

Call for applications for PhD positions

PhD Sandwich Scholarships within the VLIRUOS IUC Project “EMPOWER2LIV@UTN”

About the IUC project

These PhD positions are offered within the framework of the **VLIRUOS Institutional University Cooperation (IUC) project** between Universidad Técnica del Norte (UTN), Ecuador, and Hasselt University (UHasselt), Belgium, in collaboration with other Flemish partner universities.

The IUC project EMPOWER2LIV@UTN aims to improve well-being and sustainable development of marginalized urban and rural communities (MUR) in Imbabura, while strengthening UTN's institutional and research capacity.

The project is organised around seven interconnected sub-projects:

- SP1 – Inclusive Education
- SP2 – Sustainable Environment
- SP3 – Person-Centred Healthcare
- SP4 – Inclusive Economy
- SP5 – Child Nutrition
- SP6 – Saberes Ancestrales
- SP7 – Institutional Strengthening

The PhD positions are directly linked to these sub-projects. Each PhD research project is expected to contribute to the objectives and expected outcomes of the relevant sub-project while strengthening UTN's research capacity.

PhD Sandwich Scholarship

The PhD positions follow a **sandwich PhD model**, combining the candidate's research and professional activities at UTN with periods of research mobility at a Flemish partner university. The PhD degree will be awarded by the Flemish higher education institution, with UTN involved through co-promotion.

The IUC project provides **research scholarships and mobility support for research stays in Belgium**. The scholarship does not constitute full-time salary support for the entire four-year PhD trajectory.

The PhD trajectory will normally span approximately four years. Candidates are expected to undertake approximately four research stays of three months at the Flemish partner university during their doctoral trajectory. The exact timing and organisation of these stays will be agreed upon between the candidate and the UTN and Flemish promoters.

1. General eligibility criteria

Applicants must:

- Be a **current UTN staff member** and intend to conclude a bonding agreement with UTN corresponding to three times the duration of the research stays in Belgium.
- Hold a **relevant Master's degree or equivalent qualification**, in accordance with the doctoral admission requirements of the relevant Flemish higher education institution.
- Demonstrate sufficient **English language proficiency**. Admission to the PhD trajectory at the Flemish higher education institution requires candidates to demonstrate sufficient English language proficiency through an accepted English language test, such as: Cambridge C1 Advanced (CAE); TOEFL iBT: minimum score 89; IELTS: minimum overall score 6.5.

Selected candidates must take the required English language test during the preparatory year, and the required level must be achieved before the effective PhD trajectory at the Flemish higher education institution can start. The cost of the required language test will be covered by the IUC project.

Selected candidates who do not yet meet the required level, will have the opportunity to participate in an English language crash course organised by the UTN Language Centre, with the costs covered by the IUC project.

Exception: PhD projects within **SP6 – Saberes Ancestrales** may be conducted and written in Spanish, subject to the requirements of the relevant Flemish institution.

- Be willing to combine research at UTN with the required **research mobility to the Flemish partner university**.
- Meet any **additional eligibility requirements specified for the individual PhD position**.

Important: Selection by the IUC project does not automatically guarantee admission to a PhD programme at a Flemish university. Final admission is subject to the doctoral regulations and admission procedures of the relevant Flemish higher education institution.

2. Application procedure

Applicants must submit:

- **Curriculum Vitae (CV);**
- **Motivation letter;**
- **Academic transcripts and diploma(s);**
- Other documents specified for the individual PhD position.

Applications must be submitted to iuc@utn.edu.ec by **15 November 2026**.

Please indicate the **SP number and title of the PhD position** in the application.

3. Selection principles and procedure

Selection will be based on **academic and scientific quality**, as well as the candidate's potential contribution to the IUC project and to the long-term research capacity of UTN.

The following principles will guide the selection:

- **Academic and scientific quality:** academic record, research capacity and quality/relevance of the proposed PhD research.
- **Relevance to the IUC project:** priority is given to research that directly contributes to the objectives and outcomes of the relevant sub-project.
- **IUC involvement:** where candidates are otherwise comparably qualified, prior familiarity with and involvement in the IUC project and its objectives may be considered as an additional asset.
- **Gender, equity and inclusion:** gender balance and Leave No One Behind principles will be taken into account. Candidates from underrepresented groups are encouraged to apply.
- **Community engagement:** where relevant, experience with Marginalized Urban and Rural (MUR) communities, Indigenous/local communities, *Saberes Ancestrales* and/or community-based research will be considered.

Timeline

1.	Publication of the call	15 October 2026
2.	Application deadline	15 November 2026
3.	Eligibility check: verification of general and position-specific eligibility requirements.	18–20 November 2026
4.	Shortlisted candidates are interviewed and assessed by a selection commission of the relevant sub-projects	23–26 November 2026
5.	Communication of results	30 November 2026
6.	Pre-doctoral visits to Belgium	Between 21/03-31/08/2027

Selection commission

Each PhD position is assessed by a commission consisting of:

- UTN Local Coordinator;
- UTN Local Team Leader;
- Dean of the relevant UTN faculty;
- UTN local co-promotor, where applicable;
- Flemish Team Leader;
- Flemish Promotor;
- Flemish Coordinator and/or Vice-Coordinator – advisory role;
- IUC Project Manager – Secretary.

Any member of the Selection Commission with a conflict of interest must withdraw from the assessment of the candidate concerned.

PhD POSITIONS FIRST CALL (October 15TH, 2026)

SP1: Inclusive Education

PhD position title

Culturally Inclusive Education

Brief description of the PhD position

This PhD project focuses on advancing **Culturally Inclusive Education** in the Angochagua parish by integrating *ciencias y saberes ancestrales*, the Kichwa language, and the Indigenous Cosmovision into educational practice within MUR pilot schools. In collaboration with UTN, the research aims to strengthen culturally responsive and diversity-affirming approaches that promote cultural identity, social cohesion and, Sumak Kawsay 'Buen Vivir', ensuring that no learner is left behind. Using a mixed-methods, transdisciplinary, and participatory research design, the project will engage pupils, teachers, school leaders, parents, and community elders to co-develop inclusive educational practices, enhance teacher capacity for Indigenous education, and support curriculum transformation through meaningful and systematic inclusion of community voices.

Position-specific eligibility

Relevant academic background:

A Master's degree in Education, Educational Sciences, Intercultural Education, Inclusive Education, Educational Psychology, Curriculum and Instruction, Educational Technology, Neuroscience/Neuroeducation, or another closely related discipline.

Relevant research experience:

Demonstrated experience in educational research, with a clear connection to at least one of the following areas: culturally inclusive education, Indigenous education/research, ethnic diversity, intercultural education, culturally responsive teaching, neuroeducation, or related educational challenges.

Research methodology:

Demonstrated knowledge of qualitative, quantitative, or mixed-methods research, including research design, data collection and analysis, critical literature review, and academic writing.

Thematic alignment and research proposal:

Inclusion, Diversity and Interculturality in Education; Indigenous Education; Culturally Responsive Teaching; Inclusive Education, and Neuroeducation.

Interdisciplinary perspective:

Ability to integrate relevant perspectives from education, psychology, neuroscience, social sciences, technology, and/or intercultural studies.

Academic English:

Strong academic English proficiency, including the ability to read and critically engage with international literature, write academic texts, and communicate research findings in international academic contexts.

Ethical and inclusive research:

Commitment to ethical and Indigenous research practices, respect for cultural and linguistic diversity, and inclusive approaches to research involving learners, educators, institutions, and communities.

Digital literacy:

Demonstrated digital competence sufficient to conduct contemporary educational research, including the use of digital research tools, data analysis software, and relevant educational technologies.

Preferred requirements:

Experience conducting research and/or teaching with Indigenous learners and teachers and Indigenous communities; experience with systematic or scoping literature reviews, participatory research, or community-based/Indigenous research; Experience with Inclusive Intercultural Education; Knowledge of neuroeducation; Experience in teacher professional development or the design, implementation, and evaluation of inclusive educational interventions; Experience working in intercultural or multilingual educational contexts; Familiarity with relevant qualitative or quantitative data-analysis software and/or digital research methodologies; Previous academic publications, conference presentations, or other evidence of research dissemination.

Interview:

Candidates will be invited to present their research proposal in a 15-minute presentation, followed by a question-and-answer session with the Selection Commission.

UTN promotor:	PhD Luz Marina Pereira	Research Department	Impereira@utn.edu.ec
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Flemish promotor:	Associate Professor Joke Torbeyns	KULeuven faculty of Psychology and Educational Sciences	joke.torbeyns@kuleuven.be
Flemish co-promotor:	PhD Benjamin Ponet	Research Centre for Learning in Diversity HOGent	benjamin.ponet@hogent.be
Shortlisted candidates will be invited for an interview on Thursday 26th November (8:00 AM – 10:00 AM).			

SP2 – Sustainable Environment

PhD position title

PhD1: Hydrological Impacts of Traditional Farming Abandonment and Land Use Change in the Ecuadorian Andes

Brief description of the PhD position

This PhD research will investigate the hydrological and environmental consequences of the disappearance of ancestral farming practices and associated traditional land use systems in the Ibarra region of Ecuador. The gradual replacement of these diverse agricultural landscapes by modern farming systems dominated by monocultures is expected to increase surface runoff, peak river discharge, soil erosion and land degradation.

The research will compare the full hydrological cycle, with particular attention to rainfall, infiltration and runoff processes, under these contrasting land use systems. Two representative catchments will be instrumented with meteorological stations and river gauging stations at strategically selected locations. These observations will provide detailed information on rainfall-runoff relationships and the hydrological response of both catchments to extreme precipitation events.

The collected data will be used to calibrate and validate hydrological models representing the contrasting land use systems. These models will subsequently be applied to quantify the impacts of recent land use changes and assess how expected future transformations of agricultural landscapes may affect runoff generation, flood risks and land degradation.

Ultimately, the research aims to demonstrate the hydrological value of ancestral farming systems and provide scientific evidence to support more sustainable land management strategies in the Ecuadorian Andes.

Position-specific eligibility

Applicants should hold a Master's degree in Geography, Hydrology, Bioscience Engineering, or a closely related discipline. They should have a solid background in hydrological and environmental processes, as well as good knowledge of Geographic Information Systems (GIS), spatial modelling, and statistical analysis. Experience with hydrological modelling and field measurements is considered an asset.

UTN promotor:	Paúl Arias	FICAYA-UTN	dparias@utnedu.ec
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Flemish promotor:	Anton Van Rompaey	KU Leuven	Anton.vanrompaey@kuleuven.be
Shortlisted candidates will be invited for an interview on November 24th as of 10 am Ibarra time (16.00 Brussels time).			

SP 2: Sustainable Environment

PhD position title

PhD2: Spatial assessment of soil and biomass carbon stocks under different land use systems based on drone remote sensing

Brief description of the PhD position

This PhD research will evaluate soil organic carbon (SOC) and above-ground biomass carbon stocks across diverse high-Andean ecosystems (including páramo grasslands, native forests, and traditional chakra agroforestry systems). Using a combination of stratified field sampling, laboratory analyses (TOC, bulk density, texture), forest biometric measurements (stem diameter, leaf area index), and spatial modeling via high-resolution remote sensing (drone multispectral data and satellite imagery), the candidate will quantify carbon stocks and evaluate whether ancestral land-management practices preserve or enhance carbon sequestration relative to other land use systems. The findings will support local ecosystem service valorization and carbon-monitoring frameworks.

Position-specific eligibility

Degree: Master's degree in Environmental Sciences or a closely related field or equivalent through experience.

Field sampling experience in soil and vegetation ecology. This includes insights into different local land use and management systems. Experience with performing soil laboratory analyses (e.g., TOC determination) is a plus.

Drone remote sensing experience (or interest in gaining associated skills) is a plus. This will involve both conducting drone flights as well as the processing of drone imagery.

UTN promoter:	Juan Carlos Garcia	FICAYA	jcgarciam@utn.edu.ec
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Flemish promotor:	Sam Ottoy	PXL University of Applied Sciences and Arts – PXL BIO-Research Hasselt University - Center for Environmental Sciences,	Sam.Ottoy@pxl.be
Shortlisted candidates will be invited for an interview on November 23 or 24			

SP2: sustainable environment

PhD position title

PhD3: Evidence-Based Management for Human-Andean Bear Coexistence in the Angochagua and Gonzalez Suarez territory

Brief description of the PhD position

Evidence-Based Management for Human-Andean Bear Coexistence in the Angochagua territory

The Angochagua and Gonzalez Suarez territories (Imbabura), the pristine Parámo grasslands and the highly biodiverse cloudforest of the Andean mountains are home to many indigenous species of fauna and flora, including the endangered Andean bear (*Tremarctos ornatus*). Only roughly 2,000 Andean bears are currently estimated to remain in the wild across all of Ecuador's mountain biodiverse cloudforests (also the major resource for drinking water for the entire region) and high páramos, and roughly half of them are living outside of officially protected national parks. The species is classified as vulnerable (IUCN), it is the only living species of bear native to South America, and the last remaining short-faced bear (subfamily Tremarctinae).

This notoriously elusive, solitary, and human-avoiding, mostly herbivorous species shares its habitat with local indigenous communities/villages who depend on the lower valleys for their daily livelihoods (i.e., where they live, perform agriculture, and practice traditional Kichwa culture). Although very supportive of several ongoing conservation initiatives (such as Socio Bosque program), this coexistence is the source of an existing human-wildlife conflict.

Understanding the human-wildlife interactions in this area is imperative to ensure harmonious coexistence and design effective nature management strategies to preserve the species. Given the complexity of these interactions, developing effective and inclusive nature management strategies that benefit both the species and local people is especially challenging. To achieve sustainable strategies, it is not only paramount to have a better understanding of the existing wildlife community inhabiting the specific area but also that the stakeholders support them.

By involving the local communities at the different stages of the project, from the start on, this project aims to develop sustainable strategies benefiting both the local communities and the endangered species. Using a Generalized Management Strategic Evaluation (GMSE) approach, different scenarios will be compared to determine a set of solutions to reach a sustainable human-wildlife coexistence in order to preserve the target species.

The project will first assess the existing conflicts, needs, and challenges of the local communities using Participatory Active Research methodologies and a DPSIR (Driving Forces, Pressure, State, Impact, and Response) framework. From the onset, the project will deploy camera traps (based on the local knowledge and e.g., using the participatory GIS mapping technique) to study the spatiotemporal behavior of the bears on and around the agricultural fields and villages. Based on the acquired knowledge, the project will test different possible solutions through defined actions and measures in full participation with the communities to minimize the human-wildlife conflict for both parties. Using both camera traps research and the PAR approach, the effects of these actions and measures will be assessed and whenever needed modified adaptively, to strive ultimately for a long-term harmonious coexistence of local communities and the Andean bear.

Position-specific eligibility

Preferably a master in Sciences, Environmental Sciences or equal through experience; an applicant from the study area would be an advantage

UTN promotor:	José Ali Moncada	Postgrado	jmoncada@utn.edu.ec
Flemish promotor:	Prof. dr. Natalie Beenaerts	Hasselt University, Centre for Environmental Sciences	Natalie.beenaerts@uhasselt.be

Shortlisted candidates will be invited for an interview on **November 23 or 24**.

SP3: Person-Centred Healthcare

PhD position title

PhD1: Non-communicable disease risk profiling and baseline health indicators in Angochagua, Imbabura

Brief description of the PhD position

This PhD will investigate the risk profile and baseline health indicators for non-communicable diseases in marginalized urban and rural communities in the Parish of Angochagua, Imbabura. It will focus on diabetes, hypertension, obesity and chronic respiratory conditions, using a primarily quantitative, community-based approach. Clinical and functional data, including blood pressure, glycaemic markers, anthropometry and body composition, spirometry, functional status and quality-of-life indicators, will support risk profiling and the identification of prevention priorities. The research will contribute to the ethically governed shared data platform of the Person-Centred Healthcare Minga within the Kawsay Living Lab. Findings will inform the subsequent co-design of culturally safe, person-centred preventive protocols with community health promoters, MSP-linked actors and UTN researchers.

Position-specific eligibility

- A relevant Master's degree or equivalent qualification accepted by UHasselt, in Health Sciences (including Nursing, Physiotherapy, Rehabilitation or Medical Sciences), Public Health, Epidemiology or a related field.
- Skills in quantitative research, epidemiology or statistics, and data management, with the ability to collect and analyse clinical and functional community health data.
- Ability to work with community and health-service partners and follow research ethics, informed consent and data-protection procedures.

UTN promotor:	[Name to be confirmed]	UTN Faculty of Health Sciences	[E-mail to be confirmed]
Flemish promotor:	Chris Burtin	Hasselt University (UHasselt) Faculty of Rehabilitation Sciences	chris.burtin@uhasselt.be

Shortlisted candidates will be invited for an interview on **25 November 2026**.

SP3: Person-Centred Healthcare

PhD position title

PhD2: Ancestral health practices, trust and cultural safety in person-centred preventive healthcare in Angochagua

Brief description of the PhD position

This PhD will explore ancestral health practices, trust, acceptability and cultural safety in non-communicable disease prevention in Angochagua, Imbabura. Primarily qualitative, community-based participatory research will examine care trajectories, health-seeking behavior and barriers and facilitators to prevention, including language and gender. Interviews, focus groups and community dialogues will involve traditional healers, ancestral knowledge holders, health promoters, families and MSP-linked professionals. Within the Person-Centred Healthcare Minga and Kawsay Living Lab, the research will apply free, prior and informed consent and non-extractive intercultural methods. Findings will inform subsequent preventive protocol co-design, connecting evidence-based healthcare with *ciencias y saberes ancestrales*.

Position-specific eligibility

- A relevant Master's degree or equivalent qualification accepted by UHasselt, in Health Sciences (including Nursing, Physiotherapy, Rehabilitation or Medical Sciences), Public Health, Intercultural Health or a related field.
- Skills in qualitative research, including interviews, focus groups and qualitative data analysis.
- Ability to work respectfully with ancestral knowledge holders and community health partners, applying free, prior and informed consent and non-extractive, culturally safe participatory research.

UTN promotor:	[Name to be confirmed]	UTN Faculty of Health Sciences	[E-mail to be confirmed]
Flemish promotor:	Birgitte Schoenmakers	Catholic University Leuven (KUL) Faculty of Medicine	birgitte.schoenmakers@kuleuven.be

Shortlisted candidates will be invited for an interview between **23 and 26 November**.

SP4: Inclusive Economy

PhD position title			
PhD1: Agrifood systems based on ancestral knowledge in indigenous communities: the nexus local farmers – school meals.			
Brief description of the PhD position			
SP4 aims to design and steer a transdisciplinary, multi-stakeholder process that enhances farmers' livelihoods and improves children's nutritional status by establishing stronger linkages between local farmers and school meal programmes. The process will prioritise the use of chakra products and build on <i>saberes ancestrales</i>. The PhD researcher will facilitate and coordinate this process through a Participatory Action Research (PAR) approach. This will include, but is not limited to, organising workshops, facilitating stakeholder engagement, and supporting the overall multi-stakeholder process. The process itself will constitute the core subject of the PhD research, which will focus on themes such as Participatory Action Research, traditional ecological knowledge (TEK), agroecology, and school meal programmes. The researcher will primarily employ qualitative research methods, including focus group discussions and key informant interviews. The final research questions and methodological approach will be developed collaboratively by the PhD researcher, the two supervisors, and representatives of the participating local communities.			
Position-specific eligibility			
• The candidate should have a Msc Degree within social sciences (such as sociology, political sciences, economics, business, anthropology, cultural studies). • S/he should have knowledge of the local language. • Experience with qualitative research methods (collecting as well as analysing data) is an asset. • Given the participatory nature of the research, the candidate needs excellent social skills.			
UTN promotor:	Dr. Wilma Guerrero	UTN Facultad De Ciencias	e-mail: wmguerrero@utn.edu.ec

		Administrativas Y Económicas	
Flemish promotor:	Prof. Joost Dessein	Ghent University, Faculty of Bioscience Engineering, Department of Agricultural Economics	e-mail: Joost.Dessein@ugent.be
Shortlisted candidates will be invited for an interview on Monday, November 23d (between 7 am and 11 am Ibarra time / 1pm and 5pm Brussels time /) or November 24th (between 8 am and 10 am Ibarra time / 2pm and 4 pm Brussels time).			

SP4: Inclusive Economy

PhD position title

PhD2: Agrifood systems based on ancestral knowledge in indigenous communities: the nexus local farmers - community-based tourism.

Brief description of the PhD position

SP4 aims to design and steer a transdisciplinary, multi-stakeholder process that enhances local producers by promoting an entrepreneurial culture through the creation and strengthening of individual or collective productive initiatives, based on local products and saberes ancestrales, and oriented to the development of community-based tourism. The PhD researcher will facilitate and coordinate this process through a Participatory Action Research (PAR) approach. This will include, but is not limited to, organising workshops, facilitating stakeholder engagement, and supporting the overall multi-stakeholder process.

The process itself will constitute the core subject of the PhD research, which will focus on themes such as Participatory Action Research, traditional ecological knowledge (TEK), agroecology, bioeconomics, and community-based tourism. The researcher will primarily employ qualitative research methods, including focus group discussions and key informant interviews. The final research questions and methodological approach will be developed collaboratively by the PhD researcher, the two supervisors, and representatives of the participating local communities.

Position-specific eligibility

- The candidate should have a Msc Degree within social sciences (such as sociology, political sciences, economics, business, anthropology, cultural studies, tourism).
- S/he should have knowledge of the local language.
- Experience with qualitative research methods (collecting as well as analysing data) is an asset.
- Given the participatory nature of the research, the candidate needs excellent social skills.

UTN promotor:	Dr. Wilma Guerrero	UTN Facultad De Ciencias Administrativas Y Económicas	e-mail: wmguerrero@utn.edu.ec
Flemish promotor:	Prof. Joost Dessen	Ghent University, Faculty of Bioscience Engineering, Department of Agricultural Economics	e-mail: Joost.Dessen@ugent.be
Shortlisted candidates will be invited for an interview on Monday, November 23d (between 7 am and 11 am Ibarra time / 1pm and 5pm Brussels time /) or November 24th (between 8 am and 10 am Ibarra time / 2pm and 4 pm Brussels time).			

SP5: Childhood nutrition

PhD position title

PhD1: Chemical and microbiological characterisation, antioxidant potential, safety assessment, and development of nutrient-rich food prototypes based on local food resources from Angochagua Parish.

Brief description of the PhD position

This doctoral research is embedded within the 'Well-being and Food Security' component of the **IUC EMPOWER2LIV@UTN** project. The PhD project contributes to the reduction of chronic child malnutrition (CCM) in the rural and intercultural parish of Angochagua, located in Imbabura Province. Through the study, promotion, and valorisation of traditional and ancestral food resources, the project aims to develop safe, nutritious, and culturally appropriate food solutions for local communities.

Research areas and activities:

- **Mapping, inventory and traceable sampling:** Systematic identification, documentation, and collection of local food resources and plant species with nutritional and functional potential. Activities are conducted in collaboration with community stakeholders and follow established bioethical and intercultural guidelines.
- **Food science, chemical and bioactive characterisation:** Comprehensive analysis of nutritional composition, including macro- and micronutrients, along with the identification and quantification of bioactive compounds and antioxidant properties. Analytical work will be jointly supported by UTN and Flemish partner institutions.
- **Food safety and microbiological evaluation:** Assessment of the microbiological quality and safety of selected food resources, considering local environmental and water conditions. This includes the detection of foodborne pathogens, mycotoxins, and other potential contaminants. Furthermore, the interaction of bioactive food components with beneficial microbiota, including *Lactobacillus* species, may be investigated to determine their capacity to support probiotic growth and contribute to a healthy gut microbiome.

- **Design and development of food prototypes:** Formulation and technological optimisation of innovative, nutrient-dense food products based on locally available ingredients, with a particular focus on supporting child nutrition.
- **Validation in the Living Lab and community engagement:** The organoleptic acceptability and stability of the prototypes are assessed using the Minga de la Nutrición participatory methodology (Kawsay Living Lab), ensuring transfer to the community and local nutrition programmes.

Position-specific eligibility

Required academic qualifications:

A postgraduate degree (Master's or recognised equivalent) in Food Science and Technology, Agri-Industry, Chemical Engineering, Biochemistry, Pharmacy or Biotechnology, or a closely related field.

Essential technical skills and research experience:

- Verifiable practical experience in microbiology, food science, biotechnology, and/or advanced instrumental analysis techniques such as UV-Vis spectrophotometry, HPLC and gas chromatography for identifying and/or quantifying bioactive compounds and antioxidants.
- Knowledge of the development, formulation and preservation of food matrices, as well as stability/shelf-life testing and sensory evaluation of foods.
- Familiarity with quality management and food safety systems.
- A proven track record of scientific output is demonstrated through indexed scientific articles, technical presentations, or leadership/execution of applied research projects.

Transversal skills and competences:

- Willingness and sociocultural sensitivity to undertake community-based fieldwork with marginalised urban and rural populations (MUR), while engaging respectfully with ancestral knowledge and the Andean worldview.
- Ability to work effectively in interdisciplinary teams and international research collaborations.

A formal commitment to undertaking research stays in Belgium, including three-month sandwich mobility periods.

UTN promotor:	Prof.Dr. Magali Cañarejo	Faculty of Agricultural and Environmental Engineering	macanarejo@utn.edu.ec
Flemish promotor:	Prof. Dr. Paul Cos	LMPH, Dept of Pharmaceutical Sciences, University of Antwerp	paul.cos@uantwerpen.be
	Prof. Dr. Emmy Tuenter	Natura-PT, Dept of Pharmaceutical Sciences, University of Antwerp	emmy.tuenter@uantwerpen.be

Shortlisted candidates will be invited for an interview between **23 and 26 November**.

SP5: Childhood nutrition

PhD position title

PhD2: Assessment of nutritional status, body composition, and biochemical and metabolic markers in children under five and pregnant women in communities in Angochagua.

Brief description of the PhD position

This doctoral research is embedded within the 'Nutritional Epidemiology and Clinical Diagnosis' component of the IUC EMPOWER2LIV@UTN project. The project aims to reduce chronic child malnutrition (CCM) and to promote holistic development in the rural and intercultural parish of Angochagua in Imbabura. Particular attention is given to the critical window from pregnancy through the first two years of life, while also encompassing children under five years of age. By integrating nutritional epidemiology, precision anthropometry, advanced body composition analysis, biochemical and metabolic profiling, and child development assessment, this PhD project seeks to generate a comprehensive understanding of the determinants and consequences of malnutrition within the local context.

Research areas and activities:

- **Multidimensional and longitudinal nutritional assessment:**
Implementation of standardised clinical, nutritional, and anthropometric assessment protocols, in accordance with WHO and UNICEF guidelines, for pregnant women and children under five years of age in the communities of Angochagua.
- **Advanced body composition analysis:**
Evaluation of nutritional status, growth quality, hydration, and body composition using advanced non-invasive methodologies, including bioelectrical impedance vector analysis (BIVA) and standardized kinanthropometric techniques, in maternal and child populations..
- **Biochemical, metabolic and parasitological biomarkers:** Collection and analysis of biochemical, hematological, metabolic, and parasitological indicators

to investigate their association with nutritional status, growth, and child health outcomes.

- **Analysis of dietary patterns and risk factors:** Assessment of dietary intake through food frequency questionnaires and dietary recalls, combined with advanced statistical modelling to identify dietary patterns and determine their relationship with metabolic health indicators and malnutrition.
- **Bioethics, clinical follow-up and community-based knowledge transfer:** Application of rigorous bioethical standards and culturally appropriate informed consent procedures. Findings will be communicated to mothers, caregivers, and local health services (MSP/MIES) to support evidence-based interventions and early nutritional care strategies within the community.

Position-specific eligibility

Required academic qualifications:

A postgraduate qualification (Master's degree or recognised equivalent) in human nutrition, clinical nutrition, nutritional epidemiology, nutrition and public health, paediatric nutrition, pharmaceutical sciences, biomedical sciences, or a related health field. Specialisation or proven experience in maternal and child nutritional assessment is highly recommended.

Essential technical skills and research experience:

- Demonstrated practical experience in maternal and child nutritional assessment, including standardised anthropometric measurements, application of WHO growth standards and software tools (e.g. Anthro/AnthroPlus), and the use of neurodevelopmental or psychomotor assessment instruments.
- Solid knowledge of body composition assessment techniques (e.g. bioimpedance analysis/BIVA) and the clinical interpretation of biochemical and haematological laboratory tests.
- Proficiency in biostatistical methods for nutritional epidemiology and experience with statistical software packages (SPSS, R, or Stata), including multivariate modelling and the management and analysis of dietary intake datasets.

- Evidence of scientific productivity through publications in indexed journals (Scopus/Web of Science), conference contributions, or active involvement in nutrition, public health, and epidemiological research projects.

Cross-cutting skills:

- A high degree of socio-cultural sensitivity and a commitment to community-based fieldwork with marginalised indigenous and rural populations (MUR). Act with empathy and respect the Andean worldview when interacting with mothers and infants, adhering to strict ethical standards.
- Strong communication skills, with the ability to convey health and nutritional assessment outcomes to families and community stakeholders in a clear, respectful, and culturally appropriate manner.
- Proven capacity to work collaboratively within interdisciplinary teams and international research partnerships.
- Formal commitment to undertaking research stays in Belgium, including three-month sandwich mobility periods at partner institutions.

UTN promotor:	To be confirmed	department	To be confirmed
Flemish promotor:	To be confirmed	Flemish university & faculty/department	To be confirmed
Shortlisted candidates will be invited for an interview between 23 and 26 November .			

SP6: Saberes Ancestrales

PhD position title

PhD1: Indigenous Foodways as Contemporary Ancestral Knowledge: Preserving Cultural Heritage through Sustainable Community Tourism

Brief description of the PhD position

This PhD project will examine how a community's culinary and food knowledge, expressions, and practices can be documented, valorized, and linked to contemporary processes of territorial development, sustainable tourism, and cultural identity strengthening. The candidate will map and document (also visually) traditional food systems (ingredients, recipes, techniques, rituals, food-related oral histories), analyze their social, cultural, and economic meaning, and co-design gastronomic and tourism initiatives with community members that respect local values and distribute benefits fairly. The research follows a participatory, co-creation approach within a Living Lab framework and will produce both scientific knowledge and community-owned outputs (e.g., food heritage inventories, gastronomic routes, local value chains, intergenerational transmission strategies, visuals).

Position-specific eligibility

MSc (or equivalent) in tourism, gastronomy, anthropology, sociology, social sciences, cultural heritage, human geography, territorial or rural development, food studies or a closely related discipline.

UTN promotor:	Monica Patricia Buenaño Allauca	Faculty of Administrative and Economic Sciences	mpbuenano@utn.edu.ec
Flemish promotor:	Philippe Meers & Paolo Favero	University of Antwerp Faculty of Social Sciences	philippe.meers@uantwerpen.be paolo.favero@uantwerpen.be



		/Department of Communication Studies	
Shortlisted candidates will be invited for an interview on Wednesday, November 25: 14:00 – 18:00 Belgian Time / 8.00 – 12.00 Ecuadorian time.			

SP6: *Saberes Ancestrales*

PhD position title

PhD2: Photosynthetic microorganism-based bioinputs to improve the resilience of Chakra Ecosystems: A Holistic sustainability assessment framework

Brief description of the PhD position

This PhD project aims to develop and evaluate bioinputs, including biofertilizers, biostimulants, and soil conditioners, derived from native microalgae and cyanobacteria to enhance productivity, soil health, and climate resilience in chakras, which are traditional, biodiverse, family-based agroforestry systems in Ecuador. The research will involve isolating and selecting strains with plant-growth-promoting potential, formulating and testing bioinputs from laboratory to on-farm scale in collaboration with chakra- keeping communities, and designing a comprehensive sustainability assessment framework that integrates Life Cycle Assessment (LCA), agronomic and soil indicators, socio-economic analysis, and local knowledge. This work will employ a community- engaged, transdisciplinary Living Lab methodology.

Position-specific eligibility

MSc (or equivalent) in biotechnology, microbiology, environmental sciences, sustainability science or a closely related discipline.

UTN promotor:	Doris Salome Chalampunte Flores	Faculty of Agricultural and Environmental Sciences	dschalampunte@utn.edu.ec
Flemish promotor:	Philippe Meers	University of Antwerp Faculty of Social Sciences /Department of Communication Studies	philippe.meers@uantwerpen.be

External Copromotor	María Barbosa. Iago Dominguez Teles	Wageningen University and Research Bioprocess Engineering department	iago.dominguezteles@wur.nl
Shortlisted candidates will be invited for an interview on Wednesday, November 25: 14:00 – 18:00 Belgian Time / 8.00 – 12.00 Ecuadorian time.			

SP7: Transversal Institutional Strengthening

PhD position title

PhD1: PhD in Economic and Management Sciences

Brief description of the PhD position

This PhD research investigates how university-based Living Labs function as open innovation ecosystems to enhance institutional capacity, interdisciplinary research, and societal collaboration. Centered on the Kawsay Living Lab within the VLIR-UOS project at Universidad Técnica del Norte (UTN), Ecuador, the study examines how academia, Indigenous and rural communities, public bodies, and private actors co-create solutions to local territorial challenges.

Grounded in theories of open innovation, ecosystem dynamics, organizational learning, and collaborative governance, it explores stakeholder engagement, knowledge co-creation, institutional structures, value creation, and long-term sustainability. Utilizing mixed-methods and participatory research, the project will develop and validate a framework to establish, govern, evaluate, and integrate Living Labs into university strategy and practice.

Position-specific eligibility

In addition to the general eligibility criteria established by the doctoral program and the VLIR-UOS project, applicants should meet the following requirements:

- Relevant academic background: A Master's degree in Economics, Management Sciences, Innovation Management, Business Administration, Public Management, Development Studies, Science and Technology Studies, or a related discipline.
- Research skills: Demonstrated knowledge of research design and methodology, including qualitative and/or quantitative methods, case-study research, interviews, surveys, and data analysis.
- Theoretical knowledge: Familiarity with open innovation, innovation ecosystems, organizational development, stakeholder management, collaborative governance, or university–industry–society collaboration.
- Interdisciplinary and participatory work: Willingness to collaborate with researchers from different disciplines and engage with Indigenous and rural communities, public institutions, and other stakeholders in participatory research processes.

UTN promotor:	Dra. Wilma Guerrero PhD	FACAE Faculty of Administrative and Economic Sciences	wmguerrero@utn.edu.ec
Flemish promotor:	Prof. Dr. Rob Heyman PhD	Vrije Universiteit Brussel/Unit Lead Management	Rob.Heyman@vub.be
Shortlisted candidates will be invited for an interview on November 24th as of 4 pm Brussels time / 10 am Ibarra time			

SP7: Transversal Institutional Strengthening

PhD position title

PhD2: PhD in Bioscience Engineering

Brief description of the PhD position

This PhD research will investigate how ancestral knowledge, local biodiversity, and contemporary bioscience engineering can be integrated through citizen science and participatory research to co-design sustainable bioprocesses. Within the VLIR-UOS Institutional University Cooperation (IUC) project at Universidad Técnica del Norte (UTN), Ecuador, the research will focus on knowledge and practices associated with Andean and Amazonian chakras, including traditional fermentation, the use of agro-industrial residues, and locally available biological resources.

The research will apply principles of bioprocess engineering, circular bioeconomy, and sustainability assessment to identify, develop, and validate selected bioprocesses in collaboration with Indigenous and rural communities, researchers, and other local stakeholders. Citizen science approaches will enable community members to participate in knowledge documentation, experimental design, data collection, and interpretation of results. The PhD will seek to develop a replicable methodological framework for co-creating culturally appropriate, environmentally sustainable, and technically feasible bioprocesses, while promoting equitable knowledge exchange, community participation, and institutional capacity building through the Kawsay Living Lab.

Position-specific eligibility

In addition to the general eligibility criteria established by the doctoral program and the VLIRUOS project, applicants should meet the following requirements:

- Relevant academic background: A Master's degree in Bioscience Engineering, Biotechnology, Biochemical Engineering, Bioprocess Engineering, Industrial Biotechnology, Environmental Biotechnology, Food Science and Technology, or a closely related discipline.
- Bioprocess engineering expertise: Knowledge of bioprocess design, microbial biotechnology, fermentation, bioconversion, or the valorization of biomass and agro-industrial residues.
- Laboratory and experimental skills: Experience in experimental design, laboratory techniques, microbial cultivation, process optimization, and the collection and analysis of experimental data.
- Sustainability and circular bioeconomy: Familiarity with sustainable

production systems, resource efficiency, waste valorization, life-cycle thinking, or environmental assessment is desirable. • <u>Research methodology</u>: Knowledge of scientific research design, statistical analysis, scientific literature review, and research data management. Experience with participatory research or citizen science is an advantage. • <u>Interdisciplinary and community engagement</u>: Willingness to work collaboratively with Indigenous and rural communities, local knowledge holders, and multidisciplinary research teams, respecting ethical research practices, cultural protocols, and intellectual property rights. • <u>Personal and professional competencies</u>: Strong analytical and problem-solving abilities, scientific curiosity, initiative, teamwork, and willingness to undertake fieldwork and experimental activities in Ecuador and participate in international academic exchanges.			
UTN promotor:	Dra. Magali Cañarejo PhD	Faculty of Agricultural and Environmental Sciences Engineering FICAYA	macanarejo@utn.edu.ec
Flemish promotor:	Dra. Ann Nowé	Vrije Universiteit Brussel/ Faculty of Sciences	ann.nowe@ai.vub.ac.be
Shortlisted candidates will be invited for an interview on November 24th as of 4 pm Brussels time / 10 am Ibarra time			