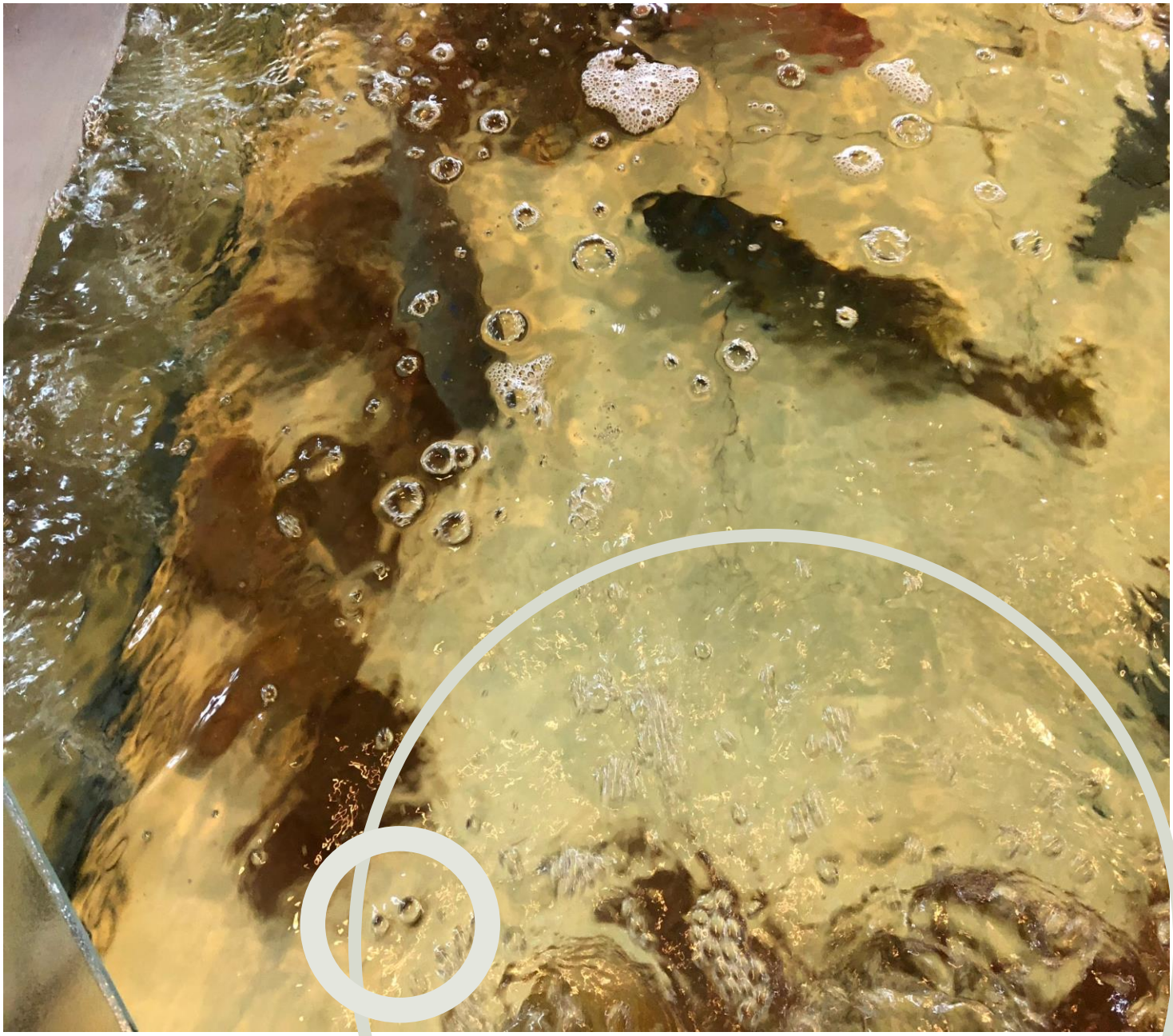

Mid-term Evaluation of NETWORK University Cooperation in Vietnam

Research-Based Education in Biosciences for Food

March 2018

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SHARING MINDS, CHANGING LIVES

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Acronyms

CAF	College of Aquaculture and Fisheries
CTU	Can Tho University
DA	Department of Aquaculture
FA	Faculty of Aquaculture
FF	The Faculty of Fisheries
HCMC	Ho Chi Minh City
HU	Hue University
ICP	International Master Programme, funded by VLIR-UOS
ITP	International Training Programme, funded by VLIR-UOS
IUC	Institutional University Cooperation
IUPFOOD	InterUniversity Programme Master of Science in Food Technology
MOET	Ministry of Education and Training
NSP	Network Stakeholder Platform
NTU	Nha Trang University
P1	Project 1
P2	Project 2
PP	Partner Programme
RIA2	Research Institute for Aquaculture II
SDG	Sustainable Development Goals
ToC	Theory of Change
ToR	Terms of Reference
VNUA	Vietnam National University of Agriculture
VBFoodNet	Food Science and Technology Network between Vietnam and Belgium
ViFINET	Vietnamese Fisheries & Aquaculture Institution Network
VLIR-UOS	Vlaamse Interuniversitaire Raad – Universitaire Ontwikkelingssamenwerking

Preface

We wish to thank each of the programme managers and members of the PSU, team members, advisors, and lecturers who spent many hours to deliver input for this mid-term evaluation. We also want to give special thanks to all students involved in this project and evaluation for sharing their ideas and concerns. We were overwhelmed by the commitment, engagement and passion for academic work by all Vietnamese and Flemish stakeholders. It is our sincere wish that this evaluation will be of help to all stakeholders to create sustainable impact at individual, institutional and societal level.

FocusUP Evaluation Team, Antwerp, Belgium, 2018

Disclaimer

This report represents the views of the members of the evaluation team. It does not necessarily reflect the opinions of VLIR-UOS. The evaluation team bears the sole responsibility for the report in terms of content, as well as for its structure.

Executive Summary

S1. The **objective of the mid-term evaluation** is to assess the scientific quality, relevance, efficiency, effectiveness, impact, and sustainability (DAC-criteria) of the NETWORK University cooperation for Research-Based Education in Biosciences for Food in Vietnam. The follow-up plan of the programme for the second phase (cf. self-assessments) is also evaluated.

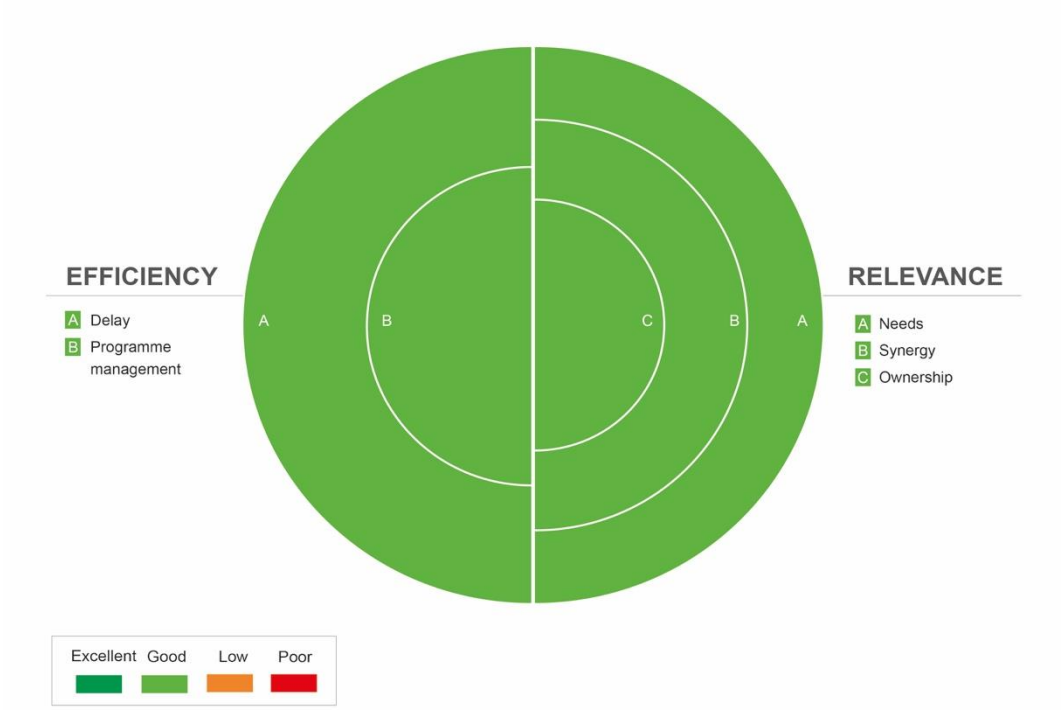
S2. For each of the evaluation criteria, sub-criteria have been developed. A **scoring system** for the sub-criteria has been developed at four levels. The generic model can be described as follows:

- 4 - Excellent: the overall (criterion) is of excellent quality. Additional measures are not needed.
- 3 - Good: Minor room for improvement exists, however with a minor effect on (criterion); See recommendations No's:
- 2 - Low: Major room for improvement exists, with a potential of major effects on (criterion) of the Programme/project. See recommendation No's:
- 1 - Poor: The (criterion) is of poor quality and extra necessary measures are urgently needed to realise the (criterion). See recommendation No's:

The scores are directly linked to the recommendations. The lower the quality, the lower the score, and the more important the recommendations. For each of the criteria, the number of recommendation refers to the recommendation formulated at the beginning of the report. This allows us to demonstrate the direct link between the analysis, the scoring and the recommendations.

A detailed description of the scoring methodology for each of the criteria can be found in Annex 4.1.

Summary programme level



S3. Responding to the needs. Agricultural production plays an important role in Vietnamese livelihoods. It contributes to around 35% of the total GDP and about 60% of Vietnamese inhabitants are involved in agricultural activities. Aquaculture production is responsible for about 4% of the GDP, with an export value of aquaculture products of up to 4 billion USD in 2010. Consequently, high-quality education is a necessary condition for a sustainable and environmentally friendly development of these sectors. The programme is highly relevant within the SDG framework. It is in line with the priorities of local, provincial and national authorities and with the strategy papers of VLIR-UOS.

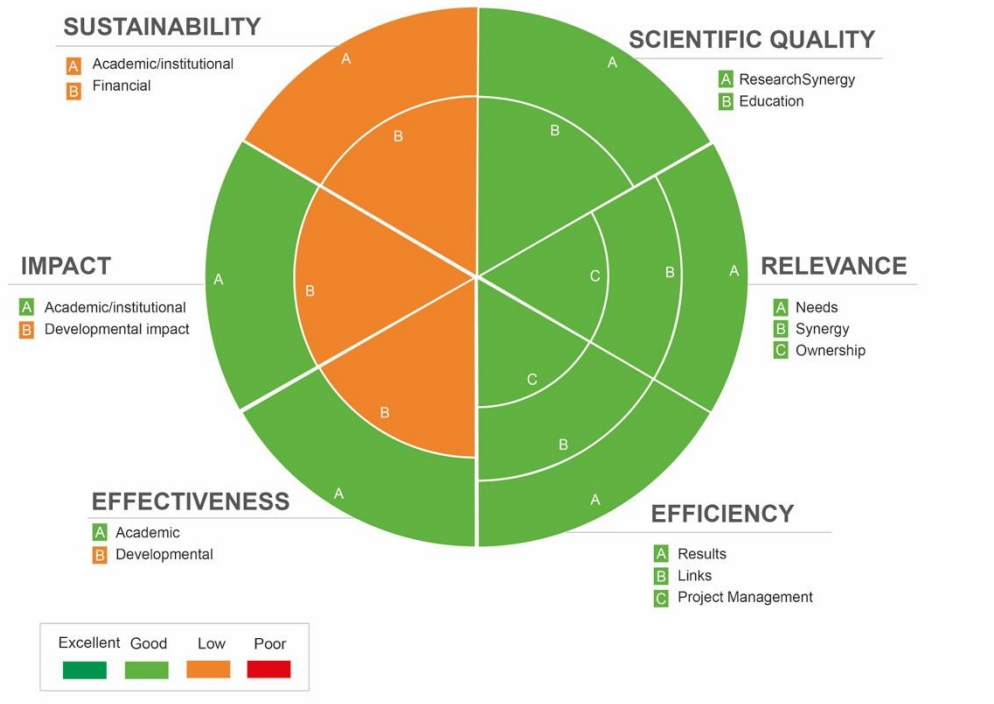
S4. Synergy. The project represents a new model of collaboration in which networking is established among many institutions, which has not been realised elsewhere in Vietnam. The curriculum development of the international master programmes is strongly inspired by the VLIR-UOS ICP programme Masters in Aquaculture (UGent) and the IUPFOOD programme (InterUniversity Programme Master of Science in Food Technology) of Ghent University and the Catholic University of Leuven. There is no overlap with VIFINET (Vietnamese Fisheries & Aquaculture Institution Network), as the activities of VIFINET are limited. The same has been reported for VBFOODnet. Due to budget constraints, the activities are limited to a two-year conference in Vietnam. The team of the project 'Increasing economic viability of the Vietnamese fresh fruit industry by reducing postharvest losses' is contributing to the network in terms of shared experiences and research input. Synergies have been created with three new research projects funded by external funding agents within the framework of P1 and three PhD students received external scholarships within the framework of P2. The NSP for both projects has been organised as well and several stakeholders have been informed and consulted on the activities of the programme in general and on the curriculum of the international masters in particular. But the benefits from these stakeholders' platform are still very limited. The synergy with IUC HU is limited to individuals from HU who are involved in both programmes, but a structural complementary approach is absent.

S5. Ownership. According to the self-assessment reports, the ownership is perceived very positively. Besides the positive judgment, it has been reported that the involvement of North partners is less developed than in an IUC. The task of the North coordinator consists mainly in keeping a helicopter view on the programme and giving hints towards the planning and the possible directions to take. However, the final responsibility and organisation of the programme lies with the South coordinator. All Vietnamese partners reported high willingness to continue the NETWORK cooperation for both projects. It has been observed that strong network linkages have been created among CTU, NTU, HU and RIA2 (only for P1) which go far beyond the NETWORK activities. Although VNUA did contribute and participate significantly in the programme, the linkages are weaker compared to the other NETWORK partners.

S6. Delays. No major delays have been reported. The curriculum development and approval by MOET of the international master programmes took a bit more time than initially planned, in particular for the international masters on food technology. Nevertheless, both international masters are launched before the end of the first phase of the programme. Minor progress has been made on IR6 (Research agenda) and IR7 (National Stakeholders Platform).

S7. Programme Management. Generally speaking, the communication between PSU and projects is considered to be good among all partners. CTU is considered the natural coordinating partner as it gained a lot of experience through the IUC. All partners confirmed that they would like to have CTU as a coordinating partner in the second phase as well. The responsibilities for each of the IRs has been divided among the NETWORK members. It has been reported that sometimes leadership styles and commitment of each of the members differs, in the sense that they cause minor delays. It has been reported that communication among PSU members causes delays and miscommunications. Reporting could be done more accurately and continuously. It has been identified that Flemish partners are not always aware of what type of activities are being organised and at what time they are planned. Flemish partners are requesting a more continuous briefing of the NETWORK activity. In general terms, planning is done accurately and staff member are mostly involved and informed on time, although some lecturers have reported that sometimes they were informed very late about activities and about their teaching duties in the master programme. This should be avoided as much as possible as it creates irritations and a potential decrease of commitment and involvement. It has been observed that the rotating principle, which will be applied in the future for both international master programmes, has not been clarified in all its details and consequences. Finally, a detailed cost calculation of the international master is not yet being made. This should be done before the start of the second phase.

Summary at project level



S8. Quality of Research. One of the challenges was to integrate research-based education in the existing Vietnamese masters and in the new international Masters on Aquaculture (P1) and Food Technology (P2). By joining forces among the NETWORK partners, recruiting the best academics and training them in Belgium, the NETWORK improved the research-based teaching in both the existing Vietnamese masters and the new international master programmes. IR5 and IR6 of the project, which are research-related results, are partly achieved. Through the exchange system, students (and lecturers) from the NETWORK universities could use the research facilities of other universities to implement their research. However, joint thesis research (with a supervisor from different member universities) has been implemented only occasionally. Within the framework of P2 (food technology), three new PhD research projects were externally funded. These scholarships were funded by Erasmus+ and 911 scholarship funded by the Vietnamese Government. A joint research agenda is not yet developed, although three research proposals in the field of aquaculture have been successfully submitted. These achievements are only indirectly linked to the activities of the project. The double degree PhD research is considered very important by all stakeholders. During the first phase of the project, a double degree PhD programme has been approved (between CTU and Ghent University).

S9. Quality of Education. The curriculum development of the international Masters in Aquaculture has been finalised in 2014. The first batch of students was enrolled in 2016. The curriculum of this programme was based on a benchmarking process with other university curriculum, especially of Ghent University (Belgium) and University of Stirling (UK) and adjusted in order to be appropriate for tropical region conditions. The international Masters in Food technology (approved in 2017) creates high synergy with the IUPFOOD programme (InterUniversity Programme Master of Science in Food Technology) of Ghent University and the Catholic University of Leuven. Stakeholders reported that the quality of the teaching in English is not yet at the same level as the comparable programme Masters in Belgium. The number of enrolled students is limited for both programmes. Lecturers got additional trainings in Belgium in order to prepare them for teaching in the international masters. Lecturers reported these trainings as very useful. During the first years of the project, PhD and MSc summer schools were used to strengthen the network and to learn gradually how to organise and synchronise teaching with the involvement of all NETWORK partners. As a result, more than 250 MSc and PhD students have been trained during summer school programmes.

S10. Needs. The aquaculture, fisheries and agriculture sector is a very important business sector in Vietnam and neighbouring countries like Laos and Cambodia (see context paragraphs). From this point of view, increasing the quality of education in aquaculture and food technology is extremely important for Vietnam and its neighbouring countries on the one hand. On the other hand, the low number of students in both programmes, is a major concern. A critical review of why such a limited number of students enrolled seems necessary.

S11. Ownership. All partners have the same ownership over the project by sharing responsibilities, roles and rights during participation in the project. A division of labour took place in terms of responsibilities to achieve the IRs. The coordination of IRs has been subdivided among the members of the NETWORK. Although all members of the NETWORK in both projects did experience the rotating principle within the framework of PhD and MSc summer school, it has been observed that the rotating principle for the international masters is not very clear to all members of the NETWORK. Most team members were actively involved in the financial, operational and strategic planning of the projects, although some were busy and sometimes not performing well. It has been reported that it was not always easy to communicate efficiently between the member universities.

S12. Intermediate results have been delivered? In general terms, the IRs have been delivered. IR5 (research collaboration) and IR6 (research agenda) need more attention during the second phase as for both projects, the collaborative initiatives are limited and a joint research agenda is not yet developed. The Network stakeholder Platform has been organised annually without strong results.

S13. Relationship between objectives, results and means. If we take the logical framework as a starting point for the analysis, then the IRs and specific objectives and the means (activities) are directly linked to each other. Especially from IR1 until IR4. For P2, IR5 seems to be exactly the same as IR1 & IR2, so it is not clear why IR5 has been kept as a separate IR. In project 1, IR5 was especially meant to stimulate research and learning activities between (young) staff members. The weak elements in the logframe are IR6 and IR7. The activities for both IRs are rather limited and it is difficult to find evidence that the activities contributed to the achievement of the IRs in the first place and indirectly to the achievement of the specific objectives. These IRs are nevertheless very important (see sustainability) and should be further elaborated upon in the second phase.

S14. Project management. The leaders of each project regularly meet with each other and with the programme manager to discuss and share operational experiences. In addition, two official meetings are organised annually (local steering committee meeting and joint steering committee meeting) where members of project and programme level meet and communicate. Although most of the stakeholders reported that the communication is considered as good, the evaluation team noticed that the communication and collaboration could be improved among the partners in Vietnam and between the Vietnamese partners and the Flemish partners. It has been observed that Flemish stakeholders feel less involved when compared to, for example, an IUC programme. On the other hand, the evaluation team could find evidence of strong cooperation between Vietnamese and Flemish academics, in particular on the development of the International Master programmes in both projects.

S15. Specific Objectives. If we take the logical framework as a guiding principle to evaluate the effectiveness, then the specific academic objectives are the sum of the IRs and should be considered as achieved. If we take the ToC of VLIR-UOS as a reference point, then the main question on effectiveness is how the outputs are used. Translated into the two projects of this NETWORK programme, this refers to how education practices are improved by making use of the different outputs (IRs). Through better education (exchange programmes and international masters), students with increased knowledge and skills will graduate. The first cohorts of students are enrolled in the international masters. As the international masters is considered to be one of the best programmes on Aquaculture (P1) and Food Technology (P2) available in Vietnam, the students receive better education than before. It is too early though to find indications of effects at outcome level. We can assume that there will be an outcome effect, but

this should be investigated in depth a few years after the first cohorts of students have graduated. A performant alumni system can contribute to this type of analysis.

S16. Impact. All partners of the NETWORK reported that the international English masters had a very positive impact on their own institutions and universities. For most of them, it is their first experience with an English master and with a structural collaboration among Vietnamese partner universities. This NETWORK programme is having an impact in terms of collaboration. Collaboration is perceived as something positively increasing the skills and capacities of all partners and this has been reported as very positive in the changing climate of academic work with a lot of competition among all universities in Vietnam. The project has also been perceived as a catalyst for policy changes of all member universities. The most important one is the exchange credit system for the Vietnamese programmes of the participating universities. The double degree PhD, with a signed MoU between CTU and Ghent University, is also considered as atypical. This good practice serves as an example for the other universities. NTU is considering the same type of collaboration with the Flemish partners. The NETWORK project also raised interest with other universities and institutes. Some of them (like RIA3) are showing interest to join the NETWORK. The fact that other universities want to join the NETWORK is positive for many reasons: it illustrates the need for such a project and the dynamic generated by the project among participating NETWORK partners. A developmental impact is not yet delivered as it is too early (no students are graduated yet).

S17. Sustainability. The financial sustainability of the international masters should be a major point of attention in the second phase of the NETWORK project. The project is almost exclusively dependent on VLIR-UOS funding. The purpose of the NETWORK programme is to continue the organisation of these Master programmes after the phasing out of the VLIR-UOS funding. All partners show a high interest in participating in the international masters as lecturers and it has been reported that all of them would like to continue the participation. A rotation principle has been agreed upon among the partners, but during this evaluation exercise it turned out that not all details and consequences have been discussed profoundly among the partners. Another major concern is the number of students. The number of students is very limited and up until now, a limited number of Vietnamese students has been able to enrol. It should be investigated in detail why the numbers are so low.

1 Introduction

1.1. Background

1.1.1. General Objectives and guiding principles of the NETWORK[1]

A NETWORK University Cooperation (NETWORK) programme is a national level institutional network led by a former IUC partnership with focus on a priority theme of the VLIR-UOS country strategy (nationwide needs based) and building on previous cooperation experiences. It is about multiplication and uplevelling of capacity building efforts. In fact a NETWORK aims at "*Empowering local universities to unite themselves and together contribute to national goals in higher education and development*".

NETWORK University Cooperation (NETWORK) aims at national level impact in a specific thematic domain by the provision of substantial support to a limited number of carefully selected partner universities located in a VLIR-UOS partner country. It builds upon the experiences of a former Institutional University Cooperation (IUC) partner which will serve as the coordinating university (hub).
A NETWORK focuses less on capacity building and more on harvest and multiplication opportunities addressing nationwide needs in the educational and research area. It focuses on cross-institutional interactions, such as in interuniversity curriculum development, joint degrees at Master and PhD levels, links with other networks and links with Flemish universities.

The specific objectives of a NETWORK partnership between various partner institutions in a specific country in the South and Flemish universities and university colleges are outlined in a partner programme composed of successive activity programmes covering an earmarked phase of cooperation.
Some guiding principles:

- Spirit of partnership, dialogue and mutual respect;
- Participation of high level academic leadership is crucial (decision making structures in all involved universities);
- Incorporation into local structures and systems (university, regional/national);
- Development Relevance: focus on changing lives (university and society => interaction with government, local development actors, society in general), link with other ongoing projects implemented by Belgian development actors.

A NETWORK cooperation with a partner institution covers a period of approximately twelve years with two main programme phases – Phase I and Phase II - covering a combined ten years of project execution time. These phases are preceded by a Phase In and followed by a Phase out.

The coordination of an agreed upon programme is delegated to a local academic (NETWORK Programme Coordinator) affiliated to the local coordinating university (and coordinator) and a Flemish academic coordinator who have the responsibility to manage the implementation of the NETWORK programme and the constituent activity programmes. In the non-hub local partner institutions, the NETWORK programme is followed up by a focal point.

1.1.2. Subject of the evaluation – Theory of Change of NETWORK Programme[2]

[1] Based on ToR, p.2-3
[2] Based on ToR, p.4-8

In the context of scaling up capacity building to the national level (or regional in some cases) and building on previous long-term institutional university cooperation, former IUC partners can propose a NETWORK University Cooperation (NETWORK). A NETWORK University Cooperation (NETWORK) programme is a national level institutional network and thereby fits very well with the generic theory of change for VLIR-UOS in a given country. The intervention aims at contributing to a national level change through higher education cooperation around strategic themes of national priority (cfr. Link with the VLIR-UOS country strategy).
The generic Theory of Change is quite similar to the one of IUC programmes. The most important differences are:

- Improved research and education practices are envisaged at different HEI through interinstitutional learning and exchange;
- The former IUC takes the lead in the implementation of the programme (even more South driven than IUC);
- A NETWORK has the potential to empower the universities to unite themselves and together – in synergy - contribute to national goals in higher education and development;
- Stronger focus on harvest and multiplication.

A NETWORK programme is subdivided in a limited number of synergetic/complementary project lines contributing to the overarching theme of the NETWORK programme, rather to be interpreted as project based intervention logics contributing to the same national level institutional and societal impact.

These different projects all have their individual results framework and underlying Theory of Change along the same period of execution of the partner programme phase. A NETWORK programme is more than the sum of its projects: through programme level management, the scale of the total programme, the interlinkages between the different projects and HEI, and the critical mass of capacity created, a NETWORK has the potential to empower the local universities to unite themselves and together – in synergy - contribute to national goals in higher education and development.

Programme level Theory of Change

The primary impact envisaged by a post-IUC NETWORK is to contribute to development changes through the development results of the different projects. A second intended impact is (a) the contribution to an improved performance of the HEI and (b) a changed role of the involved local partner universities as development actors (strongly related to development changes). The interinstitutional national cooperation within a NETWORK strengthens this developmental change even and more brings about a higher proposed level of impact as compared to an IUC.

The below figure presents the generic and simplified programme level ToC for an Institutional University Cooperation programme, which also applies to the post-IUC NETWORKs. However, the transversal support domain will not be necessarily implemented through transversal projects. In some cases this transversal support is embedded in the administrative Programme Support Unit or as transversal domains crosscutting the ‘classic’ projects presented below.

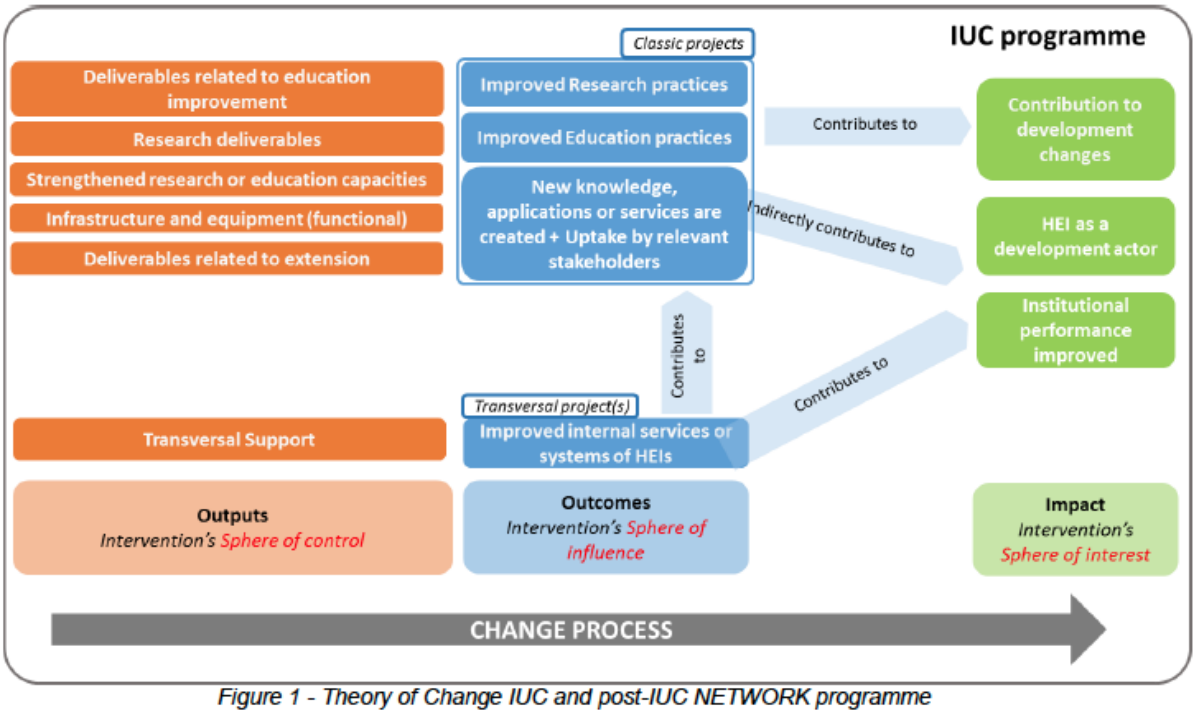


Figure 1 - Theory of Change IUC and post-IUC NETWORK programme

Project level Theory of Change

The NETWORK projects primarily contribute to development changes at impact level, and indirectly also contribute to the institutional performance of the involved Higher Education Institutes (HEI) and their role of as development actor(s). Some of these projects or the administrative support project (programme support unit) might also include the strengthening of transversal domains that are of importance for all involved HEI. However, VLIR-UOS did not foresee a separate ToC for these kind of projects, integrating them in the programme level ToC.

At the **output level** VLIR-UOS supports interventions producing different types of deliverables (e.g. deliverables related to education improvement, research deliverables, strengthening research or education capacities, infrastructure and equipment, deliverables related to extension). All these deliverables are achieved in partnership with HEI in Flanders and a partner country. *These outputs are considered as being within the sphere of control of the project.*

At **outcome level** (specific objective) we can identify three typical outcomes (Improved research practices, Improved education practices and New knowledge, applications or services are created + uptake by relevant stakeholders). These outcomes are *identified as specific objectives* and can be considered as "use of outputs": They imply changes in performance, behaviour, etc. *These outcomes are no longer within the sphere of control of the project but are within its sphere of influence.*

At **impact level** the main change envisaged is always a developmental objective (long term). Implicitly it is also about contributing to a changed role of the local partner as an actor of change (medium term). Through a successful achievement at outcome level, the local actor will inherently become an agent of change for the society. With this change, and the achievements at the outcome level, there will be a sound contribution to development changes. This "change" will relate to the (external) effects of increased research performance/practices (internal) and/or the (external) effects of improved education

practices/performance (internal) and/or the effect of uptake of new knowledge/applications/services (i.e. the effective (external) use).

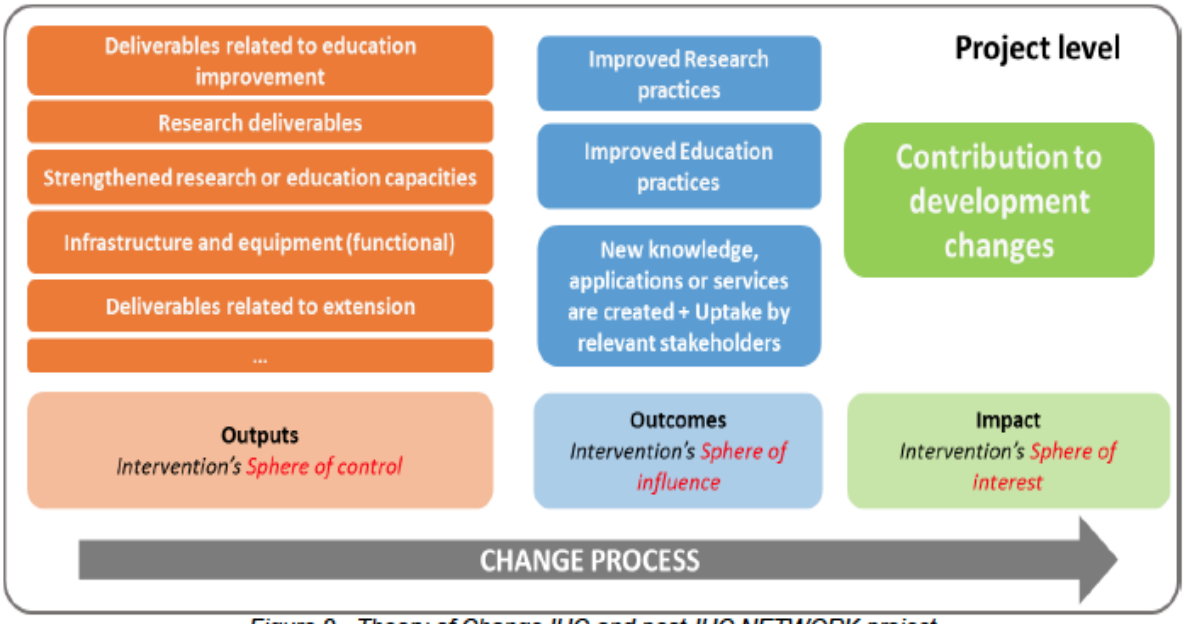


Figure 2 - Theory of Change IUC and post-IUC NETWORK project

1.1.3. Objectives of the Evaluation[3]

In the ToR the purpose of the Mid-term evaluation has been formulated as follows:

1. Learning: Based on the analyses made by the evaluation team, lessons can be learned about what worked well, what didn't and why. The formulation of these lessons learned will contribute to the quality of ongoing and future NETWORK programmes in terms of the content and management of the programme, including the overall policy framework.
2. Steering: Based on the analyses made by the evaluation team, recommendations will be formulated to support decision making processes of the NETWORK (at different levels). For a mid-term evaluation, specifically: The evaluation will be used to decide about - and as an input for - the formulation of a second phase.
3. Accountability: By independently assessing the performance of the NETWORK programme (and validating or complementing the monitoring), different actors (HEI, VLIR-UOS, etc.) can fulfil their accountability requirements.

The evaluation's primary objective is to evaluate the performance of the NETWORK (programme level and project level). This is the basis of every NETWORK evaluation. Next to this objective, final NETWORK evaluations also analyse the prospects for the post-NETWORK period:

[3] Based on ToR, p.15-16.

1. The performance of the NETWORK needs to be evaluated on the basis of the OECD-DAC criteria for development evaluation (+ one additional criterion): scientific quality, relevance, efficiency, effectiveness, impact, and sustainability. For mid-term evaluations, particular attention has to be paid to efficiency and effectiveness.
2. The follow-up plan of the programme for the second phase (cf. self-assessments) is also evaluated. The follow-up plan needs to further guarantee capitalisation, exploitation and vulgarisation of the achievements of the first phase, sustainability at institutional level (and research groups), and the impact of the university on development processes in the surrounding community, province and eventually in the country.
3. The overlap with other networks such as ViFINET and VBFoodNet and how they feed into the objectives of this NETWORK and the other way around.

1.2. Context

Vietnam's transition from a centrally planned economy to a market economy has started since 1986. The economic reform has been carried out actively with strong liberalisation of trade, opening of the economy, recognition of the role of the private sector in the country development and use of market-based instruments for the state management. As a result of the economic reform, Vietnam has gained quite significant achievements in economic growth and poverty reduction. Vietnam has become a middle income country since 2010. With the transition into a market economy, Vietnam has gained significant achievements in socio-economic development as well. The continuous increase of GDP is one of the factors, which has led to the rise of GDP per capita from USD 98.00 in 1990 to USD 1,168 in 2010 and USD 2,215 in 2016. The extreme poverty rate has been reduced from 60% in 1990 to a low of 3% in 2016[4].

Although the average economic growth rate for the last eleven years (2006-2017) has been much lower than the one for the period 2000-2005 (around 6% compared to the more than 9%), Vietnam's growth rate is still considered high in comparison with the one of many countries in the region and in the world. For 2017, Vietnam's growth rate has gone up to 6.81% from 6.21% in 2016. Agriculture is one of the three key economic sectors in Vietnam, accounting for 25-30% of total GDP for quite a long time. However, in the 2011- 2016 period the growth rate of agriculture has been declining strongly, from 4.02% in 2011 to 1.36% in 2016, leading to the reduction of the proportion of agriculture in the GDP to 16.32% in 2016.

The climate change has had negative impacts on agriculture sector growth in the country, especially the agriculture in Mekong Delta. Because of strong drought and widely salinisation, many coastal provinces have made their efforts to move from rice planting to salt tolerant crops or aquaculture. Aquaculture has become more and more important to farmers. In 2017, in the agriculture sector, the growth rate of fisheries was the highest, at 5.45% in 2016 (compared to 2.9% as for the whole agriculture sector).

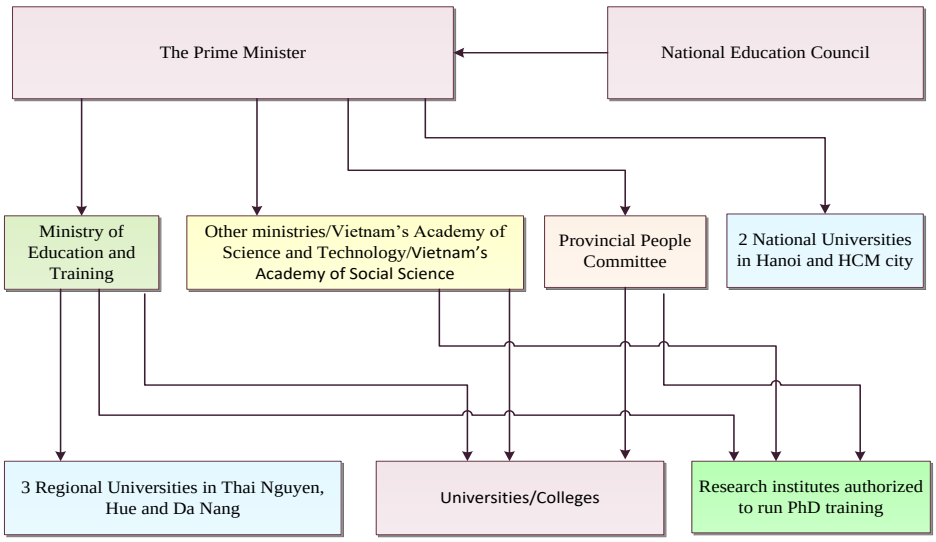
Vietnam is the country with the fourteenth largest population in the world with 93.7 million inhabitants in 2017. The average growth rate of the population has been 1.06% for the period 2009-2014, and raised a little bit to 1.07% for 2015-2016. 65.4% of the population is living in rural areas. 42.2% of the total labour force has been working in agriculture, forestry and fishery sector; 24.4% in industry and construction, and 33.4% in service and trade sector.

[4] Vietnam 2035, MPI-WB, 2015

Vietnam's golden population stage has started since 2007 with a percentage of people at working age that is the double of the percentage of dependent people. However, signs of ageing population have been emerging since 2011. According to World Bank (WB), the stage of golden population of Vietnam will be gone out soon, in 18-20 years. This has imposed a strong pressure on Vietnam to make more efforts for improving the quality of the human resources and increasing the labour productivity. Which on its turn has imposed strong pressure to reform the education system in Vietnam, especially the high education system.

By type of management modality, there are three key types of universities in Vietnam: National universities, regional universities and normal universities/colleges. Two national universities in Hanoi and HCM city are under direct management of the Prime Minister, under which there are a number of universities, colleges, service delivery institutions and research institutes. Three regional universities in Thai Nguyen, Hue and Da Nang cities are under MOET (Ministry of Education and Training), under which there are also a number of universities, colleges and research institutes, as under the national universities. Normal universities/colleges may be established under MOET or other ministries, or Vietnam's Academies of Science and Technology and Social Science, or under provincial People Committees (See the Figure 1).

Figure 1. The structure of higher education



In terms of ownership there are government and private universities/colleges, of which some are 100% foreign-owned, and others are joint ventures between foreign and domestic investors (Article 7, Law on High Education 2012).

The key different feature of government and private universities is that private universities are managed by their Board of Directors, which is the sole representative of the owners, while government universities are managed by their University Council, whose ownership representativeness is not very clear. The Government has made big efforts to give more autonomy to government universities. At present, government education institutions are regulated by the Decree 16/2015/ND-CP, which gives them an autonomy in using their revenues for education and training activities. However, the ceiling for tuition fees is too low to cover the training costs, and the grant from the government is not adequate to compensate these costs. The Decree 16/2015/ND-CP gives a road map to ensure that the whole costs are included

in the price of public services, including education service as follows: salary, direct expenses and management costs are to be included by 2018; and salary, direct expenses, management cost and depreciation are to be included by 2020.

1.3. Evaluation Methodology and process

1.3.1. Evaluation Framework

According to the ToR the following criteria must be evaluated at programme level as well as at project level: scientific quality, relevance, efficiency, effectiveness and sustainability. We have decided to subdivide each of these criteria as follows:

Criteria	**Sub-criteria**
Scientific Quality (project level)	Quality of Research
	Quality of Education
Relevance (programme & project level)	Responding to needs
	Synergy & complementary
	Transversal Themes
	Ownership
Efficiency (programme level)	Delays
	Programme management
Efficiency (project level)	The Intermediate results have been delivered
	Relationship between objectives, results and means
	Project management
Effectiveness (programme and project level)	Specific Academic Objectives
	Specific Development Objectives
Impact (programme level)	Institutional and academic Impact
	Development Impact (impact on society)
Impact (project level)	Individual Impact
	Academic & Institutional impact
	Developmental Impact (impact on society)
Sustainability (programme and project level)	Academic & Institutional sustainability
	Financial Sustainability

According the ToR each of the (sub)criteria should be scored using the scores: excellent, good, low, and poor. We developed a generic scoring system which can be found in the table below. A full description of the criteria can be found in annex 4.1. In the table below, it is shown that the scores are directly linked to recommendations. The lower the quality, the lower the score, and the more important the related recommendations are. For each of the criteria, the number of the recommendations refers to the recommendation formulated at the end of the report. This allows us to demonstrate directly the link between the analysis, the scoring and the recommendations.

Scores	Definition Scores
4-Excellent	The overall (Criterion) is of excellent quality. Additional measures are not needed
3-Good	Minor room for improvement exists, however with minor effect on (Criterion); See recommendations No's:
2-Low	Major room for improvement exists, with a potential of major effects on (Criterion) of the Programme/project. See recommendation No's:
1-Poor	The (Criterion) is of poor quality and extra necessary measures are urgently need to realise the (Criterion). See recommendation No's:

1.3.2. Methodology

The following phases in the methodology can be distinguished:

1. Desk research: Analysis of programme and project documents like annual reports, planning documents and formulation documents, self-assessment reports. Based on these reports, vital questions have been formulated.
2. Interviews with Flemish stakeholders: Flemish programme coordinator and Flemish advisors and other stakeholders have been interviewed in Belgium.
3. Field mission: interviews and focus groups with Vietnamese programme coordinator, project leaders, PSU, PhD students, and Master and Bachelor students have been organised. Also a limited number of interviews with external stakeholders have been organised. Additional documents have been requested and delivered by the partners.
4. Report writing: data from documents, interviews and focus groups have been triangulated. Interpretation has been made by the evaluators.

A detailed agenda of activities can be found in annex 4.2.

1.3.3. Limitations of the evaluation

1. The number of mission days was relatively limited. As a consequence the number of interviews and focus groups were carefully planned. The most important consequence is that external stakeholders could not be interviewed at a large scale. This could be important to identify impact on society and to identify potential opportunities of developmental impact in the second phase.
2. A couple of data collection techniques could not be implemented due to the fact that systematic data was absent. For example, not all contact details of students who participated in workshops were available. As a consequence, it was not possible to organise a survey among those stakeholders. This did not have a major impact on the results of the assessment, as students could be interviewed during group discussions.

3. Not all details of the self-assessment reports could be double checked. In particular on the KRAs we were not able to find hard data to confirm the reported results. In general terms, we did not find any indication that the reported KRAs were not correct.
4. The Theory of Change (ToC) of VLIR-UOS has been developed after the formulation process of the programme. As a consequence, the logical frameworks of the programme do not match perfectly with the ToC. According to ToC, outcomes are identified as specific objectives and can be considered as “use of outputs”: They imply changes in performance, behaviour, etc. At impact level the main change envisaged is always a developmental objective (long term). Implicitly it is also about contributing to a changed role of the local partner as an actor of change (medium term). In many cases the formulated specific objectives in the log-frame are the sum of the intermediate results and are not describing the objectives at outcome level. It has been challenging for the evaluation team to take into account the logframes and the ToC at the same time. In most of the effectiveness paragraphs, we followed the logframes (as ToC did not exist during programme formulation), which often resulted in a summary of the intermediate results. Outcome level has been described in the impact level paragraphs. The impact level (developmental impact) has been limited as this evaluation is a mid-term evaluation and real impact can be expected during the second phase. That is the main reason why often the potential (developmental and institutional) impact of the programme and projects has been described.
5. In this NETWORK programme, it has been very difficult to distinguish programme level and project level. The programme level has been formulated as the sum of the projects. The logical framework at programme level and project level are identical. Consequently, it has been very difficult to distinguish and evaluate both levels separately.

1.4. Short Description of the Partners and NETWORK Programme

1.4.1. The partners of the NETWORK

Can Tho University (CTU)

Can Tho University was founded in 1996. It has an enrolment of about 54.000 undergraduate students; 3,000 students have been following Master programmes; and around 300 students are PhD candidates. CTU has got over 2,000 staff members including nearly 1,200 teaching staff and 800 supporting staff. From a university with a few fields of study at the beginning, it has developed into a multidisciplinary university. Currently, it has nearly 100 undergraduates, 36 Master and fifteen Doctoral training programmes. CTU has a long-term cooperation with Belgium, since 1980s, starting with VLIR - Own Initiatives, and finally with VLIR - Institutional University Cooperation from 1998 till 2008. CTU is the coordinating university of the NETWORK Programme

Hue University (HU)

In 1994, Hue University has been re-established by reorganising all Hue based universities. Hue University is a regional university serving Central Vietnam. Hue University is considered a two-level university: one central level with administrative departments and a second level that is called the level of the member universities (commonly known as faculties). HU consists of 8 faculties (member universities), of which only one is involved in this programme: namely the Faculty of Agriculture and Forestry. Within this member university the department of Agriculture engineering and Food technology and the department of Aquaculture are involved. The Hue Universities has more than 45,000 full time students and provides more than 110 bachelor programmes, 82 master programmes and 51 doctoral programmes. More than 3,500 staff members are on the payroll of the university.

Nha Trang University (**NTU)**

Nha Trang University was founded in 1959. The university has carried its current name "Nha Trang University" since July 25, 2006. The university has currently 21 faculties, institutes, research centres, technology transfer centres and four managerial departments. NTU now offers 29 programmes for bachelor degrees, eight programmes for master's degrees and five programmes for doctoral degrees. It has a stable enrolment of more than 3,000 new students annually and the total number of students is approximately 23,000.

Vietnam National University of Agriculture (**VNUA)**

Vietnam National University of Agriculture dates back to the founding of the University of Agriculture and Forestry on October 12, 1956. Since its foundation, the University has been renamed several times. March 2014 is an important milestone when Hanoi University of Agriculture was officially transferred from the Ministry of Education and Training to the Ministry of Agriculture and Rural Development with a new name: Vietnam National University of Agriculture. The current numbers of staff and students are 1,340 and 38,484 respectively. It comprises fourteen Faculties. VNUA has 25 Undergraduate Training Programmes, seventeen Master Training Programmes, and sixteen Doctoral Training Programmes.

Research Institute for Aquaculture No.2 (RIA2)

RIA2 (HCMC) is a governmental institution under the Ministry of Agriculture and Rural Development (MARD). Its main functions are to carry out scientific research, development and transfer of technologies and to provide training and consultancy services in aquaculture development, processing/postharvest technologies, management, exploitation and conservation of inland fisheries resources in southern Vietnam. RIA2 is only involved in Project 1 (P1).

A more detailed description of the partners is given at the beginning of the chapter on the project evaluations.

1.4.2. The Programme

The aim of the programme (Programme title: NETWORK University cooperation for Research Based Education in Biosciences for Food in Vietnam) is to develop a university/institute network between Vietnamese and Flemish universities to participate in development of joint English international Master and research based education programme in Biosciences for Food. Can Tho University is the coordinating university with a total five partners for Project 1 (Aquaculture: CTU, NTU, VNUA, HU and RIA2) and with four partners for Project 2 (Food Technology: CTU, NTU, VNUA, HU). In the table below the programme level intervention logic is presented. The intervention logic is exactly the same for the two projects as well by replacing the word Biosciences for Food to Aquaculture for Project 1 and to Food Technology for Project 2).

Programme Level Intervention Logic

<table>
<tr><td>Academic Objective</td><td>Development Objective</td></tr>
<tr><td>To develop international PhD and MSc training programmes in Biosciences for Food through collaborative network between Flemish and Vietnamese institutions and to strengthen research based education.
Specific Academic Objectives:
• To develop credit exchange system among university partners;
• To develop curriculum for double degree and joint degree MSc and PhD programme in Biosciences for Food;
• To develop English MSc & PhD programme in Biosciences for Food among university partners between Flemish universities and Vietnamese interuniversities/ institutes;
• To strengthen research and training capacity of each partner that can support the teaching mission.</td><td>To contribute with highly qualified human resources for sustainable development of Biosciences for Food areas and to establish a strong and sustainable network system.

Specific Development Objectives:
- To strengthen human capacity of each Vietnamese university partner;
- To obtain highly qualified human resources for sustainable development in Biosciences for food;
- To establish and strengthen the network system.</td></tr>
<tr><td colspan="2">Intermediate results:
IR1: NETWORK based MSc student credit exchange system developed
IR2: NETWORK based Doctoral school operational
IR3: Pathways toward an English MSc programme in Biosciences for Food identified
IR4: Staff upgraded
IR5: Research collaboration ongoing and infrastructure shared
IR6: Research agenda integrated at institutional, network and country level
IR7: NETWORK stakeholder platform created and operational</td></tr>
</table>

1.5. Structure of the evaluation report

The evaluation report is subdivided in two chapters – the introduction and the evaluation chapters. In the introduction chapter the background, objectives, subject and methodology are described. In the subsequent paragraphs a short description of the partners of the network and the NETWORK programme is presented. In the second chapter the results at programme level and at project level (2 projects) are presented. As both projects have a similar logframe with very similar activities, both projects are presented together.

2 Evaluation

2.1. Evaluation of the programme level

2.1.1 Relevance

Table overview of scores

	Programme level
Responding to needs Score: Good	- Agriculture and Aquaculture are important sectors. - All partners consider the programme as an opportunity in the light of the increasing autonomy of universities is in Vietnam.
Synergy Score: Good Recommendations: R5, R6, R7 &R12	- Strong synergies between Flemish ICPs and new English international Masters. - Strong internal synergies among NETWORK members (student credit exchange and staff exchange). - Added value of the network for NETWORK members. - Synergies with priorities of the NETWORK members. - Synergy with VBFoodnet and ViFINET. - Synergy with TEAM project. - Research synergies could be improved. - NSP has been established but synergy with external stakeholders could be improved (2nd phase). - Low synergies with IUC HU.
Transversal Themes (gender, environment and D4D) Score: N/A Recommendations	- Thematic subjects are in line with environmental priorities. - Climate change issues have been included in the manuals. - More women than men have been trained during the first phase of the programme.
Ownership Score: Good Recommendations: R10 & R11	- All NETWORK members reported willingness to continue. - High commitment of university leadership for most of the members of the network. - Room for improvement possible by further strengthening the network.

Needs.

Agricultural production plays an important role in Vietnamese livelihoods. It contributes to around 35% of the total GDP and about 60% of Vietnamese inhabitants are involved in agricultural activities. Livestock production is responsible for about 38% of the agricultural production GDP and is expected to account for about 45% by 2020. Pig production dominates livestock production, occupying about 71% livestock production outputs. Aquaculture production occupies about 4% of the GDP, with an export value of aquaculture products of up to 4 billion US$ in 2010. Consequently, high quality education is a necessary condition for a sustainable and environmental friendly development of these sectors. The programme is highly relevant within the framework of the Sustainable Development Goals (SDG), especially the goals on no hunger (SDG2), quality teaching (SDG4), responsible consumption and production (SDG12) and life in the water (SDG14). The sectors are also considered by the Vietnamese government as a priority. The programme is in line with VLIR-UOS country strategy paper.

Most probably public universities will become autonomous during 2018. Government funding will be limited to approximately 10% of their budget for most of universities. Besides this government support 90% of the budget must be found from other resources like local governments, industry and tuition fees. Attracting research (governmental and industrial) projects and students will be vital in the survival of the universities. For that reason, high quality education and research is a necessary condition. The partners in the NETWORK programme consider the network as an important tool to increase the quality of research and education. By joining forces and sharing human capital (exchange of teaching staff, research facili-ties and equipment), they believe that research and educational output will increase and subsequently that they will attract more students and research funds. This view is shared among the five participating partners.

Synergy

The curriculum development of the international master programmes is strongly inspired by the VLIR-UOS ICP programme Masters in Aquaculture (UGent) and the IUPFOOD programme (InterUniversity Programme Master of Science in Food Technology) of University of Ghent and Catholic University of Leuven. The Flemish and Vietnamese partners are convinced of the added value of the Vietnamese international Master in order to create North-South-South synergies through exchange programmes (thesis, courses) between the two programmes (in case the international Vietnamese programme is achieving the same level). This would help diversify and supplement knowledge, experiences in aquaculture and food technology for students.

The project represents a new model of collaboration in which networking is established among many institutions, which has not been realised elsewhere in Vietnam. The NETWORK has strengthened the cooperation among the member universities. Staff from all partners join in the teaching of the MSc programme, and a course is even shared by two to four staff members of the NETWORK. Besides that, several lecturers reported that they use each other research facilities which enhances the quality of the research and the exchange of (research) ideas. As mentioned above, the fact that an exchange credit system has been developed and approved by the member universities is a very important step in strengthening the network and the collaboration among partners.

There is no overlap with VIFINET (Vietnamese Fisheries & Aquaculture Institution NETWORK) as the activities of VIFINET are rather limited. VIFINET is suffering from the lack of funding and the chairmanship is based on a rotating system. The stakeholders like the yearly conference as it is an excellent opportunity to meet many stakeholders. But the impact of VIFINET is limited. The same has been reported for VBFOODnet. VBFOODnet is a network of Belgian universities (Flemish and Walloon) and numerous Vietnamese universities. Due to budget restraints, the activities are limited to a biennial conference in Vietnam. The conference brings together local scientists but also attracts participants from surrounding countries. Through this existing NETWORK, it has been possible to identify partners for the VLIR NETWORK programme. For example, the organisation of the doctoral summer schools happens in close interaction with VBFoodNet. The combination of the Summer School with the VBFoodNet conference allows PhD students to be exposed to specific workshops and to an international conference with contributions of renowned researchers. It is obvious that VBFOODnet can strengthen the quality of the international programme by inviting academics from the VBFOODnet to lecture: lecturers from NLU (Nong Lam University) have been invited to lecture at some of the PhD summer schools.

Synergy could be identified within the framework of P2 (Food Technology). The TEAM of the project 'Increasing economic viability of the Vietnamese fresh fruit industry by reducing postharvest losses' run by prof. Tran Thi Dinh (VNUA) and prof. Bart Nicolaï (KU Leuven) aims to build local capacities to reduce postharvest losses in the Vietnamese fruit industry, improving their efficiency and thus improving food supply without posing additional claims on the already limited natural resources. This project allows to strengthen the research capacity within VNUA. Through the NETWORK programme this experience is shared with the other partners as well. Students within the Master programme Food Technology can benefit through their Master thesis research on a topic related to the TEAM project and research results are transferred to students of the international master programme during lectures.

Synergies have been created with three new research projects funded by external funding agents within the framework of P1 and three PhD students received external scholarships within the framework of P2. A direct causal link between the VLIR-UOS NETWORK project and the new research proposal is very difficult to identify. Nevertheless, it has been reported that experience gained through the programme contributed to the success of the funding of three new projects. The success of these new research funding might hide the lack of common research strategy among the five (P1) and four (P2) NETWORK members. According to the yearly reports, yearly research meetings have been organised, but it has been reported that a common joint research strategy is still lacking. This should be a priority in the next phase of the programme.

The NSP for both projects has been organised and several stakeholders have been informed and consulted on the activities of the programme in general and on the curriculum of the international masters in particular. But the benefits from this stakeholder platform are still very limited. A real engagement of the private sector in the master programmes has not yet been achieved and structural external scholarships are not yet provided. This should be a priority in the next phase of the programme.

The synergy with IUC HU is limited to individuals from HU who are involved in both programmes. But a structural complementary approach is absent. It is advisable to look for more synergies between both programmes in the second phase.

Transversal Themes

Aquaculture and food technology are at the centre of environmental priorities. Environmental (tropical) issues are embedded in the subject of the master programmes. It has been reported that climate change issues have been included in the manuals of the master programmes. Based on the data available, more women than men participated in Master and Summer schools in Project 2. Data for the other activities was not available.

MSc Summer schools Food Technology

	At CTU	**At VNUA**	**At NTU**	**Totals**
Female	15 (68%)	15 (62,5%)	16 (73%)	**46 (67,6%)**
Male	7 (32%)	9 (37,5%)	6 (27%)	**22 (32,4%)**
Totals	**22**	**24**	**22**	**68**

PhD Summer schools Food Technology

	At CTU	**At HU**	**At VNUA**	**At NTU**	**Totals**
Female	6 (50%)	15 (68%)	10 (55%)	14 (50%)	**45 (56%)**
Male	6 (50%)	7 (32%)	8 (45%)	14 (50%)	**35 (44%)**
Totals	**12**	**22**	**18**	**28**	**80**

Figures bases on an analysis of the participants lists provided by PSU.

Ownership

According to the self-assessment reports: *All the NETWORK partners in the programme have minutely discussed on the articles and officially signed the MoA and supplements within the institutions involved in Vietnam side and also with the witness of Flemish universities (UGent and KULeuven). The KRA as given above proved that all the partners comply with MoA and have a high consensus in cooperation. The NETWORK partners have taken the ownership on IRs assigned, contributed effectively in staff exchange and upgrading, credit mobilities and have the full responsibility to host the local NSC and JSC meeting annually. North and South coordinator have a strong connection on deciding and planning the work at programme level especially on AP, AFR and AAR annually under the supports of PSU in Viet-nam and ICOS in Belgium. So, the responsibilities at the programme level were well distributed.*

Besides the very positive judgment on the cooperation within the NETWORK, it has been reported that the involvement of North partners is less developed than in an IUC programme. The task of the North coordinator consists mainly in keeping a helicopter view over the programme and giving suggestions regar-ding the planning and the possible directions to take. However, the final responsibility and organisation of the programme is with the South coordinator. The same approach could be observed for the Flemish team members, called “advisors”. The name is a good reflection of their involvement, they are consi-dered as advisors, but finally the Vietnamese partners are the ones taking the decisions. Having said this, as described above, high synergies have been created on the most important objective of the project, namely the development of two international master programmes (see synergy).

All the Vietnamese partners reported high willingness to continue the NETWORK cooperation for both projects. It has been observed that strong network linkages have been created among CTU, NTU, HU and RIA2 which go far beyond the NETWORK activities. Although VNUA did contribute and participate significantly in the programme, the linkages are less strong compared to the others. Two main reasons could be identified: 1/ the distance between VNUA and the other universities makes it more difficult to have informal meetings with the other NETWORK partners; 2/ high involvement of VNUA management level in the NETWORK programme is lacking.

It has been reported that ideas for increasing the number of institutes and universities is one of the possibilities for the second phase of the NETWORK programme. This should be carefully investigated prior to the start of the second phase. Adding additional members could weaken the existing cooperation and increase the difficulties of coordination among several member universities.

2.1.2 Efficiency

Table overview of scores

	Programme level / Institutional
Delays: Score: Good Recommendations: R5 & R6	- No major delays - Room for improvement on IR6 & IR7
Programme management Score: Good Recommendations: R2, R10 & R11	- Overall good programme management but sometimes communication issues. - Reporting could be done more accurately. - Rotating principle is not yet clarified in all its details. - Sustainability of the international master programmes should be a major concern in the second phase of the programme.

Delays

No major delays have been reported. The curriculum development and approval by MOET of the international master programmes took a bit more time than initially planned, in particular for the international masters on Food Technology. Nevertheless, both international masters were launched before the end of the first phase of the programme. Minor progress has been made on IR6 (Research agenda) and IR7 (National Stakeholders Platform). For both IRs annual meetings have been organised, but the results of these activities are still very limited. However, these result areas are important to create and guarantee sustainability of the international master programmes. Both result areas are potentially important to generate funding for the NETWORK activities in the field of research and through the development of external and alternative scholarship systems.

Programme Management

Generally speaking, the communication between PSU and projects is considered as good among all partners. CTU is considered as the natural coordinating partner as they gained a lot of experience through the IUC. All partners confirmed that they would like to have CTU as coordinating partner in the second phase as well.

The responsibilities for each of the IRs have been divided between the NETWORK members. It has been reported that sometimes leadership styles and commitment of each of the members differs, which can causes minor delays. Reminders should be send out more frequently in order to engage people to take up their responsibilities. It has been reported that communication among PSU members causes delays and miscommunication: PSU members are communicating to each other and subsequently the PSU member of the respective universities are communicating to their own university members. The suggestion has been made to use group e-mails to communicate directly to whom it may concern. It has been reported that the coordinating university likes to keep full control on all activities and that they are in a learning process in order to give over some control to the different project partners.

Reporting could be done more accurately and continuously. It has been identified that Flemish partners are not always aware of what type of activities are organised and when they are planned. Flemish partners are requesting for a more continuous (informal) reporting of the NETWORK activities. Respecting reporting deadlines has been indicated as another important issue. From the Vietnamese side, it has been reported that receiving information from many (NETWORK) partners on time, is not always evident due to busy working schedules. It has been reported as well that the reporting requirements are time-consuming.

In general terms, planning is done accurately and staff member are mostly involved and informed on time, although some lecturers have reported that they were sometimes informed very late about activities and about their teaching duties in the master programme. This should be avoided as much as possible as it creates irritations and a potential decrease of commitment and involvement.

It has been observed that the rotating principle, which will be applied in the future for both international master programmes, has not been clarified in all its details and consequences. Uncertainties do exist about:

- the recognition by MOET once the programme is organised at other universities
- financial consequences;
- organisational and administrative capacity of the receiving universities.

Finally, it has been observed that a detailed cost calculation of the international master has not yet been made. This should be done before the start of the second phase. The break-even point (taking into account all costs/expenses and the number of students necessary to generate enough income) should be calculated.

2.1.3 Effectiveness

See project evaluation

2.1.4 Impact

See project evaluation

2.1.5 Sustainability

See project evaluation

2.2. Evaluation of the projects

2.2.1 Description of the project (intervention logic) and overview of partners of the NETWORK : Joint graduate programmes and research based education in Aquaculture (P1) and Food Technology (P2)

Intervention Logic

The intervention logic of both projects is exactly the same and the intervention logic of projects is even similar to programme intervention logic. As the activities and the scoring for both projects are similar, both projects are presented in one chapter. (Minor) Distinctions between the projects are described. In the table below the intervention logic can be found.

Academic Objectives	Development Objectives
To improve teaching conditions and capacity of each Vietnamese university partner for development of international PhD and MSc training programmes in Aquaculture (P1) and Food Technology (P2) through collaborative network between Flemish and Vietnamese institutions. *Specific Academic objectives:* • To upgrade teaching staff for training English MSc programme in Aquaculture/Food Technology; • To develop credit exchange system among university partners in Aquaculture/Food Technology; • To develop curriculum for double degree PhD programme in Aquaculture/Food Technology; • To develop English MSc programme in Aquaculture/Food Technology	To obtain highly qualified human resources for sustainable development of aquaculture sector and to establish a strong and sustainable networking in Aquaculture/Food Technology *Specific Development Objectives:* • To obtain highly qualified human resources for Aquaculture/Food Technology sector; • To strengthen the network
Intermediate Results: *IR1: NETWORK based MSc student credit exchange system developed* *IR2: NETWORK based Doctoral school operational* *IR3: Pathways toward an English MSc programme in Aquaculture/Food Technology identified* *IR4: Staff upgraded*	

IR5: Research collaboration in Aquaculture/Food technology ongoing and infrastructure shared
IR6: Research agenda in Aquaculture/Food technology integrated at institutional, network and country level
IR7: NETWORK stakeholder platform created and operational

Overview of Partners (5 partners) – Project 1

Can Tho University (CTU) – College of Aquaculture and Fisheries (CAF) is the coordinator of the project and functions as hub of the NETWORK. It has a proven track record of research, training and technology transfer in aquaculture in the Mekong Delta and across Vietnam.
Research and training on aquaculture focus on fields such as water quality and environmental impact assessment, aquatic resources management, fish/shrimp pathology, aquatic physiology and nutrition, breeding and selection, culture technology and fisheries socio-economics. Research is financially supported through either international collaborations or national projects at the ministerial, provincial or university level. CAF has conducted numerous national projects with inclusion of local provinces. CAF offers all levels of training in aquaculture from undergraduate (BSc) to PhD. The BSc programmes (7 fields) include Aquaculture, Aquatic pathology, Mariculture and conservation, Fisheries resource management, Fisheries economics, Fisheries products processing and Advanced Aquaculture. The Advanced Aquaculture programme is taught in English in collaboration with Auburn University, USA. The two Master programmes include Aquaculture (offered since 1993 in collaboration with NTU) and Fisheries Resource management (offered recently in 2008). In 2006, PhD programmes were started in two disciplines, Freshwater Aquaculture and Brackish & Marine Aquaculture.
The academic staff is comprised of a total of 107 staff members, of which 61 are teaching staff; others are mostly researchers and administrative staff; the number of teaching staff with a PhD degree is 27, of which eleven have been promoted as Associate Professor, fourteen are senior lecturer, 33 are junior lecturer, all of lecturers with a Master degree.

The Department of Aquaculture (DA) at Vietnam National University of Agriculture (VNUA) organises two undergraduate programmes including Aquaculture and Aquatic Pathology. DA collaborates with the Research Institute for Aquaculture I (RIA1) for its graduate training (MSc in Aquaculture). DA has implemented several local projects mainly on aquaculture systems, fish diseases, aquatic food safety, and participates in projects coordinated by various organisations on topics such as rural development, the assessment of climate change impact and fisheries resource management. DA focuses on research which is of great relevance to the needs of regional aquaculture development such as aquaculture borne infectious diseases; pond aquaculture treatments using biological methods, the application of biotechnology towards environmental friendly and sustainable aquaculture, the use of local ingredients to replace fish meal as fish feed (in common carp, mud carp and salmon).
The academic staff is comprised of fifteen teaching staff of which two have a PhD degree and eight have a MSc degree. Among the others, two of them are preparing a PhD and three are doing a MSc.

The Faculty of Aquaculture (FA) at Hue University of Agriculture and Forestry under the mandate of Hue University (HU) offers 3 undergraduate majors (Aquaculture, Fish pathology, and Environment and Aquatic resource management) and a MSc degree programme in Aquaculture. Research focuses on reproductive biology and seed production of fish and shrimp, fish nutrition, probiotics and application, and culture model development. In the past ten years, FA has conducted several projects on biological reproduction of valuable fish and shrimp species such as Cyprinus centralus, Siganus guttatus and Penaeus semisulcatus. Research on nutritional requirements and ingredient replacement for feed of tilapia, climbing perch and hybrid catfish have been investigated. The development of aquaculture models for the Central provinces is also a focal research area; it includes the selection of the best cultured targets for the Tam Giang lagoon, culture models and species for adapting to climate change along the Central coasts. In addition, technology transfer to the local provinces in Central Vietnam is also a strong activity of FA.
The academic staff amounts to 44 staff members, of which 32 are teaching staff with one associate professor, five senior lecturers and six junior lecturers. Among the teaching staff, there are five PhDs and sixteen MSc.

The Faculty of Fisheries (FF) at Nha Trang University (NTU) is traditionally the main training centre on fisheries in Central Vietnam. FF has been focusing on a number of research activities, mainly on environmental management, nutrition and feeds, biology and reproduction and fish diseases. Similarly, FF has completed seven projects mainly with local provinces on shrimp disease, reproductive biology and seed production of shellfish (cockles and scallops) and fish (sand bass). Other projects are ongoing while focusing on the nutritional requirements and feed formulation for cobia and spiny lobster, common diseases on cultured marine fish, seed production and culture systems for snakehead, oysters and Artemia in Central Vietnam. FF is orienting its research focus towards environmental management (GIS applications in the aquatic environment and resource management; micro-algae for environmental treatment and aquaculture management; environmental impact of cage aquaculture; toxic pond micro-algae), biology and reproduction (identification of hormone steroid profiles in fish with the ELISA method; cryopreservation of fish sperm). FF offers three majors of undergraduate training including Aquaculture, Environment Management and Fish Pathology. Graduation training programmes include an MSc in Aquaculture and PhD in Freshwater and Marine Aquaculture.
The academic staff amount to 60 teaching staff of which eleven hold a PhD and 24 hold MSc. These staff are distributed over six departments.

The Research Institute for Aquaculture II (RIA2) is a governmental institute (Ministrry of Agriculture and rural development) responsible for the development of aquaculture in the South, especially in the Mekong Delta of Vietnam. The major research fields that RIA2 focuses on are selective breeding; induced spawning of aquatic species, especially endangered fish species; feed formula and manufacturing technology; monitoring and warning of the aquaculture environment and epidemics; microbial management; recirculation systems; and social-economics in aquaculture. Selective breeding programmes have been implemented on stripped catfish Pangasianodon hypophthalmus, giant freshwater prawn Macrobrachium rosenbergii, tilapia (including the red strain). Domestication and breeding programme of black tiger shrimp (Penaeus monodon) has also been implemented with promising results. Among the domestication and selective breeding programmes of fish and shrimp species, high quality seeds have been provided to farmers in the Mekong Delta for intensive culture. RIA2 supports training activities at all levels in other universities in the region. RIA2 staff are often involved as supervisors, promoters, jury members and partly lecturers to MSc and PhD students of many academic institutions in Vietnam.

The total number of academic staff at RIA2 is 180, of which twelve are PhD and 42 MSc. Most of them are directly involved in scientific research activities.

Overview of Partners (4 partners) – Project 2

Department of Food Technology of Can Tho University (CTU) is the coordinator of the project and functions as hub of the NETWORK. The department belongs to the College of Agriculture and Applied biology. It is running a BSc programme in Food Technology since 1978; a MSc programme in Food Technology since 2006 and a MSc programme in Postharvest Technology since 2008. It coordinated many projects with Mekong delta provinces to deal with postharvest loss of agriculture products (sugar cane, citrus fruits, mango, rambutan, lotus, durian, vegetables, …). The department gained a lot of experience in international projects with VLIR-UOS (RIP-project, IUC CTU) and WTO (University of Michigan).
The academic staff comprises four Associate Professors, ten PhD holders and eight PhD students studying in Australia, Germany, Belgium, France, Thailand, Vietnam.

The Faculty of Food Science and Technology of VNUA has been founded in 2004 from the precursor Department of Biochemistry – Storage and Processing of Agricultural products. It's running BSc programme in Storage and Processing of Agricultural products since 1996, later separated into a BSc programme in Postharvest Technology and a BSc programme in Food Technology and a MSc programme in Postharvest Technology since 2007. An international Master Programme in Food Technology, Safety, and Quality Management started in 2013. This Faculty has coordinated many projects funded by Ministry of Education and Training and some provinces in the North (Bac Giang, Hung Yen, Thanh Hoa) to deal with the topics of postharvest technology, food processing, and waste treatment. Many TRIG projects focusing on postharvest technology (longan, litchi, cut flowers), biochemistry (extraction of antioxidants from antioxidant-rich foods, enzyme for production of functional oligosaccharides), and food processing (fortified milk, cider, functional drink, canned fruits and vegetables etc.) have been coordinated by the faculty.
The academic staff comprises two Associate Professors, ten PhD holders, fifteen Masters (seven PhD students), five engineers (two Master students), and six lab technicians. Most of the staff have been studied in abroad (Belgium, Austria, France, Australia, Thailand, Korea, Russia).

The Faculty of Agriculture Engineering and Food Technology of HU was established in 1999 and is running a BSc programme in Postharvest Technology, a BSc programme in Food Technology, a BSc programme in Agricultural Engineering and a MSc programme in Agricultural Engineering. A MSc programme in Food Science and Technology started in 2013. This Faculty coordinated many projects with Central provinces to deal with postharvest loss of agricultural products (sugar cane, citrus fruits, mango, lotus, vegetables, …). The academic staff is composed of one Associate Professor, five PhD holders and eight PhD students studying in Korea, China, Australia, Germany, France, Vietnam.

Faculty of Food Technology at NTU has been established in 1959 and is running a BSc programme in Aquatic Products Technology and Food Technology since 1996; a MSc programme in Aquatic Products Technology, a MSc programme in Postharvest Technology, a MSc programme in Food Technology; and PhD programmes in Aquatic Products Technology and Technology of Fish and Meat Products and in Postharvest Technology. The faculty gained experience in international programmes through cooperation with Danida and NORAD.

It has a total of 56 academic staff, of which two Associate Professors, fifteen PhD holders, 29 MSc holders, and eight PhD students studying in Canada, Australia, France, Japan, Vietnam.

2.2.2 Assessment of Evaluation criteria

Scientific Quality	
Quality of research: Score: Good Recommendations: R5, R6, R7	- Project is not a research project (mainly establishment of English international master programme); - Students and lecturers are making use of each other research facilities; - New research projects have been funded; - Not yet a joint research agenda.
Quality of Education. Score: good Recommendations: R2, R3,R4	- Lecturers have been trained in Belgium; - Improving the English skills of lecturers remains a point of attention; - Exchange programme for course in Vietnamese: increased quality; - MSc and PhD summer schools are perceived as very good; - International English Master benchmarked with ICP programmes; - Number of students limited.
Final judgement/comments	
Quality of Research For both projects, the research budget was very limited. Increasing the teaching capacity and developing new collaborative activities on MSc-level was the main objective of this project. One of the challenges was to integrate research based education in the existing Vietnamese masters and the new international Masters on Aquaculture (P1) and Food Technology (P2). By joining forces among the NETWORK partners, recruiting the best academics and training them in Belgium, the NETWORK improved the research based teaching in both the existing Vietnamese masters and the new international masters' programmes. IR5 and IR6 of the projects, which are research related results, are partly achieved. Through the exchange system, students (and lecturers) from the NETWORK universities could use the research facilities of other universities to implement their research. However, joint thesis research (with supervisor from different member universities) have been only occasionally implemented. Those students who made use of the possibility, evaluated this exchange as very positive and enriching in terms of acquiring additional skills and knowledge. Also lecturers made use of the facilities of other universities according to reports from researchers from RIA2 (research visits to Hué and NTU). It has been reported as well that collaboration between RIA2 and the other NETWORK partners did exist before the project started, but that the research exchange visits became easier as a result of the project. Within the framework of P2 (Food Technology), three new PhD research projects were externally funded. These scholarships were funded by Erasmus+ and 911 scholarship funded by the Vietna-	

mese Government. Identification of topics has been done by the CTU and all PhD students are enrolled at the Graduate School of CTU. There has been cooperation between the NETWORK partners on research in terms of academic advice and external revision: For each PhD, a commission of eight external revisers is appointed. The faculty and promoter present a list of fifteen potential revisers, of which eight are appointed by the Graduate school. On top of the list of fifteen potential revisers, some NETWORK members were added. The quality of the PhD research is in general very high. One of the PhD students published five articles in international refereed journals.

A joint research agenda is not yet developed, although three research proposals in the field of aquaculture have been successfully submitted. These achievements are only indirectly linked to activities of the project. It has been reported that skills acquired as a result of the project, contributed to successful proposal writing.

The double degree PhD research is considered as very important by all stakeholders. As it is the case in Flanders, also Vietnamese academics are awarded for successfully completed PhD research projects. During the first phase of the project, first steps have been made to realise such double degree graduation (between CTU and University of Ghent). This type of collaboration should be further explored during the second phase. At the moment, only CTU and NTU are entitled to enrol PhD students in the field of aquaculture and food technology. The other partners of the NETWORK do have plans to set up their own PhD programmes in the near future. Consequently, the double degree PhD programmes could be extended to other partners in the NETWORK.

Quality of Education

The curriculum development of the international Masters in Aquaculture has been finalised in 2014. The curriculum has been exposed for comments and feedback from different stakeholders via NSP and partner meetings. The preparation of course syllabi was also implemented based on assignment decided by the project team. The curriculum has been accepted and approved by MOET in 2015. The first cohort of students were enrolled in 2016. The curriculum of this programme was developed based on benchmarking with other university curriculum, especially of University of Ghent (Belgium) and University of Stirling (UK) and adapted to make it appropriate for tropical region conditions. Stakeholders reported that the quality of the teaching in English is not yet at the same level as the comparable programme Masters in Aquaculture at the University of Ghent. The same stakeholders confirmed that the new international masters is among the best masters in Aquaculture in Vietnam. One of the main reasons for the relatively high quality of the programme is the fact that at least two lecturers from at least two member universities are responsible for one course.

The curriculum development of the international Masters in Food Technology has been finalised in 2016 and the programme has been approved by MOET in 2017. The first cohort of students enrolled in 2017. The preliminary work took a bit more time when compared to P1, but the objectives were still achieved. The international Masters in Food Technology creates high synergy with IUPFOOD programme (InterUniversity Programme Master of Science in Food Technology) of University of Ghent and Catholic University of Leuven. The thirteen learning outcomes are identical to IUPFOOD programme. The curriculum of both programmes are the same in the first year. In the second year of the programme the curriculum is differentiated substantially. In the second year the international Programme distinguishes four majors. Each major is covered by one partner university according to their expertise (which can be considered as internal project complementary). The majors of the Flemish

international Programme are: Postharvest and Food Preservation Engineering' (KU Leuven) and Food Science and Technology' (UGent). The ambition is to upgrade the Vietnamese international programme to the same level as the IUPFOOD programme in Belgium. This would allow students from Belgian programme as well as students from Vietnamese programme to choose among six majors.

Stakeholders reported that the quality of the teaching in English in both international programmes is not yet at the same level as the comparable programme Flemish programmes.

The number of enrolled students is for both programmes very limited. For the international MSc Programme in Aquaculture only five students enrolled in 2016: three females (one from Tanzania and two from Vietnam) and two males (from Rwanda). Five full scholarships were offered instead of four as planned. For the second cohort nine students were enrolled (three from Africa, two from Myanmar, two from Cambodia and two Vietnamese students).

The number of students enrolled in the international Masters in Food Technology is limited as well. Only nine students (four from Laos, and one from each of the following countries: Nigeria, Ethiopia, Tanzania, Kenya and Indonesia) enrolled and surprisingly enough, not a single Vietnamese student has been enrolled.

The main reason for the lack or the limited number of Vietnamese students is the English language requirements. English proficiency requirement is defined as scoring at least 5.5 or equivalent (at application) on IELTS and 6.0 or equivalent at enrolment. These scores are considered as too high for most of the Vietnamese students. Consequently, mostly foreign students are enrolling.

Lecturers got additional trainings in Belgium in order to prepare them for teaching in the international masters. Lecturers reported these trainings as very useful:

- They learned how to organise courses and examinations;
- They learned how to consider the cultural background of students and to identify needs, level of knowledge and skills;
- They learned to focus on students; how to implement small group approaches, how to divide students in groups, how to coach students;
- They learned to integrate research examples in their manuals and teaching.

Based on the group interviews, the evaluation team could conclude that lectures have more knowledge and teaching skills than before the project started. The evaluation team could not observe whether the lecturers are applying the new acquired knowledge and skills.

During the first years of the project, PhD and MSc summer schools were used to strengthen the network and to learn gradually how to organise and synchronize teaching with the involvement of all NETWORK partners. As result, more than 250 MSc and PhD students have been trained during summer schools. Those students could receive training and lectures from more experienced lecturers. Students reported that they gained new knowledge and new research ideas during these summer schools. The summer school experience resulted in the development of a credit exchange system for MSc students which has been approved by all NETWORK partners. Consequently, students are entitled to gain credits from other universities besides their home university which is of course evaluated positively as students can choose among more courses in order to meet their interests and needs.

Relevance	
Responds to needs Score: good Recommendations: R13	- Aquaculture, fisheries and agriculture are highly relevant in Vietnam and the region; - Development of high quality human resources is relevant in Vietnam and the region; - But the limited number of students needs a profound reflection during formulation process of the second phase.
Synergy & Complementary Score: Good Recommendations: R5	- High synergy with ICP MA in Aquaculture at University of Ghent and IUPFOOD programme (UGent and KU Leuven); - High internal synergy among NETWORK partners; - Synergy with VIFINET and VBFOODnet, but the number activities organised within the framework of these networks is limited; - New research projects within the P1 and new PhD research project within P2.
Ownership Score: good Recommendations: R8, R10 & R11	- Division of labour; - In general high involvement and collaboration among partners; - Communication problems have reported between university in the north and universities in the south due to distance between the universities.
Final judgement/comments	

Responding to the Needs

Aquaculture, fisheries and agriculture sector is a very important business sector in Vietnam and neighbouring countries like Laos and Cambodia (see context paragraphs). From this point of view, increasing the quality of education in aquaculture and food technology is extremely important for Vietnam and its neighbouring countries. Development of high quality human resources is crucial not only for the academic stakeholders but also for industry, society and government. These master programmes could deliver support to develop human capacity for aquaculture and agriculture development, especially in South East Asia (like Cambodia, Myanmar and Laos where potential of aquaculture development is very high). Setting up international master programmes within this context seems to serve some of the needs.

On the other hand, the low number of students in both programmes, is a major concern. A critical review why such a limited number of students did enroll seems necessary.

Synergy

The curriculum development of the international master programmes is strongly inspired by the VLIR-UOS ICP programme Masters in Aquaculture (UGent) and the IUPFOOD programme (InterUniversity Programme Master of Science in Food Technology) of University of Ghent and Catholic University of Leuven. The Flemish and Vietnamese partners are convinced of the added value of the Vietnamese international master in order to create North-South-South synergies through exchange programmes (thesis, courses) between the two programmes (in case the international Vietnamese programme is achieving the same level). This would help diversify and supplement knowledge, experiences in aquaculture for students.

The project represents a new model of collaboration in which networking is established among many institutions, which has not been realised elsewhere in Vietnam. The NETWORK has been strengthening the cooperation among the member universities. Staff from all partners join in the teaching of the MSc programme. A course is even shared by 2-4 staff from the member institutions. Besides that, several lecturers reported that they use each other research facilities which enhance the quality of the research and the exchange of (research) ideas. As mentioned above the fact that an exchange credit system has been developed and approved by the member universities is a very important step in strengthening the network and the collaboration among partners.

There is no overlap with VIFINET (Vietnamese Fisheries & Aquaculture Institution Network) as the activities of VIFINET are rather limited. VIFINET is suffering from the lack of funding and the chairmanship is based on a rotating system. The stakeholders like the yearly conference as it is an excellent opportunity to meet many stakeholders. But the impact of VIFINET is limited. The activities of the Network project are much more important and useful for the members of the Network.

The same has been reported for VBFOODnet. VBFOODnet is a network of Belgian universities (Flemish and Walloon) and numerous Vietnamese universities. Due to budget restraints the activities are limited to a biennial conference in Vietnam. The conference brings together local scientists but also attracts participants from surrounding countries. Through this existing network, it has been possible to identify partners for the VLIR Network programme and the continuing interaction allows to seek for further opportunities. The combination of the Summer School with the VBFOODnet conference allows PhD students to be exposed to specific workshops as to an international conference with contributions of renowned researchers. It is obvious that VBFOODnet can strengthen the quality of the international programme by inviting academics from the VBFOODnet to lecture: lecturers from NLU (Nong Lam University) have been invited to lecture at some of the PhD summer schools.

Synergies have been created with three new research projects funded by external funding agents within the framework of P1 and three PhD students received external scholarships within the framework of P2. A direct causal link between the VLIR-UOS Network project and the new research could not be evidenced.

An additional type of synergy could be identified within the framework of P2 (Food Technology). The TEAM of the project 'Increasing economic viability of the Vietnamese fresh fruit industry by reducing postharvest losses' run by prof. Tran Thi Dinh (VNUA) and prof. Bart Nicolaï (KU Leuven) aims to build local capacities to reduce postharvest losses in the Vietnamese fruit industry, improving their efficiency and thus improving food supply without posing additional claims on the already limited natural resources. This project allows to strengthen the research capacity within VNUA. Through the NETWORK programme this experience is shared with the other partners as well. Students within the Master programme Food Technology can benefit through their Master thesis research on a topic related to the TEAM project and research results are transferred to students of the international master programme during lectures.

Transversal themes

Women and men are almost equally represented in the international masters, with a minor preponderance of women over men. The content of both programmes included topics of sustainable (environmental friendly) aquaculture and food technologies. (see synergy programme level).

Ownership

All partners have the same ownership over the project by sharing responsibilities, roles and rights during participation in the project. A division of labour took place in terms of responsibilities to achieve the IRs. The coordination of IRs has been subdivided among the members of the NETWORK. Objectives and planning are shared and discussed among partners.
Although all members of the NETWORK in both projects did experience the rotating principle within the framework of PhD and MSc summer school, it has been observed that the rotating principle for the international masters is not very clear to all members of the NETWORK. In particular the practical execution seems to cause a lot confusion. This should be discussed in all its details at the beginning of the second phase.

Most of team members were actively involved in the financial, operational and strategic planning of the projects although some were busy and not performing well sometimes. It has been reported that it was not always easy to communicate efficiently between the member universities, due to the distance between universities in the North and the South difficulties. Although, all partners wish to continue with the projects in the second phase, it seems to be very important to increase the activities to strengthen and to increase the involvement of all member universities.

The idea of increasing the number of NETWORK members, has been reported by team members of both projects (see recommendations).

Efficiency	
Intermediate Results have been delivered Score: Good Recommendations: R3, R5, R6, R7	- MSc student credit exchange systems has been developed and implemented between the NETWORK partners; - Doctoral school among the NETWORK partners does not exist, but double degree between CTU and UGent has been achieved; - International English MSc programme has been launched; - Staff has been upgraded through trainings in Belgium and Vietnam; - English skills of teaching staff did increase to a limited extent (room for improvement); - Research infrastructure has been shared; - Joint research agenda is not yet developed although two joint research proposals (between CTU and RIA2) are submitted and funded and three PhD research scholarships are achieved; - Network among the partners has been strengthened, but involving external stakeholders remains a challenge.
Relationship between objectives, results and means Score: Good Recommendations: R7	- Strong links between IRs, means and objectives; - Link between objective on double degree PhDs and NETWORK PhD school is not yet clarified.
Project management Score: Good Recommendations: R2, R7, R8, R9, R10, R11, R12, R13.	- Overall project management has been good; - Not all partners are equally involved in the project; - Rotation principle needs more clarification among partners.
Final judgement/comments	

Intermediate results have been delivered

IR1: Network based MSc student credit exchange system developed

Within the framework of IR1, the following MSc student exchange systems has been introduced:

1. MSc thesis Research activities at another university
2. MSc Summer courses
3. Credit exchange, mainly between NTU and CTU (mainly P1)
4. Lecturer teaching exchange between CTU, NTU, HU and VNUA (only P1)

The MSc exchange thesis research has been implemented only once within Project 1 (Aquaculture). In the first project year (2013), eleven MSc students made use of this exchange possibility. A tentative plan was to implement five thesis exchanges each year but due to many challenges, especially the timing between institutions, students could not implement thesis exchange, except for the first year. In the table below the exchange between the universities has been presented: only students from CTU and NTU went to another university.

Research Activities of MSc students at other University (P1)*

Students From	To	2013
CTU	NTU	2
CTU	Ria2	2
NTU	RIA2	2
CTU	VNUA	4
NTU	CTU	1
		11

**Figures based on year reports*

In Project 2 (Food Technology), the MSc research exchange has been implemented continuously since the start of the project. In the table below we see that eighteen students made use of the exchange system and that students from all member universities went to other universities. Most student went to CTU, none of the students went to VNUA. The tentative plan was to implement 28 MSc thesis exchanges (including credit exchange) for the whole project. Due to the different timings at the different institutions, most of the exchange students could not implement the thesis exchange activity for a full semester.

Research Activities of MSc students at other University (P2)*

Students From	To	2013	2014	2015	2016	Totals
VNUA	CTU			2	2	4
NTU	CTU				1	1
NTU	CTU	2	2	1		5
HU	CTU		1	1		2
HU	NTU		2			2
CTU	HU			2	1	3
NTU	HU			1		1
Totals		**2**	**5**	**7**	**4**	**18**

**Figures based on year reports and list of participants*

The MSc summer schools has been organised successfully in both projects. In the tables below the numbers are presented for each of the summer schools with details on the mobility between universities. 64 students of Aquaculture (P1) and 93 students of Food Technology (P2) attended the summer courses. The first summer course has been jointly organised by P1 and P2. The main difference between the two projects is that the exchange between the universities has been higher in P2. Within P1 more NTU and CTU students went to other universities to attend the course, while in P2 the number of students visiting other universities is more equally distributed, which could be an indication

of higher involvement of the member universities in the network and serving the student's needs better than in P1. Of course, other elements (like organisational issues, number of students at the respective universities, etc…) can explain these differences as well.

MSc Summer Course (P1)

	VNUA	HU	NTU	CTU	Totals
2013 at CTU (with P2)	2	2	4	7	15
2014 at HU	2	6	5	6	19
2015 at NTU	2	2	5	5	14
2016 at VNUA	9	2	2	3	16
Totals	**15**	**12**	**16**	**21**	**64**

MSc Summer Course (P2)

	VNUA	HU	NTU	CTU	Totals
2013 at CTU (with P1)	6	3	4	10	23
2014 at HU	5	8	4	5	22
2015 at NTU	5	6	7	4	22
2016 at VNUA	13	3	5	5	26
Totals	**29**	**20**	**20**	**24**	**93**

A credit exchange system was established between university partners (five institutions) under a signed MoU for both projects. Within P1, the credit exchanges have been continuously implemented between Can Tho University and Nha Trang University with a total of 98 MSc. students (73 students from CTU and 25 students from NTU) with both universities exchanging 2-3 courses every year. Both universities recognise from each other the credits exchanged by students. Another credit exchange type is teaching exchange where lecturers are exchanged. It has been recognised by the partners (CTU, NTU, HU and VNUA).

The exchange programmes has been considered for both projects as an excellent "exercise" to stimulate cooperation between the NETWORK partners and to experience the difficulties in organising joint programmes and activities. It has been an experience with the rotating principle and the logistical consequences of this approach.

IR2: NETWORK based Doctoral school operational

A doctoral school among the Vietnamese partners is not yet established and was not considered as a priority among the partners. Mainly because only CTU and NTU have a PhD programme in Aquaculture and Food Technology. Although a joint PhD programme at Vietnamese network level seemed too ambitious, experience has been gained in the PhD double degree system: One PhD double degree has been made between UGent and CTU, in the field of aquaculture. The PhD student (Mr. Tran Huu Le (P1) from CTU has been accepted as PhD student at UGent under a signed agreement between both universities and promoters. Two other PhD students from HU (Truong Van Dan and Truong Thi Hoa) were enrolled at CTU and are under double supervision between CTU and HU (P1).

PhD summer schools have been organised since the start of the programme and are planned to be continued in the next phase. In the tables below the exchange/mobility between PhD students has been presented. The same pattern as in the case of the MSc summer schools can be observed: in P1, mainly students from NTU and CTU are travelling to other universities to attend the summer course, while for P2 the mobility pattern is more equally distributed. For both project a relatively high number of PhD students participated in the summer schools, which is of course very positive.

	PhD Summer Course (P1)					
	VNUA	**HU**	**NTU**	**CTU**	**RIA2**	**Totals**
2013 at RIA2	2		6	5	13	26
2014 at NTU	2	2	9	6		19
2015 at CTU		2	4	9	2	17
2016 at RIA2	2	1	3	10	2	18
Totals	**6**	**5**	**22**	**30**	**17**	**80**

	PhD summer Courses (P2)				
	VNUA	**HU**	**NTU**	**CTU**	**Totals**
2013 at CTU	3	2	2	6	13
2014 at HU	4	5	5	5	19
2015 at NTU	4	4	13	7	28
2016 at VNUA	5	5	5	6	21
Totals	**16**	**16**	**25**	**24**	**81**

PhD-students of P2 went also to other universities to implement PhD research. In the table below the figures of these exchange mobility are presented. As it can be observed, eighteen PhD students from the different universities went to other universities with an almost equally distribution.

Research Activities of PhD students at other University (P2)					
Students From	**To**	**2014**	**2015**	**2016**	**Totals**
VNUA	CTU	1	1	1	3
NTU	CTU	1	2		3
HU	NTU	1	1	1	3
CTU	NTU	1	1		2
NTU	VNUA	1	1	2	4
CTU	VNUA		1	2	3
Totals		**5**	**7**	**6**	**18**

IR3: Pathways toward an English MSc programme in Aquaculture/Food identified

The English Master programme in Aquaculture (P1) and a second Master programme in Food Technology (P2) are operational. A second cohort of students started in the aquaculture masters and a first cohort started in food technology masters (more information can be found under the criterion Quality of Education).

IR4: Staff upgraded

Staff members of the member universities have been upgraded in Belgium. At the beginning of the project implementations (2013), the visits to Belgium were limited in time (2-3) weeks. From 2014 the visits became a bit more intensive and longer (7-8 weeks). It has been observed that for Project 1,

only one staff member of VNUA has visited Belgium and only two from RIA2. For Project 2 the participation is more equally distributed, except for the high numbers of staff members of CTU who went to Belgium for upgrading activities. The visits to Belgium were meant to upgrade the technical research skills, increase the teaching capacities and to improve English language skills.

Staff Upgraded in Belgium (P1)	HU	CTU	RIA2	NTU	VNUA	Totals
2013	2	3		2	1	8
2014	1	1				2
2015	2	1	2	1		6
2016				1		1
Totals	5	5	2	4	1	17

Staff Upgraded in Belgium (P2)	HU	CTU	NTU	VNUA	Totals
2013 (3 weeks)	2	3	1	2	8
2014		2	2	1	5
2015	2	2	2	1	7
2016		4	1		5
Totals	4	11	6	4	25

IR5: Research collaboration in Aquaculture/Food ongoing and infrastructure shared

For P2 (Food Technology) the activities are limited to PhD and MSc research exchange activities which have been described under IR1 and IR2. This explains also why IR1 and IR2 activities are slightly different from P1.
Within Project 1, the choice has been made to give staff the opportunity to learn and collaborate with partners/colleagues from other universities. Under this activity, knowledge, facilities as well as research experiences are shared among partners. Staff, especially young staff, from one partner visit other partners to learn and to be trained in a specific field which is the specialty of that partner. After 1 to 2 weeks of sharing and experiencing, the trainees upgrade their knowledge and experiences which are crucial for their teaching and research activities at the home university. In the table below, the numbers are presented. One of the interesting observations is that seventeen out of 23 staff members went to CTU.

IR5 Research Exchange Staff P1

From	To	2013	2014	2015	2016	Totals
HU	CTU	3		4	1	8
CTU	NTU	2		1		3
VNUA	CTU	2	2		1	5
NTU	CTU		1	2	1	4
CTU	VNUA		3			3
Totals		**7**	**6**	**7**	**3**	**23**

IR6: Research agenda in Aquaculture/Food integrated at institutional, network and country level

From the yearly reports and based on the interviews conducted by the evaluation team, it has been clear that this IR still needs to be elaborated in detail during the next phase.

For P1, mainly financial support has been given to four PhD students: Vo Dieu (form HU but PhD students of CTU), Truong Van Dan (from HU but PhD students of CTU), Truong Thi Hoa (from HU but PhD students of CTU) and Vu Trong Dai (PhD student of NTU). A fifth PhD student, Tran Huu Le, the double degree PhD student is officially registered as UGent PhD student. He was supported to come to Ghent for one month (November 17- December 17, 2015) to complete all the administration related to registration as well as discussing with his promoter (Prof. Gilbert van Stappen) on the PhD research activities. Besides the PhD activities, CTU and RIA2 have recently successfully attained two approved projects which are the results of the collaboration between the two partners in developing research proposals (the two projects will be conducted soon in early 2018).

For P2, no specific activities and results could be reported, except that the each of the partners identified their research expertise.

IR7: Network stakeholder platform (NSP) created and operational

Yearly network stakeholder platform (NSP) meeting have been organised by P1. Most of the participants were other universities, but also local and national authorities as well as representatives of the private sector have participated in these annual events since the start of the project in 2013. Feedback on the curriculum has been given at the NSP meeting in 2015.

For P2, The NSP members were identified including VAFoST (Vietnam Association of Food Science and Technology), industries, other national/international universities, and governmental bodies. Besides networking activities, within the framework of NSP, the results are rather limited.

Involving external stakeholders has been very limited and seemed to be a challenge for the second phase for both of the projects.

Relationship between objectives, results and means

If we take the logical framework as a starting point for the analysis than it is clear that the IRs and specific objectives and the means (activities) are directly linked to each other. In particular from IR1 until IR4. For P2, IR5 seems to be exactly the same as IR1 and IR2, so it is not clear why IR5 has been kept as a separate IR in Project 2. In Project 1, IR 5 was especially meant to stimulate research and learning activities between (young) staff members. The weak elements in the logframe are IR6 and IR7. The activities for both IRs are rather limited and it is difficult to find evidence that the activities contributed to the achievement of the IRs in the first place and indirectly to the achievement of the specific objectives. These IRs are nevertheless very important (see sustainability) and should be further elaborated in the second phase.

Special attention should be given to IR2. The link between IR2 (NETWORK based doctoral school opera-tional) and the specific objective (to develop a curriculum for double degree PhD Programme in aqua-culture) is clear once the activities are described. PhD summer schools have been organised, but the stakeholders confirmed that a joint institutional NETWORK PhD programme is lacking. The main reason has been described as the lack of a PhD programme at three of the partner universities (VNUA, HU and RIA2). A double degree PhD programme is for both Flemish as Vietnamese partners important. Both universities benefit directly from a successful defended PhD project. For the Vietnamese partners in the programme, it is important because they can enhance their capacity by doing

research in Europe. A double degree is also important because of the financial benefits. The benefits are indirect, as more publications and more PhD research raise the credibility and visibility of the supervisors and of their research. Subsequently they can increase their chances to receive funding for additional research projects. Finally, the individual career of university professors/lectures is dependent of the number of PhD students who defend their PhD successfully. All NETWORK partners reported that the double degree PhDs should be an important activity during the second phase.

Project management

The leaders of each of the projects regularly meet with each other and with the programme manager to discuss and share operational experiences. In addition, two official meetings are organised annually (local steering committee meeting and joint steering committee meeting) where members of project and programme level meet and communicate. A period of two weeks is also spent in Ghent by two project leaders and the programme manager in order to report, construct planning, discuss and share any problems related to the project or programme activities with the Belgian partner. Additionally, regular emailing is also a common means for communication within project and programme. PSU is a helpful office where every assistance needed is met. Clear guidelines are given and transparent explanations are also provided to help project activities run well.

Although most of the stakeholders reported that the communication is considered good; the evaluation team noticed that the communication and collaboration could be improved among the partners in Vietnam and between the Vietnamese partners and the Flemish partners. For both projects, it has been observed that communication and collaboration among universities in the South of Vietnam is better than the collaboration with the university in the North. Due to the distance between the universities, close cooperation and communication seems to be difficult. It has been reported that the members of the NETWORK based in the South of Vietnam meet each other regularly and informally, which strengthened their cooperation. The tight links between for example CTU and NTU in P1 are illustrated for example in the higher number of student exchange and the strong cooperation among MSc credit exchange course in Vietnamese programmes. Attention should be paid during the second phase to include all members.

It has been observed that Flemish stakeholders *feel* less involved when compared to, for example, an IUC programme. Their official title is advisor, which illustrates well the role they should take in a NETWORK approach. On the other hand, the evaluation team could find evidence of strong cooperation between Vietnamese and Flemish academics, in particular on the development of the international Master programmes in both projects.

Effectiveness	
Specific academic objective Score: Good Recommendations: R2, R4, R13	- Most academic objectives have been achieved; - Individual capacities of students in the exchange programme increased through better education; - First batches of students in the international master have access to better education; - Limited number of MSc made use of the research facilities at other universities within the network.
Specific development objective Score: low Recommendations: R5, R6	- Specific development objectives are not (yet achieved)

Final judgement/comments

Specific Academic Objective

- To upgrade teaching staff for training English MSc programme in Aquaculture/Food Technology;
- To develop credit exchange system among university partners in Aquaculture/Food Technology;
- To develop curriculum for double degree PhD programme in Aquaculture/Food Technology;
- To develop English MSc programme in Aquaculture/Food Technology;

Specific Development Objective.

- To obtain highly qualified human resources for Aquaculture/Food Technology sector;
- To strengthen the network.

If we take the logical framework as a guiding principle to evaluate the effectiveness, than the specific academic objectives are the sum of the IRs and should be considered as achieved. A more detailed description on the achievements can be found under the paragraph efficiency. The developmental objectives are not (yet) achieved, as the first cohorts of students in the international masters are not yet graduated. For those students who did attend Master courses (summer schools and/or exchange mobility), it can be assumed that the acquired (academic) skills will be used in their academic or non-academic professional life. The evaluation team was not able to interview those students systematically, so hard evidence of better performance could not be identified.

If we take the ToC of VLIR-UOS as reference point, than the main question on effectiveness is how the outputs are used. Translated to the two projects of this NETWORK programme it means how the education practices are improved by making use of the different outputs (IRs). For the research component it implies that there will be better and more relevant research (see paragraph on subject of the evaluation). The outcomes should be distinguished from the impact. Impact is defined as follows: "*through a successful achievement at the outcome level, the local actor will inherently become an agent of change for the society. With this change, and the achievements at the outcome level, there will be a sound contribution to development changes. This "change" will relate to the (external) effects*

of increased research performance/practices (internal) and/or the (external) effects of improved education practices/performance (internal) and/or the effect of uptake of new knowledge/applications/services (i.e. the effective (external) use)" (see paragraph on subject of the evaluation and ToR).

The main objectives of two projects is to increase the education output and outcomes. Through better education (exchange programmes and international masters) students with better knowledge and skills will graduate.
The first cohorts of students are enrolled in the international masters. As the international masters is considered as one of the best programmes on Aquaculture (P1) and Food Technology (P2) available in Vietnam, the students receive better education than before. The increased education can be considered as a result of the increased skills of the lecturers as they received additional training in Belgium and because of the NETWORK results (joining forces, 2-4 lectures who are responsible for subject courses, exchange of research activities). But it is too early to find indications of effects on outcome level. We can assume that there will be an outcome effect, but this should be investigated in depth a few years after the first cohorts of students are graduated. A performant alumni system can contribute to this type of analysis.

Although the number of MSc students who did participate in thesis research with supervisors from different universities, is rather limited, the fact that some of them used this opportunity and could use the research facilities of other universities within the NETWORK, which was not possible before the implementation of the project, can be considered as a positive outcome of the programme: students reported that their skills improved significantly which resulted in better research questions and research methodology.

Collaboration among lecturers of the participating universities is considered as very positive in the sense that it increased the individual (teaching) skills and knowledge of the participating lecturers. As at least two lecturers from different universities are involved in teaching activities of one course, cooperation is embedded in the project. The lecturers reported that this type of collaboration increased their skills significantly (output level) and that through their improved skills, students are better qualified once they are graduated (outcome).

Impact	
Academic and Institutional impact Score: Good	- The international master did increase the visibility and credibility of the NETWORK partners to a limited extent; - Academics of all NETWORK universities could improve their teaching (and research) skills; - The project did change policies at the institutions (exchange programme recognition of credits); double degree MoU; - Research collaboration among participating NETWORK partners; -This NETWORK cooperation served as an example for other proposals.
Development impact (impact on society) Score: Low	- Students/lectures from universities in neighbouring countries have been enrolled, causing increased capacities in least developed countries like Cambodia and Laos.
Final judgement/comments	

Academic and institutional Impact Level

All partners of the NETWORK reported that the international English masters had a very positive impact on their own institutions and universities. For most of them, it is the first experience with an English master programme and with structural collaboration among Vietnamese partner universities. This NETWORK programme has an impact in terms of collaboration. Collaboration is perceived as something positive as it increases the skills and capacities of all partners. This has been reported as very positive in the changing climate of academic work with a lot of competition among all universities in Vietnam. The NETWORK collaboration hasn't realised its full potential yet, but once the programme could be accredited, the visibility and credibility of all universities will increase.

The project has also been a catalyst for policy changes of all member universities. The most important one is the exchange credit system for the Vietnamese programmes of the participating universities. Students can gain credits from other NETWORK universities by attending courses at a NETWORK university other than their home university. This is considered as something new to all NETWORK universities.

Besides that, it has been agreed among all partners of the NETWORK, that researchers can use each other's research facilities free of charge.

The double degree PhD, with a signed MoU between CTU and Ghent University, is also considered as a-typical. This good practice serves as an example for the other universities. For example, NTU is considering the same type of collaboration with the Flemish partners.

Besides collaboration in the field of education, also new research initiatives have been undertaken. Three research projects have been initiated between CTU, NTU and RIA2. These research projects are funded by other funding agent and each of the projects is worth between 200,000 and 300,000 USD. Although a direct link with the NETWORK activities could not be evidenced, the partners reported that they used the experience of collaboration within the framework VLIR-UOS NETWORK

project as a lever for the new projects. It has been reported that the experience of cooperation, improved the quality of the project proposals.
Finally, the NETWORK project raised also interest from other universities and institutes. Some of them (like RIA3) are showing interest to join the network. The fact that other universities want to join the network is for many reasons positive: it illustrates the need for such a project and the dynamic gene-rated by the project among participating NETWORK partners.

Development impact (impact on society)

The impact on the broader society is not (yet) achieved. The main reason for non-achievement is that the international master is just launched and the first cohorts of students are not yet graduated. The impact on society after graduation could be very high, not only in Vietnam, but also in other developing countries in Africa and more in particular in Laos and Cambodia. The Vietnamese partners consider scholarships to students from least developed countries as role that Vietnam can play as a middle income country. Surprisingly enough, only a limited number Vietnamese students enrolled in the international masters in Aquaculture and not a single Vietnamese student has been accepted for the international masters in Food Technology. It has been reported that the proficiency in academic English is very poor among Vietnamese students.

The evaluation team has not been able to evaluate the impact of the graduated students from the exchange programme. It would be very relevant to compare the career development of those exchange students with the one of those who did not participate in the exchange programme.

Sustainability	
Academic and Institutional sustainability Score : Low	- Limited number of students; - Engagement of partners is important; - Rotation principles needs to be developed in detail.
Financial Sustainability Score: Low Recommendations: R1, R2; R3,R4, R5, R6, R8, R13.	- It is not clear how the international masters will be funded after the VLIR-UOS funding; - International programme is based exclusively on scholarships of VLIR and CTU; - Alternative Scholarship system is lacking; - Support from industry and broader society is lacking.
Final judgement/comments	

Academic and institutional sustainability

The main objective of both projects is the implementation of an English international masters in Aquaculture and an English Masters in Food Technology. The purpose of the NETWORK programme is to continue the organisation of this masters after the phasing out of the VLIR-UOS funding. All partners show a high interest in participating in the Masters as lecturers and it has been reported that all of them would like to continue the participation. But the sustainable success of the programme will be highly dependent from the financial sustainability of the project (see below).
A rotation principle has been agreed among the partners, but during this evaluation exercise it turned out that not all details and consequences among the partners have been discussed profoundly.
Another major concern is the number of students. The number of students is very limited and up until now, a limited number of Vietnamese students have been able to enrol. The partners reported that the main reasons for the lack of Vietnamese students are the language requirements. In the international master programme on aquaculture, a pre-master English class has been a possibility for interested students. It remains to be seen whether this activity is sufficient. It should be investigated whether an English master is considered as advantage by the stakeholders in the private sector.
Definitely, the international masters has proven to be of added value for students from Laos, Nigeria, Kenia, Ethiopia and Indonesia. But is should be reported that most of these students did apply for the Flemish ICP programme in Belgium but were refused a scholarship. For these students, the new international master programme in Vietnam created a new opportunity. At the beginning of the second phase, a strategy for recruiting students should be developed. Within such a strategy, the international accreditation of the programme should be considered as a high priority.

Financial Sustainability

The financial sustainability of the international masters should be a major point of attention in the second phase of the NETWORK project. The project is almost exclusively dependent of the VLIR-UOS funding. The mobility of lecturers and students (for the MSc and PhD summer schools) is funded by the programme. Ten scholarships are funded by the project, another eight are funded by CTU. It is very unlikely that the programme will survive without extra funding and a new type of scholarship system. The total cost of the international masters is not yet made. This should be done at the beginning of the second phase.

3 Main Lessons Learned

LR1. Focus on a limited set of key intermediate results with a well-defined rather limited list of activities. Given the level of funding foreseen for the NETWORK, too many intermediate results and activities create a too high dilution of efforts slowing down the implementation and the quality level of the activities and their outcomes.

LR2. Partners joining the NETWORK should have the same interest and responsibilities to achieve a better synchrony among all activities. Good and close relationships, contacts and collaboration between members of the NETWORK can be strengthened by creative activities such as student and staff exchange, and especially all kinds of exchanges to share, learn and experience the strengths of each other.

LR3. To foster the double degree PhD programme by the Flemish and the local universities in the long term, local PhD students should actively work on their English skills in order to fulfil the English requirement put forward by the Flemish universities.

LR4. There should always be a win-win situation and an equal contribution of all the partners to assure the success of the programme.

4 Recommendations

R1. **Increasing sustainability of the programme should be a major point of attention** during the second phase of the programme. Most of the recommendations below have been formulated from the viewpoint to increase sustainability of the two international master programmes (target audience: Vietnamese and Belgian programme coordinators and project leaders)

R2. For both programmes, a **detailed cost calculation** of the English international masters should be made. All costs related to the implementation of the programme should be calculated in order to determine the break-even point (number of students/scholarships needed to cover the costs). Calculating the cost structure could be done during a workshop. High expertise on this subject is available at the Vlerick Business School (Prof. Dr. Filip Roodhooft is an international expert in 'time-driven activity based costing'). It would be good to invite him for participation in such a workshop. Such a cost calculations is needed to create confidence and commitment among the members of the NETWORK especially once the rotating principle will be applied. (target audience: Vietnamese programme coordinators and project leaders)

R3. The quality of the international master programmes should achieve the same standards as the ICP programmes in Flanders. One of the necessary measures is to **increase English proficiency** of the lecturers in the programmes. An intensive English training during at least eight weeks seems to be necessary. (target audience: Vietnamese programme coordinators and project leaders)

R4. International accreditation of both programmes would be an additional asset to attract students from Vietnam and the region. Some of the member universities of the NETWORK do have experience with AUN (ASEAN University Network), which is an organisation recognised in the region for quality assu-rance at institutional and programme level. (target audience: Vietnamese and Belgian programme coordinators and project leaders)

R5. Networking with stakeholders needs more attention during the second phase of the programme. The programme should focus on including local and national authorities and main players from the private sector. A funding strategy to convince those actors to contribute to the international masters should be considered and developed. (target audience: Vietnamese programme coordinators and project leaders)

R6. The **development of joint research agenda and a clear policy** should be developed on how research activities can be linked to the programmes and how funding from these research activities can contribute to the programme, taking into account the (financial) interests of the members of the NETWORK. (target audience: Vietnamese programme coordinators and project leaders)

R7. A double degree PhD programme is important for both Flemish and Vietnamese academics (and universities). It would be good to **increase the number of double degree PhD students**. **Including more universities** in this double degree PhD programme would strengthen the network. (target audience: Belgian and Vietnamese programme coordinators and project leaders)

R8. The rotation principle of the international programmes is not clear to all partners of the NETWORK. **The rotation mechanism should be discussed before the start of the second phase in all its details** (from administrative, financial and organisational point of view). (target audience: Belgian and Vietnamese programme coordinators and project leaders)

R9. A database system of alumni should be developed in order to track the impact of the international master programme and to mobilise alumni ambassadors. The systems used by Flemish universities can serve as an example. At the beginning of the second phase synergy with alumni database of Ambabel should be explored (Belgian Embassy). (target audience: Belgian and Vietnamese programme coordinators and project leaders)

R10. The communication among all members of the NETWORK should be improved. Group emails, more frequent face-to-face meetings could be one way to stimulate exchange between partners. Planning should be discussed and communicated timely. E.g. the call for applications for the NETWORK MSc programme should be announced one year in advance. The admission letters should be sent to successful applicants eight months in advance. The host university must actively coordinate to arrange visa application for the applicants. Successful applicants should arrive at the host university two weeks in advance for good preparation and adaptation. Teaching commitments of lecturers of the NETWORK should be communicated at least four months ahead. (target audience: Vietnamese programme coordinators and project leaders)

R11. The question whether to broaden the NETWORK or to keep the same number of universities during the second phase of the programme should be solved before the start of the second phase. One of the

possibilities is to keep the same universities as the main members of the NETWORK and to invite individual lecturers from other universities to join the network as lecturers. At the moment, the network is not yet strong enough to survive without VLIR-UOS funding. Increasing the number of full members would create a broader but less coherent and more vulnerable network. Additional efforts should be made to conquer the physical distance between universities in North and South Vietnam. Efforts to increase the engagement of the management of VNUA would be another possibility. The most plausible option is t**o deepen the existing cooperation, commitment and trust among the existing members** and to *allow other universities to participate in the network as 'associates' or 'second circle network members*'. In a post VLIR-UOS phase when the existing network has proven to be sustainable, more universities can be added as full members to the network. (target audience: Vietnamese programme coordinators and project leaders)

R12. The synergy with Project 2 and Project 3 of the IUC HU is very limited. It should be considered whether more synergies are possible. **Bringing all stakeholders together (P2 and P3 of IUC and NETWORK partners)** in a meeting in the framework of the formulation process for the second phase would be advisable. (target audience: VLIR-UOS, Belgian and Vietnamese programme coordinators and project leaders)

R13. A **profound study** to indicate all possible reasons **why a limited number of Vietnamese students** enrolled in the international masters seems essential to develop a sustainable model of funding. (target audience: VLIR-UOS, Belgian and Vietnamese programme coordinators and project leaders)

R14. More attention should be paid to the development of the logical framework and the formulation of good and robust indicators. The **logical frameworks should reflect the Theory of Change (ToC)**. In particular, the specific objectives should reflect the outcome level of the programme. (target audience: VLIR-UOS, Belgian and Vietnamese programme coordinators and project leaders)

5 Annexes

5.1. Methodology (scoring)

General approach - Scoring

4-Excellent: the overall (Criterion) is of excellent quality. Additional measures are not needed.

3-Good: Minor room for improvement exists, however with minor effect on (Criterion); See recommendations No:

2-Low: Major room for improvement exists, with a potential of major effects on (Criterion) of the Programme/project. See recommendation No:

1-Poor: The (Criterion) is of poor quality and extra necessary measures are urgently need to realise the (Criterion). See recommendation No:

Excellent	Good	Low	Poor

Programme Level- Scoring

Criterion 1: Definition of Relevance:

The extent to which the objectives of a programme are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donors' policies." Retrospectively, the question of relevance often becomes a question of whether the objectives or intervention logic of an action are still appropriate given changed circumstances.

Sub-criterion 1.1.: The extent to which the programme is addressing immediate and significant problems and needs of the concerned partners (institutional) as well as regional and national policy makers, with reference to the MDGs, PRSP and other multilateral policy documents.

Sub-criterion 1.1. Responding to the needs

Scores	Definition Scores	Topic and item lists
4-Excellent	The programme is aligned with National and regional policies, university policy and with VLIR-UOS country strategy. The overall relevance is of excellent quality. Additional measures are not needed.	• Process of programme formulation • Demonstrated links with the policy documents. • In case of non-alignment, why? • Are partners (universities and governmental agencies) involved in Context Analysis? How? • What could be improved in the process of formulating programme objectives? • Are the chosen approaches, methodologies, partnerships and implementation modalities relevant? • Is the programme responsive to changes in the local priorities and development context?
3-Good	The programme is partly aligned with National, regional and university policies and with VLIR-UOS strategy. Minor room for improvement exists, however with minor effect on increasing the relevance of the programme. See recommendations No`s:	
2-Low	The programme is partly aligned with National, regional and university policies and with VLIR-UOS strategy. Major room for improvement exists, with potential major effects on the relevance of the Programme. See recommendation No`s:	
1-Poor	The programme is not aligned with National, regional and university policies and with VLIR-UOS strategy. The relevance of the programme is of poor quality and extra necessary measures are urgently needed. See recommendation No`s:	

Sub-criterion 1.2. Synergy and complementarity with other (Belgian) actors.

Sub-criterion 1.2. Synergy and Complementary		
Scores	Definition Scores	Topic and item lists
4-Excellent	Synergy and complementary (with other actors) have been identified and common activities are implemented. The overall synergy and complementary is of excellent quality. Additional measures are not needed.	• Are there any synergy and complementary issues with other programmes funded by VLIR-UOS and/or other donors in the country or in the region? Has possibilities for synergy explored? What has been done to create synergy? What activities have been organised with others? Are activities planned? • Is there any synergy and complementary issue within the programme (and between the different projects)? Has possibilities for synergy explored within the programme? What activities have been organised with other projects?
3-Good	Synergy and complementary (with other actors) have been identified and but common activities are not yet implemented. Minor room for improvement exists. See recommendations No`s:	
2-Low	Synergy and complementary (with other actors) have been partly identified and common activities	

	are not yet implemented. Major room for improvement exists. See recommendation No`s:	
1-Poor	Synergy and complementary are not identified and common activities are not implemented. The synergy and complementary of the programme is of poor quality and extra necessary measures are urgently needed. See recommendation No`s:	

Sub-criterion 1.3. Link with transversal themes of Belgian development cooperation: gender, environment and D4D (Digital for Development).

Transversal themes: can elements be found at the programme and project level. Recommendations for the next phase as the transversal themes were not a criterion during programme formulation. The main question is how these new priorities of the Minister can be integrated in the second phase

Sub-criterion 1.3. Transversal Themes		
Scores	Definition Scores	Topic and item lists
4-Excellent	Transversal themes (gender, environment and D4D) are identified and transversal theme activities and outputs are formulated. The overall approach on transversal themes is of excellent quality. Additional measures are not needed.	• Are women and men equally approached? • Is a gender policy in place? What measures and activities are implemented? • Is an environmental policy and strategy in place? What measures and activities are implemented? • Is there a D4D policy and strategy? What measures and activities are implemented? • Do specific projects contribute to better transversal theme approach at university level?
3-Good	Transversal themes (gender, environment and D4D) are identified and transversal theme activities and outputs are not formulated. Room for improvement exists. See recommendations No`s:	
2-Low	Transversal themes (gender, environment and D4D) are partly identified and transversal theme activities and outputs are not formulated. Major room for improvement exists. See recommendation No`s:	
1-Poor	Transversal themes (gender, environment and D4D) are not identified and transversal theme activities and outputs are not formulated. The transversal theme approach is of poor quality and extra necessary measures are urgently needed. See recommendation No`s:	

Sub-criterion 1.4.: Ownership. Demonstration of effective commitment of all partners in the programme.

Sub-criterion 1.4. Ownership		
Scores	Definition Scores	Topic and item lists
4-Excellent	All key stakeholders are still very committed to the programme The overall commitment is of excellent quality. Additional measures are not needed.	• Do all key stakeholders still demonstrate effective commitment? (taking up responsibilities, reporting, motivation, focus) • Why not? • What is the interest of the stakeholders of being part of the programme?
3-Good	All key stakeholders are still committed to the programme. Minor room for improvement exists, however with minor effect on increasing ownership of the programme. See recommendations No`s:	
2-Low	Some key stakeholders are losing commitment to the programme. Major room for improvement exists, with a major effect on increasing ownership of the programme. See recommendations No`s:	
1-Poor	A majority of key stakeholders are losing commitment to the programme. The ownership of the programme is of poor quality and extra necessary measures are urgently needed. See recommendation No`s:	

Criterion 2: Definition of Efficiency

"A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results."

Sub-criterion 2.1 Links between inputs and outputs. Demonstration of effective commitment of all partners in the programme.

Sub-criterion 2.1. Links between inputs and outputs		
Scores	Definition Scores	Topic and item lists
4-Excellent	The activities of the programme are implemented in cost-efficient manner. A similar cost-efficiency logic has been implemented for all projects. The overall cost-efficiency of the programme is of excellent quality. Additional measures are not needed.	• Do the resources correspondent to the needs of the action? • Have the outputs been produced/delivered in a cost-efficient manner? • Spending rates • Activities are chosen based on cost-considerations
3-Good	Most of the activities of the programme are implemented in cost-efficient manner. Minor room for improvement exists, however with minor effect on increasing cost-efficiency of the programme. See recommendations No`s:	
2-Low	Most of the activities of the programme are implemented in cost-efficient manner. Major room for improvement exists, with major effect on increasing cost-efficiency of the programme. See recommendations No`s:	
1-Poor	Most of the activities of the programme are not implemented in cost-efficient manner. The cost-efficiency of the programme is of poor quality and extra necessary measures are urgently needed. See recommendation No`s:	

Sub-criterion 2.2. Delays.

Sub-criterion 2.2. Delays		
Scores	Definition Scores	Topic and item lists
4-Excellent	The programme did not face any important delay in activities and in case of delay, revisions have been planned and implemented. Additional measures are not needed.	• To what extent are inputs available on time? • If there are delays, how important are they? • Have the reasons be identified? Have revisions

3-Good	The programme did not face any important delay in activities and in case of delay, revisions have been planned but not yet implemented. Minor room for improvement exists, however with minor effect on the timing of implementation. See recommendations No`s:	• Have revisions of planning been properly implemented?
2-Low	The programme did face important delays in activities and revisions have been planned but not yet implemented. Major room for improvement exists. See recommendations No`s:	
1-Poor	The programme did face important delays in activities and revisions have not been made. The implementation of activities is of poor quality and extra necessary measures are urgently needed. See recommendation No`s:	

Sub-Criterion 2.3. Programme Management: quality of programme management

Sub-criterion 2.3. Programme Management		
Scores	Definition Scores	Topic and item lists
4-Excellent	The overall programme management is of excellent quality. Additional measures are not needed.	• The management manual is well-developed and applied at programme and project level • Is the programme adequately monitored and/or assessed by local and Flemish partners? • Planning, monitoring and reporting system in place? Timely reporting? • Good cooperation and communication between programme and local university, between programme and projects, between projects
3-Good	The overall programme management is of good quality. Minor room for improvement exists, however with minor effect on increasing the quality of programme management. See recommendations No`s:	
2-Low	The overall programme management is of low quality. Major room for improvement exists, with a major effect on increasing the quality programme management. See recommendations No`s:	
1-Poor	The overall programme management is of poor quality and extra necessary measures are urgently needed. See recommendation No`s:	

Criterion 3: Definition of Effectiveness

"The extent to which the programme's objectives are expected to be achieved, taking into account their relative importance."

Sub-criterion 3.1. Specific Academic Objectives		
Scores	Definition Scores	Topic and item lists
4-Excellent	The specific objectives (and outputs) will be achieved in case of successful implementation during the second phase. The programme is on track in order to achieve the specific objectives. Additional measures are not needed.	• Has the expected progress in terms of outputs properly achieved? • Is the quality of the output satisfactory? • Are the outputs still likely to the expected outcomes? • Is there evidence that the action supports the implementation or development or change of partners' policy/actions? • Are there changes in awareness, knowledge, skills at institutional level? • Are there changes in organisational capacity (skills, structures, resources) • The indicators for the specific academic objective have been achieved.
3-Good	The specific objectives (and outputs) will be achieved in case of successful implementation during the second phase. The programme is on track in order to achieve the specific objectives. Minor room for improvement exists. See recommendations No`s:	
2-Low	The specific objectives (and outputs) will be partly achieved. Major room for improvement exists, with a major effect on increasing programme management. See recommendations No`s:	
1-Poor	The specific objectives (and outputs) won`t be achieved. Extra necessary measures are urgently needed. See recommendation No`s:	

Sub-criterion 3.2. Specific Development Objective		
Scores	Definition Scores	Topic and item lists
4-Excellent	The specific objectives (and outputs) will be achieved in case of successful implementation during the second phase. The programme is on track in order to achieve the specific objectives. Additional measures are not needed.	• Has the expected progress in terms of outputs properly achieved? • Is the quality of the outputs satisfactory? • Are the outputs still likely to the expected outcomes? • Is there evidence that the action supports the implementation or development or change of partners' policy/actions in order to create impact on society? • Are there changes in awareness, knowledge, skills at institutional level in order to create changes in society? • Are there changes in organisational capacity (skills, structures, resources) in order to serve society • The indicators for the specific development objective have been achieved.
3-Good	The specific objectives (and outputs) will be achieved in case of successful implementation during the second phase. The programme is on track in order to achieve the specific objectives. Minor room for improvement exists. See recommendations No`s:	
2-Low	The specific objectives (and outputs) will be partly achieved. Major room for improvement exists, with a major effect on increasing programme management. See recommendations No`s:	
1-Poor	The specific objectives (and outputs) won`t be achieved. Extra necessary measures are urgently needed. See recommendation No`s:	

Criterion 4: Definition Impact

"Potential positive and negative, primary and secondary long-term effects produced by the programme, directly or indirectly, intended or unintended."

Remark: in this mid-term evaluation, only indications (stories of impact) possible.

Sub-criterion 4.1. Academic Impact		
Scores	Definition Scores	Topic and item lists
4-Excellent	The academic performance of the university has been increased significantly since the start of the programme (as a result of the programme) and will further increase during phase 2 if implemented in the same manner. Additional measures are not needed.	• Added value of the programme for the academic performance of the university • Increased publication in international refereed journals • Increased academic capacity of staff members • Increased collaborative academic activities not funded by the programme
3-Good	The academic performance of the university has been increased significantly since the start of the programme (as a result of the programme) and will further increase during phase 2 if implemented in the same manner. Minor room for improvement exists. See recommendations No`s:	
2-Low	The academic performance of the university has been increased partly since the start of the programme (as a result of the programme). Major room for improvement exists, with a major effect on increasing academic performance of the university. See recommendations No`s:	
1-Poor	The academic performance of the university hasn`t been increased since the start of the programme (as a result of the programme). Extra necessary measures are urgently needed. See recommendation No`s:	

Sub-criterion 4.2. Institutional Impact		
Scores	Definition Scores	Topic and item lists
4-Excellent	Major Institutional reforms at university level are implemented as a result of the programme. Additional measures are not needed.	• Policy changes at institutional level? Changes in behaviour at institutional level? • The extent to which the collaboration has sparked other departments to initiate interuniversity collaboration, joint capacity building, fund raising etc.
3-Good	Major Institutional reforms at university level are planned as a result of the programme. Minor measures are needed. See recommendations No`s:	
2-Low	Major Institutional reforms at university level are planned as a result of the programme. Major measures are needed. See recommendations No`s:	

1-Poor	No institutional reforms are implemented or planned. Extra necessary measures are urgently needed. See recommendation No`s:	

Sub-criterion 4.3. Development Impact		
Scores	Definition Scores	Topic and item lists
4-Excellent	Policy development in society is based on programme experiences and results. Programme experiences and results are used for new initiatives. Additional measures are not needed to increase impact	• The extent to which the collaboration has raised interest of policy makers and academics, and how the partner university is called upon or is pro-actively developing collaboration models that could be fed into policy advice • The extent of the activities developed with local or regional stakeholders, contributing to the economic and social development • Added value of the programme for the role of the university as a development actor: the extent to which the collaboration has led to joint developmental activities or similar collaborative models at the regional and global level
3-Good	Programme experience and results are known in the broader society but have not yet caused new initiatives. Minor additional efforts are needed to increase impact. See recommendations No`s:	
2-Low	Programme experience and results are known in the broader society but have not yet caused new initiatives. Major additional efforts are needed to increase impact.	
1-Poor	Programme experience and results are known in the broader society. Extra necessary measures are urgently needed. See recommendation No`s:	

Criterion 5: Definition Sustainability

"Sustainability is the continuation of benefits from a development intervention after major development assistance has been completed, the probability of continued long-term benefits, and the resilience to risk of net benefit flows over time."

Sub-criterion 5.1. Academic Sustainability		
Scores	Definition Scores	Topic and item lists
4-Excellent	Academic sustainability is guaranteed or will be guaranteed in the second phase. Measures are identified and will be implemented at the second phase. Additional measures are not needed.	• The extent to which the collaboration has raised interest of policy makers and academics, and how the partner university is called upon or is pro-actively developing collaboration models that could be fed into policy advice • The extent of the activities developed with local or regional stakeholders, contributing to the economic and social development • Added value of the programme for the role of the university as a development actor: the extent to which the collaboration has led to joint developmental activities or similar collaborative models at the regional and international level
3-Good	Academic sustainability will be guaranteed in the second phase. Measures are partly identified and will be implemented at the second phase. Minor additional efforts are needed to increase sustainability. See recommendations No`s:	
2-Low	Measures for academic sustainability are in the process of identification. Major additional efforts are needed to increase sustainability. See recommendations No`s:	
1-Poor	Academic sustainability will not be guaranteed in the second phase. Extra necessary measures are urgently needed. See recommendation No`s:	

Sub-criterion 5.2. Institutional Sustainability		
Scores	Definition Scores	Topic and item lists
4-Excellent	Institutional sustainability is guaranteed or will be guaranteed in the second phase. Measures are identified and will be implemented at the second phase. Additional measures are not needed.	• Decision-making structures are in place to guarantee sustainability • Measure are taking to retain and upgrade human capital continuously • Maintenance of Infrastructure is guaranteed. • Strengths and weaknesses of the institution in terms of institutionalizing the collaboration • Intensification and/or formalization of interuniversity consultations (North-South and South-South)
3-Good	Institutional sustainability will be guaranteed in the second phase. Measures are partly identified and will be implemented in the second phase. Minor additional efforts are needed to increase sustainability. See recommendations No`s:	
2-Low	Measures for institutional sustainability are in the process of identification. Major additional efforts are needed to increase sustainability. See recommendations No`s:	
1-Poor	Institutional sustainability will not be guaranteed in the second phase. Extra necessary measures are urgently needed. See recommendation No`s:	

Sub-criterion 5.3. Financial Sustainability		
Scores	Definition Scores	Topic and item lists

4-Excellent	Financial sustainability is guaranteed or will be guaranteed in the second phase. Measures are identified and will be implemented at the second phase. Additional measures are not needed.	• financial viability
		• incorporation of costs into the budget of the partner university
		• other sources of finance:
		  ○ Ability to attract external funds
		  ○ co-funding by the partner university (matching funds)
		  ○ (financial) involvement of private actors
		  ○ system of scholarships

3-Good	Financial sustainability will be guaranteed in the second phase. Measures are partly identified and will be implemented at the second phase. Minor additional efforts are needed to increase sustainability. See recommendations No`s:	
2-Low	Measures for financial sustainability are in the process of identification. Major additional efforts are needed to increase sustainability. See recommendations No`s:	
1-Poor	Financial sustainability will not be guaranteed in the second phase. Extra necessary measures are urgently needed. See recommendation No`s:	

Project Level- Scoring

Criterion 1: Definition Scientific Quality:

"The extent to which a project has a ground-breaking nature and ambition (excellence)."

Sub-criterion P.1.1. Quality of Research		
Scores	Definition Scores	Topic and item lists
4-Excellent	The project has implemented innovative and outstanding research which have been published in international refereed journals. No additional measures are needed to increase innovative research results.	• the extent to which research is cutting edge; • Involvement of stakeholders in the South • Extent to which the results have been incorporated in local or international refereed journals
3-Good	The project has implemented innovative and outstanding research but the results are not yet published in international refereed journals. Activities are planned to publish research results or academic articles are submitted to international refereed journals.	
2-Low	The project has replicated existing research and results are not (yet) published in international refereed journals.	
1-Poor	The research component of the project failed. Extra necessary measures are urgently needed. See recommendation No`s:	

Sub-criterion P.1.2. Quality of Education		
Scores	Definition Scores	Topic and item lists
4-Excellent	The overall education objectives are of excellent quality. Additional measures are not needed.	• the extent to which new education practices are cutting edge; • Involvement of South Stakeholders • Extent to which alumni easily get a job which fits their education profile; • the number of fellowships acquired from foundations • Regional and international integration of education practices.
3-Good	The overall education objectives are of good quality. Room for improvement exists. See recommendations No`s:	
2-Low	The overall education objectives are of low quality. Major room for improvement exists, with potential major effects on the education quality of the Programme. See recommendation No`s:	

1-Poor	The overall education objectives are of poor quality. Extra necessary measures are urgently needed. See recommendation No`s:	

Criterion 2: Definition Relevance

"The extent to which the objectives of a project are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donors' policies."

Sub-criterion P. 2.1. Responding to the needs		
Scores	Definition Scores	Topic and item lists
4-Excellent	The project is aligned with National and regional policies, university policy and with VLIR-UOS country strategy. The overall relevance is of excellent quality. Additional measures are not needed.	• Process of project formulation • Demonstrated links with the policy documents. • In case of non-alignment, why? • Are partners (universities and governmental agencies) involved in Context Analysis? How? • What could be improved in the process of formulating project objectives? • Are the chosen approaches, methodologies, partnerships and implementation modalities relevant? • Is the project responsive to changes in the local priorities and development context?
3-Good	The project is partly aligned with National, regional and university policies and with VLIR-UOS strategy. Minor room for improvement exists, however with minor effect on increasing the relevance of the project. See recommendations No`s:	
2-Low	The project is partly aligned with National, regional and university policies and with VLIR-UOS strategy. Major room for improvement exists, with potential major effects on the relevance of the project. See recommendation No`s:	
1-Poor	The project is not aligned with national, regional and university policies and with VLIR-UOS strategy. The relevance of the project is of poor quality and extra necessary measures are urgently needed. See recommendation No`s:	

Sub-criterion P. 2.2. Synergy and Complementary		
Scores	Definition Scores	Topic and item lists
4-Excellent	Synergy and complementary (with other actors) have been identified and common activities are implemented. The overall synergy and complementary is of excellent quality. Additional measures are not needed.	• Are there any synergy and complementary issues with other projects and programmes funded by VLIR-UOS and/or other donors in the country or in the region? • Have possibilities for synergy explored? What has been done to create synergy? What activities have been organised with others? Are activities planned? • Is there any synergy and complementary issue within the programme (and between the different projects)?
3-Good	Synergy and complementary (with other actors) have been identified but common activities are not yet implemented. Minor room for improvement exists. See recommendations No`s:	

		• Have possibilities for synergy explored within programme? Have activities been organised together with other projects?
2-Low	Synergy and complementary (with other actors) have been partly identified and common activities are not yet implemented. Major room for improvement exists. See recommendation No`s:	
1-Poor	Synergy and complementary are not identified and common activities are not implemented. The synergy and complementary of the programme is of poor quality and extra necessary measures are urgently needed. See recommendation No`s:	
Sub-criterion P.2.3. Transversal Themes		
Scores	Definition Scores	Topic and item lists
4-Excellent	Transversal themes (gender, environment and D4D) are identified and transversal theme activities and outputs are formulated. The overall approach on transversal themes is of excellent quality. Additional measures are not needed.	• Are women and men equally approached? • Is a gender policy in place? What measures and activities are taken? • Is an environmental policy and strategy in place? What measures and activities are taken? • Is there a D4D policy and strategy? What measures and activities are taken?
3-Good	Transversal themes (gender, environment and D4D) are identified and transversal theme activities and outputs are not formulated. Room for improvement exists. See recommendations No`s:	
2-Low	Transversal themes (gender, environment and D4D) are partly identified and transversal theme activities and outputs are not formulated. Major room for improvement exists. See recommendation No`s:	
1-Poor	Transversal themes (gender, environment and D4D) are not identified and transversal theme activities and outputs are not formulated. The transversal theme approach is of poor quality and extra necessary measures are urgently needed. See recommendation No`s:	

Sub-criterion P.2.4. Ownership		
Scores	Definition Scores	Topic and item lists
4-Excellent	All key stakeholders are still very committed to the project. The overall commitment is of excellent quality. Additional measures are not needed.	• Do all key stakeholders still demonstrate effective commitment? (taking up responsibilities, reporting, motivation, focus) • Why not?

3-Good	All key stakeholders are still committed to the project. Minor room for improvement exists, however with minor effect on increasing ownership of the project. See recommendations No`s:	• What is the interest of the stakeholders of being part of the project?
2-Low	Some key stakeholders are losing commitment to the project. Major room for improvement exists, with a major effect on increasing ownership of the project. See recommendations No`s:	
1-Poor	A majority of key stakeholders are losing commitment to the project. The ownership of the project is of poor quality and extra necessary measures are urgently needed. See recommendation No`s:	

Criterion 3: Definition Efficiency.

"A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results."

Sub-criterion P.3.1. The intermediate results have been delivered		
Scores	Definition Scores	Topic and item lists
4-Excellent	All the intermediate results are delivered. Additional measures are not needed.	• Check values on the output-indicators • KRA`s • Are indicators SMART?
3-Good	The intermediate results are partly delivered. Minor room for improvement exists. See recommendations No`s:	
2-Low	The intermediate results are partly delivered. Major room for improvement exists. See recommendations No`s:	
1-Poor	The intermediate results are not delivered. Extra necessary measures are urgently needed. See recommendation No`s:	

Sub-criterion P.3.2. Relationship between Objectives, results and means.		
Scores	Definition Scores	Topic and item lists
4-Excellent	There is clear link between means, outputs and objectives. The input is carefully thought-out. The project did not face any important delay in activities and in case of delay, revisions have been planned and implemented. Additional measures are not needed.	• The means/inputs are justifiable and are carefully thought-out solution for the defined outputs. • Outputs (intermediate results) contribute to the project objectives. • To what extent are inputs available on time? • If there are delays, how important are they?
3-Good	There is clear link between means, outputs and objectives. The input is partly thought-out. The project did not	

	face any important delay in activities and in case of delay, revisions have been planned but not yet implemented. Minor room for improvement exists, however with minor effect on the implementation modalities. See recommendations No`s:	• Have the reasons be identified? Have revisions • Have revisions of planning been properly implemented?
2-Low	The link between means, outputs and objectives is blurred. Inputs are too expensive in relation to the outputs. The project did face important delays in activities. Revisions have been planned but not yet implemented. Major room for improvement exists. See recommendations No`s:	
1-Poor	The link between means, outputs and objectives is blurred. Inputs are far too expensive in relation to the outputs The project did face important delays in activities and revisions have not been made. The implementation of activities or the link between activities and output/objectives is of poor quality. Extra necessary measures are urgently needed. See recommendation No`s:	

Sub-criterion 3.3. Project Management		
Scores	Definition Scores	Topic and item lists
4-Excellent	The overall project management is of excellent quality. Additional measures are not needed.	• The management manual is well-developed and applied at project and project level • Is the project adequately monitored and/or assessed by local and Flemish partners? • Planning, monitoring and reporting system in place? Timely reporting? • Good cooperation and communication within the project
3-Good	The overall project management is of good quality. Minor room for improvement exists, however with minor effect on increasing the quality of project management. See recommendations No`s:	
2-Low	The overall project management is of low quality. Major room for improvement exists, with a major effect on increasing project management. See recommendations No`s:	
1-Poor	The overall project management is of poor quality and extra necessary measures are urgently needed. See recommendation No`s:	

Criterion 4: Definition of Effectiveness:

"The extent to which the project`s objectives are expected to be achieved, taking into account their relative importance."

Sub-criterion P.4.1. Specific Academic Objectives		
Scores	Definition Scores	Topic and item lists
4-Excellent	The specific objectives (and outputs) will be achieved in case of successful implementation during the second phase. The project is on track in order to achieve the specific objectives. Additional measures are not needed.	• Has the expected progress in terms of objectives properly achieved? • Is the quality of the outputs satisfactory? • Are the objectives still likely to the expected objectives? • Is there evidence that the action supports the implementation or development or change of partners' policy/actions? • Are there changes in awareness, knowledge, skills at institutional level? • Are there changes in organisational capacity (skills, structures, resources) • The indicators for the specific academic objective have been achieved.
3-Good	The specific objectives (and outputs) will be achieved in case of successful implementation during the second phase. The project is on track in order to achieve the specific objectives. Minor room for improvement exists. See recommendations No`s:	
2-Low	The specific objectives (and outputs) will be partly achieved. Major room for improvement exists, with a major effect on increasing programme management. See recommendations No`s:	
1-Poor	The specific objectives (and outputs) won`t be achieved. Extra necessary measures are urgently needed. See recommendation No`s:	

Sub-criterion P.4.2. Specific Development Objective		
Scores	Definition Scores	Topic and item lists
4-Excellent	The specific objectives (and outputs) will be achieved in case of successful implementation during the second phase. The project is on track in order to achieve the specific objectives. Additional measures are not needed.	• Has the expected progress in terms of outputs properly achieved? • Is the quality of the outputs satisfactory? • Are the objectives still likely to the expected objectives? • Is there evidence that the action supports the implementation or development or change of partners' policy/actions? • Are there changes in awareness, knowledge, skills at institutional level? • Are there changes in organisational capacity (skills, structures, resources) • The indicators for the specific development objective have been achieved.
3-Good	The specific objectives (and outputs) will be achieved in case of successful implementation during the second phase. The project is on track in order to achieve the specific objectives. Minor room for improvement exists. See recommendations No`s:	
2-Low	The specific objectives (and outputs) will be partly achieved. Major room for improvement exists, with a major effect on increasing project management. See recommendations No`s:	

1-Poor	The specific objectives (and outputs) won`t be achieved. Extra necessary measures are urgently needed. See recommendation No`s:	

Criterion 5: Definition of Impact

"Potential positive and negative, primary and secondary long-term effects produced by the programme, directly or indirectly, intended or unintended."

Remark: in this mid-term evaluation, only indications (stories of impact) possible

Sub-criterion P.5.1. Individual Impact		
Scores	Definition Scores	Topic and item lists
4-Excellent	A significant number of scholars/students/staff members has increased their knowledge and skills as result of the project. They use the newly required knowledge and skills. No Additional measures are not needed in the second	• Scholars/Students/staff members from the project are embedded in society and economic life and are contributing significantly. • Individual capacities of scholars/students are increased and they are using upgraded skills and knowledge in their jobs (even outside of the university). • •
3-Good	A significant number of scholars/students/staff members has increased their knowledge and skills as result of the project. They use the newly required knowledge and skills partly. Minor room for improvement exists in the second phase. See recommendations No`s:	
2-Low	A low number of scholars/students/staff members has increased their knowledge and skills as result of the project. They use the newly required knowledge and skills partly. Major room for improvement exists, with a major impact at individual level. See recommendations No`s:	
1-Poor	A low number of scholars/students/staff members has increased their knowledge and skills as result of the project. They don`t use the newly required knowledge and skills. Extra necessary measures are urgently needed. See recommendation No`s:	

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Sub-criterion P.5.2. Academic & Institutional Impact		
Scores	Definition Scores	Topic and item lists
4-Excellent	Major departmental/university reforms are implemented as a result of the project and academic performance increased as a result of the project Additional measures are not needed.	• Added value of the project for the academic performance of the university • PhD students and PhD holders (VLIR-UOS scholarships) are embedded in the department and are implementing research. • Increased number of publication in international refereed journals • Increased number of PhD and MSc-holders as a result of the project. • Policy changes at departmental/university level? Changes in behaviour at departmental/university level? • the extent to which the collaboration has sparked other departments
3-Good	Major departmental/university reforms are planned as a result of the project and academic performance increased as a result of the project. Minor measures are needed. See recommendations No`s:	
2-Low	Major departmental/university reforms at university level are planned as a result of the project and academic performance did not increase substantially. Major measures are needed. See recommendations No`s:	
1-Poor	No departmental/university reforms are implemented or planned and academic performance did not increase. Extra necessary measures are urgently needed. See recommendation No`s:	

Sub-criterion P.5.3. Development Impact (impact on society)		
Scores	Definition Scores	Topic and item lists
4-Excellent	Policy development in society is based on project experiences and results. Project experiences and results are used for new initiatives. Additional measures are not needed to increase impact	• The extent to which the collaboration has raised interest of policy makers and academics, and how the partner university is called upon or is pro-actively developing collaboration models that could be fed into policy advice • The extent of the activities developed with local or regional stakeholders, contributing to the economic and social development • Added value of the project for the role of the university as a development actor: the extent to which the collaboration has led to joint developmental activities or similar collaborative models at the regional level
3-Good	Project experiences and results are known in the broader society but have not yet caused new initiatives. Minor additional efforts are needed to increase impact. See recommendations No`s:	
2-Low	Project experiences and results are known in the broader society but have not yet caused new initiatives. Major additional efforts are needed to increase impact.	
1-Poor	Project experiences and results are known in the broader society. Extra necessary measures are urgently needed. See recommendation No`s:	

Criterion 6: Definition Sustainability.

"Sustainability is the continuation of benefits from a development intervention after major development assistance has been completed, the probability of continued long-term benefits, and the resilience to risk of net benefit flows over time."

Sub-criterion P.6.1. Academic & Institutional Sustainability		
Scores	Definition Scores	Topic and item lists
4-Excellent	Academic sustainability is guaranteed or will be guaranteed in the second phase. Measures are identified and will be implemented at the second phase. Additional measures are not needed.	• The extent to which the collaboration has raised interest of policy makers and academics, and how the partner university is called upon or is pro-actively developing collaboration models that could be fed into policy advice • The extent of the activities developed with local or regional stakeholders, contributing to the economic and social development • Added value of the project for the role of the university as a development actor: the extent to which the collaboration has led to joint developmental activities or similar collaborative models at the regional level • Are individual academics committed to continue to work within the department. • Joint projects • Strengths and weaknesses of the department in terms of institutionalizing the collaboration • Intensification and/or formalization of interuniversity consultations (North-South and South-South) • Measures are taking for staff retention of trained staff.
3-Good	Academic sustainability will be guaranteed in the second phase. Measures are partly identified and will be implemented at the second phase. Minor additional efforts are needed to increase sustainability. See recommendations No`s:	
2-Low	Measures for academic sustainability are in the process of identification. Major additional efforts are needed to increase sustainability. See recommendations No`s:	
1-Poor	Academic sustainability will not be guaranteed in the second phase. Extra necessary measures are urgently needed. See recommendation No`s:	

Sub-criterion P.6.2. Financial Sustainability		
Scores	Definition Scores	Topic and item lists
4-Excellent	Financial sustainability is guaranteed or will be guaranteed in the second phase. Measures are identified and will be implemented at the second phase. Additional measures are not needed.	• financial viability • incorporation of costs into the budget of the partner university • other sources of finance – • Ability to attract external funds • co-funding by the partner university (matching funds) • Joint new projects (non project-funding
3-Good	Financial sustainability will be guaranteed in the second phase. Measures are partly identified and will be implemented at the second phase. Minor additional efforts are needed to increase sustainability. See recommendations No`s:	
2-Low	Measures for financial sustainability are in the process of identification. Major additional efforts are needed to increase sustainability. See recommendations No`s:	
1-Poor	Financial sustainability will not be guaranteed in the second phase. Extra necessary measures are urgently needed. See recommendation No`s:	

5.2. Mission Programme & List of People consulted

Meetings with Flemish Stakeholders.

Tuesday, Dec. 19, 2017:

- Prof. dr. Ludwig Triest (P1)

Wednesday, Dec. 20, 2017:

- Prof. dr. Marc Hendrickx (P2)

Thursday, Dec. 21, 2017:

- Prof. dr. Peter Bossier (P1)
- Prof. dr. Martin Valcke

Friday, Dec. 22, 2017:

- Dr. Jean Dhont
- Elien Demeulemeester (UCOS)

Monday, Jan. 8, 2018:

- Prof. dr. Koen Dewettinck (programme coordinator)

Mission Programme – Vietnamese Stakeholders

	Morning	Afternoon
Saturday, Jan. 13, 2018	Arrival HCMC	
Sunday, Jan. 14	Meeting Evaluation team – preparation field mission	
Monday, Jan. 15	Meeting and interviews with the leader and staff of RIA2: - Dr. Nguyen Van Sang (member of LSC) - Dr. Nguyen Thi Ngoc Tinh (PSU network member)	Travel to Can Tho
Tuesday, Jan. 16	Meeting and interview with (1): - Prof. Ha Thanh Toan (Local coordinator) - Prof. Le Van Khoa (PM) - Mr. Thieu Quang Minh (officer, VLIR VN network office, PSU CTU member) - Ms. Phan Thi My Hoang (PSU CTU member)	Interviews with (2): - Dr. Khong Trung Thang (PSU network member) - Dr. Mai Thi Tuyet Nga (P2 project member)
Wednesday Jan.17	Interviews with: - Prof. Ly Nguyen Binh (Project leader)	Interviews with: - Dr. Tran Van Viet (P1 project member, CTU)

	- Prof. Nguyen Cong Ha (Project member)	and visit to the laboratories involved
Thursday Jan. 18	Interviews with: - Prof. Vu Ngoc Ut (Project leader) - Dr. Pham Quoc Hung (P1 project member, NTU)	Visits to labs
Friday Jan. 19	Focus Group with Summer school students - Mr. Tran Huu Le, Aquaculture Faculty, CTU. PhD student since 2014/scholarship from Vlir for double degree with UGent/Promotor. Training in VN in 2016 one week of summer schools in RIA2. - Ms. Nguyen Thi Kim Lien, Dept. of Applied Biology. PhD summer course in 2015, August in CTU. - Ms. Nguyen Tuyet Mai, MSc. from CTU=food technology, graduated in Dec. 2017 - Ms. Nguyen Thi Le Ngoc, Food technology. Msc graduate, summer school 2015 in VNUA.	Travel to HCMC
Saturday, Jan. 27 & Sunday, Jan 28	Report writing and evaluation team meeting	
Monday, Jan.29	Meeting – Belgian Embassy: - Ivo Hooghe	Vietnam National University of Agriculture (VNUA) meeting with: - Assoc. Prof. Tran Thi Dinh - Dr. Kim Van Van

5.3. List of documents consulted

Project proposals– all projects & programme

Annual plans 2013, 2014, 2015, 2016, 2017 – all projects

Annual reports 2013, 2014, 2015, 2016 – all projects

Self-assessment report of all projects and programme level North and South.

Nguyen Van Nhã, Vu Ngoc Tú (2015). Higher Education Reform in Vietnam: Current Situation, Challenges and Solutions. In: VNU Journal of Science, Vol.31, No.4: 85-97

N.V. Varghese and Michaela Martin (2014). Governance reforms in higher education: A study in institutional autonomy in Asian Countries. Paris: Unesco

World Bank Group (2016). Vietnam 2035. Towards prosperity, creativity, equity and democracy.

5.4. KRA - Projects

Below the KRA are presented as well as the achieved values. The evaluation team could not verify all of the achieved values. It has been reported that the values on the research indicators are not always directly linked or caused by the project. E.g. the articles in international peer reviewed journals are the total number of articles of all people who are (in)directly involved in the project. So these number are not the result of the project as such. On all the other research indicators, the same method of counting has been applied. On the Human Resource development, the high number of MSc and PhD students is the result of the PhD and MSc summer schools, organised at the beginning of the programme.

Project 1.

Key Result Areas	*Indicators (quantitative and full descriptive data)*	*Baseline value*	*Final total value (achieved)e*	*Comment on the evolution (if any)*
Research Related Indicators				
KRA 1: Research	Articles in international peer reviewed journals	8	43	From all staff of team members
	Articles in national peer reviewed journals	20	148	From all staff of team members
	Conference proceedings (full paper)	5	5	From all staff of team members
	Conference abstracts	20	37	From all staff of team members
	Conference contributions (posters, lectures)	10	15	From all staff of team members
Capacity Related Indicators				
KRA 2. Teaching	Courses/training programmes developed	2	9	Including summer courses for MSc and PhD students
	New or substantially updated curriculum	1	1	The International Master curriculum in aquaculture
	Learning packages developed (distance learning, CD-rom etc.)	10	10	
	Thesis exchange	25	12	Major difficulty encountered already explained in the narrative description
KRA 4: Management	New institutional procedures / policies	1	1	
	Research protocols	5	5	From staff exchange (IR5)
	Msc.	40	67	Including all MSc students joined the summer courses
	Phd.	10	97	Including all PhD students joined the summer courses
	Training in Belgium (technical, adm, …)	35	20	Due to increase duration from 3 weeks to 8 weeks, number of staff had to be reduced to balance the allocated budget
	English proficiency enhancement for staff	25	28	
	Video conferencing set (combination P1 & P2), 50% contribution to 5 sets of VC	5	2	Shared with P2 for 4 other partners only

	PhDs carried out in Flemish universities	2	1	1 PhD double degree with UGent

Project 2

Key Result Areas	*Indicators (quantitative and full descriptive data)*	*Baseline value*	*Initial target value*	*Final total value (achieved)*	*Comment on the evolution (if any)*
Research Related Indicators					
KRA 1: Research	Articles in international peer reviewed journals	0	10	65	From all staff of team members
	Articles in national peer reviewed journals	0	60	143	From all staff of team members
	Conference proceedings (full paper)	0	60	52	From all staff of team members
	Conference abstracts	0	50	67	From all staff of team members
	Conference contributions (posters, lectures)	0	60	67	From all staff of team members
Capacity Related Indicators					
KRA 2. Teaching	Courses/training programmes developed	0	1	21	Including summer courses for MSc and PhD students
	New or substantially updated curriculum	0	1	1	The international Master curriculum in Food Technology
	Excursion guides	0	5	0	
	Thesis exchange	0	35	41	PhD & MSc thesis exchanges
KRA 4: Management	New institutional procedures / policies	0	4	1	
	Research protocols	0	5	5	
	MSc.	0	28	94	Including all MSc students that joined the summer schools
	PhD.	0	7	110	Including all PhD students that joined the summer schools
	Training in Belgium (technical, adm, …)	0	48	28	Due to increase of duration from 3 weeks to 3 months, number of staff had to be reduced to balance the allocated budget
	English proficiency enhancement for staff	0	16	5	Staff face difficulties to arrange the schedule to join the English training
	Video conferencing set (combination P1 & P2), 50% contribution to 5 sets of VC	0	2.5	1.5	Shared with P1 for 3 other partners only (NTU, VNUA, RIA2)
	PhDs carried out in Flemish universities	0	3	3	
	Spin off projects	0	5	5	

Extension Related Indicators					
KRA 3: Extension and outreach	Leaflets, flyers or posters for extension	0	1000	1000	
	Workshop or training modules package	0	6	6	
	Consultancy	0	60	46	

ABOUT VLIR-UOS

VLIR-UOS supports partnerships between universities and university colleges in Flanders and the South that seek innovative responses to global and local challenges.

We fund cooperation projects between professors, researchers and teachers. In addition, we award scholarships to students and professionals in Flanders and the South. Lastly, we contribute to strengthening higher education in the South and internationalising higher education in Flanders.

VLIR-UOS is part of the Flemish Interuniversity Council and receives funding from the Belgian Development Cooperation.

More information: www.vliruos.be

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Management response to mid-term evaluation

VLIR-UOS VN Network Bioscience for Food phase II programme between Vietnamese and Flemish Universities - 2018

Programme level

General appreciation

The mid-term evaluation is carefully read and studied by all the network partners in the programme, it is an useful and important document, especially with 14 concrete recommendations to the NETWORK programme in Phase 2, which is used for PP-II proposal development to reach the target objectives of the programme. The evaluation report mentions numerous positive evolutions within the programme. On the other hands, it also shows the limited points and challenges of the NETWORK programme which need to be solved and overcome in the second phase.

Follow-up on recommendations

Recommendation 1:	**Increasing sustainability of the programme should be a major point of attention**
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	NA

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Co-granting the scholarships by the network partners in the programme. Each university partner contributes by providing scholarships in cash or in kind (tuition free, accommodation free and what the institution can do). Besides, to appeal the contribution from industry, alumni and to take a advantage of national and international organizations. Assuring the international standard quality of developed MSc programmes for attracting the candidates who can apply and study by their own budget.	Not started

Recommendation 2:	**A detailed cost calculation of MSc programmes should be made**
Management Response (Agree, partially agree, disagree)**:**	Partially agree

If recommendation is rejected or partially accepted, report reasons:	The mentioned cost already done, some parts is not in detail

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
It is modified and shown and included in the annex of PPII at the project level and in Manual Management	Underway

Recommendation 4:	**International accreditation of both MSc programmes should be done**
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	NA

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
It can be done in the end of phase II at the time MSc programmes are fully met with the international standards. The cost of this activity should be considered.	Not started

Recommendation 6:	**The development of joint research agenda and clear policy should be developed**
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	NA

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
This activity will be minutely controlled and managed during phase II implementation, especially the clear policy will be discussed and developed within the network partners in the prgramme	Underway

Recommendation 8:	**The rotation principle of MSc programmes is not clear, it should be discussed**
Management Response (Agree, partially agree, disagree)**:**	Partially agree
If recommendation is rejected or partially accepted, report reasons:	In phase I, rotation ideas of MSc programmes already discussed and agreed within the network partners

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
In phase II, as agreed at formulation mission and JSCM AP2018, MSc programme in aquaculture will be remained at CTU, due to the location of CTU and Mekong delta environment are very much fulfill to the curriculum of the course compared other institutions and regions in Vietnam, so the course can attract the candidates compared to other locations. MSc programme in food technology will be rotated to NTU then HU as agreed following the rotation principle of the network programme.	Completed

Recommendation 9:	**A database system of alumni should be developed**	
Management Response (Agree, partially agree, disagree)**:**	Agree	
If recommendation is rejected or partially accepted, report reasons:	NA	
Actions Planned /Actions taken + timeframe (action finalised)		**Implementation stage** (not started, underway, completed
It is really useful information for the programme implementation and also for sustainability of the programme. This database system will be established and put it up in the website of the network programme.		Not started
Recommendation 10:	**The communication among all members of the network should be improved**	
Management Response (Agree, partially agree, disagree)**:**	Agree	
If recommendation is rejected or partially accepted, report reasons:	NA	
Actions Planned /Actions taken + timeframe (action finalised)		**Implementation stage** (not started, underway, completed
Besides the scheduled VC meeting and face-to-face meeting, website of the network programme is improved and frequently updated. Group emails will be modified. Specially, the administrative procedures for staff upgrading will be develop to assure that the participants, lecturers and courses given will smoothly be done and met.		Underway
Recommendation 11:	**To broaden the network or to keep the same number of institutions during the second phase should be solved before the start of the second phase**	
Management Response (Agree, partially agree, disagree)**:**	Agree	
If recommendation is rejected or partially accepted, report reasons:	NA	
Actions Planned /Actions taken + timeframe (action finalised)		**Implementation stage** (not started, underway, completed
Savannakhet University in Lao PDR and Royal University of Agriculture in Cambodia are selected as “associate” members or “observers in phase II. The advantage of this cooperation beyond Vietnam border is mainly to dissemination the network programme, especially the two MSc programmes in order to receive/attract more MSc candidates and to develop the research cooperation/collaboration proposals for exploitation the regional and international research funds.		Underway

Project 1: Joint graduate training and research based education in Aquaculture

Follow-up on recommendations

Recommendation 1:	Increasing sustainability of the programme
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Fundraising will be conducted during phase two implementation. Targets could be industry, alumni, national and international organizations,… Contribution from each university partner by providing scholarships in cash or in kind (tuition free, accommodation free…)	Not started
Improving the image (quality) of the program in order to increase the reputation such that self funding from students can be realised.	

Recommendation 2:	Detailed cost calculation
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
All management costs should be estimated and shared among the partners, including teaching allowance, traveling and accommodation, student practices and excursion, administration,... The calculation exercise will be done at the beginning of the phase 2.	Underway

Recommendation 3:	Increase English proficiency of the lecturers
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed

English training (intensive course) will be implemented at the beginning of phase 2	Not started
Recruitment of staff who are qualified in English will be conducted during the implementation of phase 2	Not started
Staff upgrading in Belgium including following English course/class and regional conference attendance with oral presentation, during the implementation of phase 2	In progress

Recommendation 4:	International accreditation
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	
Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Preparation for AUN accreditation, probably at year 3 of phase 2	Not started

Recommendation 5:	Networking with stakeholders
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	
Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Establishing a strategy to approach stakeholders for networking	Not started
Stakeholders will be enterprises/companies, NGOs, students, alumni, local authorities and other universities, institutes in and out of Vietnam (Laos and Cambodia)	

Recommendation 6:	Development of joint research agenda and a clear policy
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	
Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Continuing the approach implemented in the first phase	Underway

Contribution of budget from each partner to develop network research line	Not started
Development of research proposal with neighboring countries (Cambodia, Laos) to apply for VLIR-OUS funding or other potential funds (World Bank, JICA, ADB, EU,…)	Not started

Recommendation 7:	PhD double degree program
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Development of PhD double degree program between UGent and CTU, NTU, HU (CTU has started already in the first phase)	Underway
PhD co-supervision among partners, especially with Flemish partners	Underway

Recommendation 8:	Rotation mechanism of the program
Management Response (Agree, partially agree, disagree)**:**	Partly agree
If recommendation is rejected or partially accepted, report reasons:	In the first phase all members of P1 agreed to locate the program at CTU as aquaculture in the Mekong Delta is more attractive to the MSc candidates. Moreover, other partners (e.g. NTU and HU) were not ready to take over the program. The program will be rotated as soon as NTU or other partners are ready.

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
To be discussed further if other members require a rotation	Not started

Recommendation 9:	A database system of alumni
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
A website will be established to archive database of alumni. The website was tentatively named www.aquavlirnetwork.com	Not yet started

Recommendation 10:	Communication among all members of the network should be improved
Management Response (Agree, partially agree, disagree)**:**	Partly agree
If recommendation is rejected or partially accepted, report reasons:	In the first phase P1 maintained strong communication among network partners through annual meetings, on occasion of MSc summer courses, PhD summer schools, LSCM and JSCM… and regular emailing. The only thing should be improved is teaching schedules of the MSc program should be informed at least 3-4 months in advance as proposed by the assessor.

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Maintaining the network communication system as before.	
Scheduling for the call of application longer enough (at present it is about 8 months), for process of selection and admission as requested.	Underway

Recommendation 11:	Deepening the existing cooperation, commitment and trust among the existing members
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Only iinvolving Royal University of Agriculture (RUA – Cambodia) as associate member in the network in phase 2.	Underway

Recommendation 12:	Bringing all stakeholders together (P2 and P3 of IUC and network partners)
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Meeting will be organized with P2 of IUC-HU to discuss on the networking through a stakeholder meeting at the beginning of phase 2.	Not started

Recommendation 13:	Limited number of Vietnamese students involved in the international master program

Management Response (Agree, partially agree, disagree)**:**	Partly agree
If recommendation is rejected or partially accepted, report reasons:	In the MSc program in Aquaculture (P1) there are Vietnamese students (2 in each cohort – even accounting for 40% of total student in the first batch!). As the number of scholarships is limited, the number of Vietnamese students selected is also limited.

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed

Recommendation 14:	Logical frameworks should reflect the Theory of Change.
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Formulation mission meeting organized	Completed

Project 2: Interuniversity research based education in Vietnam to guarantee the safety and quality of the food supply chain in the South

Follow-up on recommendations

Recommendation 1:	Increasing sustainability of the programme
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Contribution from each university partner by providing scholarships in cash or in kind (e.g. tuition free, accommodation free)	CTU and NTU are among the network partners who have already provided scholarships to the MSc programme since 2017

Fundraising will be conducted during phase two implementation. The targets would be industry, alumni, national and international organizations.	Underway
Sharping the visibility and quality of the programme in order to get reputation so that self funding from learners can be obtained	Underway

Recommendation 2:	Detailed cost calculation
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	
Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
All costs should be estimated and shared among partners for proper management including costs for teaching allowance, costs for traveling and accommodation, costs for student practices and excursion, administration costs. This calculation will be done at the beginning of the phase 2	Underway

Recommendation 3:	Increase English proficiency of the lecturers
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	
Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
English training (intensive course) will be implemented at the beginning of phase 2	Not started
Recruitment of staff who are qualified in English will be conducted during phase 2 implementation	Not started
Staff upgrading in Belgium including English training and regional conference attendance with oral presentation, during phase 2 implementation	Underway

Recommendation 4:	International accreditation
Management Response (Agree, partially agree, disagree)**:**	Agree

If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Preparation for AUN accreditation, probably at year 3 of phase 2	Not started

Recommendation 5:	Networking with stakeholders
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Establishing good strategy to approach stakeholders for networking (Stakeholders will be enterprises/companies, NGOs, students, alumni, local authorities and other universities, institutes in and out of Vietnam including Laos and Cambodia)	Not started

Recommendation 6:	Development of joint research agenda and a clear policy
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Continuing the approach implemented in the first phase	Underway
Contribution of budget from each partner to develop network level research lines	Not started
Development of research proposal with neighboring countries (Cambodia, Laos) to apply for VLIR-OUS funding or other potential funds (World Bank, JICA, ADB, …)	Not started

Recommendation 7:	PhD double degree programme
Management Response (Agree, partially agree, disagree)**:**	Agree

If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Development of PhD double degree programme between Flemish universities and local partners	Not started
PhD co-supervision among partners, especially with Flemish partners	Completed in phase 1, will continue in phase 2

Recommendation 8:	Rotation mechanism of the programme
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Rotation mechanism is running as already agreed (CTU > NTU > HU > VNUA), at the same time the other partners continue to implement the recruitment. This would be a good model to be applied for the other projects	Completed

Recommendation 9:	A database system of alumni
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
A common organisational platform for the interuniversity master programme and an alumni network will be established	Not started

Recommendation 10:	Communication among all members of the network should be improved
Management Response (Agree, partially agree, disagree)**:**	Partly agree
If recommendation is rejected or partially accepted, report reasons:	P2 in the first phase has had good communication among partners in the network through the annual meetings, on occasions of MSc summer courses,

	PhD summer schools, LSCM and JSCM… and regular e-mailing. The timing for MSc programme should be improved.

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Maintaining the network communication system	Underway

Recommendation 11:	Deepening the existing cooperation, commitment and trust among the existing members
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Involving Savannakhet University (Laos) as associate member in the network in phase 2	Underway

Recommendation 12:	Bringing all stakeholders together (P2 and P3 of IUC and network partners)
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
Meeting will be organized with P2 and P3 of IUC-HU to discuss on the networking through a stakeholder meeting at the beginning of phase 2	Not started

Recommendation 13:	Limited number of Vietnamese students involved in the international master programme
Management Response (Agree, partially agree, disagree)**:**	Agree
If recommendation is rejected or partially accepted, report reasons:	

Actions Planned /Actions taken + timeframe (action finalised)	**Implementation stage** (not started, underway, completed
A study for possible reasons will be made in phase 2	Not started

Recommendation 14:	Logical frameworks should reflect the Theory of Change	
Management Response (Agree, partially agree, disagree)**:**	Agree	
If recommendation is rejected or partially accepted, report reasons:		
Actions Planned /Actions taken + timeframe (action finalised)		**Implementation stage** (not started, underway, completed
Formulation mission meeting organized		Completed