service Hub was set up as was originally planned. This body was intended to play a central role in knowledge transfer to the private sector and vice versa.

Good results have been observed in initiatives in which the (main) Dutch and local partner(s) worked together based on a **co-operation agreement** clarifying roles, responsibilities, financial structures,

method for issue solving, communication protocol and such. **In discussing and developing cooperation agreements it is best to be transparent about the 'what's in it for me' factor on both sides.**

In some situations, for instance in newly upcoming, smaller horticulture sectors where the Dutch sector parties are relatively new it can sometimes work best to start up with a small initiative. **In smaller initiatives it is easier for the lead party and the private sector parties to keep the desired level of control.** The group can work on establishing the first steps and later on grow with additional partners based on what is needed to make the HCoE a success. This is also a formula that is used to keep the consortium complementary; the original members can invite newcomers in and can veto competitors.

During all the stages of developing, implementing and running an HCoE, management of the organisations involved **on their activities, contributions, internal and external communication, is of vital importance to make sure progress is achieved in a positive manner.** This means the representatives of participating organizations share all relevant information with the consortium partners, communicate about the progress within their organization so that commitment remains, and do not share (negative) individual opinions publicly.