

ANNUAL REPORT VLIR-UOS 2014





FEATURED IN THIS ANNUAL REPORT:



TRAN THI DINH

Fresh food
in Vietnam: from
dream to reality.



Professor gets the surprise of his life.



HERWIG LEIRS

'The money used to
flow from Belgium to
Tanzania. It's the other
way round now.'

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SOWING THE SEEDS OF DEVELOPMENT

Universities and university colleges have been cooperating with the developing world through VLIR-UOS for almost 20 years. We could populate a small town with the people that have received a scholarship to follow a programme or conduct research in Flanders or the developing world. And the list of completed projects is just as impressive. But has this actually changed anything?

Our motto is 'sharing minds, changing lives'. We don't simply fund research and education, we sow the seeds of development. We invest in people that drive growth inside and outside their university or university college and work together to find solutions to local and global challenges.

For the 2014 annual report we looked for stories showing the impact of such cooperation. Those stories teach us four important lessons:

THE UNEXPECTED IS SOME-TIMES MORE IMPORTANT THAN THE EXPECTED

By bringing together people from different institutions, disciplines and nations you create opportunities that are often unknowable at the start of a project. Every project contains the seeds of change, also outside the original scope of the project.

YOU BUILD SOMETHING, FROM SMALL TO BIG

The cooperation often begins with a small project or a scholar-ship. That gives rise to a larger project or an additional course and ultimately develops into a network with numerous branches and a huge impact. That impact is not instantaneous – it builds gradually.

CHANGE TAKES TIME

A political cycle normally runs for four years, but in our experience change processes often need a decade or more to make a difference. While that seems like a long time, it's the only way to achieve long-term change.

MUTUAL REINFORCEMENT PAYS

VLIR-UOS does not provide aid or one-off injections of expertise. We invest in partnerships that benefit both parties. And we see that it works. Professor Herwig Leirs mentions the perfect example of the Tanzanian university SUA, which has been granted a Bill and Melinda Gates Foundation project after many years' cooperation with Flanders. Part of that budget now goes to the Flemish partners, whereas the opposite was the case in the past.

Minister of Development Cooperation Alexander De Croo wants to modernize Belgian Development Cooperation, with greater geographical concentration and more complementarity and synergy between the various parties. That is expected to lead to an integrated policy and raise the quality and impact of Belgian cooperation. The reform will also have a significant impact on the cooperation with universities and university colleges. That's because the country lists will change and there will be more associations with other development partners.

At VLIR-UOS we want to help modernize Belgian development cooperation and raise its impact, but we also harbour strong hopes that there will be sufficient opportunities to harvest what we have sown in recent years. Because it takes time to build something.

Koen De Feyter, chair VLIR-UOS Kristien Verbrugghen, director VLIR-UOS













Tran Thi Dinh: I was born in Nam Dinh City, a Vietnamese city surrounded by factories. I had no idea about how foods were produced. The food I ate was not fresh. We often bought it from street vendors where it had been exposed for several days to tropical sunlight in high humidity. I even got sick a number of times. Strangely, we accepted the situation as it was: 'food is like that, sometimes it is good, sometimes it is bad'.

My view completely changed when I went to visit my aunt in the countryside. For the first time I ate fruits straight from the garden. The juicy taste and crunchy sound were completely different. They tasted wonderful! From that day, I became fascinated by food freshness.

'MY DREAM WAS TO LEARN HOW TO KEEP FOOD FRESH'

I wanted to study food technology, but in the training that I got in Vietnam there was a huge gap between theory and practice. That's why I kept searching for a place where I could receive truly practical knowledge. When I found the website of VLIR-UOS I was really happy, as they offered a fellowship for the masters programme in Food Science and Technology.

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In Belgium I learnt to conceptualize the real process of food preservation, using a type of mathematical equation in combination with advanced technology in physics, chemistry and biology. Luckily, I was granted a scholarship for the second time, to do a PhD in Mechatronics, Biostatistics and Sensors at KU Leuven and perform research on food allergies. My childhood dream had been fulfilled.

'BRINGING ADVANCED KNOWLEDGE OF FOOD TECHNOLOGY TO VIETNAMESE STUDENTS'

In 2011 I chose to go back to Vietnam. I wanted to transfer what I had learned in Belgium to thousands of students at Vietnam National University of Agriculture.

I often see a large audience of students enthusiastically attending my lectures. They like, for example, the way the sophisticated problem of a food production process is divided into more simple steps. I also supervise students performing research projects on food storage and processing technology.

Furthermore, I am a coordinator of a joint research project on reducing postharvest losses. And I was a co-organizer of an international conference on food science. The success of the conference has been seen in a stronger and broader network for our food scientists, connecting Belgium to Southeast Asia.

'NEW CHALLENGES AND OPPORTUNITIES TO GROW'

I realize that my dreams were fulfilled because of the financial support of VLIR-UOS, the wonderful mentoring of Belgian professors and the amazing support of many colleagues

'In my aunt's garden I ate fruits straight from the garden for the first time. They tasted wonderful! From that day, I became fascinated by food freshness.'

'CONTRIBUTING TO GLOBAL KNOWLEDGE OF SCIENCE AND TECHNOLOGY'

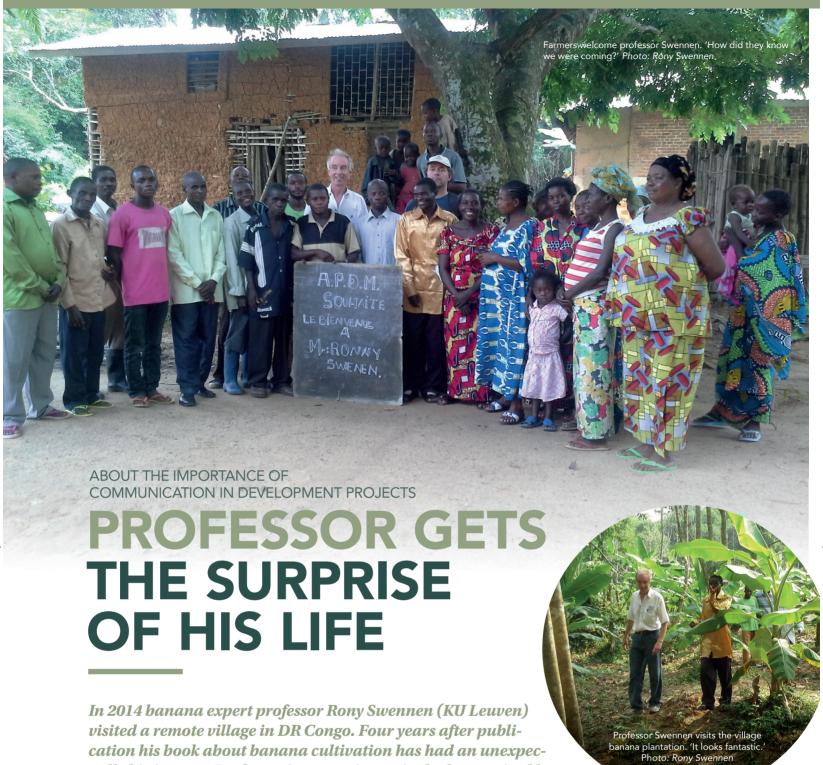
I am also involved in several projects that aim to support Vietnamese lecturers and researchers in food science through training at Belgian universities. One of these projects is the Network University Cooperation programme, sponsored by VLIR-UOS. It aims at capacity building in teaching and research in food science for lecturers from four Vietnamese universities.

through which my knowledge has been enriched and I have been transformed into a confident person. Indeed, I am now more willing to take new challenges and turn them into opportunities for growth.

I believe that my story is just an example of many success stories of VLIR-UOS alumni who make strong contributions, not only to our own countries, but also to our common global knowledge of science and technology.







tedly big impact. Professor Swennen is particularly surprised by how farmers are applying the knowledge.

In DR Congo professor Swennen met professor Benoît Dhed'a, project leader in the institutional cooperation with the Université de Kisangani. Together they entered the forest by motorbike. When they arrived at the village the farmers welcomed them with a large sign bearing the words 'Bienvenu M. Swennen'.

'How did they know I was coming?' a surprised professor Swennen asked. Their visit was unannounced; they had not shared their intentions with anyone.

'I've been studying bananas for thirty years and I've been halfway round the world, but I still don't understand how people communicate here.'

His surprise only increased when he saw the banana cultivation. It looked fantastic. The village teacher said that banana production had improved hugely.

'How come?' professor Swennen wanted to know.

'Thanks to you,' the teacher answered.

'Thanks to me?' asked professor Swennen in surprise. 'I haven't done anything here.'

'You wrote a book about bananas, didn't you?' the teacher replied with a smile.





Professor Swennen had indeed published a practical manual about banana production in DR Congo together with two other authors in 2011, with VLIR-UOS funding (within the South Initiatives programme).

'But who can read that book here?' asked professor Swennen. Few people read French, after all.

'I'm delighted to be able to say that four years later our project has had a major impact.'

'I can,' answered the teacher proudly. 'We performed plays, with the farmers as actors. We wrote a different play for each chapter of the book.'

Professor Swennen stared open-mouthed at the teacher. 'I would never have thought of that,' he said.

'I'm delighted to be able to say that four years later our project has had a major impact,' says professor Swennen a few weeks later by phone from Leuven. 'I would never have been able to achieve that with my techniques.'

He draws two lessons from his experience in DR Congo:

'First that the impact of projects often only becomes visible years after the end of the project. There are lots of good projects, but they need time to achieve results.

And second, if we researchers want to convey and share knowledge we have to gain insight into how local people pass on messages. Otherwise we are in danger of getting it wrong. More research is needed into alternative means of communication to convey messages, like theatre.'

Professor Benoît Dhed'A Djailo of the Université de Kisangani explains how the play came to be:

'During an extension activity the farmers' organization wanted to convey the knowledge about banana cultivation through theatre to entertain as well as inform those present, as so often is the case in our society, where traditional oral education was based on songs and sketches.'

'La culture des bananiers et bananiers plantains en République Democratique du Congo' was written by Benoît Dhed'A Djailo, Adrien Moango Manga and Rony Swennen and published by Université de Kisangani and KU Leuven.



THE CONNECTION BETWEEN THEATRE AND SCIENTIFIC RESEARCH

Professor An Ansoms (Université Catholique de Louvain) uses theatre in her research into land conflicts in DR Congo, Burundi and Rwanda, 'not so much to spread scientific knowledge as to collect knowledge.'

'The theme of land conflicts is highly charged. People don't want to talk straight out about their own conflicts with family, neighbours or those in power locally. So we developed a method of participative theatre. Sketches with local actors are an opportunity to start a discussion with the audience and make connections with their own situation'

'Theatre is a fantastic way of involving people in your research. But as a researcher you also lose a degree of control over your own research process. Although this can also be great and it can get people to tell you things they would never share with you when talking normally.'

For more information about the research into land conflicts and the Land Rush simulation, see www.land-rush.org.

'Theatre is a fantastic way of involving people in your research.'

In a previous life An Ansoms was a researcher at the University of Antwerp's Institute for Development Policy and Management. For her PhD thesis she was given a VLIR-UOS travel grant and she co-promoted several International Congresses with funding from VLIR-UOS.



Sketches with local actors are an opportunity to start a discus sion with the audience. *Photo: An Ansoms*





THE MONEY **USED TO FLOW** FROM BELGIUM TO TANZANIA. IT'S THE OTHER WAY ROUND NOW.'

It's no exaggeration to call Professor Herwig Leirs (University of Antwerp) a veteran of university cooperation for development. Since 1987 the biologist has been studying rodents, because these small animals destroy harvests and spread diseases. It began in Tanzania, but quickly grew to include Ethiopia and many other African countries. His biggest success, he says, is that not he but his colleagues in Tanzania won the Bill and Melinda Gates Foundation project.



VLIR-UOS asked professor Leirs to give a presentation at the New Year's Event in January 2015 on the importance of the mishmash of nationalities, institutions and disciplines in the cooperation with the developing world. We listened open-mouthed to what he had to say.

'THE EXPERTISE CAME FROM ANTWERP. **BECAUSE IT COULD NOT** BE FOUND IN TANZANIA'

My first experience of university cooperation for development was in 1987 when I became involved in a rodent project in Tanzania as a PhD student. It was a classic ABOS¹ project: there was a problem of major damage in farming, caused by rodents. That had to be studied by experts from the outside, because they could not be found in Tanzania.

The research and project management was done by the Belgian partners. The Tanzanian employees provided the practical organizational support, but were otherwise not really involved in the research. Capacity

building was not a priority. The stress was on collecting data and doing research. There was not a single Tanzanian co-author in the research result publications.

'DEVELOPING A VISION **TOGETHER TO MAKE** THE UNIVERSITY BETTER'

A new project was launched ten years later, in 1997: the institutional cooperation with Sokoine University of Agriculture (SUA), with VLIR-UOS funding. It concerned the same people and the same institution, but there was a much better mix by then. From the Flemish side, professors from four universities took part and various departments at SUA were involved, from rodent biology and

 $^{1}\,\mathsf{ABOS}\,(\mathsf{Algemeen}\,\mathsf{Bestuur}\,\mathsf{voor}\,\mathsf{Ontwikkelingssamenwerking})\,\mathsf{was}\,\mathsf{the}\,\,\mathsf{general}\,\mathsf{administration}\,\mathsf{for}\,\,\mathsf{development}$ cooperation, the forerunner of the present-day DGD.

1990

1987

1997

2000





soil science to computer centres and libraries. We had to develop a vision together to strengthen the university institutionally.

Now capacity building was important. We brought together Flemish and Tanzanian researchers and students to do research. That enabled us to consolidate and multiply the expertise in Tanzania too. As a result, the SUA research group gained a place for itself and visibility. For instance, in 2003 we managed to arrange a congress with 120 delegates from 35 countries. Plus, new projects were launched, with new donors and new partners, from Ethiopia, Kenya, Zambia, Mozambique and South Africa. In that way, expertise was developed further.

'WE WERE ABLE TO GIVE NEW INITIATIVES A CHANCE'

Thanks to the long-term strategy of institutional university cooperation we were able to give a chance to new initiatives in the margins of those projects. Sometimes that worked very well, like in the case of APOPO, a project in which rats were trained to find landmines, among other things.

The cooperation with other Flemish professors was also a source of new input and ideas. During a breakfast with professor Seppe Deckers (Department of Soil and Water Management, KU Leuven) in Tanzania, he spoke about the small walls they build in Ethiopia to stop erosion.



The same connections also brought us into contact with SUA's remote sensing specialists and KU Leuven's landscape ecologists. Together we were able to start a VLIR-UOS project in northern Tanzania to look for an explanation for the spread of bubonic plague there. We also involved experts in public health and socio-economic and anthropological aspects. That produced a new project for which we received funding in Flanders from the FWO.

'PASSING ON AN UNDERSTANDING OF THE IMPORTANCE OF COOPERATION TO THE NEXT GENERATION'

The experience acquired led to a new cooperation with SUA's Wildlife

And every two years we also arrange a tropical field trip for third-year biology students at the University of Antwerp and third-year SUA students. This enables us to pass on an understanding of the importance of the cooperation to the next generation.

SUA WINS INTER-NATIONAL PROJECTS, EVEN WITHOUT FLEMISH INPUT

But all those cooperation projects involved Flemish coordinators. At the start of the second phase of the institutional cooperation with SUA we had set ourselves the goal of the SUA research group winning a new international project independent of us. And they did it. In 2007 SUA launched the ECORAT project, with European funds but without us. That has spawned various other projects.

The most recent project started in early 2015. It is perhaps the biggest success in symbolic terms. It is a Bill and Melinda Gates Foundation project, coordinated by one of the postgraduate students trained in Tanzania. We are involved through the University of Antwerp but this time the funds are not flowing from Belgium to Tanzania. We will receive part of the budget in instalments from Tanzania.

'Our goal? For the SUA research group to win a new international project independent of us. And they did it.'

However, the local farmers were concerned that the walls would attract rodents. That led to the interdisciplinary cooperation between Ethiopian and Tanzanian researchers.

Management Department. Among other things, we went looking for the corridors elephants use to migrate between different parks and the consequences for the local communities.

2003

SUA hosts the 9th African Small Mammal Symposium, with 120 delegates from 35 countries.

2007

SUA starts an international project with European funding, without UAntwerp.

2010

TEAM project in
Ethiopia with Seppe
Deckers (KU Leuven) t
apply rodent expertise
Cooperation between
Tanzanian and Ethiopi
an researchers.

2011

2015

receives support from the Bill & Melinda Gate Foundation, coordinate by a PhD trained in Tan nia. UAntwerp receives





ON THE IMPACT OF TWO DECADES OF INTERNATIONAL COOPERATION AND THE IMPORTANCE OF PROTEIN

'START SMALL AND GROW TALL AS THE YEARS PASS BY'

Professors Eddy Van Driessche and Sonia Beeckmans (Vrije Universiteit Brussel) are protein experts. Their knowledge leads to innovative applications in animal medicine and food. Their cooperation with the developing world began almost 20 years ago. In the intervening time they have worked on four continents and set up numerous successful projects.

The secret of a successful marriage? We could have a fascinating talk about that with Sonia Beeckmans and Eddy Van Driessche, because they are not only research colleagues, but also partners for life. But that will be for another time. Right now I'm more interested in their experience with the developing world.

How did your cooperation with the developing world start?

Eddy Van Driessche: 'It was actually by chance. The project in Zimbabwe was the consequence of the visit from Zimbabwe of a colleague who had heard of a potential cooperation with VLIR-UOS. And there was a colleague in Cuba who was interested in lectins. Both projects eventually got underway at the end of the nineties.

The cooperation with Zimbabwe and Cuba was interesting for us, because it gave us access to new protein types and bacteria that we don't have here. It was also an opportunity to expand our knowledge to the developing world.

'Wherever you go in Cuba they know VLIR-IIOS.'

With the land redistribution problems in Zimbabwe the colleagues there switched to South Africa. Together with them we have developed a new project at Limpopo University. The cooperation continues in the institutional cooperation (IUC) with Limpopo University.

The cooperation with Vietnam began with a visit by the then rector of Can Tho University, who has a strong interest in enzymes that have applications in food. The twelve-year cooperation with Can Tho University subsequently came out of that.

Sonia Beeckmans: 'It is often a case of starting small and growing tall as the years pass by.'

What are enzymes and lectins exactly?

Eddy Van Driessche: 'Proteins are molecules that are found in all living organisms. Enzymes are proteins that produce reactions and, for instance, convert nutrients into building blocks and energy.

Lectins are proteins that bind to sugars and have a huge number of applications in medicine, such as tracking down diseases and distinguishing cancer cells from normal cells. They are also important in food, for both humans and animals.

We are especially interested in purifying and profiling proteins, initially in enzymes and lectins, but in the past few years we have mainly done research into lectins and their applications.

When you mentioned molecular biology or biotechnology in the nineties everyone was almost exclusively talking about DNA. It was as though







proteins hardily existed. We have continued to work on proteins and it's that knowledge we want to share with our colleagues in the developing world.'

'Alumni take their knowledge home with them and share it there.'

Sonia Beeckmans: 'In Vietnam we worked with fish and proteins that provide for the immune system. Pangasius farming has huge economic importance for Vietnam. The fish live tightly packed together in the farms, so the smallest infection is a disaster. The level of one of those proteins rises sharply in the event of stress or infection. Based on that knowledge,

in time we can develop a kit to determine when fish need to be treated.'

Is the language a problem?

Eddy Van Driessche: 'Not in Zimbabwe or South Africa, but it is an issue in Cuba and Vietnam. One of my first acts as Flemish coordinator of the institutional cooperation with the Universidad Central Marta Abreu de Las Villas (UCLV) in Cuba was to start an academic English project. If you want to do things at the global level in science you have to know English. Various institutional cooperation programmes have since followed that example. But it doesn't happen overnight. A lot of people forget that cooperation with the developing world takes time.

What other impacts do you see?

Eddy Van Driessche: 'There's been a big impact across the board, but especially in terms of training people. We often talk about the importance

of equipment and ICT, but what has changed first and foremost is up here (pointing to his head), the way of seeing the world, teaching and researching.'

Sonia Beeckmans: 'We see that the new generation of students on the interuniversity Molecular Biology masters programme are better trained than the previous generations. That really motivates us. Almost half of the new students

'Those are all things that could not have been predicted at the start. It grows and continues in a new direction.'

were recommended by alumni of the course. Alumni take their knowledge home with them and share it there.'





Eddy Van Driessche: 'A recent questionnaire shows that just about all alumni work in their native country at a university or for the government. It is important for them to get that opportunity. University cooperation has certainly contributed to that.

'You get a different perspective on the world, unlike when you stay at home.'

That university cooperation really puts Flanders on the map. Take Cuba. Wherever you go they know VLIR-UOS.

It's in Cuba where we see the impact of the various stages of cooperation the best. There an Own Initiative has evolved into an institutional cooper-

ation with the Universidad Central 'Marta Abreu' de Las Villas (UCLV) and a new institutional cooperation with the Universidad de Oriente has started in the meantime, as well as an interuniversity network on ICT. The UCLV has continued to rise in the rankings and a number of their programmes have been chosen as model programmes that all universities

The perceptions of society are also important. Thanks to the institutional cooperation with UCLV an important botanical garden with unique species was saved from oblivion. On average, 8000 people a year now visit the botanical garden, including schoolchildren, which contributes to raising ecological

Sonia Beeckmans: 'Contacts have been set up with the industry in Cuba and drones are now being developed locally thanks to Belgian development cooperation."

Eddy Van Driessche: 'Those are all things that could not have been predicted at the start. It grows and continues in a new direction."

For you, what is the difference between international academic cooperation and university cooperation for development?

Eddy Van Driessche: 'International cooperation is a win-win from the outset. With university cooperation

for development you respond to the questions of partners, but in the long run you arrive at the same win-win situation. It just takes a little longer. But is that a bad thing? I don't think so. Things could advance a little

Is there space to move more slowly?

Eddy Van Driessche: 'I think the situation is changing. In the academic evaluation, globalization is appreciated more and more. But researchers do have to keep the promotion criteria in mind. For young people it's a magnificent experience. You get a different perspective on the world, unlike when you stay at home.'

Would you do it all again if you had the chance?

Eddy Van Driessche: 'Absolutely. But I would start earlier.'

In 2014 professors Eddy Van Driessche and Sonia Beeckmans received a prestigious award for their many years' cooperation with the Universidad Central 'Marta Abreu' de Las Villas' from Cuba's first vice-minister of Higher Education.

AN ALUMNUS TALKS

ABOUT THE IMPACT OF THE MOLECULAR BIOLOGY MAS-**TER'S DEGREE PROGRAMME:**

The interaction with colleagues from

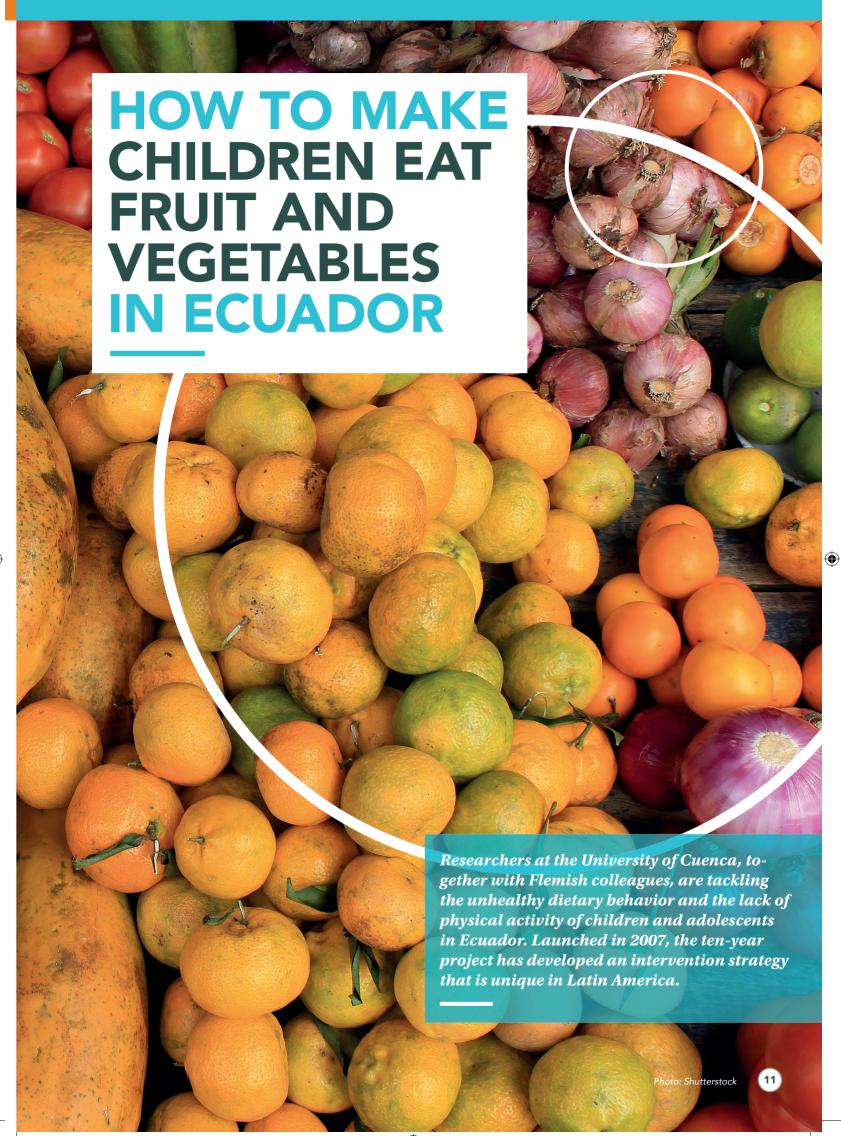
By the end of the programme you get varieties, or by exploring the various

THE VLIR-UOS IUC AND TEAM **PROGRAMMES**

Through the Institutional University Cooperation (IUC) programme VLIR-UOS makes possible a twelve-year partnership between a university in the developing world and Flemish universities and university colleges. The programme provides support to the university for its three functions as provider of education, research-related and society-related services. The aim is to strengthen the local university so that it is better able to fulfil its development role.

The **TEAM** programme funds cooperation in education, research and service between a department of a Flemish university and a department of a university in one of the VLIR-UOS partner countries. A TEAM project runs for no fewer than four years and no more than five.







I met the Ecuadorian researchers Angélica Ochoa and Susana Andrade at the Faculty of Bioscience Engineering in Ghent, together with professor John Van Camp, the Flemish coordinator of the Food, Nutrition and Health project, which is part of the Institutional University Cooperation with Cuenca University. Both students are about to finish their PhD.

Professor Van Camp, how did you get involved in **VLIR-UOS projects?**

John Van Camp: 'When I did my postdoc as a young teacher I was met many international students at the masters programme 'Nutrition and rural development' and their questions related to their home countries. I started realizing that I needed more practical experience. So I started with projects on food quality, first in Tanzania. Then, by chance, we came into contact with people from Cuenca. In 2007 we started our project.

'If you have mutual interests, you can always bridge the difficulties.'

What were the main challenges you faced at the start of the project?

Angélica Ochoa: The language, because few people at the University of Cuenca spoke English.

John Van Camp: I remember the first project meeting in a room with about 15 young researchers and nobody was speaking English. They went for someone to translate everything and finally we came up with a project structure. It took us at least a week to make it.

> From the beginning I noticed their eagerness to learn. I really saw people thinking: 'This is something new.' They were interested and picked it up very fast. If you have

Now, seven years later, they write international publications and present their work in English. It is one of the stories I most like, to see where we started from and where we are now.

At the beginning I didn't speak a word of Spanish. I said: 'Let us have a bet: I will start learning Spanish if you start learning English. And we did it, didn't we? (looks at Susanna and Angelica) Although I have a lot more problems with Spanish then they do with English.

Can you tell me something about the project?

Angélica Ochoa: 'To begin with there were no data on the dietary intake of children and adolescents in Ecuador. We wanted to get details of actual intake and understand the determinants of unhealthy behavior.'

John Van Camp: 'We conducted a baseline study to find out the zero situation without the intervention and to get information on eating behavior, food composition, the presence of toxins and the physical activity of the adolescents. In the second phase we carried out a major intervention, which was quite unique for Ecuador and even Latin America.'

Angélica Ochoa: 'We studied the determinants of dietary intake and physical activity behavior using focus groups of parents and school staff. We used the data to implement an intervention programme that was adapted to the target group. Then we organized the intervention at ten schools and chose ten more schools as controls without intervention.

The intervention took us three years. We created an educational tool-kit and organized workshops with the parents and the school staff, in order to teach them to

'It is remarkable that in Ecuador, the world's most bio-diverse country, the people don't eat their home-grown





be active and improve the quality of the food served in the school and at home. For example, as we knew children were embarrassed to eat healthily, we taught them not to feel like that, using games. So we targeted the determinants to improve the children's awareness, self-control and support from the parents and the school.

'The attitude of the school staff changed, they were more aware of the problem.'

We also involved some famous Ecuadorian athletes to set a good example, because in the focus group the people said the role modeling was important for them.'

What have been the project results so far?

Angélica Ochoa: 'We still haven't fully analyzed the data, but we have already identified a positive effect on vegetable and fruit intake. The adolescents decreased their added sugar intake and their blood pressure was reduced. The next step is to check if the determinants for unhealthy eating have changed too.'

Susana Andrade: 'The intervention encouraged the adolescents to be more active. The schools also raised their awareness of the importance of physical activities.

Angélica Ochoa: 'The main difference I see is the involvement of the people. After 28 months of intervention the attitude of the school staff changed, they were more aware of the problem. Another effect that I hadn't expected is the decrease in waist circumference. It was just one centimeter, but it is difficult to achieve such an effect.'

John Van Camp: 'There is also a very important scientific element. In my view, as a scientist, the major achievement is that the young scientists from Ecuador now know how to design an intervention. It is fascinating to see people developing to international standard, in every way: linguistic improvement, writing publications, designing research, critically discussing results. And in the end you get the same level of academic output as you have when you do research in Belgium.

One of the reasons why we have obtained good results is that many people are involved, all of them experts in their own way. We have always looked for the right people. And we are lucky enough to have lots of young people from Belgium and Ecuador. We joined forces and it fits.'

'We joined forces and it fits.'

What are the future perspectives?

John Van Camp: 'In the summer of 2015 three PhDs will have been completed at UCuenca. I am really hoping for we will have continuity at the local university and we will retain the knowhow we now have. Those researchers are



HEALTH PROBLEMS AT THE START OF THE PROJECT

- fitness scores in the world.
- > Most adolescents were eating too little fruit, vegetables and whole grains, and too much

Angélica Ochoa: 'There is great peer pressure among adolescents to consume unhealthy food. often unavailable. The schools say: "When we offer fruit the children don't buy it. You need to

John Van Camp: 'It is remarkable that in Ecua-

now able to write and submit projects, attract extra funds and collaborate with other institutions.'

Angélica Ochoa: 'I've already started writing another project on food allergies. I will go back to Ecuador and be involved in research."

John Van Camp: 'That's important. I always say to Angélica and Susana: Keep on doing science!'











Around 70% of the population of the Democratic Republic of Congo (DR Congo) live from farming. The rapid rise in population has led to rising demand for food. Local biodiversity is threatened by deforestation and unsustainable farming methods like slash and burn.

'The goal is to increase agricultural production and food security in the region.'

Researchers at the Université de Kisangani (UNIKIS) are seeking solutions for sustainable farming and protecting biodiversity in the north-eastern Congo basin. They do so together with researchers from the universities of Hasselt, Ghent, Antwerp and Leuven, with the support of VLIR-UOS. The ten-year cooperation programme began in 2011 and will run until 2020.

FARMING: MORE PRODUCTIVE. **MORE SUSTAINABLE**

Undernourishment and unhealthy diets are big challenges facing DR Congo. The 'sustainable farming' project targets academic capacity building at UNIKIS by means of research and the development of specialist laboratories.

'The long-term goal is to make the research results accessible to the population and so increase agricultural production and food security in the region,' says project leader professor Benoît Dhed'a.

The local farmers take part in the research through workshops to raise awareness and demonstration fields in the villages. Co-project leader professor Adrien Moango:

'People often talk about the problem of expensive fertilizers. I show them

that there are alternatives to raise agricultural production, by choosing the right crop combinations.'

Professor Dhed'a: 'The innovation is in the application of adapted farming methods that cost little, based on natural local resources.

'Biodiversity provides food, medicines, houses and allows us to resolve food shortages.'

CANE RATS AND MUSHROOMS

Poor management of natural resources in the north-eastern Congo basin threatens local biodiversity and food security. The cooperation







programme trains researchers, seeks alternatives for sustainable use of the wood and the river, and works to raise awareness in the population. The local diversity project leaders, professors Hippolyte Nshimba and Dudu Akaibe, explain:

'Biodiversity plays a very important role in the daily life of the population in both rural and urban areas. Biodiversity provides food, medicines, houses and allows us to resolve food shortages.'

The researchers study various animal and plant groups. We want to offer alternatives to the population though the cultivation of edible mushrooms, and the breeding of cane rats and fish. A rat may not have you licking

your lips, but cane rats are highly prized rodents for their meat in central Africa.

Professor Hippolyte Nshimba: 'The breeding of cane rats and the cultivation of mushrooms ensures that the rural population get an immediate return from their land, rather than destroying natural resources and biodiversity in an uncontrolled way. For mushroom cultivation we start with experimental tests at the university. We then train the farmers to grow the mushrooms themselves.'

By cataloguing the different animal and plant groups in the region, the researchers want to monitor the impact of human activity on biodiversity.

Professor Hippolyte Nshimba:

'Through field research we have learned to recognize the species and which ones are edible and which are not, with a view to their rational use. We also organize extension sessions on sustainable development with the farmers'

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CASSAVA: FROM 5 TONS TO 40 TONS PER HECTARE WITH BETTER SOIL MANAGEMENT

Cassava is an important crop in DR Congo. The inhabitants of the Tshopo district consume an average of 3 kg of cassava per person per day. But at 4-6 tons per hectare the cassava yield is very low.

Cassava production can increase to 40 tons per hectare with better farming methods such as integrated soil management (gestion intégrée de la fertilité des sols, GIFS). This increases the fertility of the soil, by using organic fertilizer, for instance. The method not only generates a big economic advantage, it also helps protect biodiversity.

CENTRE DE SURVEILLANCE DE LA BIODIVERSITÉ

The Centre de Surveillance de la Biodiversité (CSB) was established on the campus of the University of Kisangani's Faculty of Sciences with the support of the Belgian Development Cooperation and in association with the Royal Museum for Central Africa, the National Botanical Garden of Belgium and the Royal Belgian Institute for Natural Sciences to monitor and manage the future evolution of the fauna and flora in the Congo basin.

The centre is important to the cooperation programme between UNIKIS and the Flemish universities. Professor Dudu Akaibe, director of the centre and co-project leader: 'It is in this building that we manage the biological collections of reptiles, amphibians and mammals, among other things. We are currently developing a laboratory to cultivate edible mushrooms.'











'I learned to let time take its course and not to constantly try to squeeze every last drop out of it.'

'Being strong enough to take time for myself and others is probably the best thing I learned during my placement. Completely unlike Western people, Nepalese people are not afraid to lose track of time. They take the time needed to do something. In Belgium there is a huge drive to perform. Time is invaluable and you always have too little of it. Yet in Nepal I learned to let time take its course and not to constantly try to squeeze every last drop out of it.'

Kaat Somers, a special needs education student at Artesis Plantijn University College in Antwerp, travelled to Nepal



'My ideas about development cooperation have changed.



'What did my experiences in Cambodia change the most? My ideas about development cooperation. I no longer have a positive view of all possible forms of development cooperation.

For instance, there was a special machine at the hospital to measure the heartbeat, which had been donated by Japan. This machine, which

was in perfect condition, was placed away in a corner somewhere because there wasn't a single doctor who was trained to use it.

This made me realize that one of the most important forms of international cooperation is not so much supplying material, but providing training and good support. For instance, I think that doctors and patients would have benefited more from a cardiac arrhythmia course and treatment options rather than a machine that identifies heart problems. Obviously the international cooperation initiatives are well intentioned, although I would say that more attention should be given to the sustainability of projects and support to the local population.

Jolijn Van Cauwenberghe, medical student at Ghent University, travelled to Cambodia

MOST SIGNIFICANT CHANGE

For the past few years VLIR-UOS has used 'Most Significant Change', a monitoring and evaluation method based on firsthand accounts to collect student experiences. It was suggested by the PULSE research platform.

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Stijn De Roover manages the travel grant programme for VLIR-UOS: 'We used to have a highly convoluted reporting system for travel grants, both for students and the ICOS (the institutional coordinator at the university or university college). We asked for lots of data, but often no one read the accounts because it took so much

Researchers at the HIVA examined the travel grant programme and thought about how to improve the evaluation process. Their research

was within the scope of PULSE, which was the VLIR-UOS research platform about social support for development cooperation. They advised us to simplify the reporting and adopting the 'Most Significant Change' method.

The evaluation form for students now focuses on the most significant change as a result of their stay in the developing world. The institutional coordinators collect all the reports and select one or more cases they feel are interesting. VLIR-UOS uses those cases in the evaluation of the travel grant programme and in the discussions with the institutional coordinators.

Stijn De Roover: 'I'm very satisfied with the new procedure. The response from the institutional coordinators has also been positive,

because they understand why it's useful. We now get a lot of information about what's happening on the ground and what effects the travel grant programme has.'

The programme is focused not only on the impact on the students but also on the partner in the developing world. The local impact is seen as important during the selection and the follow-up.





THAT FAILED 75,000-EURO PROJECT MIGHT BE THE BEST INVESTMENT EVER'

Koen De Koster has been responsible for monitoring and evaluation at VLIR-UOS since January 2015. In a past life he worked for the Belgian Development Agency (BTC), where he learned a lot about result-oriented management.

And at the Institute for Development Policy and Management (University of Antwerp) he got a master's degree in development evaluation and management. We talked about impact and how to measure it.

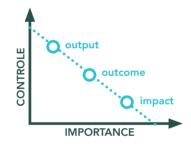
What is the difference between output, outcome and impact?

Koen De Koster: There are various movements and each of them define those concepts a little differently. That does create some linguistic confusion. But generally speaking we can say that 'output' is more about the products and services you produce as the result of the activities: a working laboratory, an updated curriculum or greater research capacity. The activities needed to achieve that may be a study, benchmarking,

giving training, consulting people, sharing experiences... You have the output level reasonably under control.

The 'outcome' is about the application of the output and the change that creates. That might be the application of new research methods, for example. The outcome is highly dependent on external influences.

'Impact' is about how you contribute to change at a more general level and the effects of your intervention in the longer term.



So in the continuum of output, outcome and impact we see an ascending level of importance and a descending level of controllability. It's about changing behaviour, which is difficult to control or plan. It is not as simple as saying 'provide that output and the change in behaviour will come automatically'.

Could you give an example of a concrete project?

Take a VLIR-UOS project on organic agriculture:

The output is a strengthening of the academic research capacity, the development of a laboratory, structures for the functioning of a research group and the strengthening of local farmers' groups.

For outcome we ask ourselves whether the research group is functioning properly; whether the new skills and equipment are really being





used; and whether the farmers' organizations are really changing their behaviour.

The impact concerns whether the project contributes to sustainable agriculture and whether it ultimately has an impact on farmers' income and health.

How can we measure impact?

The randomized control trials (RCTs), which Esther Duflo and Abhijit Banerjee supervise, are very popular at the moment. We know the method from the pharmaceutical industry, where some people are given a drug and others are not. Thanks to that method we now have a stack of data on what works and what doesn't. But the approach does have its limits. RCTs in a development context claim that an approach that works in place X can also be applied elsewhere.

But facilitating sustainable change is not an exact science and every context is different. Development interventions are not like drug trials, where you know and/or control most of the parameters. In fact, most of

'It is not as simple as saying 'provide that output and the change in behaviour will come automatically.'

the parameters are unknown. Take a university, where such things as personal relationships, changes in staff, politics and personal interests play a role. All these factors have an unpredictable impact on the intervention. So it's an illusion to think that everything will go to plan just like that.

There are qualitative methods, too, which perhaps do not provide the most scientifically well-founded answer, but often do deliver useful information. The most significant change method, for instance, examines what has changed in people's lives. Perception plays an important part here and yet the information is usually highly reliable. You can also apply the method for monitoring, to fine-tune the execution. Sometimes you come across things, like unfo-



reseen negative or positive effects, that randomized control trials don't always bring to light. Other interesting and useful methods are realistic evaluation and outcome mapping.

We should not think that measuring impact is always possible or desirable. This has to be done in a targeted way, based on what we want to learn and the strategies we want to test.

Are our expectations on impact not too high then?

We usually overestimate the impact of what we do. There are successes, but it is high-minded to think that we are going to solve things fast. If that were that easy, it would have been taken care of a long time ago. In reality, facilitating change is often very hard. That's why we need to learn to deal with failure better and accept that it is part of the change process.

A failure is still often a bitter pill to swallow. But the failure does not have to be total if you learn from it. That failed 75,000-euro project may be the best investment ever if it provides insights that can be used for other projects and ultimately delivers a stronger impact.

Should we adjust how we follow up on projects?

Yes, because we still orient too much to the activities and too little to the change we wish to see. It's no use rapping people on the knuckles because they have not kept to their schedule; it has to be about the results. We have to communicate the message much more: go for it, learn and innovate.

VLIR-UOS plays an important role in that, by sharing positive and negative experiences and learning from each other collectively.

But that demands a great deal of flexibility and maturity from all parties, such as the Belgian Development Cooperation, VLIR-UOS itself and the academics. Because we

'We have to communicate the message much more: go for it, learn and innovate.'

have to learn to let go and accept that mistakes are made. Although I'm certain the impact will also be greater. We can take inspiration from the private sector and especially start-ups: those young companies are constantly looking for added value, they see what works, fail regularly but learn from it and are always innovating.













WHY IS THERE A NEED TO PUBLICIZE MORE?

In 2013, without warning we were told that state funding could be discontinued. Ongoing and scheduled projects and scholarships were under threat. Ultimately the funding was released after all. But the crisis taught us that the world of politics and research scarcely knew us. It appeared to be a well-kept secret that Flemish universities and university colleges achieve very relevant things with partners in Africa, Asia and Latin America.



Conclusion: we had to come out into the open more and show that we do make a difference, together with the network of hundreds of researchers, professors, teachers and employees that are involved in VLIR-UOS projects. It's not only about the visibility of VLIR-UOS, but also the results and the impact of the cooperation.

THE STUDY

We gave Lisa de Haardt (University of Antwerp) the job of finding out how researchers communicate and what obstacles they face. We held interviews with researchers, communication departments and institutional coordinators for development cooperation. We looked through media databanks to see what international research made the news. And we spoke to communication experts and journalists.

WHAT DID WE LEARN?

Lisa de Haardt: 'Researchers say that they want publicity, but they often don't know the best way to get it. The importance of cooperation kept coming back throughout the study, especially with your own university's communication departments. They are constantly looking for strong cases to champion, but they don't know that a lot of interesting things are happening with the developing world. So during the study day we brought together the researchers and representatives of the communication departments so they could

become acquainted with each other. And lastly, the media analysis showed us that researchers should target the regional media more often, because they are more likely to listen to researchers.'





STUDY DAY: 'RESEARCH: HOW DO YOU GET IT OUT THERE?'

VLIR-UOS organized a study day in Antwerp on 11 March 2015 for researchers and people involved in international projects. The goal was to motivate them to publicize their research and give them tips and tools that enable them to do that properly.

'Your story has to have a wow factor.'

There was a big response with 150 attendees, which showed the need for more communication support for researchers.

Science journalist Koen Wauters (VRT) shared some of the secrets of his profession. It's very important that what you have to say is newsworthy: 'Your story has to have a wow factor.'

It may take some work, but Koen Wauters encourages researchers to cut away all the fat from their story: 'A TV news item lasts for between 90 seconds and two minutes. You haven't got time to give a comprehensive account, such as mentioning all institutional partners. You always need to pare it down to the essentials. And it's better for you to decide what's essential rather than the journalist.'

WHAT DID THE PARTICIPANTS THINK?

Selected responses:

'The study day fulfilled a very real need'

'After this study day I really felt I could get to work (which all too often is not the case after study days)'

'The speakers really knew what they were talking about'

THE GUIDE

We wrote a guide with the study results, examples of successful communication cases and practical tips. We focus first and foremost on researchers and people involved in international projects. The cases deal with cooperation with partners in Africa, Asia and Latin America. And the focus is on communication to a general public, not just experts.

The guide is available in Dutch and English at www.vliruos.be/handbook. Like to have a hard copy? Send an email to veerle.versele@vliruos.be.

WHAT'S NEXT?

We expect to hold more communication-oriented study days in coming years together with interested partners.

And in the meantime we join forces with the communication departments and institutional coordinators for development cooperation at the universities and university colleges, and with you to help you publicize your work.

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2014 IN FIGURES

Cooperation projects

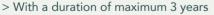
179 VLIR-UOS projects were ongoing in 2014.

Top 10 partner countries with the largest number of ongoing projects:

	COUNTRY	# PROJECTS
1.	Vietnam	21
2.	DR Congo	20
3.	Cuba	15
	Uganda	
	Ecuador	
6.	Ethiopia	
		10
8.	Kenya	6
9.	Tanzania	6
10.	Peru	5



> With a duration of 12 years	22
> With a duration of 3-5 years	61
> \A/':	0/







By nature

> International partnerships	135
> Trainings in Flanders	27
> Sensitization	17







Scholarships

In 2014 VLIR-UOS awarded scholarships to 1.591 people.

Top 10 developing countries delivering scholars*:

	COUNTRY	# SCHOLARS
1.	Ethiopia	118
2.	Bangladesh	69
3.	Kenya	
4.	Uganda	62
	The Philippines	58
6.	Tanzania	
7.	Vietnam	32
8.	Ghana	30
9.	Rwanda	26
10.	Indonesia	21

Number of scholars from Ethiopia in 2014:

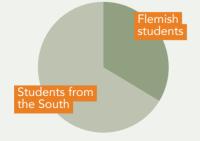
By origin

> Scholarships for students from the South

> Scholarships for Flemish students 534

By type of education > Short term (max. 1 year)*

> Short term (max. 1 year)* 772 > Master (max. 2 years) 553 > PhD 266





^{*} Short trainings as well as internships and research stays

^{*}based on figures for short-term scholarships, master's degree scholarships and ICP PhDs



VLIR-UOS BUDGET 2014

Below is a summary of the VLIR-UOS budget for 2014. Precise insight into expenditure will only be available in the autumn of 2015, as we will not receive the project receipts until then.

SOUTH PROGRAMMES	15.160.000	43,7%
Institutional university cooperation and country cooperation		
(IUC programmes, thematic networks, research platforms and other national/international cross cutting projects)	10.010.000	28,8%
Projects with a duration of 1 to 5 years (TEAM, Research	10.010.000	20,070
Initiatives Programme, South Initiatives)	5.150.000	14,8%
RESEARCH IN FLANDERS	500.000	1,4%
Policy oriented research: Acropolis	400.000	1,2%
International Conferences (INCO)	100.000	0,3%
EDUCATION PROGRAMMES IN FLANDERS FOR STUDENTS FROM DEVELOPING COUNTRIES	2.763.538	8,0%
International Course Programme (ICP)	2.355.032	6,8%
International Training Programme (ITP)	329.966	1,0%
Short Training Initiatives (KOI)	78.540	0,2%
SCHOLARSHIPS FOR EDUCATION PROGRAMMES IN FLANDERS	8.726.000	25,1%
ICP PhD scholarships for researchers from developing countries	1.073.630	3,1%
ICP scholarships	5.918.540	17,1%
ITP scholarships	687.622	2,0%
KOI scholarships	214.710	0,6%
Coordination costs, unforeseen and ICP Get Together Day	831.498	2,4%
	1.828.830	5,3%
SCHOLARSHIPS FOR FLEMISH STUDENTS	1.020.000	3,370
SCHOLARSHIPS FOR FLEMISH STUDENTS Travel grants for Flemish students	500.000	1,4%
Travel grants for Flemish students	500.000	1,4% 3,8%
Travel grants for Flemish students Flemish PhD scholarships (VLADOC)	500.000 1.328.830	1,4% 3,8%
Travel grants for Flemish students Flemish PhD scholarships (VLADOC) STRUCTURAL COSTS	500.000 1.328.830 5.718.632	1,4% 3,8% 16,5%
Travel grants for Flemish students Flemish PhD scholarships (VLADOC) STRUCTURAL COSTS CO ₂ compensation	500.000 1.328.830 5.718.632 35.000	1,4% 3,8% 16,5% 0,1%







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Partnerships between universities and university colleges in Flanders (Belgium) and the South looking for innovative responses to global and local challenges.

ABOUT VLIR-UOS

VLIR-UOS supports partnerships between universities and university colleges in Flanders (Belgium) and the South looking for innovative responses to global and local challenges.

VLIR-UOS funds cooperation projects between professors, researchers and teachers. VLIR-UOS also awards scholarships to students and professionals in Flanders and the South. Lastly, VLIR-UOS helps to strengthen higher education in the South and the globalisation of higher education in Flanders.

VLIR-UOS is part of the Flemish Interuniversity Council and receives funding from the Belgian Development Cooperation. More information: www.vliruos.be

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