



**Final evaluation of the Institutional University Cooperation programme with Universidad Central “Marta Abreu” de las Villas (UCLV), Cuba**

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# Abbreviations

AECID	Spanish Agency for International Cooperation and Development
AUIP	Ibero-American University Postgraduate Association
CAELTIC	Centre for Advanced English Language Training for International Cooperation
CBQ	Chemical Bioactive Centre
CeBeCE	Capacity Building for Communication in English for Academic Purposes in International Collaboration at UCLV
CEI	Centre for Informatics Studies
CEETA	Centre of Energy and Environmental Technologies
CEETI	Centre of Electronics and Information Technology
CEJB	Study Centre of the Botanical Garden
CEQA	Centre for Applied Chemistry
CETA	Centre for Thermal Energy Studies
CIAP	Agricultural Research Centre
CIDA	Canadian International Development Agency
CIH	Centro Internacional de la Habana
CITMA	Ministry of Science, Technology and Environment
COSUDE	<u>Swiss Agency for Development and Cooperation</u>
CYTED	Ibero-American Programme for Science, Technology and Development
DICT	Directorate for Information and Communication Technologies
FAAS	Faculty of Agricultural and Animal Sciences
FIM	Faculty of Mechanical Engineering
FQF	Faculty of Chemistry and Pharmacy
HE	Higher education
IBP	Plant Biotechnology Institute
ICOS	Institutional Coordinator for University Development Cooperation
ICT	Information and Communication Technology
IUC	Institutional University Cooperation
JAN	National Accreditation Board
JSCM	Joint Steering Committee Meeting
KRA	Key result area
KUL	Katholieke Universiteit Leuven
M&E	Monitoring and evaluation
MES	Ministry of Higher Education
OI	VLIR-UOS Own Initiative
PERI	Programme for the Enhancement of Research Information
SEPAD	Sistema de Enseñanza Personalizada a Distancia
TOR	Terms of reference
UCLV	Universidad Central 'Marta Abreu' de Las Villas
UA	Universiteit Antwerpen
UG	Universiteit Gent
VLE	Virtual Learning Environment
VLIR-UOS	Flemish Inter University Council – University Development Cooperation
VUB	Vrije Universiteit Brussel

## Disclaimer

This report represents the views of the members of the commission that evaluated the IUC Programme with UCLV; it does not necessarily reflect the opinions of VLIR-UOS. The evaluation commission bears sole responsibility for the report in terms of its content, as well as its structure.

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## Foreword by the Team Leader

The VLIR-UOS programme for Institutional University Cooperation (IUC) is an interuniversity cooperation programme of Flemish universities, which started in 1997. Based on a system of programme funding provided by the Belgian government, the IUC programme is directed at a limited number of partner universities in the South. The IUC programme focuses on the institutional needs and priorities of the partner universities in the South and is, in principle, demand oriented, seeking to promote local ownership through the full involvement of the partner both in the design and in the implementation of the programme.

This report contains the findings, conclusions and recommendations of the final evaluation of the IUC programme at the Universidad Central “Marta Abreu” de Las Villas (UCLV) in Cuba, which began in 2003. The evaluation commission consisted of Julie Carpenter, Director and Principal Consultant at Education for Change Ltd., as the International Expert, and Carlos Alberto Vigil Taquechel, Consultant on International Cooperation, Higher Education and Project Management, as the Country Expert. The report represents the views of this evaluation commission and does not necessarily reflect the opinions of VLIR-UOS.

Through previous and recent work with VLIR-UOS the evaluation commission was already generally familiar with the Cuban higher education context and the role of UCLV and the IUC programme in that context. The commission was briefed and updated by the VLIR-UOS and held meetings and discussions with the Flemish IUC project leaders prior to the field mission. All relevant documentation on the IUC programme was also provided by VLIR-UOS and reviewed in detail.

In the view of the evaluation commission, the IUC programme at UCLV can be considered as one of the most successful of the VLIR-UOS IUC programmes worldwide. In part the Cuban higher education and research context has greatly facilitated this success, though there have been other constraints and challenges faced and overcome by the partners arising from Cuba’s difficult economic circumstances. More especially, however, the IUC programme has contributed enormously to a changed working culture in UCLV, in research and teaching, collaboration across the university and greater internationalisation of its programmes. The credit for this must be attributed in large part to the dynamic and dedicated project team leaders and team members in Flanders and in UCLV, and to programme management staff and programme coordinators in UCLV and Vrije Universiteit Brussel.

The evaluators would like to express their appreciation to all of the individuals we met during the course of the evaluation, and to thank them for their active and open collaboration in this final evaluation. We thank the Rector of UCLV, Dr Andrés Castro Alegria, for his interest in the evaluation and the hospitality extended to us during the field mission. We are also grateful for the collaboration of the Ministry of Higher Education (MES), in particular the First Deputy Minister (former Rector of the UCLV), Dr. José Ramón Saborido.

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# Executive Summary

## Introduction

The VLIR-UOS programme for Institutional University Cooperation (IUC) arose from the Specific Agreement signed by the Belgian State Secretary for Development Cooperation and the VLIR-UOS on 16 May 1997. The IUC programme is an inter-university cooperation programme of Flemish universities, focused on the institutional needs and priorities of partner universities in the South. The IUC programme is, in principle, demand oriented, and seeks to promote local ownership through the full involvement of the partner both in the design and in the implementation of the programme. The programme relates to only a few carefully selected partner universities in the South, hoping that synergy, added value and greater institutional impact can be achieved through the different IUC projects located in the same partner university.

The IUC programme at the Universidad Central 'Marta Abreu' de Las Villas (UCLV) in Cuba began in 2003. A mid-term evaluation was undertaken in 2006/07. This final evaluation is intended to generate conclusions that will allow:

- VLIR-UOS to measure the actual results of the IUC programme;
- the formulation of recommendations for on-going and future IUC programmes;
- the identification of strengths and weaknesses of the specific IUC collaboration in particular;
- VLIR-UOS to identify departments and/or research groups that can present proposals for the post IUC programme tools;
- the formulation of recommendations to all stakeholders in terms of the follow up plan;
- the identification of possible themes and partnerships for the VLIR-UOS Network Cuba project.

The methodology for final evaluations of VLIR-UOS IUC programmes has been developed over a number of years to allow consistency of approach and comparability of findings across different partnership programmes. The current methodology relies upon:

- self-assessment by IUC project leaders and Programme Coordinators both North and South;
- external review by an evaluation commission comprising an international cooperation expert and a country expert, familiar with higher education and development cooperation and country-specific issues.

The evaluation began with an extensive review of available programme and background documentation from Phase II of the IUC programme. The self-assessment reports were completed by the end of May 2013. The International Expert had meetings in VLIR-UOS headquarters in Brussels and discussions with the Northern Project leaders. The evaluation commission visited UCLV and Havana for a five-day field mission in Cuba 15<sup>th</sup>-22<sup>nd</sup> June 2013. A draft evaluation report was submitted for comment in July 2013.

UCLV is located northeast of the city of Santa Clara and is one of the most important universities in Cuba and the main HE institution in the central region of the country. At present, UCLV has 13 faculties and a workforce of more than 1200 professors and researchers. While most universities in Cuba have a rather provincial or regional character, UCLV, because of the number and diversity of the



courses offered by its faculties, is considered a national university and it attracts students from all over Cuba and from several developing countries.

## **Evaluation findings**

### **Overall implementation of the programme**

The IUC programme implemented broadly as planned in the initial pre-partnership programme stages. The two clusters of projects – service and institutional capacity development projects 1 – 4 and the academic and joint research projects 5 – 8 – developed increasing synergies and interdependencies, which overall have had the effect of increasing the impact of the IUC programme on the whole university. The collaborative culture and practice of UCLV and Cuban HE more generally, and the continual encouragement and support of the Flemish project promoters and teams combined to ensure that these synergies were exploited to maximum effect.

In Phase II the academic and joint research projects focused on the development of staff through Masters and PhDs, the establishment of new PhD programmes in UCLV, joint research and international networking, resulting in an increased number of scientific publications in peer-reviewed international journals.

In terms of human resource management there was some concern among the Flemish project leaders that young scholars returning to UCLV faculties on completion of their PhD studies may have been placed in administrative and management posts rather than research and teaching posts, making it difficult for them to keep up with their research activities.

As the ICT infrastructure became more established and widespread throughout UCLV, building on the achievements of Phase I, staff and student expectations of the services rose accordingly, particularly improved internet access, as the importance of effective and efficient bandwidth and ICT facilities management became ever more apparent.

The Programme Support Unit and Projects 1 and 3, in particular, used opportunities to include VLIR-UOS funded Close the Gap projects as an addition to the programme, to support computer provision in the university and in various extension centres in the community, which widened the overall impact of the IUC programme.

Several projects in the partner programme have also been effective in leveraging additional funding, expertise and staff training opportunities through development of and engagement in other projects, funded by VLIR-UOS and others.

### **Qualitative evaluation of the programme**

Overall the efficiency of the IUC programme and its project activities was good. Key indicators of efficiency included: very effective collaboration between the Vrije Universiteit Brussel (VUB) and UCLV programme coordination and administration units; efficiency in procurement of equipment and materials and of services; and continued synergy between projects in the programme, which resulted in shared project inputs, cooperation in research, capacity building, extension and outreach.

The impact of the programme has been felt not only in the faculties and departments directly benefiting from projects, but also in other faculties and departments through the inclusion in the IUC programme of the cluster of 'service' or organisational capacity development projects (Projects 1, 2, 3

and 4), which have transformed the institutional approach to the use of ICT for management, administration, academic and research purposes and had considerable influence on the wider HE network in Cuba.

Academic and research projects (Projects 5-8) have also consistently widened participation in project activities through increasing collaboration with other faculties and departments in Phase II. All projects have involved staff and sometimes students from other faculties, as well as external stakeholders, in training and workshops by Flemish project staff when appropriate.

The academic and research projects all share three striking features:

- The projects have resulted in real 'changed minds'; UCLV staff attitudes and personal confidence in research and working methods, as well as skills and capacity to do high quality research with international partners, have been transformed.
- The international contacts opened up through the projects were not just with Belgium; Flemish partners in all projects have been assiduous in opening up doors to other international contacts and research collaboration for their Cuban counterparts and scholars.
- These changes have translated into concrete results, including many high quality published papers in high impact journals, courses and curricula accredited nationally and internationally as excellent, national awards and raised status for UCLV.

The IUC programme prioritised plant and animal and pharmaceutical sciences, biotechnology and computer sciences in line with the national development priorities of Cuba and has remained relevant to Cuba's HE and research development strategies throughout the programme's duration. The underpinning emphasis on developing ICT infrastructure and the capacity to use ICT in teaching, learning and research has also been, and remains, a key goal of the Ministry of Higher Education (MES).

In terms of human resources, the academic and research gains of the IUC programme for UCLV are evidently sustainable since there is little staff mobility. Improved quality and relevance in courses, curricula and research programmes will be sustained, and are already resulting in increased student applications from around Cuba and the Latin American region.

In terms of research, ICT and other facilities and equipment to support and underpin quality teaching and research, sustainability of the IUC programme achievements is less assured, as this is dependent on UCLV's future financial resources and on external support through a sustained programme of international cooperation projects.

The IUC programme has enabled significant progress in the internationalisation of academic and research activities in UCLV, and personal and organisational contacts and networks with academics, scientists and professionals have been greatly expanded in the faculties and departments involved in IUC programme projects.

## **Programme management**

The management of the IUC programme at UCLV has been good. At project level there has been good and regular communication between project leaders in almost all cases. Occasional changes of personnel do not appear to have disrupted the process of project implementation. Regular Joint Steering Committee Meetings at various levels of the programme have been held, either in Cuba or Belgium, and rigorous planning and monitoring of the activities and financial commitments and ex-



penditure have been evident. The programme budget will be fully spent and the accounts completed by September 2013.

Reporting has been done regularly as required between VUB and UCLV, with a detailed annual report submitted to VLIR-UOS. The Cuban Programme Coordinator commented that lack of feedback on the annual reports contributed to an overall feeling on both sides that the reporting process was only an exercise in bureaucracy and not something of value to the project teams.

The quality and completeness of the annual reports for Phase II and of the final self-assessment reports submitted by the projects were very variable, and on the whole lacking in reflective or substantive comment that might offer a less formulaic indication of progress.

Cooperation and coordination between the Flemish (VUB and other Flemish universities) and UCLV partners (at directorate, faculty and department levels) appears to have been exemplary.

## Conclusions and recommendations

The IUC programme overall has had a very significant and unprecedented impact on the whole of UCLV. In terms of academic programmes and research it has contributed greatly to the now very high ranking of UCLV within the MES HE network. It has also changed the working culture in several key faculties and departments, in terms of research and teaching methodologies, and in willingness to collaborate between faculties and departments across the university.

The challenge for UCLV will be to sustain these academic and research gains in times of continuing austerity in Cuba. There are two critical areas in which UCLV can act to address this challenge: internationalisation and people management.

UCLV has defined a strategy in which the international dimension is a key component and there is now a significant level of project development and management experience within the university, to which the IUC programme has contributed significantly. However, the awareness and consideration of internationalisation is still limited in several key areas of management.

The International Relations Office is well-placed within the university structure but its resources are inadequate to the task of capitalising fully on the gains of the VLIR-UOS IUC programme. The budget of the Office is clearly insufficient to cover its broad mission and objectives.

**We recommend that UCLV management consider strengthening the staffing of the International Relations Office and the staff's own project development and management skills.**

**We also recommend that the Office works specifically with the returned IUC PhD scholars to identify ways to support them in better exploiting newly established international contacts.**

English language skills are absolutely critical to the greater internationalisation of UCLV. While the IUC programme has established the foundation for effective English language communication and writing among academics and other staff, the overall motivation to learn and level of English language use remains fairly low.

**We recommend that UCLV develop a longer term vision of how English language can be used to create new opportunities.**

Where returned young scholars are placed within UCLV faculties and departments will determine to a significant extent whether these units thus strengthened by the IUC programme can keep up their

research momentum. If the returned PhD and post-doctoral trainees from the IUC programme are put into posts with heavy management duties, they will be unable to build on the experience and networks developed under the IUC programme.

**We cannot influence UCLV's human resource management procedures except to recommend that this sustainability issue is kept in mind when considering academic and research post-ings.**

### **The organisational capacity development or service projects**

Projects 1, 2 and 3 were proposed by UCLV during the pre-partnership programme as one large integrated project, but this approach could not be easily managed from the Flemish university partners' side. It was therefore split into three separate projects and this, in hindsight, was unfortunate. The new Network Cuba project acknowledges the potential for integration and offers an opportunity to maximise the gains from each of these three separate IUC projects.

**We recommend that UCLV and VLIR-UOS consider building in opportunities for the Cuban team to visit several universities in Europe (outside of Belgium) where integrated ICT, information and learning technology services are well established, to identify possible strategic directions for UCLV and other Cuban universities, particularly in relation to service provision.**

The integrated approach will be extremely important for sustaining and building on the achievements of Projects 1, 2 and 3. Good and effective IT support services have been put in place in faculties by the DICT, but the capacity among UCLV academic staff to make best use of the (limited) ICT and internet access for research and teaching is not there yet. More specialist information support and help will be needed to develop ICT and education skills and approaches to accompany the existing IT support to faculties.

**We recommend that the university embraces ICT-based solutions and strategies in research, teaching, learning, library and information services as the way of the future, and seriously commits to supporting their development in integrated services to the greatest extent possible.**

With hindsight, a greater emphasis on human resources development in Project 3 might have been better value for money than the focus on facilities and automated cataloguing database development. This should certainly be the way forward, focusing on building digital and not print collections in the library services.

**We recommend that UCLV should continue to work with the INASP Strengthening Research and Knowledge Systems (SRKS) programme to obtain negotiated low cost or free access to key international online databases and e-publications.**

**We also recommend that, to ensure sustainability and (possibly) eventual interoperability, the library's ICT-based services (databases, and other online services) currently managed using the library's own servers should be migrated to the central UCLV DICT managed servers.**

UCLV needs to recognise the importance of English language skills and make English language learning mandatory for all academic and research staff, if the university is to achieve its strategic goals for internationalisation.

**We recommend that the university should support the Department of English Studies by prioritising ways to further strengthen the skills and knowledge of the CAELTIC staff.**

**We also recommend that CAELTIC staff find more proactive and innovative ways of promoting the maintenance and improvement of English language skills among academic staff.**

### **The academic and research projects**

The academic and research projects in the IUC programme all need to build rapidly on the gains of the successes and progress achieved under the programme.

**We recommend that the faculties responsible should variously pay particular attention to:**

- Improving, in collaboration with the International Relations Office, the skills of their staff in project development and management in order to exploit international project opportunities.
- Developing their plans, in collaboration with CAELTIC, to improve and build on staff capacity to work and communicate in English.
- Developing strategic plans for the short to medium term (up to three years) to identify and participate actively in international projects and networks of great impact such as the Programme Horizon 2020 for Science, Technology and Innovation of the European Union and Programme Erasmus + for academic cooperation.
- A focus, in the national context, on plans to reinforce cooperation links with relevant industries and to increase and consolidate institutional links with other research centres in key sciences in Cuba.

### **Overall recommendations to VLIR-UOS**

We recommend that, in all future IUC programmes, ICT-related activities or proposals for projects should be addressed using integrated approaches as described in the report.

We recommend that VLIR-UOS urgently review and simplify the reporting formats for IUC programmes and projects, to make them more meaningful, less formulaic, and more useful as a self-evaluation tool for North and South partners.

# Introduction

## The VLIR-UOS Institutional University Cooperation programme

The VLIR-UOS programme for Institutional University Cooperation (IUC) arose from the Specific Agreement signed by the Belgian State Secretary for Development Cooperation and the VLIR-UOS on 16 May 1997. This agreement foresaw a system of programme funding whereby the Belgian government would provide funding each year for the implementation of an annual programme submitted by the VLIR-UOS. Once the government approves the VLIR-UOS annual programme, it is the responsibility of the VLIR-UOS to implement it.

The IUC programme is an inter university cooperation programme of Flemish universities, focused on the institutional needs and priorities of partner universities in the South. The IUC programme is in principle demand oriented, and seeks to promote local ownership through the full involvement of the partner both in the design and in the implementation of the programme. The programme relates to only a few carefully selected partner universities in the South, hoping that synergy, added value and greater institutional impact can be achieved through the different IUC projects located in the same partner university.

Support is directed towards the institutional development of the partner university, the improvement of the quality of local undergraduate and postgraduate education, and the encouragement of South-South academic and research linkages. Each partnership consists of a coherent set of interventions geared towards the development of the teaching and research capacity of the university, as well as its institutional management.

The VLIR-UOS IUC programme aims at the provision of substantial support geared towards:

- the institutional development of the partner university
- the improvement of the quality of local education and research
- the development of local postgraduate education in the South
- the encouragement of South-South linkages

Each partnership is broad in orientation, and includes the following:

- Different components (projects) make up the partnership.
- All projects are aimed at achieving maximum institutional impact.
- The activities organised in the context of the partnership can involve all constituent parts of the university.
- Apart from direct support for the improvement of education and research, the partnership can also contain projects that are aimed at improving the organisation, the administration and the management of the university as a whole.
- The identification of the fields of cooperation within the partner programme is in principle based on the partner university's demands; these demands obviously can only be met in so far as the required expertise can be provided by the Flemish universities (demand driven approach).
- Each partner programme consists of a coherent set of interventions geared towards the development of the teaching and research capacity of the partner university, as well as its institutional management.

The IUC management system is based on the following division of tasks:

- VLIR-UOS is responsible for the programming – including the selection of partner universities – monitoring and evaluation of the overall programme. VLIR-UOS is accountable to the Belgian government.
- The implementation of a partner programme is delegated to a Flemish university that functions as the coordinating university in Flanders. The Flemish university of the VLIR appointed as Flemish coordinator functions as the coordinating university in Flanders. Administratively, the university of the Flemish coordinator is responsible for the day-to-day management of the programme implementation based on an agreement signed by the Flemish coordinating university and the VLIR.
- The university of the Flemish coordinator and the South partner university have the responsibility of jointly managing the implementation of the partner programme and the constituent activity programmes based on an agreement signed by the Flemish coordinating university, the South partner university and the VLIR.
- The South partner university also has to nominate a local coordinator who functions as the key responsible person from the local side.
- In the South partner university, a full-time professional manager (an academic) is appointed to support the local coordinator and has overall programme management responsibilities associated with the implementation of a complex programme.
- In both Flanders and the South a steering committee is established to coordinate the implementation of a partner programme. On an annual or bi-annual basis, both committees hold a Joint Steering Committee Meeting (JSCM).

Cooperation in an IUC partnership programme is funded 100% for seven years. In year eight the budget is reduced to 85%, in year nine to 75% and in year ten to 50% of the original annual budget.

After a period of ten years the partner university can access a number of ex-post funds on a competitive basis and participate in transversal activities organised at the overall IUC programme level.

## **The UCLV IUC partner programme**

### **Pre-partnership programme**

The first phase of the UCLV IUC partner programme started in 2003 after the completion of a pre-partnership programme which lasted seven months (January to July 2003) and consisted of four activities:

1. Establishment of the local IUC office at UCLV
2. Creation of a language laboratory
3. Provision of a Belgian expatriate to facilitate the start-up of the programme
4. Set-up of the UCLV IUC programme management system

The implementation of the pre-partnership programme was a great opportunity for UCLV and its Flemish counterparts to get to know each other. It allowed them to become familiar with the VLIR-UOS financial guidelines and offered them the possibility to elaborate control and management systems for the implementation of the complete programme.

## The projects

It also allowed the partners to develop and formulate the detailed projects. Phase I of the IUC programme started with eight projects plus a Programme Support Unit (the UCLV IUC Office).

- Project 1: Information and communication technology (ICT) infrastructure and e-administration
- Project 2: ICT in education
- Project 3: Library development (renamed Information culture development in Phase II)
- Project 4: Institutional policy and management capacity development: in April 2005, Project 4 was split and a separate project was created for the teaching of academic English
- Project 4a: Capacity building for communication in English for academic purposes in international collaboration (CeBeCE): in Phase II CeBeCE was taken forward as Project 4, work on other institutional capacity development having been completed
- Project 5: Improving the quality of programmes in plant and animal sciences
- Project 6: Strengthening graduate and postgraduate education in pharmaceutical sciences
- Project 7: Strengthening graduate and postgraduate education in environmental education and clean technologies
- Project 8: Strengthening research and postgraduate education in computer sciences

Table 1 shows the total budget for the IUC programme.

**Table 1: IUC programme at UCLV: budgets for Phases I and II**

Projects	Budget Phase I (€)	Budget Phase II (€)	Total (€)
P1 ICT-Infrastructure and e-administration	328,450	258,718	587,168
P2 ICT in education	98,700	199,260	297,960
P3 Library/Information culture development	162,000	79,605	241,605
P4 Institutional policy and language/CeBeCE (in Phase II)	83,250	99,507	182,757
P5 Plant and animal sciences	823,400	597,122	1,420,522
P6 Pharmaceutical sciences	392,900	274,241	667,141
P7 Environmental education and clean technologies	551,500	656,598	1,208,098
P8 Computer science	384,000	412,855	796,855
Programme support unit	655,800	476,591	1,132,391
<b>Total</b>	<b>3,480,000</b>	<b>3,054,500</b>	<b>6,534,500</b>

## Synergies between projects

As the mid-term evaluation noted, there were strong, built-in synergies between the projects in the IUC programme. Projects 1, 2, 3 and 4 formed an inter-related group of service or institutional capacity development projects, providing support for the whole university in key areas related to ICT and the development of English language competence.



Projects 5,6,7 and 8 were academic and research projects, to a significant extent reliant on the results of Projects 1, 2, 3 and 4 since they made use of an improved university ICT network and better access to the internet, tools and software for the development of education activities on campus and a library with better bibliographic resources.

There was also strong correlation and synergy between Project 5, 6 and 7 since the common interests of each were based on biological and chemical topics. Computer simulation models developed in Project 8 were also used by the three other projects in the design of their experiments and the expected results. There was synergy between the specific topics in focus in the projects: for example, environmental education (Project 7) and integrated pest management (Project 5) were very closely linked. Ethnobotanical studies and identification of plants with an allelopathic effects, are part of the integrated pest management foreseen in Project 5; this research activity contributed to the identification of plants useful in human medicine (Project 6), and all plants considered of interest were reproduced by the botanical garden (Project 7) and used for extension activities.

Decisions on the purchase of large (and expensive) laboratory equipment were coordinated to avoid duplication. Chemical reagents were also bought jointly to achieve economies of scale.

## **The terms of reference (TOR) of the evaluation**

The final evaluation is meant to generate conclusions that will allow:

1. VLIR-UOS to measure the actual results of the IUC programme;
2. The formulation of recommendations for on-going and future IUC programmes in terms of the content and management of the programme, including the overall policy framework;
3. The identification of strengths and weaknesses of the specific IUC collaboration in particular;
4. VLIR-UOS to identify departments and/or research groups that have received substantial support from the IUC programme in Phase II and thus can present proposals for the post IUC programme tools;
5. The formulation of recommendations to all stakeholders in terms of the follow up plan that has been elaborated by the Northern and Southern project leaders;
6. The identification of possible themes and partnerships for the VLIR-UOS Network Cuba project, and also other venues for the future of the involved projects in view of establishing sustainability.

The full TOR are annexed to this report as Annex 1.

## **The evaluation methodology applied**

The methodology for final evaluations of VLIR-UOS IUC programmes has been developed over a number of years to allow consistency of approach and comparability (to an extent) of findings across different partnership programmes. The current methodology relies upon:

- self-assessment by IUC project leaders and Programme Coordinators both North and South
- external review by an evaluation commission comprising an international cooperation and a country expert, familiar with higher education (HE) and development cooperation and country-specific issues

The logical frameworks for the IUC at UCLV and for individual projects (and their revisions, in some cases) were used as the primary reference documents in reviewing progress and activities since the mid-term evaluation in 2006/07.

### **Key Results Areas**

The evaluation terms of reference required a focus on eight key results areas (KRAs) for the programme as a whole and for each project within it. Each KRA is specified in terms of its corresponding set of indicators and the evaluators reviewed both quantitative and full descriptive data to use as a basis for evaluation. The specified KRAs are:

- research
- teaching
- extension and outreach
- management
- human resources development
- infrastructure management
- mobilisation of additional resources/opportunities
- other

### **Qualitative evaluation criteria**

As stated in the TOR (Annex 1) VLIR-UOS has defined a set of five criteria for evaluating the overall IUC programmes, namely:

- efficiency
- impact
- development relevance
- sustainability
- change

For each project within an IUC programme VLIR-UOS also defined six qualitative evaluation criteria:

- quality
- effectiveness
- efficiency
- outcomes
- development relevance
- sustainability

### **Rating scale**

As required by the Terms of Reference (TOR) a 5-point rating scale was employed by the evaluation commission in their assessment of each project against both KRAs and qualitative criteria.

Scale:

1 = very poor

2 = insufficient/low

3 = sufficient

4 = good/high

5 = excellent/ very high

N/A = Not Applicable

The rating of programme and project progress against this scale is inevitably subjective and at the discretion of the commission members as there are no objective criteria that can be applied to determine ratings. The commission has tried to be consistent across projects and the overall programme.

## **The evaluation activities undertaken**

The evaluation began with an extensive review of available programme and background documentation from Phase II of the IUC programme. The self-assessment reports were completed by the end of May 2013.

The International Expert had meetings (each of around 1.5 hours duration) in VLIR-UOS headquarters in Brussels with six Northern Project leaders, including the North Programme Coordinator, Dr Eddy Van Driessche, and discussions with the relevant VLIR-UOS staff. Two Project Leaders were subsequently followed up by telephone and email.

The evaluation commission visited Santa Clara and Havana for a five-day field mission 15<sup>th</sup>-22<sup>nd</sup> June. A comprehensive visit programme had been drawn up by the Programme Manager (see Annex 2) enabling presentations by and meetings with all available project leaders, deputy project leaders and team members from the eight Projects, as well as consultation with senior UCLV managers.

All relevant UCLV departments and facilities on campus and several community outreach sites in Santa Clara were visited during the mission.

The evaluation team's enquiry focused completely on:

- reviewing results of both the programme and individual projects against the identified KRAs
- gathering quantitative, qualitative and anecdotal evidence to assess the programme and projects against the identified evaluation criteria

The evaluation mission in UCLV concluded with a preliminary debriefing for the Rector and Vice-Rector of UCLV, IUC Project Leaders and the Programme Coordinator. This report in draft was submitted for comment in July 2013.

One day was spent in Havana in debriefing meetings with officials from the Ministry of Higher Education (MES) and the Ambassador of Belgium in Cuba.

## **Contextual information**

### **The economic and political circumstances in Cuba**

#### **Demographics**

The Republic of Cuba is a free socialist, sovereign, and collective State. Cuba is an archipelago located in the western- most part of the Caribbean Sea, comprising the island of Cuba, the Isla de la Juventud, and some 1,600 smaller islands and keys, for a total land area of 109,884 km<sup>2</sup>. Cuba is the largest island of the Caribbean, situated west of Hispaniola island (Haiti and the Dominican Republic), and 145 km south of Key West, Florida (United States of America).

Cuba is divided into 15 provinces and one special municipality (Isla de la Juventud). Based on the preliminary data from the national census of population and housing carried out in 2012, the country has a population of 11,163,934 inhabitants most of whom live in urban areas (75.8%). The provinces with the highest population density are Havana (capital) with 2,154,454 inhabitants, followed by the eastern provinces of Santiago de Cuba and Holguín with more than one million inhabitants. The rest of the provinces have between 350,000 and 850,000 inhabitants.

**Figure 1: Provinces in Cuba**



### **Political structures**

Since the beginning of the Cuban Revolution in 1959, particular emphasis has been placed on support policies in the social sector, including education, health and social security, as an essential element of the 'social contract' between the communist government and the Cuban people. The Communist Party of Cuba has been the only legal political party since 1965. The National Assembly of People's Power is the paramount state institution, "representing and expressing the sovereign will of the Cuban people". Elections to the Assembly take place every five years; the most recent ones were held in February 2013.

### **Human development**

Based on the Human Development Report 2013, the Human Development Index for Cuba is high, at 0.780, which means that the country ranks 59<sup>th</sup> out of 186 countries for which data are available. However, this result shows a slight decline compared to previous studies.

The emphasis placed by the government on the universal provision of basic health care has made Cuba's health statistics comparable to those of industrialised nations. In 2009, life expectancy at birth was 77.97 years (the highest in the Latin America and Caribbean region after Chile and Costa Rica) and in 2012 the infant-mortality rate was 4.6 per 1,000 live births (the lowest in the region). A preventive health care system, based on family doctors serving small patient groups, was developed in the 1980s. Cuba has one of the highest ratios of medical personnel to population in the world: according to the Ministry of Public Health, in 2012 Cuba had one doctor per 137 inhabitants and one dentist per 804 inhabitants.

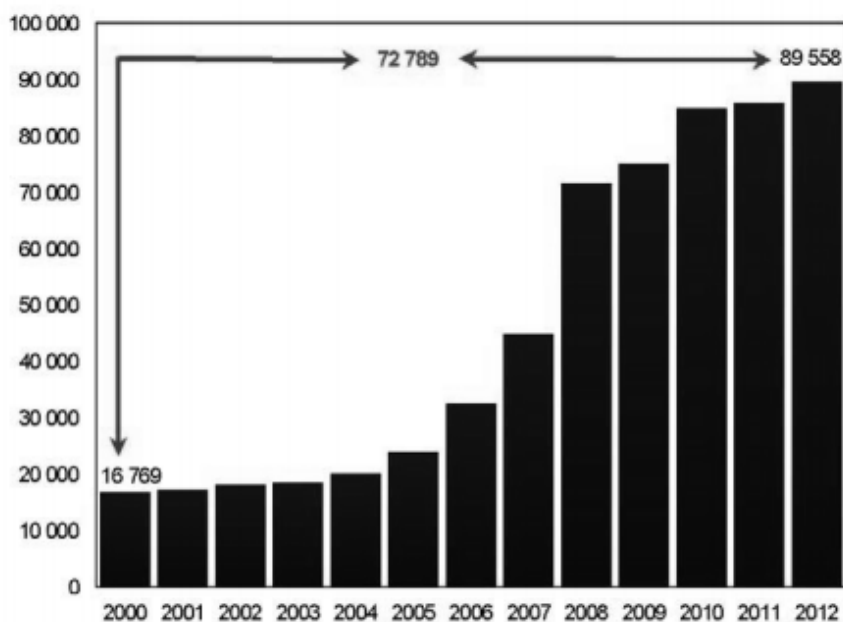
### **Higher education**

Historically, Cuba has had some of the highest rates of education and literacy in Latin America and the Caribbean. All education is free to Cuban citizens including university education. School attendance is compulsory from ages five to sixteen. Primary education lasts for six years; the secondary

level of education is divided into secondary school and pre-university education. However, in the last few years the government has faced some difficulties that have affected the quality of education at all levels, but especially primary and secondary education.

Higher education (HE) is provided by universities, higher institutes, higher pedagogical institutes, and higher polytechnic institutes. Since 2000 crucial changes have been taking place in the Cuban higher education system, aimed at broadening the opportunities of and access to universities for the least favoured social sectors.

**Figure 2: Number of students graduating from Cuban HE institutions**



Source: National Statistical Office of Cuba. 2013

These changes have been the result of a more comprehensive approach for achieving more social justice and equity. Obviously, this has represented a huge challenge, both academic and social. To meet this challenge, the Cuban universities have gone beyond their traditional walls and have delivered their services in a close relationship with other social entities, particularly with local communities, opening university campuses in all municipalities and increasing access to most higher education courses. This is the main reason behind the increase in the number of graduated students shown in Figure 2. However, this model of higher education delivery is not considered sustainable and a drastic reduction is expected in the coming years.

### **Economics**

In the economic and financial field, Cuba has a dual monetary system. Two currencies are in circulation: the CUC is equivalent to the US dollar and at the same time is exchanged to 25 Cuban pesos (CUP) in the national market. Although there are plans to move towards a single currency, which is expected to contribute to removing major barriers to economic growth, the slowing down of the economy in the last few years has delayed efforts to bring the two national currencies into closer alignment.

The structure of the Cuban economy has changed significantly in recent years. Historically, the main sector of the economy was the production of sugar cane, but since the mid-1990s this has been replaced by the tourism sector which since then has been the main source of hard currency for the country. Tourism is an important component in the development plan of the Cuban Government and is considered a kind of engine of the national economy.

Besides tourism, the main sectors of the national economy are biotechnology and pharmaceutical industries, the production of nickel and cobalt, some agricultural products such as tobacco, citrus, tropical fruits and coffee, the rum industry, the petrochemical industry, the sugar industry, construction materials, steel production and services associated mainly with public health and the tourism sector. Two strategic trade partners have emerged since the beginning of the past decade:

- Venezuela: in the context of ALBA (Bolivarian Alliance for the Peoples of Our America) Venezuela became the most important political and economic partner of Cuba. The commercial activity matched the volume of Cuban trade with all the countries of the European Union.
- China: with priority being given by the authorities to purchases of consumer and industrial goods of Chinese origin.

Other traditional key partners have been Spain, Canada and more recently Brazil. The volume of imports from the United States, in spite of the embargo that restricted trade to imports of food, agricultural and pharmaceutical products, has also been significant.

Table 2 and Table 3 below show the volume of Cuban trade with the main partners in selected countries and geographical areas from 2006 to 2011. In view of its economic characteristics – small economy, overall poorly developed industrial base, low productivity of the agricultural sector – Cuba depends mostly on imports for its current operation, spending around 50 percent of its budget on agricultural and energy imports during the last few years.



**Table 2: Import of goods to Cuba from region and country of origin 2006-2011**

Imports of goods according to the country of origin in selected countries and geographical areas [organised by the results of 2011 in thousand of pesos]						
Regions	2006	2007	2008	2009	2010	2011
<b>Total</b>	<b>9.497.890</b>	<b>10.079.210</b>	<b>14.234.094</b>	<b>8.906.010</b>	<b>10.644.338</b>	<b>13.955.999</b>
America	4.251.053	4.525.129	7.772.878	4.834.028	6.383.887	8.697.571
Europe	2.636.951	2.659.403	3.169.106	2.040.790	2.158.164	2.832.696
Asia	2.310.271	2.568.649	2.876.359	1.841.703	1.831.916	2.024.280
Africa	235.792	239.822	287.605	176.919	222.423	327.184
Oceania	63.823	86.207	128.146	12.570	47.948	74.268
<b>Main countries</b>						
Venezuela	2.232.423	2.243.242	4.473.223	2.607.641	4.301.862	5.902.286
China	1.571.130	1.518.084	1.480.791	1.171.205	1.223.245	1.281.742
Spain	859.625	982.305	1.232.473	752.393	785.376	1.019.677
Brazil	428.255	382.087	600.141	507.875	444.354	643.082
Canada	351.604	436.723	655.778	309.861	331.398	479.257
Mexico	235.046	204.703	369.144	322.831	359.970	452.850
United States of America	483.591	581.657	962.767	597.938	406.118	430.420
Italy	417.093	391.063	488.408	324.479	292.133	388.453
France	198.247	166.659	226.737	140.432	189.629	343.996
Viet Nam	190.392	281.430	514.342	276.049	266.260	308.743

Source: National Statistical Office of Cuba. 2013

**Table 3: Export of goods from Cuba to regions and countries 2006-2011**

Exports of goods according to the country of destination in selected countries and geographical areas [organised by the results of 2011 in thousand of pesos]						
Regions	2006	2007	2008	2009	2010	2011
<b>Total</b>	<b>2.924.558</b>	<b>3.685.665</b>	<b>3.664.157</b>	<b>2.863.004</b>	<b>4.549.533</b>	<b>6.041.000</b>
America	1.264.073	1.725.163	1.677.259	1.248.981	2.544.711	3.474.100
Europe	1.241.447	898.471	809.104	718.518	854.047	1.228.800
Asia	405.420	997.433	884.080	650.262	959.275	1.036.500
Africa	10.465	60.880	290.908	244.103	190.070	298.000
Oceania	3.153	3.718	2.806	1.140	1.429	3.600
<b>Main countries</b>						
Venezuela	408.787	450.397	413.781	527.849	1.716.739	2.432.200
China	243.971	928.320	677.107	516.303	680.564	786.200
Canada	545.381	962.966	756.622	431.467	604.024	718.800
Netherlands	788.045	435.514	288.599	237.956	353.154	656.400
Spain	156.908	172.533	194.802	153.943	160.746	165.400
Nigeria	-	2.581	173.465	62.783	20.386	102.600
Brazil	24.756	64.293	41.679	63.089	57.843	82.100
Russia	136.716	70.570	55.961	87.684	57.472	67.200
Italy	17.388	24.133	63.615	28.784	38.097	51.100
Germany	21.413	24.259	27.041	29.440	28.246	40.200

Source: National Statistical Office of Cuba. 2013

Since the collapse of the former Soviet Union and the socialist regimes of the Eastern European countries at the beginning of the 1990s, living conditions in Cuba have not been easy and day to day life has been marked by a wide range of constraints. These years were called "the special period". The economic situation of Cuba is still serious as a consequence of the structural weaknesses of the economic system and the long-standing impact of the US embargo. In addition, the Cuban economy is periodically affected by hurricanes that destroy houses and cause serious damage to national infrastructure, especially in the agricultural sector. These combined elements explain why Cuba, being a traditional agricultural producer, currently imports 80 percent of its food.

Offshore oil drilling operations in the Exclusive Economic Zone (EEZ) have been carried out without significant success during the last few years, and Cuba currently imports around 50 percent of the oil required by its economy from Venezuela on highly preferential terms.

### **The upgraded Cuban economic model**

These facts explain the efforts made by Raul Castro's government to introduce some changes in the Cuban economic sector, directed at two fundamental aspects: the substitution of imports (agricultural and industrial) and reforms in the agricultural sector, issues that the government consider as national priorities. These changes promoted and approved by the Sixth Congress of the Communist Party in 2011 have been called the new Cuban economic model and its main characteristics are:

- Strengthening institutions, including the reorganisation of the State and the Government. This should lead to a reduction in state bureaucracy.
- Prioritising the growth and diversification of exports and import substitution, by designing programmes that permit the use of hard currencies in a decentralised way.
- Structural changes in the functioning of the agricultural sector with the objective of increasing food production and reducing agricultural imports.
- Separation of state and corporate functions at all levels.
- Combining various forms of state and non-state management and recognising the importance of private management in the national economy, which should result in more than one million state workers moving to the private sector.
- Strengthening entrepreneurial governance models and budgeted units.
- Monetary and exchange rate unification.
- Developing the taxation system.
- Promoting local development.
- Rehabilitating the industrial sector.
- Raising energy efficiency.
- Increasing labour productivity and economic efficiency.
- Meeting the production demands and requirements of the market.

### **The Universidad Central 'Marta Abreu' de Las Villas (UCLV)**

#### **Introduction**

UCLV is located northeast of the city of Santa Clara and is one of the most important universities in Cuba and the main HE institution in the central region of the country. Its name comes from Marta Abreu de Estevez (1845-1909) who was a benefactress of the Province of Las Villas. UCLV was

founded in 1948 and academic activities commenced on November 30, 1952 with schools of agriculture, pedagogy and chemistry.

In 1959, after the Cuban Revolution, reform of university education was implemented with several purposes: a profound transformation of education at all levels, the continuous training of professors and professionals, and the setting up of universities to serve the social and economic needs of the Revolution and the development of the nation. At that time, international collaboration was understood to be an important factor for a university's development and a way of contributing to the 'universalisation' of HE.

The development of science and technology as a part of UCLV was linked to international cooperation from the beginning of the 1960s. The arrival of foreign professors in Cuba and their prolonged stays produced significant scientific activity in the universities, which was closely linked with the social, economic and cultural development of the country. However, the disintegration of the former Soviet Union and the ensuing economic crisis in Cuba impelled Cuban universities to establish cooperative links with countries in Europe and Latin America, and Canada.

**Figure 3: Structure of the university**



The keywords of the mission statement of UCLV are: integral training, postgraduate education and relevant sustainable research, making it clear that UCLV is explicitly involved in the development of the country. All undergraduate and postgraduate education, as well as all the research conducted, is related to the social and economic development of Cuba. At present, four key areas have been defined within the UCLV strategic plan:

- Ongoing and lasting improvement of the quality of its academic activities at all levels, especially in professional training and postgraduate education.

- Increasing specialised training courses in order to improve the quality of academic and scientific staff.
- Increasing the institutional impact on the economic and social development of the country through scientific and technological innovation.
- Improvement of institutional capacity, introducing best practice in management of the university.

## Courses and programmes

At present, UCLV has 13 faculties and a workforce of more than 1,200 professors and researchers. More than 15,000 students are studying at UCLV, which offers 33 undergraduate programmes (see Table 4) and a wide range of postgraduate programmes (see Table 4, Table 5 and Table 6)

**Table 4: Undergraduate courses at UCLV**

Undergraduate programmes at UCLV		
Agronomy	Sociology	Biomedical Engineering
Veterinarian Medicine	Philosophy	Hydraulic Engineering
Agricultural Engineering	Social Media Studies	Mechanical Engineering
Accountancy and Finances	Information Sciences	Architecture
Economics	Socio-cultural Studies	Computing Engineering
Tourism	Electrical Engineering	Chemistry
Letters	Telecommunication Engineering	Physics
English Language	Automation Engineering	Pharmacy
Journalism	Industrial Engineering	Biology
Law	Civil Engineering	Computer Sciences
Psychology	Chemical Engineering	Mathematics

**Table 5: Masters programmes at UCLV**

Master's degree programmes at UCLV		
Plant biotechnology	Educational sciences	Electronic engineering
Computer science	Development of drugs with a natural origin	Electrical engineering
Psycho-pedagogy	Tourism management	Mechanical engineering
Environmental engineering	Structures	Signs and systems
Applied mathematics	Spanish linguistic and editorial studies	Bio-informatics and computational biology
Restoration and rehabilitation of patrimony	Environmental management	Informatics
Automation and informatics systems	Enterprise informatics	English language for intercultural communication
Industrial engineering	New technologies for education	Biotechnological process engineering
Management	Analytic chemistry	Higher education
Clinical psychology	Advanced Animal Health	Mechatronics
Accountancy for management	Environmental and technological safety	Development and research on drugs
Business Administration	Latin-American integration	Applied computer science
Telematics	Energetic efficiency	Sustainable agriculture
Process analysis for chemical industry	Management of science and innovation	Knowledge management
Biomedical engineering	Sustainable buildings	Veterinary preventive medicine
Community development	History of the formation of the nation and Cuban thought	Human resources management

**Table 6: PhD programmes at UCLV**

PhD programmes at UCLV		
Pedagogical sciences	Chemical engineering	Chemical sciences
Political science	Industrial engineering	Physical sciences
Historical sciences	Electrical engineering	Mathematics
Economical sciences	Civil engineering	Computer sciences
Applied economics	Mechanical engineering	Automation
Philological studies	New materials of construction	Computational mechanics and numerical methods in engineering
Legal sciences	Architecture, rehabilitation and restoration of patrimony	Sustainable animal production
Community development	Telecommunication and electronics engineering	Sustainable tropical agriculture
Accountancy sciences	Pharmaceutical sciences	Psychological sciences
Higher education	Plant biotechnology	Science, technology and develop-
Latin- American thought	Sustainable energy development	

Most universities in Cuba are provincial or regional in character (i.e. they mainly attract students from their regions). However, UCLV, because of the number and diversity of the courses offered by its faculties, is considered a national university and it attracts students from all over Cuba and from several developing countries.

## Research

The UCLV has 16 research and/or study centres that work in close collaboration with the faculties and scientific departments of the university and make a significant contribution to undergraduate and postgraduate education. Among the most important research centres are:

- Plant Biotechnology Institute (IBP) the Chemical Bioactive Centre (CBQ)
- Centre for Informatics Studies (CEI)
- Study Centre of Energetic and Environmental Technologies (CEETA)
- Study Centre of Electronics and Information Technology (CEETI)
- Study Centre of the Botanical Garden (CEJB)
- Agricultural Research Centre (CIAP)
- Applied Chemistry Centre (CEQA)

All these centres have achieved outstanding results at national and international levels.

The university focuses its work on 21 scientific research lines, with emphasis on science and technology. At the national level UCLV is the acknowledged leader in plant biotechnology, computer sciences, pharmaceutical sciences, energy and environmental studies, including community extension work. From 2002 to 2012 the UCLV received 25 international awards and 47 awards from the Cuban Academy of Sciences, as well as seven national awards for technological innovation. Several of its study programmes (undergraduate and postgraduate) have been accredited by the National Accreditation Board (JAN) of the MES and the Ibero-American University Postgraduate Association (AUIP).

## **International cooperation**

UCLV is highly active in South-South networking, mainly with Latin American, African and the Caribbean universities. Very close contacts have been established with universities in Mexico, Ecuador, Colombia, Venezuela, Brazil, Peru, Nicaragua, Argentina, Mozambique, Angola and Ethiopia, among others. All these contacts are supported by active collaboration agreements. The institution also promotes North-South and North-South-South cooperation programs.

Increasingly, international cooperation contacts have been established with institutions in Europe and North America as part of the UCLV strategy of internationalisation. In addition to cooperation developed with and through the VLIR-UOS programmes and Flemish universities, the university has implemented more than 40 other projects with academic, research and development activities using financial support and technical assistance from international agencies such as Canadian International Development Agency (CIDA), COSUDE (Swiss Cooperation) and the Spanish Agency for International Cooperation and Development (AECID) among others. The university has also increased its participation in programmes/projects financed by the European Union such as ALFA and Erasmus Mundus.

## **National cooperation**

As one of the leading institutions of HE, UCLV follows the strategy of MES that is designed to address the main challenges for the development of the country. In this context, UCLV collaborates closely with other key stakeholders of Cuban society by means of, for example, the training of professionals, postgraduate education, scientific and technological research and extension activities or outreach activities intended to strengthen contacts between the university and society.

UCLV has a high level of influence within the HE system in Cuba, and many of its senior managers (Rectors, Vice-rectors, Deans or Directors) have been promoted to important leadership positions within MES. The former rector of UCLV (Dr. José Ramón Saborido) was promoted to first deputy minister and the new rector (Dr. Andrés Castro) now plays an important role in the Commission for Education, Culture, Science and Technology of the Cuban Parliament.

## **Structure of the evaluation report**

This report provides the main evaluation findings in Chapter 2, including a summary of programme and project results (2.1.1 – 2.1.2), an evaluation of programme and projects against the qualitative evaluation criteria (2.1.4), and a brief assessment of the management of the programme and projects (2.2).

Chapter 3 summarises the overall conclusions reached about the IUC programme at UCLV in relation to the implementation (3.1) and management (3.2) of the programme and the coordination between Flemish and Cuban partners (3.3). Section 3.4 provides a number of recommendations to VLIR-UOS on the future management of IUC programmes, and to UCLV and VLIR-UOS on strategic priorities and possible opportunities for future collaboration.



# Evaluation findings

## Evaluation of the partner programme and projects

### IUC programme implementation as a whole in Phase II

The IUC programme implemented broadly as planned in the initial pre-partnership programme stages. The two clusters of projects – service and institutional capacity development projects 1 – 4 and the academic and joint research projects 5 – 8 – developed increasing synergies and interdependencies, which overall have had the effect of increasing the impact of the IUC programme on the whole university. The collaborative culture and practice of UCLV and Cuban HE more generally, and the continual encouragement and support of the Flemish project promoters and teams, combined to ensure that these synergies were exploited to maximum effect.

The IUC programme at UCLV benefited greatly from stability of staffing in the Programme Support Unit and, on the Flemish side, of the Institutional Coordinator for University Development Cooperation (ICOS), and among individual Flemish project leaders and their teams and Cuban project leaders and their teams. Only in one or two projects were changes of staff or team members necessary, but these changes did not significantly disrupt the project activities.

The mid-term evaluation recommended that projects 5 – 8 should focus in Phase II on the development of staff through Masters and PhDs, the establishment of new PhD programmes in UCLV, joint research and international networking. This advice was followed and the number of scientific publications in peer-reviewed international journals and other results emerged during Phase II.

Three of the Flemish coordinators expressed concern that young scholars returning to the UCLV faculties on completion of their PhD studies had been given management positions within their respective departments, rather than research and teaching posts, so that it was difficult for them to keep up with their research activities.

As the ICT infrastructure became more established and widespread throughout UCLV, building on the achievements of Phase I, staff and student expectations of the services rose accordingly, particularly for improved internet access, as the importance of effective and efficient bandwidth and ICT facilities management became ever more apparent.

The Programme Support Unit and Projects 1 and 3, in particular, used opportunities to include Close the Gap projects as an addition to the programme, to support computer provision in the university and in various extension centres in the community, which widened the overall impact of the IUC programme. Several projects in the partner programme have also been effective in leveraging additional funding, expertise and staff training opportunities through development of and engagement in other projects, funded by VLIR-UOS and others.

**Table 7: Summary of KRA scores for the UCLV IUC projects**

Key result areas	P 1	P 2	P 3	P 4a	P 5	P 6	P 7	P 8
1. Research		3			4	4	4	4
2. Teaching	3	4	3	5	5	4	5	5
3. Extension and outreach	4	4	3	3	4	4	5	5
4. Management	5	3	3	3	5	4	4	5
5. Human resource development	4	4	3	4	5	4	4	5
6. Infrastructure development	5	3	4	4	5	5	4	4
7 Mobilisation of additional resources	4	4	3	3	4	3	4	5

## Project implementation in Phase II

### Project 1 ICT infrastructure and e-administration

The overall academic objective of the project was to increase the efficiency of all activities at the UCLV through an efficient and operational ICT system, with sufficient human capacity and technical systems to apply ICT.

The specific academic objective was to make the UCLV campus network more stable, secure and scalable by improving computational equipment and connectivity in the network that will provide all university campuses with sufficient ICT capacity to meet the demands of the planned academic and administrative activities, in a sustainable way.

#### Project achievements overall

At the beginning of the IUC programme lack of funds and limited national bandwidth and networking infrastructure meant that UCLV, in common with other HE institutions in Cuba, had difficulties in maintaining and expanding its computer network infrastructure and in developing networked administrative and other applications. Nonetheless, the ICT staff had a significant level of expertise, and had learned to work efficiently with limited resources. An operational fibre backbone was finished on the university campus in May 2002, leaving a number of weaknesses to be remedied.

During the course of the IUC programme the project has delivered, within the limits of the continuing Cuban national backbone restrictions, a very considerable improvement and expansion of the network and computing infrastructure at UCLV to meet the growing demands of modern academic and administrative activities. The project has addressed improvement of the stability, the security and the scalability of the computer network. E-administration systems (e.g. for student enrolment and administration) based on open source software have been introduced. Software gateways and services-oriented applications have been designed and programmed to interconnect and integrate external applications and legacy systems (e.g. payroll services) into the ICT system without excessive human intervention.

The project has included training of departmental staff, establishment of synergies and relationships in both the national and international context, incorporation of new ideas about ICT planning, policies and project management, and the creation of new possibilities and opportunities.

#### Phase II

In Phase II the project focused on the ICT infrastructure in support of teaching, learning and research activities, which demands continuous improvement. In collaboration with the Cuban national service provider, ETECSA, the connection to the Cuban national backbone has been enhanced. Efforts were made to convince the university authorities that, in spite of the continuing situation in relation to Cu-

ban national bandwidth limitations (using satellite connections), it would be possible to offer internet access to UCLV's professors and researchers in their own homes. Effective bandwidth management and optimisation allowed the doubling of bandwidth for internet access and 55% of professors and researchers at UCLV now have this residential service.

In support of the UCLV extension services new servers were installed in 14 satellite university centres in the surrounding municipalities with capacity to offer services such as access to the internet, email and data storage; municipality network administrators have been trained.

During Phase II the budget of the project was augmented by additional VLIR-UOS projects and other initiatives, without duplication of the work planned in the project itself; for example additional ICT equipment could be acquired through procurement or donation, and the expertise of ICT staff improved. One cross-cutting VLIR-UOS North-South-South project involved UCLV collaborating with the University of Gent (UG) and Ethiopian universities Jimma and Mekelle in order to develop and implement a migration strategy to open source software and technologies at the level of ICT infrastructure.

### Sustainability

This migration strategy will contribute to the critical issue of sustainability and is part of UCLV's overall ICT strategy 2012-2016. The ICT Directorate has developed various robust levels of security to protect the functioning of the ICT network at UCLV in the event of, for example, extended power failures. The UCLV data centre is now fully functional and capable of forming the basis of data-storage services to other universities. UCLV is also the coordinator of the new VLIR-UOS funded Network Cuba project that started officially in April 2013 and will implement in six Cuban universities. The cooperation network is an academic programme that emphasises human capacity building through high-impact research related to ICT.

ICT Infrastructure supports and guarantees other activities, operations and developments (institutional, academic and research) in UCLV and the commitment of the university authorities to ICT-based investment is vital. Further delays in the continuing problem of Cuban connectivity may yet be incurred, although all the signs are that the cable connection between Venezuela and Cuba is now functioning. This may not, however, result in immediate benefit to UCLV as much depends upon how the increased connectivity is managed and maintained at national level.

**Table 8: Assessment of key result areas Project 1**

Key result areas	Indicators (quantitative and full descriptive data)	Score
KRA 1: Research	Research was not an objective of the project.	
KRA 2: Teaching	Teaching was not an objective of the project, however, the DICT team have designed and implemented training courses for UCLV staff and other Cuban HE institutions and external stakeholders	3
KRA 3: Extension and outreach	The DICT team provided numerous advisory, consultancy and training services to Cuban HE institutions and the community; for example, they supported the setting up of ICT networks in the municipalities' satellite university centres with Close the Gap projects.	4
KRA 4: Management	The project leader and the ICT team now manage a wide range of ICT-based applications and systems on the ICT network. They have developed and managed a number of ICT-based and other procedures and continue to do so to a high degree of competence.	5

Key result areas	Indicators (quantitative and full descriptive data)	Score
KRA 5: Human resources development	Short-term training in Belgium was successfully undertaken by at least 8 members of the ICT team during Phase II of the project.	4
KRA 6: Infrastructure management	The ICT network at UCLV has been substantially extended in Phase II to include internet access in residences of 55% of professors and researchers; wireless coverage of the campus has been extended; a range of new and legacy applications have been integrated into the ICT network; access to and use of the ICT infrastructure and facilities is managed highly effectively by the ICT team to make maximum use of limited bandwidth available. A new data centre has been established for UCLV and other university services. Robust system security measures and equipment have been put in place.	5
KRA 7: Mobilisation of additional re-sources/opportunities	The ICT team has been successful in collaborating with other projects within and external to UCLV to augment the ICT infrastructure, acquire new expertise and capacity. The ICT infrastructure now in place in UCLV will form the nucleus of the new VLIR-UOS Network Cuba project.	4

## Project 2 ICT in education

The overall academic objective was to develop good university practices about acquisition, research and application of ICT in order to improve the quality of educational processes involved.

The overall developmental objective was to put to social use technologies, methods, and advanced research results in order to innovate and improve the educational processes involved in higher education, with the application of ICT.

The specific Academic Objective was to strengthen the research and postgraduate programmes related to the application of ICT in education in order to enhance the university professors' competences to innovate and improve education in the university.

The MES has strongly supported and promoted the better use of ICT in HE for several decades, considering optimal use of ICT as a quality factor and as a resource to increase social equity in access to education. Limited ICT infrastructure, equipment and facilities for developing ICT-based applications and materials for teaching and learning, and the limited capacity among academic staff in the pedagogical use of ICT, were among the constraints on UCLV at the start of this project. The university authorities had decided in 2001 to establish a Diploma programme in the Faculty of Distance Education on the use of ICT in teaching and learning with a multidisciplinary approach, aimed at UCLV academic staff. In 2002 UCLV staff initiated an ICT in education research project and developed a virtual learning environment (VLE) -SEPAD. This was the first VLE developed in Cuba and it was used in many Cuban universities.

### Project achievements overall

The IUC programme built on this initial work from 2003. The project created two laboratories (one for training academic staff and another for developing educational technologies) and developed and added modules to SEPAD (the VLE). The project's primary purpose was to address the needs of UCLV faculty members and students in relation to the educational uses of ICT, and the promotion of general access to and use of UCLV educational services. It has also been a catalyser of educational innovation in UCLV and in other Cuban and Latin American HE institutions.

One of the most important achievements of the project was to change the minds of UCLV professors, most of whom were used to using very traditional teaching methods, about the importance of using ICT to transform teaching and learning and improve quality. During the two phases of IUC programme the number of courses supported by ICT increased five-fold.

### **Academic development**

A Masters programme in New Technologies for Education (NTE) was launched in 2005, with the full support of the MES and the collaboration of 17 other HE centres in Cuba, the first wide access graduate programme in Cuban HE. More than 2,000 students have graduated from this programme; most of them are faculty members of universities and other Cuban educational institutions. The Masters was nominated by MES as the postgraduate programme of the year in 2009.

As a result of the collaboration and activities of the project and the developing importance of ICT applications in education, UCLV created a Faculty of Information and Education Sciences, which:

- supports research into “Knowledge and Information Society” issues in order to promote creativity, innovation and social progress
- provides wide access to educational services to address the learning needs of Cuban and foreign students at all levels through ICT-supported distance education programmes
- coordinates UCLV policies related to information management, information science, educational sciences, distance education and the use of ICT in relevant university processes
- supports UCLV faculty members in the appropriate use of ICT resources in education

The main aim of Phase II of the project was to enhance scientific research work in the faculty and to improve the competences of university staff in the use of ICT in education through the development of Masters and PhD programmes. Four PhDs for academic staff from different faculties in UCLV have been funded by the project, researching subjects such as e-portfolio assessment, knowledge management in higher education teaching-learning processes, social software supporting collaborative learning and e-learning quality.

Short training courses were developed and delivered during Phase II, on topics such as educational web applications, Web 2.0 application and programming techniques, and social networks. Project 2 supported the Centre for Academic English Language (CAELTIC) in Project 4 in the use of ICT in English language training, the creation of Moodle-based courses and a portfolio infrastructure.

From 2006 – 2012, Project 2 has also contributed to the International Conference on Virtualisation of Higher Education, organised every two years as part of the International Convention “Universidad” in Cuba. Specific workshops, supported by additional VLIR-UOS funds, were organised by the Cuban and Belgian project team and with participation from Flemish universities and IUC partner universities from Latin America, Africa and Asia.

### **Sustainability**

Research relationships have been established with a number of different Cuban and international institutions; faculty staff from UCLV have advised universities in Colombia, Ecuador, and Brazil; a new Masters programme in Educational Informatics is running now in the Cooperative University of Colombia, based on the curricula design of the UCLV Masters programme.

The project has enabled the team members, the faculty and other academic staff involved to reach a critical mass of capacity and competence to develop academic activity in the future. The faculty and

project teams in Cuba and Belgium will play a key role in the VLIR-UOS funded ICT Network Cuba project, which started officially in April 2013 and will implement in six Cuban universities.

**Table 9: Assessment of key result areas Project 2**

Key result areas	Indicators (quantitative and full descriptive data)	Score
KRA 1: Research	Research was not an objective in Phase I of the project, though it was included in Phase II. Nonetheless numerous research and conference papers have been published.	3
KRA 2: Teaching	More than 2,000 graduates from the Masters in NTE from all over Cuba and the region. New courses established in the faculty. The project has supported training and skills development in ICT and education in all faculties of UCLV. SEPAD or Moodle are in use in most faculties of UCLV	4
KRA 3: Extension and outreach	SEPAD is in use in satellite university centres in municipalities. Masters in NTE offered as a remote access course throughout Cuba. The project enabled workshops at Virtualisation of HE Conferences in 2008, 2010 and 2012, attended by HE professionals from all over Cuba and the Latin America region, Africa and Asia.	4
KRA 4: Management	Two laboratories are managed for training academic staff and production of educational materials and technology	3
KRA 5: Human resources development	Four PhD scholars are studying in VUB (3) and Spain (1).	4
KRA 6: Infrastructure management	Equipment and facilities have been introduced in laboratories in the faculty.	3
KRA 7: Mobilisation of additional resources/opportunities	Project team leaders in Cuba and Belgium were key actors in the development and promotion of the new Network Cuba project	4

### **Project 3 Information culture development (in Phase I Library development)**

In Phase II

The overall academic objective was to support education and research efficiently by providing up-to-date academic information to all university stakeholders.

The specific academic objective was to increase the general impact on UCLV by developing information skills of students and staff in different university processes, and implementing and generalising the use of information technologies and contents management at the University and its surroundings.

The overall development objective was to contribute to the development of the Information Society by increasing the capacity of teachers, researchers and students to have access to information and knowledge by means of ICT

#### **Project achievements overall**

UCLV library services faced three major obstacles at the start of the project: insufficient infrastructure with regard to computers and access to the internet; insufficient and outdated collections; and lack of experience and poor knowledge of the staff, especially with regard to electronic information resources. In Phase I the project established the basic infrastructure including: the provision of computers for a computer laboratory (with internet access) and seven faculty libraries; the introduction of an

open source library automation software package (ABCD), a library server and training for library technical staff to develop the database; and the four academic and research projects in the IUC programme also contributed new books to faculty libraries. Library staff members were trained by Flemish experts in electronic information services and doing research on the internet.

In Phase II completion of the library catalogue database (for books post 1998), the development of other online library services and the acquisition of other electronic information and materials were continuing to enhance the facilities and collections offered by the library. Limited progress has been made in connecting and integrating other services with the ABCD database due to system interoperability issues.

However, the focus of the project in Phase II turned to address the general problem in UCLV related to the lack of an informational culture that promotes the use, exchange and production of information with a particular emphasis on electronic information, among academic staff, researchers and students.

Systems to assess information literacy for third year students and the use of scientific information among fifth year students were developed. The library staff worked with academic staff to specify which courses and subjects in each academic year should be enrolled into a programme of training students in information skills. Information awareness among academics is hard to achieve, but the project has made sure that there is mandatory training for all Masters and PhD candidates and the tools and resources (all online) are now in place for everyone to access relevant information.

During Phase II the National Committee of PERI negotiated free access for UCLV to more than 15 e-journal databases. A UCLV document repository has been developed for academic and scientific research outputs from UCLV faculties.

### Extension

The project introduced the ABCD library database software to the Provincial Public Library System in Villa Clara province, and several other universities in the Cuban HE network. Several national workshops on the ABCD were organised.

### Sustainability

The library faces continuing challenges in persuading academic staff of the importance of information skills and the development of an information culture in which students and academics make full and expert use of all the information resources available to them in their teaching, learning and research. Change is happening slowly and incrementally but is at risk from the limitations in UCLV's internet access and the limited financial means that prevent the university from developing comprehensive printed and electronic collections for students and licensing international online e-journal and information databases for research.

**Table 10: Assessment of key result areas Project 3**

Key result areas	Indicators (quantitative and full descriptive data)	Score
KRA 1: Research	The project had no research objectives. Nonetheless, some specialist papers related to the work of the project were published in international peer reviewed journals and other publications	
KRA 2: Teaching	Fifty-two training courses were developed in total, for all first year students visiting the Library; and two substantially updated courses were developed and proposed for use in all the university pro-	3



Key result areas	Indicators (quantitative and full descriptive data)	Score
	grammes.	
KRA 3: Extension and outreach	Continued support to the Provincial Public Libraries System in the use of the ABCD software.	3
KRA 4: Management	Working relationships between the faculties and the library have been established. The Library coordinates with the faculties on academic activities, the use of the computer lab and other library services. The Library Committee was constituted and is functional.	3
KRA 5: Human resources development	The Director of the Library undertook a study visit to Spain to investigate models of integrated university ICT and library services, and also undertook study visits to Mexico and Argentina.	3
KRA 6: Infrastructure management	The library infrastructure necessary to offer information services in the intranet and access to the internet has been maintained, including the computer lab, computer user rooms, and reprography.	4
KRA 7: Mobilisation of additional re-sources/opportunities	The new VLIR-UOS Network Cuba project will build on and incorporate some of the achievements of the project.	3
KRA 8: Other		

#### **Project 4 Capacity building for communication in English for academic purposes in international collaboration (CeBeCE)**

The overall academic objective was to increase the command of English as a lingua franca for international use at UCLV.

The specific academic objectives were (1) to train the university staff in English for Academic Purposes (EAP) with focus on speaking, paper presentation, writing and intercultural competence, (2) to improve further the knowledge and skills of the local team members in self-learning methodologies and learning packages and in mentoring of EAP for autonomous language learning, and (3) to consolidate the Centre for Advanced English Language Training for International Collaboration (CAELTIC) as a multi-purpose centre for advice on academic writing, speaking, paper presentation and intercultural competence.

When the IUC programme at UCLV was negotiated and developed, English was the language of communication between the Flemish and the Cuban partners. However, it was found that university staff had insufficient command of English for it to function as a lingua franca for managerial, administrative and academic purposes in the IUC programme in particular and in the international academic context in general.

##### **Phase I**

The Faculty of Humanities' Department of English Studies began teaching immersion courses in Academic English in the second year of the programme and, from the third year (2005), a new separate language project was set up. The main target of the project at that time was to embed English as the vehicle of communication between Flemish and Cuban partners in the IUC programme, focused particularly on oral communication, written and intercultural interaction in the IUC programme's priority areas of agricultural, biological, chemical, and computer sciences.

The mid-term evaluation of the IUC programme<sup>1</sup> observed of Phase I

“the Flemish partner decided to introduce an interactive, communicative, guided, autonomous language learning approach..... A new curriculum was designed and a resource centre/self-access centre (CAELTIC) founded for enabling task-oriented learning and teaching, and blended e-learning in compliance with the needs and learning styles of the learners. Both teachers and learners are being trained in this new didactic approach in line with the educational policy statement of the UCLV in which teachers are coaches and learners function autonomously. It goes without saying that this approach required a mental turnaround, not only on the part of the teachers and the learners but also on the part of management.”

### **Project achievements overall**

The project, therefore, had a slow start. In 2007 a resource and self-access centre (CAELTIC) was established to provide a physical and online learning environment for both learners (project leaders, PhD scholars and staff) and teaching staff. It is a multi-media learner and teacher resource centre for teaching, learning, conversation, tutoring and testing as well as documentation. It comprises two rooms: a computer-based language laboratory primarily meant as a development and research centre for the teaching staff and a self-access centre, multi-purpose in its physical design for reading, reference and study, face to face classes and access to computer-based learning environment for learners to steer their own learning. The online learning environment was fully operational in 2010.

The ICT architecture of the learning environment was installed in cooperation with the ICT department (Project 1), the Faculty of Information and Educational Sciences (Project 2) and members of the computer science team Project 8. However, in the view of the Flemish promoter, the collaboration with Projects 1 and 2 on training of CAELTIC staff could have been more systematic and substantive.

In Phase II the vision and expertise of CAELTIC staff, in terms of teaching methodology and assessment, was greatly enhanced through the project and their exposure to the Common European Framework of Reference (CEFR) for languages. The application of the CEFR in UCLV has become a reality and several academics in the faculty are involved in Masters' projects focusing on the implementation of the CEFR and intercultural communication. The CAELTIC staff actively participated in international conferences.

In Phase II the project budget was augmented to include an extra workshop on assessment, more memberships of international professional associations (e.g. IATEFL), and the start of local PhD studies for team members.

**Table 11 Assessment of key result areas Project 4**

Key result areas	Indicators (quantitative and full descriptive data)	Score
KRA 1: Research	The project had no research element. However, CAELTIC staff have been active in the dissemination of the results of their experiences and own research both in Cuba (six articles published and over 20 papers presented at conferences) and internationally (nine posters presented at symposia, and five papers at conferences in Europe).	

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<sup>1</sup> Final report: external mid-term evaluation of the IUC Partner Programme with the Universidad Central 'Marta Abreu' de Las Villas, Santa Clara, Cuba. Phase I (2003-2007). Ad Boeren and Marta Vattuone for VLIR-UOS. March 2007

KRA 2: Teaching	The Department delivered 43 courses following the CAELTIC profiles and four International English Language Testing System (IELTS) test training courses. The number of professionals using CAELTIC resources for learning English increases daily. A Masters programme "English Language for Intercultural Communication" was started in the faculty.	5
KRA 3: Extension and outreach	Second year undergraduate students of English as a Foreign Language benefited from CAELTIC Profile 3 - English for Academic Purposes. The "English Club" held five sessions/meetings. The project has been influential on the language learning elements in the IUC programme at the University of Oriente.	3
KRA 4: Management	In collaboration with Projects 1 and 2 the CAELTIC online learning environment and learning applications were developed and managed by the project team.	3
KRA 5: Human resources development	Six recycling scholarships were granted and one postdoctoral scholarship. CAELTIC staff attended workshops given by Belgian and Cuban specialists in areas such as learner autonomy management, educational technology, WebCEF (a CEFR assessment tool) and CefCult (an intercultural communication tool).	4
KRA 6: Infrastructure management	The CAELTIC physical and online learning environment is functional.	4
KRA 7: Mobilisation of additional re-sources/opportunities	Internship of a Belgian student from KUL.	3

### **Project 5 Improving the quality of education and research programmes in plant and animal sciences**

The overall objective of the project was the strengthening of the academic level and research potential of the Faculty of Agriculture and Animal Sciences (FAAS) of UCLV.

The specific objective was to improve the quality of teaching and research, with emphasis on the fields of sustainable tropical agriculture and plant biotechnology.

#### **Project achievements overall**

At the beginning of the IUC programme the FAAS faced several severe problems that constrained its role in training agronomists, molecular plant biologists and veterinarians, negatively affecting the quality of its academic and research activities. These were aimed at solving problems related to food security and safety, and the development of sustainable agricultural practices in Cuba, which are some of the Cuban Government priorities in the national economic and development strategy.

FAAS and the Plant Biotechnology Institute (IBP) collaborated in the project. Among the main difficulties faced were:

- FAAS facilities were in poor condition and the laboratory equipment was completely obsolete.
- A high number of professors and researchers had reached the age of retirement.
- The curricula of the different programmes taught in the faculty were outdated and in urgent need of upgrading to meet international standards.

Nevertheless, it should be recognised that, in comparison with other faculties of the university, FAAS clearly started from a relatively strong human resource position, in part as a consequence of the three previous Own Initiative (OI) projects with the support of the VLIR-UOS, and other experience of international cooperation projects. This relatively good situation, together with excellent coordination, has enabled the project to fulfil and often exceed the objectives and results planned. Among other key factors that contributed to the project's success were: regular communication and exchanges between the Flemish and the Cuban counterparts, stability of project personnel, good teamwork in the Steering Committee and the commitment of the faculty staff to the project.

## **Phase II**

During the first phase of the project, work focused on improvement of the infrastructure and facilities in FAAS. This created the basis to focus on academic and scientific activities of great impact during the Phase II. The main results are:

- A very substantial renewal of faculty staff: the project contributed to the creation of 41 new young PhD graduates and a wide range of other postgraduate training.
- The quality of scientific papers from FAAS was improved: most of the articles were published in publications included in Web of Science (since 2006). The number of scientific papers published by professors and researchers from the faculty and the IBP increased significantly;
- The curricula of the faculty have received national accreditation at the level of excellent; the content of courses in the doctoral programmes of Sustainable Tropical Agricultural and Plant Biotechnology has also been improved and had significant impact at national and international levels.
- The quality of research results and volume of scientific production were improved, reinforcing capacity to participate in research at a high international standard.
- International contacts have been widened and diversified, facilitating the participation of faculty staff in new international networks as well as involvement in new lines of research; the capacity of FAAS to manage projects has also been strengthened.
- Faculty scientific events have gained in prestige and international recognition and the scientific journal of the faculty is recognised internationally.
- Partnerships with other UCLV faculties and HE institutions in Cuba have been reinforced.

## **Sustainability**

In terms of sustainability, the quality and volume of project contributions to FAAS suggest that the faculty, as well as the IBP, has established a robust research culture that will allow maintenance and improvements in the quality of academic and scientific activities. Among the staff involved in this project, strong English communication skills, a strong work ethic and commitment to new research and academic methodologies are evident.

The project has also benefited from the renovation of its laboratories and other facilities and improved access to information through subscription to some scientific journals and international databases, a strengthened faculty library (Project 3) and the ICT network (Project 1).

**Table 12: Assessment of key result areas Project 5**

Key result areas	Indicators (quantitative and full descriptive data)	Score
KRA 1: Research	Research was one of the main objectives of the project. Almost all the indicators have improved significantly during project implementation, especially in the case of articles in international peer reviewed journals; special attention should be paid to patents, technology transfer actions, innovation, and intellectual property.	4
KRA 2: Teaching	Teaching was one of the main objectives of the project. The quality of the academic activities improved during the implementation of the project, in particular the number of courses and training actions developed and the curricula (postgraduate and undergraduate) improved and were updated.	5
KRA 3: Extension and outreach	The project team provided advisory, consultancy and training services to other Cuban HE institutions, being a national reference point in the field of Agricultural Sciences. Its staff collaborated with external institutions and offer extension services to the community.	4
KRA 4: Management	The quality of the management has been one of the main aspects for the success of the whole project cycle, with excellent cooperation between both sides and the consolidation of a working culture in the FAAS.	5
KRA 5: Human resources development	One of the main results in terms of impact has been the work carried out in the field of human resources. The number of PhD, MSc and training courses has been of enormous value in the transformation of the faculty.	5
KRA 6: Infrastructure management	The improvement of physical infrastructure, renovation of the laboratories and renewal of equipment, ICT and library facilities, has changed the faculty, opening new opportunities for teaching and research of higher quality.	5
KRA 7: Mobilisation of additional re-sources/opportunities	The project team has been successful in collaborating with other projects with the IUC and in the Cuban HE. Nonetheless, there is a wide range of opportunities that can be used to improve the work in this area, for instance, spin off projects	4

### **Project 6 Strengthening postgraduate education and research in pharmaceutical sciences**

The overall objective of the project was the enhancement of scientific and academic competences in the field of pharmaceutical sciences at the UCLV.

The specific objective was to improve the quality of research and postgraduate education in the area of pharmaceutical sciences through the design and implementation of a PhD program.

#### **Project achievements overall**

This project is the result of close collaboration between the Pharmaceutical Sciences Department in the Faculty of Chemistry and Pharmacy (FQF) and the Chemical Bioactive Centre (CBQ). Both institutions have been involved in the teaching of pharmaceutical sciences at UCLV and are also recog-

nised at regional level as leaders in research and development of drugs. The units are located in the same building and share areas devoted to research and education.

At the start of the IUC programme both units faced many constraints and difficulties that significantly affected the quality of their academic and scientific activities. The lack of a PhD programme was considered the main weakness, but other problems were identified such as the need for development of human resources: young and inexperienced staff had few international links and there were few PhD holders. Other factors included outdated facilities (such as laboratories) for teaching and research due to the lack of funds.

Once these facilities were upgraded during Phase I, Phase II focused on improving postgraduate education in pharmaceutical sciences and enhancing staff capabilities. Several activities contributed to the latter, including short visits of local PhD students to Flemish universities, short training inputs for local professors in Flemish research groups and visits by Flemish professors to UCLV to act as lecturers and PhD co-promoters.

## **Phase II**

The work done during the second phase of the project has achieved all the expected results to a good standard. The main results are:

- Improvement in the quality of human resources in both teaching and research: five staff members have defended their PhD theses while eight received a Master's degree. In collaboration with Flemish colleagues, a PhD programme in pharmaceutical sciences was designed and implemented. The PhD programme has led to an increase in the number of PhD holders in the staff. About 50% of staff involved in the project benefited from the project mobility actions.
- Improvement of the academic and research facilities and infrastructure: teaching and research facilities in pharmaceutical sciences have been improved by the acquisition of basic teaching and laboratory resources. Several pieces of specialised equipment were acquired for each teaching and research laboratory involved in the project.
- ICT equipment availability improved: the FQF library received new technical books and textbooks.
- The pedagogical model has changed and improved. Undergraduate and postgraduate students have benefited substantially, in particular, considering that this field has a high component of laboratory practices; the project has achieved a great impact on the quality of courses. Specific contents in selected postgraduate subjects were also updated or included.
- The excellent working partnership with the Flemish universities, despite the retirement in 2010 of the main Flemish promoter, has consolidated the main research areas of the university and defined new areas of scientific research.
- Increased international exposure of the Department and CBQ staff has been a key element, mainly expressed by their membership in research networks and projects. The volume of conferences/events attendance increased, and the number of papers in international peer-reviewed journals published by members of staff has also increased.
- Collaboration with Flemish universities has contributed to the reorganisation of the research policy and procedures, and academic programmes at faculty and department levels. The project staff recognised this transformation as one of the main impacts of the project.

## Sustainability

The progress made by the FQF, in the Pharmaceutical Sciences Department and the CBQ, has established a work programme sustainable in the coming years. Nonetheless, there are some evident risks to the Department's ability to sustain and build on the achievements, including the need to strengthen staff skills in project proposal writing and project management in order to take advantage of opportunities to participate in international projects in this field, and to develop productive and cooperative links with the pharmaceutical industries. There is also a need to consolidate and improve staff capacity in English language communication skills.

**Table 13: Assessment of key result areas Project 6**

Key result areas	Indicators (quantitative and full descriptive data)	Score
KRA 1: Research	Research was one of the main objectives of the project. Almost all the indicators have improved during project implementation, but there remains work to do in terms of reaching outstanding results. Special attention should be paid to patents, technology transfer actions, intellectual property and cooperation with industry, considering the opportunities at national and international level.	4
KRA 2: Teaching	Teaching was one of the main objectives of the project. The quality of the academic activities improved during the implementation of the project. Most significant were the setting up of the PhD and MSc programmes, and improvement and updating of the curricula.	4
KRA 3: Extension and outreach	The project team provided advisory, consultancy and training services to other Cuban HE institutions, mainly at regional level. Staff are in a better position now to intervene actively at national level.	4
KRA 4: Management	The project team developed a good working relationship between Flanders and Cuba, which resulted in the changed working culture in the faculty and CBQ.	4
KRA 5: Human resources development	The launch of the PhD, MSc and other training courses has helped to transform the faculty.	4
KRA 6: Infrastructure management	The improvement of the physical infrastructure and the renovation and re-equipping of the laboratories presented new opportunities for teaching and research of higher quality.	5
KRA 7: Mobilisation of additional re-sources/opportunities	The project team has been working on the widening and diversifying of its international and national contacts. The faculty and the CBQ now have the necessary capacity to be more active in the international arena and to collaborate with the national pharmaceutical industry.	3



## **Project 7 Environmental education and clean technologies**

The overall objective of the project was the enhancement of scientific and academic competences in the field of environmental education and clean technologies at the UCLV, in order to guarantee a sustainable formation of enough skilled professionals to contribute to the control and the management of environmental problems in the central region of Cuba.

The specific objective was to increase the scientific and academic competence of postgraduate environmental education by upgrading the teaching staff, increasing research activities and by the development of PhD programmes in this scientific research field.

### **Project achievements overall**

At the start of the IUC programme, Project 7 aimed to address two main problems: the necessity to improve undergraduate and postgraduate education in environmental studies in UCLV and especially among the students of chemical engineering and undergraduate chemistry courses, both programmes offered by the FQF; and the necessity of increasing the low level of awareness of environmental issues among the local population.

Almost all the expected results were achieved, with particular achievements being the establishment of two doctoral programmes, the improvement of staff competences and the implementation of extension activities on environmental education. At the same time, the project developed a scientific and postgraduate strategy in the FQF and the Faculty of Mechanical Engineering (FIM), specifically the departments of Chemical Engineering and Chemistry, the Centre for Applied Chemistry (CEQA) and the Centre of Thermal Energy Studies (CETA).

This project has also made a valuable contribution to care of the environment in the local community through the development of a range of university extension activities and tailor-made postgraduate courses for business managers who all have a stake in environmental management. The UCLV Botanical Garden, where people are in close contact with nature, was totally restored in the project and now provides an interface between university and community in the province and central region, providing opportunities for extension of research and training.

In Phase 1 of the project the focus was to improve the chemical laboratory infrastructure, the purchase of equipment, computers, software, books and other materials. In Phase II staff training was prioritised through PhDs in Belgium and Cuba and postgraduate training, the improvement of classrooms and environmental education extension activities.

### **Phase II**

The second phase of the project achieved outcomes with considerable impact on the university and the community. Among the most important results were:

- Collaboration with Flemish universities achieved a dramatic transformation of the vision and the organisational procedures of the UCLV departments and Centres involved, resulting in new ways of conducting research and academic activities. The project team views this as the most important result of the project.
- The project enabled the set-up of two PhD accredited programmes, one of which was accredited as excellent. The chemical engineering programme has twice been accredited as excellent.

- The profile and reputation of the Masters' programmes in environmental sanitation and environmental safety and security, targeted at the central region of Cuba, were raised during the project due to improved teaching staff, facilities, equipment, and access to scientific literature.
- More than 15 members of the faculty obtained PhD degrees from either Belgium or Cuba.
- The number of awards from the Academy of Sciences of Cuba and the Ministry of Science, Technology and Environment (CITMA) has significantly increased.
- The Botanical Garden offers high quality activities for the university community and the people of Villa Clara province. The students linked to scientific group "ECORAZON" are involved in environmental research.
- Staff from the academic units involved in the project have published their research results in high-impact journals and actively participated in international conferences and events.

### Sustainability

This project has achieved significant improvements for all the academic and research units in UCLV that were involved, and an increase in international contacts, strengthening cooperation with institutions in Spain, Switzerland, France, Brazil, and Mexico among others. The Botanical Garden, with a particular emphasis on medicinal plants, restored with minimal funds and involving students, faculty and community, is very sustainable. The only setback was the failure to secure approval from the Flemish university lead partner to set up joint Cuban and Belgian PhDs.

**Table 14: Assessment of key result areas Project 7**

Key result areas	Indicators (quantitative and full descriptive data)	Score
KRA 1: Research	Research was one of the main objectives of the project. Almost all the indicators have improved during project implementation but special attention should be paid to patents, technology transfer actions, innovation, and intellectual property.	4
KRA 2: Teaching	Teaching was one of the main objectives of the project. The quality of the academic activities improved during project implementation, with the set-up of two PhD programmes. The demand for Masters' courses and PhD programmes is increasing in the central region (Villa Clara, Cienfuegos, Sancti Spiritus) and lectures or parts of a PhD programme have been taught in five other MES universities.	5
KRA 3: Extension and outreach	The project team provided advisory, consultancy and training services to other Cuban HE institutions, mainly at regional level. The staff is one of the most active in collaboration with industry, enterprises and others in the community, with strong links with other universities and enterprises at the regional and national level.	5
KRA 4: Management	During the whole project, good cooperation between the Flemish and Cuban sides created the basis for a working culture in the units of the UCLV that participated in this project. Working and collaborating across UCLV faculties also presented no problems.	4
KRA 5: Human resources development	The number of high level postgraduates and PhD graduates is now providing sufficient skilled professionals to deal with the environmental problems of the central region. The units involved should design a strategy for HR development to maintain/improve the academic and scientific results achieved during the project.	4

Key result areas	Indicators (quantitative and full descriptive data)	Score
KRA 6: Infrastructure management	Improvement of the physical infrastructure including renovation of laboratories satisfied academic and scientific requirements. High impact was achieved in the restoration of the Botanical Garden.	4
KRA 7: Mobilisation of additional re-sources/opportunities	The project team has been active in the pursuit of new financial means and opportunities.	4

## Project 8 Strengthening research and PhD formation in computer sciences

The overall objective of the project was the improvement of the PhD programme in computer science at UCLV.

The specific objective was to develop the research work and PhD formation of specialists in computer sciences and its applications in order to solve scientific and technological problems relevant to Cuban society.

### Project achievements overall

The need to improve and update the computer sciences skills of the academics and researchers who were involved in teaching the PhD programme in computer science was the key driver of this project. This was identified as a critical action in order to keep pace with the rapidly changing progress in this field. Moreover, Cuba had started to plan the development of a software industry and the 'informatisation' of society, and both processes demanded the development of highly skilled human resources. The project was, therefore, addressing a strategic priority in UCLV, as well as a catalyst to introduce a multidisciplinary and interdisciplinary culture in the whole institution.

The PhD programme in computer science at UCLV was identified as a key issue for the development of the discipline; the programme also influenced many other research areas and different processes in UCLV. Several departments and units were involved in teaching courses and supporting the associated research and development activities in this PhD programme. Strong collaboration across faculties and research centres through the application of computer sciences has been a distinctive feature of the project. The Faculty of Mathematics, Physics and Computer Science, and the Faculty of Electrical Engineering have been most active, as well as the Centre for Informatics Studies (CEI) and the Centre for Studies on Electronics and Information Technologies (CEETI). Three curricula (Computer Science, Telecommunications and Automation), and six MSc programmes (Computer Science, Applied Computing, Telematics, Electronics, Automatics, and Biomedical Engineering) provide most of the PhD students.

### Phase II

During Phase II the main achievements have been:

- A change in the mentality of the staff in their approach to the quality and management of teaching and research.
- The Faculty of Mathematics, Physics and Computer Science now has a high reputation within Cuban HE, being considered one of the best in the country. Staff have won many of the awards granted by the Cuban Academy of Sciences in this field.
- The project has had a high impact on the quality of research and scientific publications and on staff participation in international conferences and events. UCLV has more papers in interna-

tional journals in computer sciences and more than 100 papers were presented in relevant international conferences during the project period.

- Partnerships with other HE institutions in the country have been established, contributing to the strengthened culture of institutional collaboration in the UCLV and the HE system.
- A PhD in Computer Sciences was established at UCLV, the number of PhD students from all over the country increased and the quality of theses improved (two were selected, in 2008 and 2012, as the best thesis in Cuba).
- The staff of the faculty improved the quality of teaching and research significantly. Thirteen Cuban PhD students from the staff were trained in Flemish universities. Some staff members are reviewers in international journals and members of international scientific committees.
- In the last few years project management skills among the project staff have improved and this opens new opportunities for national and international cooperation. Project staff have made contacts with researchers of recognised international prestige.
- Project team members made significant improvement in English communication skills.

### Sustainability

In principle, this project should not have problems with sustainability. The project will play an active role in the Network Cuba project funded by VLIR-UOS. The development of several cooperation links with national and international institutions also seems to guarantee sustainable work. There is increased interest among foreign students in studying on the postgraduate programmes of the faculty. Some progress has been made in establishing cooperative ties with local industries for developing specialised services. However, sustainability is dependent on national strategies for information technology development, especially with regard to the software industry and the national ICT infrastructure that will enable exploitation of the internet and computer science applications.

**Table 15: Assessment of key result areas Project 8**

Key result areas	Indicators (quantitative and full descriptive data)	Score
KRA 1: Research	All the indicators have improved and are reaching a high standard of quality. The way forward is a strategy for translating research into activities related to patents, technology transfer, innovation, intellectual property and collaboration between university and industry, especially with the Cuban software industry.	4
KRA 2: Teaching	The research and PhD formation in computer sciences are regarded as among the most successful in Cuba; many institutions have incorporated the results as a consequence. More than 60 young teachers from other Cuban institutions are doing PhD research in collaboration with a UCLV research group.	5
KRA 3: Extension and outreach	The project has provided advisory, consultancy and training services to other Cuban HE institutions. The Cuban software industry has been approached to ensure the transfer of research into practice. To facilitate this, agreements have been signed with Universidad de Ciencias Informáticas and the Ministry of Communications' software company (DeSoft).	5
KRA 4: Management	The project team has succeeded well in collaborating on the management of the project, especially promoting synergies and multidisciplinary approaches that have had great impact in UCLV.	5

Key result areas	Indicators (quantitative and full descriptive data)	Score
KRA 5: Human resources development	The number of PhD, MSc and training courses has had enormous value in the transformation of the faculty and a significant contribution to the improvement of capacity in other institutions.	5
KRA 6: Infrastructure management	The improvement of the physical infrastructure in Phase 1 satisfied the academic and scientific requirements.	4
KRA 7: Mobilisation of additional re-resources/opportunities	The project team has been exploring contacts in the academic, scientific and entrepreneurial sectors. Examples include collaboration in projects with the Universidad de Granada, Spain, and collaboration with some official institutions in Cuba such as the Ministry of Transport and the Ministry of Communications.	5

### **The plus value of the IUC programme in comparison to other donor funded cooperation programmes.**

There are several unique aspects of the VLIR-UOS IUC programme that distinguish it from any other international cooperation programme or intervention in which UCLV has participated. These features are present in all VLIR-UOS IUC programmes, but UCLV (and perhaps the HE system in Cuba as a whole) has made the very best of them and they have contributed to the programme's success overall. These key features are:

- In an IUC programme UCLV engaged directly with one or more Flemish universities, and not with or through VLIR-UOS or other intermediaries; projects were negotiated between the joint university teams, managed and reviewed together and changes or contentious issues negotiated and resolved university to university, thus strengthening real academic partnership and collaboration.
- At the beginning of the IUC programme, in the pre-partnership programme, adequate time was taken to 'match-make' between the UCLV and Flemish universities, to develop and negotiate joint partnerships and project proposals based on all parties interests and needs. This was an important process in which UCLV academics had to clarify and defend their needs and ideas and arrive at good compromises with Flemish partners. It is a significantly demand-driven process, in comparison to the preparatory stages of other donor -funded HE cooperation programmes.
- The length of time that VLIR-UOS and Flemish partner universities committed to the IUC programme at UCLV is unique. A two-phase, 10 to 12 -year programme allowed UCLV to engage in long-term thinking and planning in collaboration with the Flemish partners. During the programme, projects have been shaped and changed from the original project plans (in detail though not in objectives), as Flemish partner teams have learnt more about UCLV and Cuba's specific needs and context, and the Cuban partners have developed a more international outlook and experience. In some projects the Flemish promoters and Cuban leaders have changed, but wider, stable, team relationships built up over years have meant that this has not presented any significant risks to project progress. Real and sustainable capacity development, based on training, joint research, personal relationships and widening circles of contacts on both sides of the project partnership over an extended period, has taken place.

- The end of the IUC programme does not mean the end of the UCLV engagement with Flemish partners: the VLIR-UOS Network Cuba project will provide a vehicle for continued collaboration in ICT-related areas, and the important role that UCLV plays in the Cuban HE national network will ensure that future VLIR-UOS cooperation programmes and projects build on the gains of the UCLV programme.

## **Qualitative evaluation of the programme and its constituent projects**

### **Qualitative evaluation of the programme as a whole**

#### **Efficiency**

Overall the efficiency of the IUC programme and its project activities was good. Indicators of the efficiency of the programme include:

- Effective collaboration between the VUB and UCLV programme coordination and administration units resulting in good communications, efficient operations, financial and other resource management.
- Efficiency, in so far as the Cuban national constraints and bureaucracy would permit, in procurement of equipment and materials and of services, and the efficient use of all available programme funds.
- Continued synergy between the various projects in the programme, which, as noted in the mid-term evaluation, resulted in shared project inputs (staff expertise, vehicles, labs etc.), cooperation in research (joint research activities, multi-usable research outputs, mixed teams and/or exchanges, etc.), capacity building (joint training, logistics and infrastructure support, exchanges of lessons learned, tools and instruments, etc.) and extension (coordinated extension activities or material development, etc.).

#### **Impact**

The impact of the programme has been felt not only in the faculties and departments directly benefiting from projects, but also in other faculties and departments through three mechanisms:

- Principally, the inclusion in the IUC programme of the cluster of 'service' or organisational capacity development projects (Projects 1, 2, 3 and 4), which have transformed the institutional approach to the use of ICT for management, administration, academic and research purposes and had considerable influence on the wider HE network in Cuba.
- The academic and research projects (Projects 5-8) have consistently widened participation in project activities through increasing collaboration with other faculties and departments in joint research, sharing of facilities and research outputs, particularly in Phase II.
- All projects have involved staff and sometimes students from other faculties, as well as external stakeholders, in training and workshops by Flemish project staff when appropriate.

The academic and research projects all share three striking features:

- The projects have resulted in real 'changed minds'; UCLV staff attitudes and personal confidence in research and working methods, as well as skills and capacity to do high quality research with international partners, have been transformed through collaboration with Flemish partners and project activities.

- The international contacts opened up through the projects were not just with Belgium; Flemish partners in all projects have been assiduous in opening doors to other international contacts and research collaboration for their Cuban counterparts and scholars.
- These changes have translated into concrete results, including many high quality published papers in high impact journals (especially during Phase II), courses and curricula accredited nationally and internationally as excellent, national awards and raised status for UCLV, increased levels of student applications to take UCLV courses etc.

### **Development relevance**

The IUC programme prioritised plant and animal and pharmaceutical sciences, biotechnology and computer sciences in line with the national development priorities of Cuba and has remained relevant to Cuba's HE and research development strategies throughout the programme duration. The underpinning emphasis on developing ICT infrastructure and the capacity to use ICT in teaching, learning and research has also been, and remains, a key goal of the MES. The IUC programme has provided a very solid infrastructure and human resource foundation at UCLV for national networked activities in these areas to be taken forward.

The IUC programme has made judicious use of funding for Close the Gap projects providing ICT equipment, both to benefit the university itself and to support various extension projects. These include the provision of computers to the Provincial Library of Villa Clara (Project 3), to the Provincial Paediatric Hospital, where the impact on hospital and clinical management and access by medical staff to information has been significant, and to the Provincial Directorate of Economic Planning, where Close the Gap projects support staff and applicants in the development and promotion of project proposals for government funding in key priority areas of national development.

### **Sustainability**

In terms of human resources, the academic and research gains of the IUC programme for UCLV are evidently sustainable since there is little staff mobility, and the experience and changed attitudes and working practices of those PhD and Master scholars, and other training recipients, will undoubtedly have a sustained impact on their work as teachers and researchers at UCLV.

Improved quality and relevance in courses, curricula and research programmes will be sustained, and is already resulting in increased student applications from around Cuba and (fee-paying) students from the Latin American region.

In terms of research, ICT and other facilities and equipment to support and underpin quality teaching and research, sustainability of the programme achievements is less assured, as this is dependent on UCLV's future financial resources and on external support through a sustained programme of international cooperation projects. In the short-term, continued engagement by UCLV in the VLIR-UOS Network Cuba project will assure some modest inputs to the ICT related areas.

The Government of Cuba has relaxed some of the regulations related to universities making direct financial gain from research results through product and software applications development, consultancy, technical and advisory services, so the programme leaves UCLV in a strong position in some areas to exploit these kinds of opportunity.

### **Qualitative evaluation of the different projects**

The qualitative criteria are evaluated and summarised below for each individual project. Table 16 presents the overall qualitative scores for the eight projects and the score definitions.



**Table 16: Summary of qualitative evaluation scores for the UCLV IUC projects**

Qualitative evaluation criteria	P 1	P 2	P 3	P 4a	P 5	P 6	P 7	P 8
1. Quality	5	5	4	4	5	5	5	5
2. Effectiveness	5	4	4	4	5	5	5	5
3. Efficiency	5	4	3	5	5	5	5	5
4. Impact	5	5	3	5	5	5	5	5
5. Development relevance	4	4	3	4	5	4	4	5
6. Sustainability	4	4	3	3	5	4	4	4

**Project 1 ICT infrastructure and e-administration**

The exchange of experiences and expertise with Flemish experts and partner institution has been a key factor in this project. Collaboration principally with UG has enabled the central DICT to attain a critical mass of capacity in order to develop and sustain future activities and plans, and offer full support services to staff and student users of the ICT network and applications.

**Table 17: Project 1 ICT infrastructure and e-administration: qualitative evaluation**

Criterion	Indicators	Score
1. Quality	The planning and management of the ICT infrastructure and interfaces with UCLV managers, academic staff and students has been highly professional. The key to this has been the development of well-trained, well-managed, motivated and effective staff in the DICT. High quality technical support has been provided to other faculties and departments, both for specific project activities and continuing support to users of the ICT systems and applications.	5
2. Effectiveness	The objectives of the project were realistic and specific objectives and activities were reviewed and revised very effectively by the Flemish and Cuban project team to respond to technology change and the changing national context for ICT infrastructure development.	5
3. Efficiency	The financial resources available to develop and expand the ICT infrastructure have been used as efficiently as possible without sacrificing quality for cheapness in equipment. Innovative use has been made of recycled equipment (e.g. redundant Belgian servers, a discarded generator); additional funding for equipment was obtained through collaboration in new projects.  Access to ICT facilities, UCLV intranet and the internet is managed with efficiency to maximise the use of available equipment and bandwidth.	5
4. Impact	The outcomes of the project have been significant in four key areas: <ul style="list-style-type: none"> <li>reasonable and sometimes very good access to ICT facilities, the UCLV intranet and (to a lesser extent) internet for all UCLV staff and students</li> <li>improved and more efficient management and administration in UCLV central systems such as student records, finances, etc.</li> <li>opening up of new opportunities for research and teaching using ICT</li> <li>development of a pool of expertise and experience in ICT infrastructure and networking that will benefit the whole HE network in Cuba</li> </ul>	5

Criterion	Indicators	Score
5. Development relevance	The ICT infrastructure and human resources developed in the IUC programme will benefit UCLV and the HE network through the dissemination of good practice and expertise; this is an area of critical development relevance for HE and research in Cuba. The extension of ICT services into the community, supported by the project and Close the Gap, also has development relevance.	4
6. Sustainability	<p>Sustainability is dependent on four critical factors:</p> <ul style="list-style-type: none"> <li>• Improvement in Cuban national connectivity and consequent improvements in the availability of bandwidth for HE organisations, in order to meet raised expectations among staff and students and keep up with technology change. This is not within UCLV's control.</li> <li>• Financial sustainability to enable upgrading and replacement of ICT equipment: this is not assured and DICT has taken steps to mitigate risks.</li> <li>• Understanding on the part of the UCLV management of the critical importance of expansion and good management of ICT infrastructure and network and their commitment to maintain the achievements of the IUC.</li> <li>• The retention in UCLV of the highly skilled ICT technical staff: they work in a fast-moving area where their skills are much in demand outside HE.</li> </ul>	4

### Project 2 ICT in education

One of the most important achievements of the project was to change the minds of UCLV professors and academic staff, most of whom were practised in using very traditional teaching methods, about the importance of using ICT to transform teaching and learning and improve quality. During the two phases of IUC programme the number of courses in UCLV supported by ICT increased five-fold.

**Table 18: Project 2 ICT in education: qualitative evaluation**

Criterion	Indicators	Score
1. Quality	<p>The Masters programme in New Technologies for Education was nominated by MES as the postgraduate programme of the year in 2009.</p> <p>There are institutional policies promoting ICT and education in place and the attitudes and behaviour of the academic staff in UCLV are changing, slowly. Experiences of success and best practice are accumulating to drive through change in the use of ICT in teaching and learning. SEPAD or Moodle are in use in most UCLV faculties and in municipalities' satellite university centres. The Faculty of Information and Educational Sciences is beginning to generate research programmes and research outputs of international quality standards.</p>	5
2. Effectiveness	The objectives of the project were in large part dependent on the development of ICT infrastructure and services under Project 1. The academic and developmental objectives and activities were achieved and in some cases exceeded. The faculty is now in a good position to realise the quality gains implicit in the specific objectives of the project.	4
3. Efficiency	<p>The faculty has used the modest project resources efficiently to install equipment and upgrade facilities in education and technology, and to fund PhD scholarships in Phase II.</p> <p>The project built on the existing work done to develop SEPAD.</p> <p>The synergies between Projects 1, 2 and 4 have been exploited effectively; there are also synergies between 2 and 3 that emerged during the course of the IUC</p>	4

Criterion	Indicators	Score
	programme that can be addressed under the new Network Cuba project	
4. Impact	<p>The project has resulted in an improved strategy for ICT and education in UCLV and has been formative on the MES vision. Activities under the project have enabled the team members, the faculty and other academic staff involved to reach a critical mass of capacity and competence in order to develop academic activity in this field at UCLV in future.</p> <p>The benefits of this project have only recently begun to be felt among faculty and academic staff. Faculties where ICT and educational good practices have begun to take hold include the Faculties of Agricultural Sciences, Electrical Engineering, Mathematics, Physics and Computer Science, Mechanical Engineering, and Psychology. Graduates of PhDs or Masters courses are now embedded in all faculties as champions or leaders of groups.</p>	5
5. Development relevance	The use of ICT in HE teaching, learning and research, to enhance quality and widen access to HE in Cuba has been and remains a priority development area.	4
6. Sustainability	<p>Sustainability of project gains is dependent on three critical factors:</p> <ul style="list-style-type: none"> <li>• the maintenance of the ICT infrastructure in UCLV through upgrading and replacement of ICT equipment and retention of expert technical support</li> <li>• understanding on the part of the UCLV management of the critical importance of ICT in teaching and learning, and its commitment to strategic development in this area</li> <li>• new opportunities for international collaboration (including the Network Cuba project) that will advance the faculty's research programme</li> </ul>	4

### Project 3 Information culture development

The faculty libraries supporting students and academic staff that have been renewed under the project are proving to be effective: skilled and confident library staff, able to support information seeking and research in specialist areas, and to communicate well with both staff and students, are the key to the promotion of an improved information culture through these facilities.

**Table 19: Project 3 Information culture development: qualitative evaluation**

Criterion	Indicators	Score
1. Quality	<p>The services provided centrally and in faculty libraries are acknowledged by staff and students to be good and based on considerable improvements in infrastructure, access to computers and services on the intranet.</p> <p>The project has built on a well-qualified and skilled library staff at UCLV but with significant needs for training and knowledge upgrading in new areas relating to online information resources and services in support of education and research. Investment in human resource development was not the highest priority for project funding and opportunities for staff development must have been constrained by the lack of English language competence among the Cuban project team. One challenge for the Flemish partner was supporting the project with appropriately expert Flemish staff.</p>	4
2. Effectiveness	The overall development objective of increasing the capacity of teachers, investigators and students with regard to obtaining information and knowledge by means of ICT, and the overall academic objective, have both been achieved within the constraints of project and organisational funding (e.g. no funding for	4

Criterion	Indicators	Score
	licensing access to major scientific research databases and e-journals) and available bandwidth for internet access. In Phase II the specific academic objective of developing information skills among students and staff has been partially achieved, especially with respect to students. Changing the information culture, attitudes and research behaviour of academic staff and researchers is acknowledged by the project team to be a long-term challenge.	
3. Efficiency	The modest budget of the project was used in large part to develop the library infrastructure and computer facilities to provide the basis for online (intranet) library service development and access to information sources.	3
4. Impact	Faculty libraries in seven of the 13 faculties provide services to students and staff through access to the new books acquired by faculties in the IUC programme, the automated catalogue database and other intranet-based services and support of information specialists in the subject discipline.  The automated library database has been live on the intranet since September 2012 and its use is growing. Other library services are under development, such as a UCLV repository.  Information skills courses are now offered to students at all levels and in all courses in UCLV. There are as yet no statistics available on take-up of the courses or evidence of any outcomes from the courses in terms of student behaviour change or improved learning.	3
5. Development relevance	The project has supported the development of provincial library services through a Close the Gap computer project and library staff training support.	3
6. Sustainability	The library has set up and maintains its own ICT server managing its own database (for library management, automated catalogue, circulation, online databases etc) and developed its own ICT support staff under the project. Sustainability is at risk without the continued technical support of the Flemish partner and guaranteed renewal of the equipment.	3

#### **Project 4 Capacity building for communication in English for academic purposes in international collaboration**

The IUC programme provided UCLV staff with much-needed motivation to improve their English language skills: as one project team member put it *“forever we have been told that English was the thing needed to open international doors, but before VLIR there were no doors to open”*.

Significant progress has been made, particularly since the mid-term evaluation commented that the English language was still a problem across the IUC programme. But this progress can be measured in almost direct relation to the level of funding available for staff training, academic and research scholarships in Flanders under the programme: communication skills in English are most in evidence in those projects that had relatively high levels of investment in human resource development.

**Table 20: Project 4 CeBeCE: qualitative evaluation**

Criterion	Indicators	Score
1. Quality	<p>The CAELTIC model of language training introduced by the Flemish project promoter was initially a challenge for both staff in the Department of English Studies and students of English language in UCLV, involving as it did a complete transformation of the traditional methods of language training.</p> <p>However, the CAELTIC courses and support to academics and students taking up training in Belgium and elsewhere under the IUC programme and in other international cooperation and exchanges have been of high quality, once the infrastructure and applications were in place and the staff of the Centre trained. The existence of the specialist and expert CAELTIC team and facilities is clearly one of the IUC programme's most significant benefits and one that is recognised by other faculties and departments not directly involved.</p>	4
2. Effectiveness	<p>English language capacity gaps and need for action were evident from the start of the pre-partnership programme and the project would have been more effective if it could have been included as a full project from the start. Nonetheless the objectives have been largely achieved in a short time. The short time-scale and low budget also prevented the inclusion of more sustained academic research and opportunities to strengthen the capacities, knowledge and experience of the CAELTIC staff through study overseas.</p>	4
3. Efficiency	<p>The project made efficient and effective use of the relatively low funding available for the development of the Centre, ICT-based applications and Centre staff training.</p>	5
4. Impact	<p>The project has achieved all its planned outcomes and has had a significant impact on the level of English language communication and academic writing in English among academic staff and postgraduate students in those faculties involved in the IUC programme and several that were not.</p>	5
5. Development relevance	<p>English language communication and writing skills are a critical factor in successful international cooperation among academic and HE institutions in Cuba. CAELTIC is making a significant contribution to UCLV's capacity to expand its international profile and to the Cuban HE network more generally.</p>	4
6. Sustainability	<p>English language gains could easily be lost as the motivation from the IUC programme is no longer there. The university authorities need to recognise the prime importance of English communication skills in internationalisation of the university, and apply a 'carrot and stick' approach to ensuring that academic staff continue to improve in English. The CAELTIC staff need to be more innovative in offering easy and encouraging solutions for academic staff and students to maintain and strengthen their spoken English skills</p>	3

### **Project 5 Improving the quality of education and research programmes in plant and animal sciences**

This project is the most effective of the academic and research projects in the IUC programme in UCLV. The impact on the university of cooperation with Flemish universities through VLIR-UOS initiatives (taking into account both phases of the IUC programme and the OI projects previously developed) is outstanding.

**Table 21: Project 5 Plant and animal sciences: qualitative evaluation**

Criterion	Indicators	Score
1. Quality	The research activities as well as the education services have reached a high standard during the implementation of the project, indicated especially by the range and number of articles in international and national peer-reviewed journals, the number of courses and training actions developed and the improvements and updating of the curricula (postgraduate and undergraduate). The key to this has been the development of well-trained, well-managed, motivated and effective staff in the faculty and the IBP, as well as strong cooperation between both sides in project coordination.	5
2. Effectiveness	The overall and specific objectives of the project were realistic and totally achieved during the project implementation. The impact of the project results has been extremely positive and the faculty and IBP are in a better position to develop teaching and research of high standards.	5
3. Efficiency	The financial resources were used very efficiently and in total correspondence with the objectives and expected results planned from the very beginning of the project. Flemish and Cuban coordination has prioritised the key elements to ensure smooth implementation. In addition, the participation of the faculty in other actions has enabled access to complementary funds to expand the institutional impact of the project.	5
4. Impact	The outcomes of the project have been significant in the following key areas: <ul style="list-style-type: none"> <li>▪ Management and administration of the organisational processes of the faculty and the IBP have improved and become more efficient.</li> <li>▪ The physical infrastructure, laboratory and equipment have improved.</li> <li>▪ The quality of the academic and research staff has improved.</li> <li>▪ A pool of expertise and experience in research and networking has developed that will benefit a significant segment of HE in Cuba.</li> <li>▪ New international cooperation opportunities for research and teaching have opened up.</li> </ul>	5
5. Development relevance	The project will benefit other units of UCLV and the HE network through the dissemination of best practice and expertise; this is an area of critical development relevance for HE and research in Cuba. The extension of faculty services into the community should constitute one of the main lines of intervention for the faculty staff in the future as part of the national policy to develop agricultural production through public and private mechanisms.	5
6. Sustainability	The faculty and the IBP have established a robust culture that will allow them to keep/increase the quality of its academic and scientific activities. This is also a strategic area for the development of the country, so it is expected that the faculty and UCLV will receive the necessary support from government to maintain the high standards achieved during the project.	5

**Project 6 Strengthening postgraduate education and research in pharmaceutical sciences**

The progress made by the FQF and the CBQ in terms of infrastructure and quality of human resources during the implementation of the project have created conditions for a sustainable work programme in the coming years. The exchange of experiences and expertise with Flemish experts and partner institutions in Flanders has been a key factor in the improvement of the academic and scientific processes of both entities of the UCLV.

**Table 22: Project 6 Pharmaceutical sciences: qualitative evaluation**

Criterion	Indicators	Score
1. Quality	The quality of the research and teaching activities has been improved during the implementation of the project, as a result of the benefits brought through human resource development in the faculty. The launch of the PhD and MSc programmes during this period, as well as the improvements and updating of the curricula (postgraduate and undergraduate) have revitalised the academic and scientific activity of the faculty.	5
2. Effectiveness	The overall and specific objectives of the project were realistic and totally achieved during the project implementation. The project has changed for the better the situation of the faculty which now is well positioned to meet the requirements of its academic, scientific and social mission.	5
3. Efficiency	The Flemish and Cuban project team used the project resources efficiently to improve physical infrastructure and installation of laboratory equipment as well as the acquisition of the books, ICT equipment and research material.	5
4. Impact	The outcomes of the project have been significant in the following key areas: <ul style="list-style-type: none"> <li>▪ Management and administration of the organisational processes of the faculty and the CBQ have improved and become more efficient.</li> <li>▪ Physical infrastructure and laboratory equipment have improved.</li> <li>▪ The quality of the academic and research staff has improved.</li> <li>▪ A pool of expertise and experience, and research infrastructure and networking, has developed that will benefit other HE Institutions.</li> <li>▪ New opportunities have opened up for establishing close links for co-operation with the national pharmaceutical industry.</li> </ul>	5
5. Development relevance	Some progress has been made in the collaboration of the faculty and the CBQ with entities of the community and the industrial sector, mainly at regional level, but the UCLV in general and the faculty and CBQ in particular have a lot of work to do in this field, especially since the pharmaceutical industry is one of the strategic sectors of the national economy. During the assessment the project team proved to be aware of this challenge and were working on a strategy to consolidate results in this direction.	4
6. Sustainability	The work done during the implementation of the project positions the faculty and the CBQ to maintain and improve the quality of academic and scientific activities, but there are still some areas that could be improved. As this is a key area of the Cuban economy, it is expected that the university/faculty will receive the necessary support from the government to build on the teaching and research achieved in the project.	4

**Project 7 Environmental education and clean technologies**

The implementation of two doctoral programmes, the improvement of the academic and research staff and the implementation of extension activities in environmental education are the main outcomes of the project. The project has also contributed to the restoration of the Botanical Garden of the university.



**Table 23: Project 7 Environmental education and clean technologies: qualitative evaluation**

Criterion	Indicators	Score
1. Quality	The quality of the academic and scientific processes has improved in the years of cooperation with the Flemish universities, especially in the teaching activities which have benefited the different UCLV units that participated in the project, and established an important interdisciplinary approach to environmental education. The launch of the PhD programme is the main achievement. The project has contributed to the creation and dissemination of a culture of environmental awareness and conservation in the community.	5
2. Effectiveness	Both objectives, overall and specific, were achieved with high standard of quality, especially the upgrading of the teaching staff, the increasing of the research activities and the reinforcing of an environmental awareness through development of a PhD programme, postgraduate courses and extension activities in this scientific field.	5
3. Efficiency	The financial resources have been used in a very efficient way and in correspondence with the priorities defined by both sides of the project coordination. The units of the UCLV involved in the project have also tried to complement the investment made by the VLIR-UOS with other funding sources at national and international level.	5
4. Impact	The outcomes of the project have been significant in the following key areas: <ul style="list-style-type: none"> <li>▪ The organisational procedures for new ways of doing research and academic activities have improved.</li> <li>▪ The curricula of the postgraduate courses, the quality of the staff and the physical infrastructure and laboratories have all improved, thus enabling some courses to be accredited as excellent.</li> <li>▪ New international and national cooperation opportunities for research and teaching have opened up as well as effective interdisciplinary cooperation with other units of the UCLV.</li> <li>▪ Work with the community has improved to disseminate a culture of environmental awareness and conservation in the wider community.</li> </ul>	5
5. Development relevance	The restoration of the Botanical Garden and the various initiatives carried out in the interactions with the community will contribute to the awareness of this key development theme among the population.	4
6. Sustainability	Care and protection of the environment is a subject of national attention. The progress made by UCLV during the implementation of this project should serve as a basis for greater institutional intervention in thematic programmes/initiatives carried out at provincial, regional or national level.	4

**Project 8 Strengthening research and PhD formation in computer sciences and its applications**

The faculty has significantly improved the quality of teaching and research processes. Some members of staff have become reviewers in international journals and members of international scientific committees. The project has had a high impact on the quality of research and the development of scientific publications but the main change has been in the willingness of the staff to develop new methods of teaching and research.

**Table 24: Project 8 Computer Sciences: qualitative evaluation**

Criterion	Indicators	Score
1. Quality	All the research and education services planned were implemented to a high standard. The project has allowed the improvement of the academic and scientific mission of the faculty by the promotion of a methodology that integrates teaching and research. The project has made an enormous contribution to the prestige and the leading position of the UCLV in this field within the Cuban HE System.	5
2. Effectiveness	The overall and specific objectives of the project were realistic and totally achieved during implementation. In some ways the outcomes achieved during all the years of collaboration with Flemish universities have exceeded expectations. The UCLV has consolidated its leading position in this field, both at scientific and academic level within the national context.	5
3. Efficiency	The project coordination has made very good use of all the financial means allocated for collaboration with Flemish universities and has also demonstrated very good management and coordination procedures in working with the ICT-related projects (P1-4) and avoiding duplications.	5
4. Impact	The establishment of the PhD in Computer Sciences at UCLV has had a great impact on improving the capabilities of the institution as well as on other Cuban universities where there is high demand. The PhD programme has been identified as a key element in the development of this research discipline in Cuba and has influenced many other research areas and different processes at the university level. Staff have won many of the awards granted by the Cuban Academy of Sciences in this field and participate actively in development of applications for use in various local industries.	5
5. Development relevance	The human resources and all the institutional capacity developed by the UCLV on computer sciences will benefit the whole institution, other universities and a wide range of entities from other sectors of Cuban society through the dissemination of best practice and expertise; this is a field of critical development relevance for HE and research in Cuba.	5
6. Sustainability	The project should not have problems of sustainability considering the impact and intervention of the UCLV in this field at national and international level, as well as the role the faculty will play in the new Network Cuba project. However, this is critically dependent on the adoption of appropriate strategies of information in the country, especially as regards the development of the software industry and implementation of the proper technological infrastructure that will enable the exploitation of the internet and computer science applications.	4

### **Evaluation of the role of and capacity for international relations and international projects in UCLV**

The IUC programme has enabled significant progress in the internationalisation of academic and research activities in UCLV. Personal and organisational contacts and networks with academics, scientists and professionals have been greatly expanded in the faculties and departments involved in IUC programme projects. Awareness of possibilities and opportunities to engage in and develop international projects has been raised and levels of experience and confidence are apparent among academic and research staff, now more able to seize advantages and opportunities.

In this context the evaluators carried out a survey of 46 members of the UCLV community (from different faculties and departments, of which some were involved in the IUC programme projects and others not, to assess the level of maturity or readiness to identify, develop and manage international projects in UCLV, and the organisational capacity to promote sustainable actions. This included an assessment of the university's current resources and structures in place through its International Relations Office.

The survey asked participants to consider and answer questions that enabled the ranking of the overall work of UCLV in relation to eight key criteria for the successful implementation of international processes in a university:

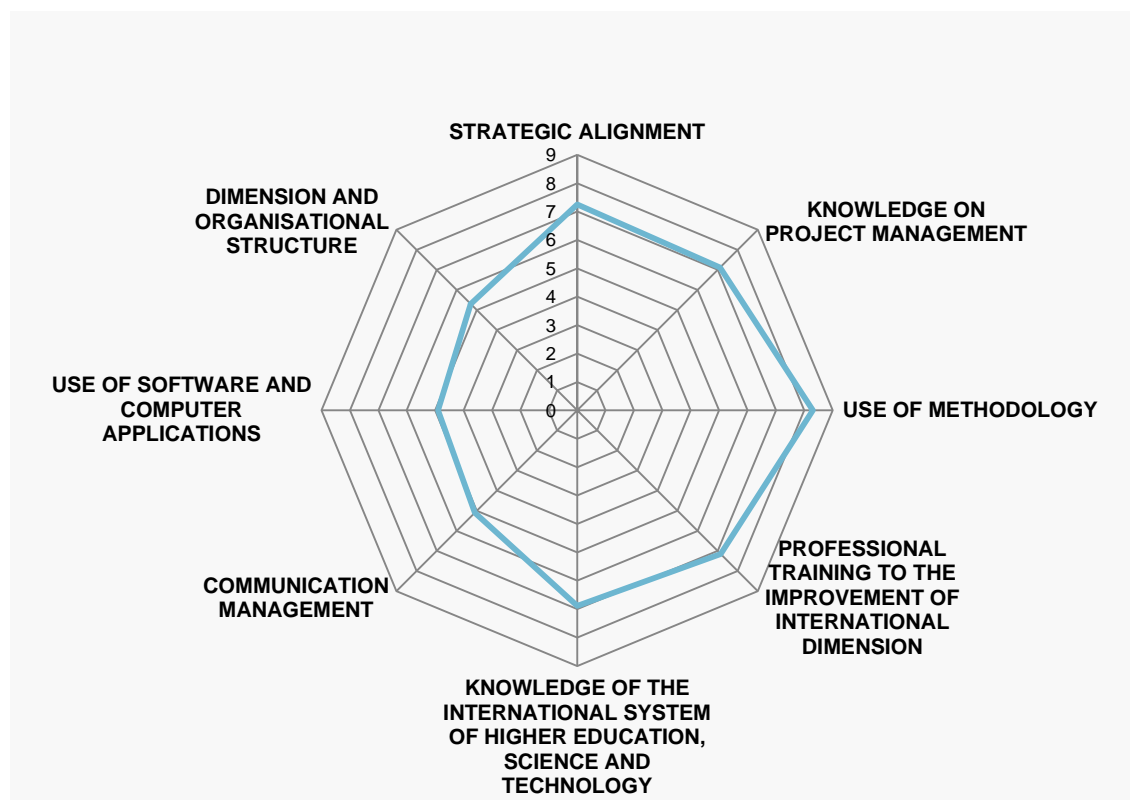
1. Strategic alignment: the place of international relations and activities in the university strategy and the extent to which the organisation actively facilitates and promotes internationalisation in different academic and research activities.
2. Knowledge of project development and management: in different academic and research departments of the university and among international relations staff.
3. Existence and use of consistent methodologies, guidelines and tools for international project development and management.
4. Professional training to improve capacity to develop international dimensions and to seize opportunities for internationalisation of programmes.
5. Knowledge of international systems of HE, science and technology, as well as international programmes, organisations and agencies.
6. Communication management: the existence and effectiveness of strategic communication plans to promote and develop internationalisation of the university.
7. Use of software and computer applications in support of internationalisation.
8. Dimension and organisational structure: the capacity and resources to support international relations in the university.

Table 25 and Figure 4 summarise the overall results of the survey exercise.

**Table 25: Main results from the survey on internationalisation (criteria ranked out of maximum 10 points)**

Key criteria	Values
Strategic alignment	7,25
Knowledge of project management	7,12
Use of methodology	8,30
Professional training to improve international dimension	7,15
Knowledge of the international system of higher education, science and technology	6,88
Communication management	5,10
Use of software and computer applications	4,90
Dimension and organisational structure	5,30
<b>Overall average ranking</b>	<b>6,50</b>

**Figure 4: Summary of the overall findings from the survey on internationalisation at UCLV**



From the results of the survey UCLV is ranked as being at an 'Advanced Management State' in internationalisation, the fourth of the five maturity levels established for this analysis (Initial, Planning, Standardisation, Advanced and Full Optimisation), a good result considering the constraints on resources and professional activity in the Cuban context. The university has undertaken various activities to improve the capacity of its staff in taking advantage of international opportunities and trying to boost a culture of international cooperation within the organisation.

However, there appear to be some areas of weakness:

- The International Relations Office plays a leading role, though its resources are limited. It promotes the use of a standardised approach and methodology within the institution and has developed computer-based methods and databases to facilitate and simplify the institutional procedures to participate in international initiatives. Nonetheless, the use of these is still very limited among the university staff.
- The International Relations Office provides services to facilitate and enhance the university's participation in international actions and identify projects of international character (for example, information management, consultancy on programmes and funding sources, partner identification, etc.). However, most of the time these services are provided reactively rather than proactively, responding to specific requests for assistance rather than actively promoting opportunities and engaging staff in activities and raising awareness (e.g. promoting opportunities among university staff and more targeted use of the intranet). There may also be a need for specialised professional training programmes with the objective of improving internationalisation and project management skills, especially among young returning scholars and university administrative staff.

- Equally, an external communications strategy to raise UCLV's international profile has been defined and implemented, but the results have been very limited. More innovative steps could still be taken, such as the effective use of social networks for professional and institutional purposes.

## **The management of the programme**

The partners in the programme and VLIR-UOS consider the management of the IUC programme at UCLV to have been good.

At project level there has been good and regular communication between project leaders in almost all cases, the exceptions being where the Flemish or Cuban leaders have changed during the course of the programme (e.g. in Projects 1, 4 and Project 7), although these changes of personnel do not appear to have disrupted the process of project implementation to the agreed plans.

Regular Joint Steering Committee meetings at various levels of the programme have been held, either in Cuba or Belgium, and rigorous planning and monitoring of the activities and financial commitments and expenditure have been evident. The ICOS in VUB and the Programme Support Unit at UCLV developed an efficient financial administration system and the communication between these offices has been excellent. The project leaders have had access to regular updated information on the financial situation of their project. The programme budget will be fully spent and the accounts completed by September 2013.

Reporting has been done regularly as required between VUB and UCLV, with a detailed annual report submitted to VLIR-UOS. The Cuban Programme Coordinator commented that this annual reporting process is onerous for both Flemish and Cuban project and project teams and it was regrettable that they did not receive much feedback from VLIR-UOS about the reports once submitted. This contributed to the overall feeling on both sides that the reporting process was only an exercise in bureaucracy and not something of value to the programme and project teams (e.g. as a chance to reflect on progress in a more meaningful way).

The quality and completeness of the Annual Reports for Phase II and of the final self-assessment reports submitted by the projects was very variable, and on the whole lacking in reflective or substantive comment that might provide a less formulaic indication of project and programme progress. This supports the general view of the programme partners that the reporting formats provided by VLIR-UOS are too complex and highly repetitive in the information required.

## **Cooperation and coordination between all parties concerned**

Cooperation and coordination between the Flemish (VUB and other Flemish universities) and UCLV partners (at directorate, faculty and department levels) appears to have been exemplary. Both sides have been responsive and flexible in project implementation: the Flemish partners have fielded teams with evident enthusiasm and commitment to the partnership, and the Cuban project teams have, on the whole, made the best possible use of the opportunities the programme has offered them to improve their capacity and extend their academic and research networks and contacts beyond Cuba and Belgium.

# Conclusions and recommendations

## Overall conclusions

The IUC programme overall has had a highly significant and unprecedented impact on the whole of UCLV. In terms of academic programmes and research it has contributed greatly to the now very high ranking of UCLV within the MES HE network. It has also changed the working culture in several key faculties and departments, in terms of research and teaching methodologies, and in willingness to collaborate between faculties and departments across the university.

The challenge for UCLV will be to sustain these academic and research gains in times of continuing austerity in Cuba. There are two critical areas in which UCLV can act to address this challenge: internationalisation and people management.

## Internationalisation

UCLV has defined a strategy in which the international dimension is a key component and there is now a significant level of project development and management experience within the university. However, awareness and consideration of internationalisation is still limited in several key areas of management, such as in undergraduate education, innovation management, entrepreneurship, collaboration between university and industry, patents and intellectual property management.

The IUC programme has contributed significantly to the greater internationalisation and openness of the university. Strengthening the present structures and approaches to international relations will improve UCLV's capacity to take advantage of future opportunities. The International Relations Office is well-placed within the university structure but its resources are inadequate to the task of fully capitalising on the gains of the VLIR-UOS IUC programme. The budget of the Office is clearly insufficient to cover its broad mission and objectives.

We recommend that UCLV management consider strengthening the staffing of the International Relations Office and the staff's own project development and management skills.

We also recommend that the Office works specifically with the returned VLIR-UOS IUC PhD scholars to identify ways in which they could support these academic and research staff in better exploiting their newly established international contacts and profile.

English language skills are absolutely critical to the greater internationalisation of UCLV and to its efforts to exploit specific opportunities, for example, in academic exchanges and participation in international projects. While the IUC programme has established the foundation for effective English language communication and writing among academics and other staff, the overall motivation to learn English and the level of its use remains fairly low.

We recommend that UCLV develop a longer term vision of how English can be used to create new opportunities. English language learning should be mandatory for every member of academic and research staff, with a built-in procedure of regular language testing. At the same time, the CAELTIC should adopt a more proactive approach to encouraging English language learning (see Project 4 - English language skills, below).

## **People management**

The placing of returned young scholars within UCLV faculties and departments will determine to a significant extent whether these units thus strengthened by the IUC programme can keep up their research momentum. If the returned PhD and post-doctoral trainees from the IUC programme are put into posts with heavy management duties, they will be unable to build on the experience and networks developed under the IUC programme. We cannot, of course, influence UCLV's human resource management procedures except to recommend that this sustainability issue is kept in mind when considering academic and research postings.

## **Conclusions and recommendations concerning the projects**

### **The organisational capacity development or service projects**

#### **Integrated approach to ICT-related projects**

We understand that Projects 1, 2 and 3 were proposed by UCLV during the pre-partnership programme as one large integrated project, but that this approach could not be easily managed or resourced from the Flemish university partners' side, as the Flemish university model and structures for ICT, library and related areas was not one of integrated services. It was therefore split into three separate projects and this, in hindsight, was unfortunate. Each of these three IUC projects would have benefited from being more closely integrated, and would have become more so over time, despite the project approach.

An integrated approach to ICT, library and teaching and learning technologies is, to some extent, a reflection of information technology taking its place as a supporter and enabler of core functions in a university (teaching, learning, research and management) and being incorporated into the mainstream rather than something that has to be treated as separate. The convergence of library and IT functions and the inclusion of learning technologists in academic support teams rather than separate e-learning units are examples of this type of development, which are typical in many European and other countries.

The new Network Cuba project acknowledges this integration and offers an opportunity to maximise the gains from each of these three separate IUC projects.

We recommend that, as the discussions on the detailed activities to be undertaken in the Network Cuba project will take place in Autumn 2013, UCLV and VLIR-UOS consider building in opportunities for the Cuban team to visit several universities in Europe (outside of Belgium) where integrated ICT, information and learning technology services are well-established, to identify possible strategic directions for UCLV and other Cuban universities in relation particularly to service provision, such as:

- developing and managing virtual university libraries based on e-book and other digital materials collections
- the role and management of institutional repositories
- academic and learning support services in the use of VLEs and other teaching and learning tools
- human resource development, merging library, IT and academic support staff in integrated academic support services



## **Building on the achievements of the three ICT-related projects**

The integrated approach will be extremely important for sustaining and building on the achievements of Projects 1, 2 and 3. Good and effective IT support services have been put in place in faculties by the DICT, but the capacity among UCLV academic staff to make best use of the (limited) ICT and internet access for research and teaching is not there yet.

What will be essential is a lasting solution to the restricted internet access in Cuba, a problem which will not necessarily go away when the cable comes online, since Cuba still has to pay the costs of greatly increased national connectivity. This is not, of course, within the control of UCLV.

However, what will also be needed is more specialist information support and help to develop ICT and education skills and approaches (i.e. what to do with the technology), to accompany the existing IT support to faculties (i.e. how to make the technology work). This is within the control of UCLV and we recommend that the university embraces ICT-based solutions and strategies in research, teaching, learning, library and information services as the way of the future, and seriously commits to supporting their development in integrated services to the greatest extent possible.

The services provided by the central and faculty libraries are much appreciated by many academic staff in UCLV, including those not involved in the IUC programme. With hindsight, a greater emphasis on human resources development in Project 3 – more library staff development and training including placements in a range of different international university library environments, and the development of more subject-specialised library staff with integrated ICT skills for the faculty libraries – might have been better value for money than the focus on facilities and automated cataloguing database development. This should certainly be the way forward, focusing on building digital and not print collections in the library services.

We recommend that UCLV should continue to work with INASP under the new INASP Strengthening Research and Knowledge Systems (SRKS) programme (the successor to PERI) to obtain negotiated low cost or free access to key international databases and publications.

We also recommend that, to ensure sustainability and (possibly) eventual interoperability, the library's ICT-based services (databases, and other online services), currently managed using the library's own servers, should be migrated to the central UCLV DICT managed servers and the ICT support staff currently supporting the library's services should be moved into DICT.

## **Project 4 - English language skills**

The CAELTIC teaching group in the Department of English Studies have a full teaching load as well as offering additional services to UCLV staff and postgraduate students -translating, interpreting for other faculties, examinations etc. They have had minimal opportunity under the IUC project to undertake research and have less time or opportunity to do so now.

As noted above (see 3.1.1), UCLV needs to recognise the importance of English language skills among its academic staff and postgraduate students if the university is to achieve its strategic goals for internationalisation. If UCLV makes English language learning mandatory for all academic staff, we recommend that it should also support the Department of English Studies by prioritising ways to strengthen further the skills and knowledge of the CAELTIC staff – supporting the development of language learning research projects in the Department, identifying opportunities for the CAELTIC staff to take-up scholarship or training opportunities and supporting continuing efforts to establish a testing centre at UCLV.

In turn we recommend that CAELTIC staff find more proactive and innovative ways of promoting the maintenance and improvement of English language skills among academic staff, particularly those that benefited from the IUC programme and were originally motivated to learn English to take up IUC project opportunities. While we recognise that CAELTIC philosophy is that the learner should take responsibility for their own learning, the reality is that staff members are demotivated when international travel opportunities no longer seem imminent. New and entertaining ways of drawing staff back into English language use need to be explored, that will fit into, and not conflict with, the teaching and research schedules of most UCLV staff.

## **The academic and research projects**

### **Project 5 - Improving the quality of education and research programmes in plant and animal sciences**

Since agricultural sciences (food production and food security) are a national (and global) priority, and also taking into account the reforms in the national agricultural sector, we recommend that the faculty should design a strategy for the short- to medium-term (up to three years) to participate actively in international projects and networks of high impact such as the Programme Horizon 2020 for Science, Technology and Innovation of the European Union. In the national context, the faculty should design a strategy to reinforce its intervention in the agricultural transformation process by means of collaborating with the agricultural entities at governmental, cooperative and private level.

### **Project 6 - Strengthening postgraduate education and research in pharmaceutical sciences**

The progress made by the FQF, in particular by the Pharmaceutical Sciences Department and the CBQ, has created the conditions for a sustainable work programme in the coming years. Nonetheless, there remain some elements of weakness. We recommend paying particular attention to:

- Developing, in collaboration with the International Relations Office, a strategy to improve the skills of their staff in project development and management in order to take better advantage of the possibilities of participating in international projects in their field.
- Developing a plan, in collaboration with CAELTIC, to improve and build on staff capacity to work and communicate in English, as this remains a problem and its solution will contribute to stronger performance of the faculty and CBQ in international actions.
- Developing a strategy to increase and consolidate institutional links with other research centres in pharmaceutical sciences in Cuba as well as with the main industries of the national pharmaceutical sector.

### **Project 7 - Environmental education and clean technologies**

To ensure the sustainability of the achievements of the IUC programme project and the collaboration with Flemish universities, we recommend that the faculties and units involved in the project pay attention to:

- Developing, in collaboration with the International Relations Office, a strategy to improve the skills of their staff in project development and management in order to take better advantage of the possibilities of participating in international projects in their field.

- Developing a plan, in collaboration with CAELTIC, to improve and build on staff capacity to work and communicate in English, as this remains a problem and its solution will contribute to stronger performance in international actions.

### **Project 8 - Strengthening research and PhD formation in Computer Sciences**

As informatisation is a national (and global) priority and taking account of the prestige of the UCLV in this field, we recommend that the faculty should design a strategy for the short- to medium-term (up to three years) to participate actively in international projects and networks of great impact such as the European Union programmes "Horizon 2020" for Science, Technology and Innovation and "Erasmus +" for academic cooperation. Both programmes should be launched in January 2014. In the national context, the faculty should design a strategy to reinforce its working links with the industry, especially with the software industry.

## **Overall recommendations to VLIR-UOS**

### **ICT-related projects and library projects**

Based on the experience of the UCLV IUC programme (see Integrated approach to ICT-related projects, above), and taking into account global technology changes and trends in university management and service provision, we recommend that in all future IUC programmes ICT-related activities or proposals for projects should be addressed using integrated approaches. While we recognise that integrated services may be a difficult model for Flemish universities to take on as promoters and leaders of the Flemish side of the partnership, nonetheless we suggest that to separate ICT infrastructure, teaching and learning with ICT and university information services that support research, teaching and learning, should now be regarded as a superseded model of development. This is particularly true in universities in developing countries, which rarely have large relevant print collections (books or journals) and are unlikely ever to be able to build or sustain such large collections: the large print-based library is looking increasingly unaffordable and unsustainable in wealthy countries in Europe and North America. Digital collections and methods for learning, teaching and research are the way of the future and integrated skills for ICT support, and information and academic service are the critical success factors. If necessary, VLIR-UOS should look for university partners outside Flanders to support an IUC programme and manage the North contribution to integrated ICT-based services projects.

### **Reporting formats**

We reiterate the recommendation of the mid-term review and recommend that VLIR-UOS urgently review and simplify the reporting formats for IUC programmes and projects, to make them more meaningful, less formulaic and more useful as a self-evaluation tool for North and South partners.

# Annex 1: Terms of reference for a final evaluation of 3 institutional university cooperation programmes in South Africa, Ethiopia and Cuba

## Objective and scope of the evaluation

### Objective of the evaluation

The final evaluation is meant to generate conclusions that will allow:

1. VLIR-UOS to measure the actual results of the IUC programme;
2. the formulation of recommendations for on-going and future IUC programmes in terms of the content and management of the programme, including the overall policy framework;
3. the identification of strengths and weaknesses of each specific IUC collaboration in particular;
4. VLIR-UOS to identify departments and/or research groups that have received substantial support from the IUC programme in Phase II and thus can present proposals for the post IUC programme tools;
5. the formulation of recommendations to all stakeholders in terms of the follow up plan that has been elaborated by the Northern and Southern project leaders;
6. the identification of possible themes and partnerships for possible NETWORK programmes in the respective countries and their regions, as also other venues for the future of the involved projects in view of establishing sustainability..

### Scope of the evaluation

- a. the present implementation of the programme
  - evaluating the **global state of implementation** of the programme, both at the level of the overall programme and the constituent projects;
  - evaluating whether the **activities**, per project, have generated **the intermediate results**, meeting the **objectives**, that had been defined by the actors involved, within the given timeframe and with the given means, as given in the logframe;
- b. the nature of the programme
  - evaluating the **quality, efficiency, efficacy, impact, development relevance** and **sustainability** of the programme in the light of the overall goal of the IUC Programme, being institutional capacity-building of the local university, as situated in the context of the needs of the local society;
- c. the position of the IUC programme within the international cooperation activities of the partner university (bench marking)
  - evaluating the **added value of the IUC Programme** for the partner university, in comparison to other ongoing donor cooperation programmes;
  - evaluating the **management** of the programme, both in Flanders and locally, and formulating, if necessary, recommendations for improvement;

- evaluating the **cooperation** between all parties involved, and formulating, if necessary, recommendations for improvement.

Evaluating the follow-up plan of the programme in view of achieving sustainability as an institution and as involved research groups, but also assessing hereby the embedment and impact of the university on development processes in the surrounding community, province and eventually in the country

## Evaluation criteria

### The logical framework

The logical framework will serve as the basic reference document in terms of the objectives and indicators specified to assess actual progress against the objectives and results formulated.

All project leaders will therefore in the framework of the self assessment report (see further) against the key indicators as well as the assumptions formulated at project design stage.

### A five-point evaluation scale

In addition to the primarily descriptive profile of results both per project and in more general terms at programme level, the evaluation commission will be invited to evaluate these results in qualitative terms applying different qualitative criteria and a five-point scale.

A five-point evaluation scale is to be used, both when judging the results in general terms, and when evaluating the performance of the projects and the programme as a whole in terms of the qualitative criteria. The scale is as follows:

1	=	(very) poor
2	=	insufficient/low
3	=	sufficient
4	=	good/high
5	=	excellent/very high.

These scores - expressing in quantitative terms an overall and synthetic yet differentiated qualitative judgement - should facilitate the task of evaluation and should be applied to the Key Result Areas and the qualitative criteria for the IUC programme and for each project within the IUC programme.

### Output: Key Result Areas

The evaluation will focus on **eight areas of key (programme/project) results areas (KRAs)**, each one specified in terms of its corresponding set of indicators. Where possible, both quantitative and full descriptive data will be obtained and used as a basis for evaluation.

Key result areas and some qualitative criteria (see below) will be provided by the Northern and Southern stakeholders through self-assessment formats and will be at the disposal of the evaluation committee. The evaluation committee is expected to conduct the interviews based on the results of both the desk study and the self-assessment reports. The results of the self-assessment reports should be integrated and – based on the interviews and own findings – commented on.

In order to allow the usage of some 'standard indicators' all projects will report against these indicators (full list in annex 2). These indicators are essentially output-oriented and quantitative. Such a reporting contributes to documenting the actual outputs and retaining such information in a database that is annually updated in view of the final evaluation at the end of phase II.

With input of the VLIR-UOS-secretariat and the concerned stakeholders, this table is to be completed for each project of each partner programme. In case it is impossible to complete the table in details, the evaluation commission can make its evaluation at the level of the main categories or subcategories.

## Outcomes and impact: Qualitative evaluation criteria

**Outcomes** can be defined as the intermediate effects on the stakeholders receiving or producing the outputs (or the services generated by the outputs).

**Impact** can be defined as the long term effects of the outputs on society or the wider campus or region.

In order to allow the usage of some 'standard evaluation criteria set against some indicators', the programme and all projects will report against these criteria. These criteria are essentially outcomes (more project level) and impact (more programme level) oriented and qualitative to semi-quantitative.

The evaluation will be focused on **4-6 evaluation criteria (programme/project)**, each specified in terms of its corresponding indicators. Where possible, both quantitative and full descriptive data will be obtained and used as a basis for evaluation.

Please note that the indicators are not exhaustive. It is left to the evaluator's appreciation to consider these and/or alternative indicators.

### At programme level

In terms of collaboration at the level of the programme, the following criteria can be applied as a reference.

<i>Criterion</i>	<i>Indicators</i>
1. Efficiency	<p>The relationship between the objectives and the means used to reach the objectives.</p> <p>The use and application of the means earmarked for collaboration.</p> <p>The actual net result in terms of the achieved efficiency through collaboration.</p> <p>The extent to which collaboration can contribute to solving institutional needs and problems.</p> <p><u>Possible indicators of "efficiency":</u></p> <p>At the level of the programme : existence of systems for continuous alertness for opportunities to enhance efficiency through cost-sharing/economies of scale etc.</p>
2. Impact	<p>Not just actual but also (given time limitations) potential impact.</p> <p><u>Possible indicators of "impact":</u></p> <ul style="list-style-type: none"> <li>▪ impact <b>at the institutional level</b> : the extent to which the collaboration has sparked other departments to initiate interuniversity collaboration, joint capacity building, fund raising etc.</li> <li>▪ impact <b>at regional developmental level</b>: the extent to which the collaboration has led to joint developmental activities or similar collaborative models at the regional level</li> <li>▪ impact <b>at policy level</b> : the extent to which the collaboration has raised interest of</li> </ul>

<i>Criterion</i>	<i>Indicators</i>
	policy makers and academics, and how the partner university is called upon or is proactively developing collaboration models that could be fed into policy advice
3. Development relevance	The extent to which the planned collaboration is addressing immediate and significant problems and needs of the concerned partners as well as regional and national policy makers, with reference to the MDGs, PRSP and other multilateral policy papers.
4. Sustainability	<p>Financial, institutional and academic sustainability</p> <p><i>Possible indicators of institutional commitment in the South :</i></p> <ul style="list-style-type: none"> <li>• co-funding by the partner university (matching funds)</li> <li>• incorporation of costs into the budget of the partner university</li> <li>• the partner university sets aside funds for operations and maintenance of physical infrastructure</li> <li>• Ability to attract external funds</li> <li>• Ability for full financing or co-financing events, workshops, congresses, mobility, grants, investments, infrastructure</li> <li>• Strengths and weaknesses of the institution in terms of institutionalising the collaboration</li> <li>• Intensification and/or formalisation of interuniversity consultations (North-South and South-South)</li> <li>• Ability to produce joint proposals (fund raising, research)</li> <li>• Collaboration and exchanges outside of VLIR-UOS-programme</li> <li>• Curbing brain drain into sustainable brain circulation, installing incentives, “pull factors” against “push factors”</li> </ul>
5. Change	<ul style="list-style-type: none"> <li>• changes in awareness, knowledge, skills</li> <li>• increases in the number of people reached</li> <li>• policy changes</li> <li>• changes in behaviour</li> <li>• changes in community capacity</li> <li>• changes in organisational capacity (skills, structures, resources)</li> <li>• increases in service usage</li> <li>• improved continuity of care</li> </ul>

With regards to the actual daily management of the IUC programme, the following areas are among the issues to be reviewed:

- Overall assessment of the programme management (North and South)
- System development (manuals, synergy approach, interim monitoring and reporting etc.)
- Management issues related to actual implementation (financial information flow, procurement, facilitation of visits etc.)
- Financial management
- Academic cooperation
- PR and visibility
- Synergy and coherence of the programme

### **At project level**

In terms of collaboration at the level of the projects, the following criteria can be applied as a reference.



<i>Criterion</i>	<i>Indicators</i>
1. Quality	<p>This is the main criterion, being the result of all other criteria.</p> <p><u>Possible indicators of "quality" :</u></p> <ul style="list-style-type: none"> <li>▪ quality of <b>research</b> : the extent to which the results have been incorporated in local or international refereed journals</li> <li>▪ quality of <b>education</b> : the extent to which alumni easily get a job which fits their education profile; the number of fellowships acquired from foundations</li> <li>▪ quality of <b>rendering services to society</b> : the extent to which the university/faculty/department is involved in feasibility studies/consultancies, extension work, spin-offs, strategic vision, participatory farmer's education etc...</li> </ul>
2. Effectiveness	the extent to which the specific objectives have been achieved (the quality of the results)
3. Efficiency	<p>The relationship between the objectives and the means used to reach the objectives.</p> <p>The degree to which the installed capacity (human/physical/financial) is used; goals/means ratio in human, physical and financial resources</p> <p><u>Possible indicators of "efficiency" :</u></p> <p>At the level of the project : the extent of flexibility in the programme implementation, e.g. reallocation of resources during implementation</p>
4. Outcomes	<p>Not just actual but also (given time limitations) potential outcomes, looking at consultancy, policy advice, accreditation models, extension work, etc...</p> <p><u>Possible indicators of "impact" :</u></p> <ul style="list-style-type: none"> <li>▪ impact <b>at the level of the private sector</b> : the amount of money earned on the market</li> <li>▪ impact <b>at policy level</b> : the extent to which academics, involved in the IUC programme, are called upon by the government for policy advice</li> <li>▪ impact <b>at the level of the own university or other universities</b> : <ul style="list-style-type: none"> <li>- renewed curriculum functions as example for other universities/departments</li> <li>- the new style of teaching has become a model for teaching (e.g. the systematic use of teaching in combination with laboratory work)</li> <li>- the library has experienced a clear increase in number of visitors</li> </ul> </li> </ul>
5. Development relevance	the extent to which the project addresses immediate and significant problems of the community, looking at the amount of self-finance, demand from state and private actors, the level of transfer of know-how and technology
6. Sustainability	<p>Especially financial and institutional sustainability</p> <p><u>Possible indicators of mutual interest :</u></p> <ul style="list-style-type: none"> <li>▪ do the Flemish universities commit their own university funds to the programme, for instance by giving fellowships or by allowing academics to go to the field ?</li> <li>▪ are Flemish academics personally committed?</li> <li>▪ are there joint research projects which are interesting both to the Northern and Southern academics involved ?</li> <li>▪ do the partner universities also commit their own funds to the programme (matching funds)?</li> </ul>

## Actors involved

### General

The following actors will be involved in the evaluation:

- the members of the evaluation commission;
- the Northern stakeholders involved in the ongoing IUC cooperation programmes;
- the Southern stakeholders involved in the ongoing IUC cooperation programmes;

- the VLIR-UOS secretariat;
- the Direction General for Development Cooperation (DGD), i.e. the Belgian government administration for international cooperation
- other relevant local and national stakeholders;

## **The evaluation commission**

### **Expertise in management, academic content and country context**

Ideally, the following expertise would be represented in the evaluation commission:

- a development management expert who is familiar with processes of institutional/organisational development, capacity building and methodological issues in general and in higher education in particular;
- an academic expert regarding the core theme of the partner programme such that the academic quality may be assessed;
- a country expert who is familiar with the national issues at hand in terms of higher education and research in the country concerned.

The above fields should be accommodated by the joined expertise of two external evaluators. These experts should be neutral, and have no relation with the universities involved - neither the Flemish universities involved nor the partner university - or the IUC partnership itself.

The experts should have a proven experience and expertise with evaluation.

The executive board of VLIR-UOS will decide on the composition of the evaluation commission, based on suggestions from the Flemish and the partner universities, as well as of VLIR-UOS-secretariat.

### **Division of tasks among the members of the evaluation commissions**

The evaluation is to be undertaken by both members of the evaluation commission who are expected to function as a team.

#### *The international cooperation expert*

The international cooperation expert will act as team leader (chairman). In this capacity he/she will lead the meetings that have been programmed and will coordinate the report drafting. He/she will be invited to use his/her experience with international cooperation in the field of higher education and research as reference for the evaluation, especially when formulating recommendations for improvement of the global set-up and management of the programme.

#### *The country expert*

The country expert will be invited to situate the partner university and its IUC Programme in its larger national context, taking into account local legislation relating to higher education, etc.

### **The Northern stakeholders involved in the ongoing IUC cooperation programmes**

What is meant by the Northern stakeholders is : all persons from the Flemish universities who are involved in one of the ongoing IUC cooperation programmes (MU, UCLV and UWC). This means : the

top management of the Flemish coordinating university, the Flemish coordinator, the Flemish project leaders and team members, Ph.D. student promoters, the Institutional coordinator for University Development Cooperation of the Flemish coordinating university (the so-called ICOS), the financial officer(s) of the Flemish coordinating university, the permanent expert(s) (if applicable), the IUC desk officer, students, etc.

## **The Southern stakeholders involved in the ongoing IUC cooperation programmes**

- What is meant by the Southern stakeholders is: all persons from the partner university and the local community who are involved in the respective IUC partnership. This means :
- the top management of the partner university, the authorities at faculty level, the local coordinator, the programme manager, the local project leaders, their deputies (if applicable) and team members, the staff of the local coordinating unit of the IUC programme (secretaries, accountants,...), the students funded by the programme, the student supervisors and/or promoters, technicians, staff from other donor-sponsored cooperation programmes being implemented at the partner university, etc.;
- representatives from central, regional and local government agencies and from civil society (e.g. local chambers of industry, employers' association, ...), officials of the Ministry of Education and of Foreign Affairs, and of the Belgian Embassy, ...

## **The VLIR-UOS-secretariat**

The VLIR-UOS-secretariat will function as organiser of the evaluations, as well as resource centre for the commission members. The evaluation commission will be closely assisted by the programme officer of the respective IUC programme within VLIR-UOS.

## **DGD**

The Directorate General for Development Cooperation, will be invited to have a separate discussion with the evaluation commission, if so desired, and to participate in debriefing meetings with the evaluation commission.

## **Methodology**

Input into the evaluation will be provided through:

1. an analysis of *documents* (desk study) by the evaluation commission,
  - a. programme documents (reports)
  - b. self-assessment reports which will be available prior to the mission of the evaluation commission;
2. *focused interviews* of the evaluation commission with various stakeholders;
3. *visits* of the evaluation commission to the relevant facilities of the partner university and the site of development projects with a link to the IUC programme.
4. an evaluation *mission* to the partner country

## Desk study

### Programme documents

Prior to its mission the evaluation commission will receive from VLIR-UOS, apart from basic information on the IUC Programme, a number of documents relating to the respective IUC partnership, such as the university strategy paper, the IUC partner programme, annual reports, management manual, etc. 18/29

### Self-assessment reports

The stakeholders in a given IUC partnership are invited, prior to the mission of the evaluation commission, to make a self-assessment and to report on it to the commission in the form of a number of self-assessment reports.

The objectives of the self-assessment are manifold :

- a. Interim reporting against the **logical framework**;
- b. Consolidation and/or completion of some **quantitative and qualitative information** to the evaluation commission to complement the information contained in the formal programme documents (especially the Key Result Areas);
- c. Stimulate the **internal quality assurance** by a strengths-weaknesses analysis by all parties involved;
- d. **internal preparation for the discussions with the evaluation commission** and its visit to the partner university;
- e. **Reflection** about the future of the programme and the projects towards phase II.

The following **3 formats** will be used in the context of the IUC evaluations in 2013. These formats have been refined and consolidated:

- format n° 1 : self-assessment per project : it is the intention that per project all stakeholders make a self-evaluation, including an Excel sheet displaying the Key Result Areas
- format n° 2 : collective self-assessment North: the Northern team is expected to develop a draft of this document.
- format n° 3 : collective self-assessment South: the Southern team is expected to develop a draft of this document.

### Focused interviews with all stakeholders

The evaluation commission members will visit the partner university where they will have focused discussions with all stakeholders of the IUC partnership, both the Southern and Northern ones.

The interviews will be preferentially face-to-face but classical (group) interviews (e.g. students, authorities,...) are possible as well. Exceptionally, unavailable persons may be interviewed by telephone, E-mail, or by sending a questionnaire.

It is left at the discretion of the evaluation team to choose the right interviewing method and data analysis methods.

## Visits

The evaluation commission is encouraged to visit all relevant facilities of the university, with special attention to infrastructure, the central offices involved in the programme (Programme Support Office or PSU), the classrooms and laboratories involved, research sites, field stations, development projects with a link to the IUC programme, ....

In the context of the evaluation methodology for the IUC evaluations a separate meeting will be held in Brussels with the international expert in order (i) to brief on VLIR-UOS, its programmes on university development cooperation, and the respective IUC partnerships and (ii) to allow discussions with the respective Northern stakeholders who cannot be present in the South at the time of the mission (e.g; in case there is no joint steering committee in that particular period).

## Mission

An evaluation mission will be conducted for each of the ongoing IUC cooperation programmes. This evaluation commission will have discussions with the stakeholders defined under heading 4.

At the end of the mission the evaluation commission will present its draft conclusions and recommendations to all stakeholders during a special session.

At the end of the mission the evaluation commission will discuss its preliminary findings - general conclusions and recommendations - during a meeting with all present stakeholders during a Local Steering Committee Meeting.

## Evaluation report

Each evaluation commission will draft an evaluation report, in English, based on the written material and the discussions and visits during the mission.

The draft report will be submitted, for comments, to VLIR-UOS who will then continue the follow up planning of feedback in order of obtaining a management response. VLIR-UOS will as such send the draft report to the respective Flemish and local coordinator. It will be up to the two coordinators to coordinate the reactions to this draft report. The evaluation commission will decide, given its autonomy, whether or not to take into account the comments received. The final report will be submitted to VLIR-UOS. A format for the final report has been drafted (see annex 1).

## Organisation of the evaluation

1. The evaluation commission will be composed by the executive board of VLIR-UOS called Bureau UOS (BUOS), based on suggestions from the Flemish and the partner universities, submitted proposal by the international expert (concerning the local expert), as well as of VLIR-UOS-secretariat and on the basis of the submissions following a tender procedure.
2. The evaluation commission will receive from VLIR-UOS, apart from basic information on the IUC Programme, a set of documents relating to the respective IUC partnership for the desk study.
3. The Northern and Southern stakeholders of each of the ongoing IUC cooperation programmes will receive the formats for the self-assessment reports the latest by **31 January**

**2013.** The reports will have to be submitted to VLIR-UOS-secretariat at the latest before **15 April 2013.**

4. The partner universities will be invited to draft the programme of the evaluation missions, taking into account the possible requests formulated by the resp. evaluation commission.
5. The evaluation missions will be organized in consultation with the main stakeholders between **May and November 2013**, each of them lasting at least one week.
6. At the end of each mission, one or more days will be reserved for discussions between the evaluation commission and (a delegation of) the Northern stakeholders who will be invited to be on the spot at that moment.
7. At the very end of the mission, the evaluation commission will discuss its preliminary conclusions and recommendations at length with the Southern and the present Northern stakeholders. It is advised that this debriefing meeting be followed by a local steering committee meeting. The evaluators are not supposed to participate in this local steering committee meeting, except for a debriefing session.
8. The evaluation commission members will submit a draft report **within three weeks after their return from the mission.** This draft report will be submitted, for comments, via VLIR-UOS to the resp. Flemish and local coordinator. The commission will decide whether or not to change its final report based on the comments received.
9. Submission of the final report by the evaluation commission to VLIR-UOS the latest **by 15 July 2013** (UCLV and MU) and **15 January 2014** (UWC) with presentation to the Bureau UOS.

## Timing of the evaluation

Action	Actor	Time MU - UCLV	Time UWC
Tendering process for hiring the international consultant(s)	VLIR-UOS	Feb-March 2013, <b>deadline of bidding: 15 March 2013</b>	Feb-March 2013, <b>deadline of bidding: 15 March 2013</b>
Selection of the International consultant and proposal of local consultant on advice of partner universities and international consultant	VLIR-UOS, Bureau-UOS	29 March 2013	29 March 2013
Negotiations on TOR and contracting	VLIR-UOS and international consultant	April 2013	April 2013
Mailing of the terms of reference to the stakeholders	VLIR-UOS secretariat	April 2013	April 2013
Mailing of the formats for the self assessment reports to the stakeholders	VLIR-UOS secretariat	January 2013	January 2013
Mailing of the resp. IUC partnership documents to the members of the evaluation commission	VLIR-UOS secretariat	April 2013	April 2013
Deadline for submission of the self assessment reports to VLIR-UOS-secretariat	to be submitted by the Flemish and local coordinators to VLIR-UOS secretariat	March 2013	March 2013

Action	Actor	Time MU - UCLV	Time UWC
Preparation of the missions of the evaluation commission	VLIR-UOS secretariat	April 2013	August 2013
Drafting of the programme for the evaluation commissions	Partner universities	April 2013	Sept 2013
Evaluation missions	<ul style="list-style-type: none"> <li>the evaluation commissions</li> <li>the Southern stakeholders</li> <li>the Northern stakeholders</li> <li>VLIR-UOS and DGD</li> </ul>	Indicatively 1 week in May	October 2013
Preparation/briefing evaluation commissions	<ul style="list-style-type: none"> <li>the evaluation commissions</li> <li>the Southern stakeholders</li> <li>the Northern stakeholders</li> <li>VLIR-UOS and DGD</li> </ul>	April 2013	April 2013
Interview session North	<ul style="list-style-type: none"> <li>the evaluation commissions</li> <li>the Northern stakeholders</li> <li>VLIR-UOS and DGD</li> </ul>	TBC	TBC
Submission of the draft evaluation reports to the Flemish and local coordinators	the evaluation commissions via VLIR-UOS secretariat	within three weeks after the mission	within three weeks after the mission
Commenting on the draft evaluation report	<ul style="list-style-type: none"> <li>the Northern stakeholders, under the coordinatorship of the Flemish coordinator</li> <li>the Southern stakeholders, under the coordinatorship of the local coordinator</li> <li>VLIR-UOS</li> </ul>	Within one month after the end of the mission	Within one month after the end of the mission
Finalising the evaluation report	The evaluation commissions	Within 6 weeks after the end of the mission	Within 6 weeks after the end of the mission
Submission of the evaluation reports to VLIR-UOS	The evaluation commissions	Within two months after the end of the evaluation mission, on 15 July 2013 at the latest	Within two months after the end of the evaluation mission, on 15 January 2014 at the latest



# Annex 2: Programme of the evaluation mission to Cuba

## Sunday 16<sup>th</sup> June

1300: Departure to Santa Clara.

## Monday 17<sup>th</sup> June

0830: Meeting with the Rector, Vice-rector, Director of the International Relations Office and the Coordinator of the IUC Programme.

1000: Presentation of the projects by the Cuban Project Leaders

1000-1020: P1 [ICT infrastructure and e-administration]

1020-1040: P2 [ICT in education]

1040-1100: P3 [Information culture development]

1100-1120: Coffee Break

1120-1140: P4 [CeBeCE]

1140-1h00: P5 [Plant and animal sciences]

1200-1220: P6 [Pharmaceutical Sciences]

1220-1240: P7 [Environmental Education and cleaner technologies]

1240-1300: P8 [Computer Science]

1300-1430: Lunch

1430-1600: Meeting with P4

1615-1745: Meeting with P3

## Tuesday 18<sup>th</sup> June

0830-1030: Meeting with P1

1100-1300: Meeting with P6

1300-1430: Lunch

1430-1600: Meeting with P8

1615-1745: Meeting with Faculties not included in the IUC Programme

## Wednesday 19<sup>th</sup> June

0830-1030: Meeting with P5

1100-1300: Meeting with P2

1300-1430: Lunch

1430-1600: Meeting with P7

1615-1745: Meeting with Faculties not included in the IUC Programme

### **Thursday 20<sup>th</sup> June**

0830-1030: Survey to measure the impact of the IUC Programme on the institutional capacity of UCLV to engage in international activities and sustainability; and

0830-1030: Visit to some of the provincial organisations in Santa Clara that benefited from Close the Gap projects under the IUC Programme.

1030-1300: Meeting with the PSU

1300-1430: Lunch

1400-1600: Independent meeting of the experts to define the main findings of the assessment and prepare the presentation for the final meeting with the Rector and the rest of the university officials.

1615-1730: Meeting with the Rector, Vice-rector, International Relations Office, the coordinator of the IUC Programme and the Project Leaders.

### **Friday 21<sup>st</sup> June**

0730: Return to Havana

1030: Meeting with some officials of MES

1200: Meeting with Mr. Luc Devolder, Ambassador of Belgium in Cuba

1400: Meeting with José Ramón Saborido, First Deputy Minister of Higher Education

1530-1700: Independent meeting of the experts to coordinate the preparation of the report

1700-1800: Meeting with Marianela Constanten, Acting Vice-rector International Relations, University of Havana

## Annex 3: People consulted in Belgium and Cuba

### In Belgium

Name	Organisation
Peter de Lannoy	Coordinator South VLIR-UOS
Thomas Vervisch	Programme Officer VLIR-UOS
Anne Nowé	Computer Science Department, Faculty of Sciences and the Engineering, VUB. Project leader P8.
Rudy Gevaert	ICT Department, UGent. Acting project leader P1.
Lut Baten	Leuven Language Institute, KUL. Project leader P4.
Edilbert Van Driessche	Applied Biological Sciences Department, VUB. Flemish Coordinator and project leader P5
Sonia Beeckmans	Applied Biological Sciences Department, VUB. Team member P5
Herman Van Langenhove	Department of Sustainable Organic Chemistry and Technology, UGent. Project leader P6.
Egbert de Smet	University of Antwerp. Project leader P3.
Françoise De Cupere	ICOS, VUB
Georges Eisendrath	Professor Emeritus, VUB. Project leader P2.

### In Cuba

Name	Position	Organisation
José Ramón Saborido	First Deputy Minister of Higher Education and former Rector of the UCLV	MES
José Luis García Cuevas	Adviser to the Minister of Higher Education	MES
Maria Victoria Villavicencio.	Director	International Relations Division, MES
Raúl Hernandez Perez	Head of Collaboration	International Relation Division, MES
Eliana Veliz	Specialist in charge of the cooperation with Belgium	International Relation Division, MES
Marisol González Pérez	Director	Division for Science and Technology, MES
Osvaldo Balmaseda Neyra	Director	Division for Postgraduate Studies, MES
Andrés Castro Alegría	Rector	UCLV
Ángel Rubio González	Vice-rector for research and postgraduate studies. UCLV Programme Coordinator	UCLV
Alina Montero Torres	Director	International Relations, UCLV
Luis Hernández Santana	IUC Programme Manager	UCLV

Name	Position	Organisation
Hector Cruz Enriquez, and project team members	Project Leader of P1	DICT, UCLV
Roberto Vicente Rodríguez and project team members	Project Leader of P2	Faculty of Information and Educational Sciences, UCLV
José Rivero Díaz and project team members	Project Leader of P3	Library and Information Services, UCLV
Mayra Rodríguez Ruiz and project team members	Project Leader of P4	Department of English Studies, Faculty of Humanities, UCLV
Osvaldo Fernández Martínez and project team members	Project Leader of P5	Faculty of Agricultural Sciences and IBP UCLV
Sergio Morales Fernandez and project team members	Project Leader of P6	Faculty of Chemistry and Pharmacy and CBQ, UCLV
Ronaldo Santos Herrero and project team members	Project Leader of P7	Faculties of Chemistry and Pharmacy, and of Mechanical Engineering, UCLV
Rafael Bello and project team members	Project Leader of P8	Faculty of Mathematics, Physics and Computing, UCLV
Gilberto Quevedo Sotolongo	Dean	Faculty of Construction, UCLV
Ivis González Pereira,	Dean	Faculty of Psychology, UCLV
Vivian Guerra Morales	Vice Dean	Faculty of Psychology, UCLV
Yadira García Rodríguez	Dean	Faculty of Law, UCLV
Antonio Bermejo Santos	Dean	Faculty of Social Sciences, UCLV
Maylín Suarez González	Dean	Faculty of Economic Sciences, UCLV
Grizel Donestevez	Professor	Faculty of Economic Sciences, UCLV
His Excellency Luc Devolder	Ambassador	Embassy of Belgium in Cuba
Marianela Constanten	Acting Vice-rector	International Relations, University of Havana

VLIR-UOS supports partnerships  
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in Flanders and the South  
looking for innovative responses  
to global and local challenges

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