



PROCEEDING OF THE ENHANCE FINAL CONFERENCE

**“Challenges and Strengths of
Research and Innovation
Management and Implementation
in Vietnam”**

University of Social Sciences and Humanities,

Ho Chi Minh city, Vietnam

19th and 20th September, 2018

FINAL CONFERENCE PROCEEDINGS

D6.3.2



ENHANCE: Strengthening national research and innovation capacities in Vietnam –
FINAL CONFERENCE PROCEEDINGS

ENHANCE consortium: University of Alicante (Spain), Slovak University of Technology in Bratislava (Slovak Republic), Glasgow Caledonian University (Scotland), VNU Hanoi – University of Social Sciences and Humanities (Vietnam), VNU Ho Chi Minh – University of Social Sciences and Humanities (Vietnam), Thai Nguyen University (Vietnam), Hue University of Agriculture and Forestry (Vietnam), An Giang University (Vietnam), Can Tho University (Vietnam), Ministry of Education and Training (Vietnam) and Ministry of Science and Technology (Vietnam).



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LIST OF ABBREVIATIONS

<i>AGU</i>	<i>An Giang University</i>
<i>CTU</i>	<i>Can Tho University</i>
<i>E&T</i>	<i>Education and Training</i>
<i>EU</i>	<i>European Union</i>
<i>HCMUSSH</i>	<i>VNU Ho Chi Minh - University of Social Sciences and Humanities</i>
<i>HE</i>	<i>Higher Education</i>
<i>HE&RI</i>	<i>Higher Education and Research Institutes</i>
<i>HEI</i>	<i>Higher Education Institution</i>
<i>HEIs</i>	<i>Higher Education Institutions</i>
<i>HUAF</i>	<i>Hue University of Agriculture and Forestry</i>
<i>MOET</i>	<i>Ministry of Education and Training</i>
<i>MOST</i>	<i>Ministry of Science and Technology</i>
<i>NAFOSTED</i>	<i>National Foundation for Science and Technology Development</i>
<i>NAPA</i>	<i>National Academy of Public Administration</i>
<i>NATIF</i>	<i>National Technology Innovation Fund</i>
<i>ONARP</i>	<i>Office of National S&T Research Program</i>
<i>R&I</i>	<i>Research and Innovation</i>
<i>S&T</i>	<i>Science and Technology</i>
<i>SMEs</i>	<i>Small and Medium Enterprises</i>
<i>STUBA</i>	<i>Slovak University of Technology in Bratislava</i>
<i>TNU</i>	<i>Thai Nguyen University</i>
<i>UA</i>	<i>University of Alicante</i>
<i>USSH</i>	<i>VNU Hanoi - University of Social Sciences and Humanities</i>
<i>VASS</i>	<i>Vietnam Academy of Social Sciences</i>
<i>VAST</i>	<i>Vietnam Academy of Science and Technology</i>
<i>VINATOM</i>	<i>Vietnam Atomic Energy Institute</i>
<i>VNU</i>	<i>Vietnam National University</i>
<i>WP</i>	<i>Work Package</i>

EXECUTIVE SUMMARY

Economic prosperity pertains to the development of the knowledge economy in which R&I is crucial. Vietnam is currently one of the South East Asia's fastest-growing economies, classified by the World Bank as lower middle-income. The country is making economic progress thanks to an efficient labour market, a strong innovation potential and a broad internal market. However, challenges in R&I management, leadership and implementation are increasing. There is a context of limited resources, a non-mature environment for R&I activities and its management, serious barriers due to the weak HE system and inadequate institutional governance structures; this makes Vietnam's performance in R&I weaker, as compared to that of neighbouring countries such as Thailand and Malaysia.

The main aim of the Final Conference "Challenges and Strengths of Research and Innovation Management and Implementation in Vietnam" is to bring together managers, academics and researchers from Higher Education Institutions (HEIs) and Research Institutes, Research and Innovation (R&I) authorities, relevant stakeholders and representative from the private sector in order to encourage a discussion on challenges and strengths of R&I management and implementation in Vietnam.

A discussion on possible improvements and strategy for R&I management at national and institutional levels will be fostered via the implementation of a Round Table.

The specific objectives of this conference are the following:

- to present the ENHANCE project and its main outcomes.
- to deliver the ENHANCE National Needs Analysis Report: "Research and Innovation Management and Implementation in Vietnam"
- to deliver the ENHANCE White paper: "Recommendations towards the improvement of R&I management and implementation in Vietnam"
- to officially present the ENHANCE Network on R&I Units, to promote its enlargement.

As a result of this event, recommendations towards the improvement of R&I management and implementation in Vietnam will be provided. Furthermore, dialogue among HE authorities and HE community, mutual understanding and exchange of ideas and proposal for improvement of legislation on R&I, and better management and implementation at HEI level will be fostered.

DAY ONE: Wednesday, 19th September 2018

Official Welcome

The Final Conference began with a welcoming and introduction of distinguished guests and representatives from all universities who took part in the ENHANCE project.

Assoc. Prof. Dr. Ngo Thi Phuong Lan, President, HCM- USSH delivered the Opening Speech in which she expressed her words of thank you to all participants and sponsors. Also, in the speech, a brief overview of the project's content, the benefits it provides and the remaining challenges to be solved are mentioned.

Dr. Lan opening speech is reproduced here:

“

OPENING SPEECH FROM USSH

Dear:

- Dr. Manuel Palomar, Rector of University of Alicante
- Dr. Roberto Escarré, Director of International Project Management Office, University of Alicante
- Representatives of six Vietnam member universities, professors from Europe and staff members of the ENHANCE Project
- Dear all participants

Today, on behalf of the school board of directors, I'm much honored to deliver this opening speech at the Final Conference of the ENHANCE Project.

First and foremost, I would like to express my utmost gratitude and appreciation for the support of the European Commission and European Universities in the ENHANCE Project throughout the past fifteen years. And today, it is the honor of our school - University of Social Sciences and Humanities, Vietnam National University, Ho Chi Minh City - to be the host institution for the Final Conference.

The outcomes of the ENHANCE Project are the treasure for our school in particular, and for other Vietnamese Universities in general. The initiatives and training programs of the

project have exerted very positive influence on strengthening research and innovation of higher education in Vietnam. This is the start of success for the development of our unit.

We would also like to express our deepest thanks to the professors, partners of the ENHANCE Project for their enthusiastic commitment in improving human capacity and supporting the dissemination of research management method of European universities to the six Vietnam member universities. The achievements of the project would be fruitless without the help of these amazing people.

The project also creates opportunities for Europe to have a more comprehensive understanding of Vietnam education in order to continue to support and help member partners and other Vietnamese universities plan new projects, which thereupon enables us to learn more of European educational model in return, to gain experience and contribute to the innovation of Vietnam education.

In addition to that, we would like to send our thanks to the Ministry of Education and Training, the Ministry of Science and Technology, together with six member universities for sharing the difficulties and burdens during the course of innovation and ***catch-up*** of Vietnam education. I sincerely hope for a continuation of cooperation between European universities and member universities in human capacity training and higher education management for the good of our country.

Once again, I would like to express my sincere gratitude to the representatives of member universities, representatives of European universities, and to all the participants.

I wish success to our Final Conference of the ENHANCE Project.

Assoc. Prof. Dr. Ngo Thi Phuong Lan”

After the welcoming of Dr. Ngo Thi Phuong Lan, Dr. Manuel Palomar, Rector of the University of Alicante, delivered his welcome speech, which is reproduced here:

"

WELCOME SPEECH FROM UNIVERSITY OF ALICANTE

Good Morning everybody. My name is Manuel Palomar and as the Rector of the University of Alicante, it is my pleasure to welcome you today to the ENHANCE final conference "Challenges and Strengths of Research and Innovation Management and Implementation in Vietnam".

I would like in the first place to thank the president of Ho Chi Minh University of Social Sciences and Humanities, Assoc. Prof. Dr. Ngo Thi Phuong Lan, and her team for hosting this final event and for acting as national coordinator of the ENHANCE project. The University of Alicante has been collaborating with Ho Chi Minh University of Social Sciences and Humanities for many years (since 2003, with the UNCOFIN initiative) through international cooperation projects and now also student exchanges. In fact, the first student from Vietnam arrived to the University of Alicante in September 2016 as the result of the collaboration agreement for student mobility signed with Ho Chi Minh University of Social Sciences and Humanities in the framework of the Non-European Mobility programme. I am sure the collaboration between our universities will last for many more years.

I would also like to welcome the rectors, vice-rectors, deans and representatives from the ENHANCE consortium and the rest of attendees from other Vietnamese Universities, Research Institutes, Higher Education & Science and Technology authorities and private companies. Your attendance to this event highlights the importance of research and innovation in Vietnam and encourages cooperation between university and industry.

I would like to continue my brief speech by giving you a flavour of our institution. The University of Alicante is 39 years old and, despite its youth, is internationally recognised as a leading, and innovative rigorous institution. It is located in the southeast of Spain, on the Mediterranean Coast. It has 200 Study Programmes (under-graduate & post-graduate), 33.000 students and 3.700 Professors and Staff. UA has fifty-two degrees, more than fifty-five departments and one hundred and thirty-six research units and groups in Social and Legal Sciences, Experimental Sciences, Technological Sciences,

Human Sciences, and Education and Health Sciences. Besides, eighteen Research Institutes develop one of the country's most reputable research activities. Our University is considered a point of reference for a large amount of firms, related with the University of Alicante through technical assistance and technology transfer contracts.

One of the University of Alicante's missions is the transfer of knowledge through teaching and direct contribution to society through its engagement with cultural, scientific and technological development. In this sense, the ENHANCE project is a key project for us as it aims to strengthen the capacities of the Vietnamese Higher Education system promoting effective Research and Innovation management and implementation. The University of Alicante, through its International Project Management Office, coordinates the ENHANCE project and, during the last three years, has focused on increasing the capacities in research and innovation management and implementation, improving the research and innovation units of Vietnamese universities, increasing dialogue among academia and national higher education and science and technology authorities and increasing cooperation at national and international level among researchers and the private sector.

I am very happy to be here in Vietnam and to see such a large gathering for this auspicious event. Once again, a very warm welcome, and have a very fruitful two-day conference here in Ho Chi Minh. "

Session 1: Objectives of the conference

Next to speak was Dr. Roberto Escarré, Director OGPI, University of Alicante. In his speech, an overview of the conference's objectives was given:

- The main aim of this Final Conference is to bring together managers, academics and researchers from Higher Education Institutions (HEIs) and Research Institutes, Research and Innovation (R&I) authorities, relevant stakeholders and representative from the private sector in order to encourage a discussion on challenges and strengths of R&I management and implementation in Vietnam.
- A discussion on possible improvements and strategy for R&I management at national and institutional levels will be fostered via the implementation of a Round Table.

The specific objectives of this conference are the following:

- to present the ENHANCE project and its main outcomes.

- to deliver the ENHANCE National Needs Analysis Report: "Research and Innovation Management and Implementation in Vietnam"
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At around 9:40 am, participants, presenters and representatives from universities took a group photo.



Session 2: Presentation of the ENHANCE project and main outcomes

Ms. Noelia López, OGPI Senior Project Manager, UA, delivered a presentation of the ENHANCE project & main outcomes.

The ENHANCE project was funded by ERASMUS+: KA2-Capacity Building in the field of HE, Structural project and National funds. There are several partners including 6 Viet HEIS, 2 Viet Ministries, and 3 EU HEIs. The project last during 36 months from 15th Oct 2015 to 14th Oct 2018. Its main objectives were to strengthen the capacities of the

Vietnamese HEIs, the generators of R&I, by promoting effective R&I management and implementation.

EU partners include: University of Alicante (COORDINATOR, Spain), Glasgow Caledonian University (Scotland) and Slovenska Technicka Univerzita V Bratislave (Slovakia).

A great number of Vietnamese partners participated in the project: Thai Nguyen University (TNU), VNU University of Social Sciences and Humanities, Hanoi (USSH Hanoi), Hue University of Agriculture and Forestry (HUAF), VNU Ho Chi Minh-University of Social Sciences and Humanities (HCM-USSH), An Giang University (AGU), Can Tho University (CTU), Ministry of Education and Training (MOET) and Ministry of Science and Technology (MOEST).

The ENHANCE project was initiated in order to assist education institutions at various level, specifically:

- Crucial role of HEIs and Research Institutions as generators of knowledge
- Contribution to the development of the National and Regional context
- Provision of high qualified graduates that satisfy labor market needs
- Promote entrepreneurship
- Public-Private partnership

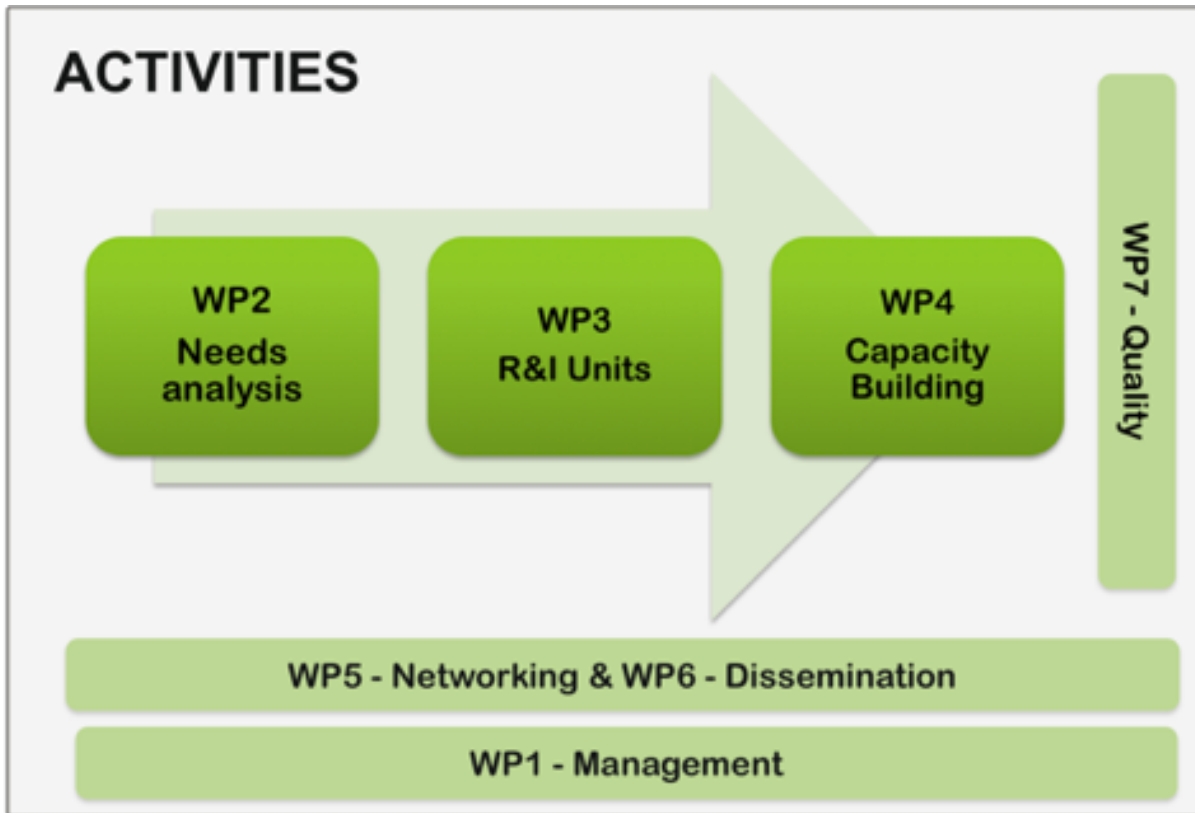
It generated impact on several levels:

- Individual level
- Institutional level
- Societal level

The aims and objectives of the project are as below:

- To strengthen capacities of VIET HEIs, the generators of R&I, by promoting effective R&I management and implementation.
- Building the human capacities in R&I management and implementation by means of a targeted training program.
- Strengthening the institutional capacity and enhancing national networking by means of setting up a Network of R&I Units in VIET.

The Project carried out its activities in several phases:



So far, the ENHANCE project has cultivated various results:

- **A needs analysis report** “Research & Innovation Management in Vietnam” published and disseminated.
- More than **4.700 academics, researchers, managers & students trained** on R&I management and implementation (Innovation, research funding, research management, TT, business engagement, IPR, research evaluation, spin-offs, research methodology and alternative KT pathways) via face-to-face workshops and on-line training modules.
- **Two National Round Tables** on “The Importance of Higher Education for the Economic Development” & “Promoting research applications via university spin-offs” conducted with key stakeholders in Vietnam (managers and researchers from HEIs & Research Institutes, S&T authorities & representatives from the private sector).
- **Three National Workshops** conducted to strength the links between academia and industry fostering joint initiatives in the field of R&I.

- **Six R&I Units** created/improved at VIET partner HEIs.
- **ENHANCE White Paper:** “Recommendations towards the improvement of R&I management and implementation in Vietnam” published and disseminated.
- **ENHANCE Network on R&I Units** officially established via the signature of a Memorandum of Understanding

Through its variety of activities, the project is influential in various areas:

- **Increased capacities** in R&I Management and Implementation
- **Improved R&I Units** of VIET HEIs
- **Increased dialogue** among academia and national HE and S&T authorities
- **Increased cooperation** at national and international level among researchers and the private sector

This concluded the presentation of Ms. Noelia López, OGPI Senior Project Manager, UA.

10:30 - 11:00
COFFEE BREAK

Session 3: Research and Innovation Management and Implementations in Vietnam

After the coffee break, Prof. Andrej Soltesz, PhD., STU Bratislava, SK. continued the morning session with his presentation entitled **Research and Innovation Management and Implementation in Vietnam**. Prof. Andrej Soltesz began his speech with an overview of the main objectives (WP2), which are reproduced from his slide show as follows:

- **To conduct an in-depth analysis** of the situation of Vietnam HEIs in terms of R&I management and implementation.
- **To detect the strengths, weaknesses, opportunities and threats** for Vietnam HEIs in terms of management and implementation.
- **To detect possibilities** of the joint cooperation between HEIs and private sector.
- **To define better crucial project implementation aspects:** topics for training of trainers, for national workshops, round tables, etc.

Prof. Andrej Soltesz continued with a description of the methodology which was employed to arrive at results. The main method used was in the form of survey which was divided into three sections involving following groups:

- **The first group** is the group of Higher Education Institutions & Research Institutes (HE&RI) and it includes academics, researchers, managers and R&I Units staff from the Universities involved in the ENHANCE project.
- **The second one** is a group that targets Higher Education and Science and Technology authorities involving partner ministries MOET & MOST and other HE and S&T authorities not included in the project consortium.
- **The last one** is the group of Private sector companies that involves entrepreneurs and managers of Vietnamese enterprises.

Next in the presentation was a description, explanation, and clarification of the data and results of three target groups: *Target group 1*: HE and RI, *Target group 2*: HE and S&T Authorities, and *Target group 3*: Private Sectors.

Session 4: R&I Units at ENHANCE Vietnamese partner HEIs

Session 4.1

The conference continued with Prof. Dr. Dang Van Minh, Vice President from Thai Nguyen University, Vietnam. Mr. Minh explored a specific case of research and innovation unit at Thai Nguyen University. The mission of the RI unit was to promote the research and technology transfer activities to practice, and to promote applicable scientific products, and create favorable conditions to boost the commercialization of research findings from university's research units to enterprises.

The scope of works of the RI unit at Thai Nguyen university is:

- Application of research, trial research and technology transfer;
- Incubation of scientific enterprises and entrepreneurship;
- Consultancy - receipt - training of new technology application;
- Cooperation with other science and technology organizations.

After that the presentation continued with the process of carrying out an in-depth needs analysis from which several services are provided:

- Set up and implementing incubation strategies and technology transfer within TNU;

- Conducted research and carrying out technology transfer services to improve training quality;
- Provided consultancy on making and signing science and technology contracts;
- Provided training services to build up research capacity and research management skills;
- Offered assistance in registering patent and intellectual properties;
- Supported spin-off activities;
- And conducted other legal activities.

TNU's Publications in 2017 compared to the last years:

Year	Number of Workshop Conference	Publication			
		International publication			National publication
		ISI	Scopus	Other	
2011 - 2015	202	314	17	165	3274
2016	30	72	6	39	668
2017	30	89	19	230	1084
Total	262	475	42	434	4358

RESULTS OF SCIENCE & TECH. OF TNU IN 2017

- Total value of Technology transferred: 50 billion VND
- For 45 technology transfer projects
- 30 billion VND contracted with local governments
- Research activity output: 16 PhD, 83 MSc, 12 books.

Session 4.2

From Can Tho University, Mr. Thai Cong Dan, Dean, School of Social Sciences & Humanities, Viet Nam presented 3 main ideas namely:

- PART I: R&I Unit Mission & List of Services
- PART II: 6 Dissemination Modules
- PART III: Strengths, Challenges & Solution

The main mission is articulated as follows:

It is the professional venue to support CTU and other educational institutions in the Mekong Delta towards the targets to be the leading higher education institutions in Vietnam and recognized as one of the top universities in Asia-Pacific in 2022 in terms of supporting multi-disciplinary research and transfer to researchers and stakeholders.

He then continued with a list of services provided by the RI unit:

- Train researchers, teaching staff, private sectors and other stakeholders in CTU and educational institutions in the Mekong Delta to get used to the Unit equipment and other facilities for their R&I work;
- Help researchers with data analysis;
- Conduct research and carry out technology transfer services to improve training quality;
- Update the information from ENHANCE and VIET partners to researchers, teaching staff, private sectors and other stakeholders;
- Run a forum (online/face-to-face) to interact among researchers in R&I Units nationwide and worldwide;
- Provide training services for capacity building of researchers and research management;
- Train both theories and practices (Social sciences & humanities, natural sciences, education and other fields) to online reports, papers, journals, etc.;
- Support startups/spin-off activities;
- Other legal activities.

There are six dissemination modules: Spin-off/Start-up, Commercialization, Knowledge Technology Transfer, University-Industry Collaboration, IP, Funding Project Process, Work- based learning, Social innovation and Research Evaluation.

The presentation concluded with a brief view over the strengths, challenges and solutions:

Strengths	Challenges	Solutions
R& I equipment	How to maintain	IT experts, CTU funding yearly
Teaching staff, researchers	How to arrange workload	Joint research, group research

CTU Rectorate, lecturers support	How to implement	Networks to stakeholders in the Mekong Delta
VIET Partners links	How to share ideas	ONLINE, personal contact

Session 4.3

From University of Social Sciences and Humanities, Ho Chi Minh city, Dr. Tran Dinh Lam, Director of Center for Vietnamese and Southeast Asian Studies, presented the case at his institution.

At USSH, there are three main units to support R&I: Office for Scientific Research and Project Management, Office for Inspection -Legislation - Intellectual Property, and Office of International Cooperation and Project Development.

The ENHANCE R&I at USSH carries four main missions:

- Enhance and Promote effective R&I management and implementation in
- Vietnam Promote information exchange among universities
- Build bridge among universities and private businesses
- Transfer research results to business

The general services provided are:

- Promoting research activities of the University, both in quantity and quality by raising the research capacity of leading professors, lecturers, postgraduate students, students, and linking research activities with teaching, promoting the role of research groups in the main fields of HCM USSH and the operational capacity of research centers, etc.
- Designing and participating in scientific programs in social sciences and humanities and related fields; major research topics of VNU-HCM and other institutions;
- Enhancing the application of scientific research both theoretically and practically.
- Associating with nationwide universities and research institutes to diversify scientific products and activities regarding publication of works in scientific journals;
- Offering proper policies to attract domestic and overseas researchers and searching for projects sponsored or ordered by international organizations; or projects that will be jointly conducted with international scientists.

Session 4.4

After Mr. Lam's presentation, Prof. Dr. Pham Quang Minh, Rector of VNU University of Social Sciences and Humanities, Hanoi, presented the scenario at his institution. He began the speech by painting a landscape of his R&I unit: R&I Unit is under the Office of Research Affairs (ORA) and is run by one director, one Vice Director. It has individuals with strong research background and a dynamic working spirit. In order to be a member of the R&I unit, individuals must satisfy the following requirements:

- **Education:** Bachelor degree in a relevant social science program (international studies), with basic knowledge of Science and Technology Management.
- **Language capacity:** English: B2 (CEFR) (focus on professional English & writing skill)
- **Technical skills:** project management, research management, fundraising, marketing, technology transfer, intellectual property, business and entrepreneurship, among others.
- **Computer skills:** Office software & hardwares
- **Past experience:** one year of relevant experience (min), including in research, research management, and project management.
- **Other skills:** individual work and teamwork, communication skills, etc.

The R&I unit provide the following services:

- **Create a favorable working environment** for academics and researchers.
- **Provide consultation** on writing grant proposals, call for sponsorship, and research proposals.
- **Provide consultation** on research methods and project management.
- **Connect academics and researchers** with the private sector, in particular businesses and the industry.
- **Organize** seminars, workshops, conferences, and training courses on research and innovation, technology and service transfer, and build strong research teams.

Session 4.5

Coming from An Giang University, Ho Thanh Binh (Ph.D.), Vo Van Thang (Assoc. Prof., Ph.D.), Kien Nguyen (Ph.D.), and Le Minh Tuan Lam (M.A.) presented next with a summary of the opportunities and challenges at their institution's R&I unit. After an introduction of the vision, which is towards 2030, An Giang University will become a

center for higher education and a multi-disciplinary university becoming one of the strongest universities in doing research and technology transfer in the Mekong Delta of Vietnam, a list of key missions are presented:

- **Facilitating and organizing international scientific conferences and workshops** to enhance research capacity, knowledge dissemination, and collaboration with partners.
- **Enhancing research capacities** of the academics and researchers by raising international funds and finding grants for research and development.
- **Increasing the quality and quantity of scientific research activities** through the scoring of the scientific works from the Journal of Science.
- **Fostering the relationship with international universities and research institutes** by making contracts to welcome and work with overseas students, volunteers and researchers in the interdisciplinary fields.
- **Formulating the regulations and guidelines** in scientific research, technology transfer and intellectual property.
- **Organizing training workshops for academics and researchers** on technology transfer and commercialization of the products from their research results.
- **Promoting research groups** in various fields such as agriculture, tourism, climate change and spin off.
- **Enforcing publication** especially international journals.

Various opportunities are embraced: Policy and consideration from central and local government; Industrial resolution 4.0 in the world and Vietnam (52 million Vietnamese users of internet); Internationalization brings opportunities of networking and marketing for Vietnam; International integration push the enterprises towards renovation, innovation and commercialization; The presence of international middle organizations and service providers improves the development of R&I and commercialization organization in Vietnam.

However, there are still various challenges to face such as: Technological dependent on imported technology; International and regional competition in an increased level due to international integration; IP policy is less effective and facing difficulties in implementing due to the complication of the document systems; Vietnamese products

and services are less competitive against imported products and services; and Weak linkage among enterprises and scientists.

The presenter also specifically pointed out the challenges faced by An Giang university:

- In a remote area of the Mekong Delta where R&Is are facing limitations for modernization, rural development and climate changes are key issues.
- Staff are young and in developing stage
- R&I activities are still under development
- Funding and human resources are limited.

Session 4.6

From Hue University of Agriculture and Forestry, Dr. Pham Huu Ty began his talk with some general information: The Office of Science, Technology & International Cooperation is a unit of the Hue University of Agriculture and Forestry (HUAF). It is aimed at giving advices to the Rector Board about planning, implementation and management of Science-Technology to promote effective research activities in the field of agriculture, forestry, fisheries, rural development and environment toward a leading research-based university in the above-mentioned specialization in central region and throughout country.

Currently, the Office is operated by 1 Vice-Rector, 1 Head and 1 Deputy Head, 5 staff and researchers (3 with Master degrees and 2 with Bachelor degrees) from many different backgrounds as Agriculture, Environmental Management, Economic, International Relations.

The R&I unit provides several services: To develop short-term, mid-term and long-term strategy for research and innovation of HUAF; To promote the cooperation among researchers in the country and abroad to develop scientific programs in the field of agriculture, forestry, fisheries, rural development and environment to the meet the demand of society towards serving industrialization and modernization of central region and Vietnam; To improve effectiveness of scientific research programs both basic and applied research; To develop policies to facilitate and attract leading professors inside and outside the country to enhance the quality and quantity of research works; To search funds from national and international sources; To promote the publication of research works on scientific journals; To establish cooperation among universities and institutions inside and outside the country to strengthen capacities of HUAF's staff and

students; To promote effective research activities in the field of agriculture, forestry, fisheries, rural development and environment toward a leading research-based university in the above-mentioned specialization in central region and throughout country.

The presentation of Dr. Pham Huu Ty concluded the morning session.

During 60 minutes from 13:00 to 14:00, presenters and participants took a break for lunch and the afternoon session, which comprised of 2 main presentations and a short Q&A began at 14:00.

13:00 - 14:00
LUNCH

Session 5: Presentation of the ENHANCE Network on R&I UNITS

After lunch time, the afternoon session resumed a little later than scheduled. Dr. Nguyen Duy Mong Ha, Head of the Educational Testing & Quality Assurance, University of Social Sciences & Humanities, VNU-HCM, started the session with an introduction of USSH's R&I unit. She began with a brief articulation of the vision and mission:

Vision: Strengthening capacities of VIET HEIs on R&I management, enlarging their Network on R&I with national, regional and international stakeholders

Mission: To promote more exchanges and cooperation among the VIETHEIs for effective R&I management and innovation

The R&I unit's aims and objectives are: To enhance and promote effective R&I management and implementation in Vietnam, and to promote networking amongst Higher Education Institutions, Research Institutes, Science and Technology (S&T) authorities and the private sector based in Vietnam.

The specific objectives are clearly defined:

- Organizing joint conferences/ workshops/events/seminars
- Sharing research-related information/news/materials.
- Fostering visits among partners, giving consultancy, doing joint research projects, field-trips.
- Promoting cooperation in multidisciplinary fields.

- Sharing good practices of R&I management & implementation.

With all the objectives, Ms. Ha had a clear expected outcome:

- Improving R&I capacity in terms of staff and equipment, procedures, etc.
- Increasing regional and national dialogue between HEIs and S&T authorities & raising awareness in R&I
- Increasing cooperation among stakeholders, among partner HEIs and non-partner HEIs
- Getting good practices in resolving financial issues, devising financial strategy, products/technology transfer.

There are challenges and issues to be solved:

- Difficulty in intellectual property management which leads to reluctance in sharing information, hindering the expansion of the network
- Channels for connection among members and the frequency of connection among members
- Lack of channels for sharing information (joint conferences only share information to a certain range of participants at a particular time)
- Limited fields of research may impede the enlargement of the network to other non-partner HEIs who specialize in other fields
- Difficulty in cooperation in interdisciplinary fields
- Difficulty in making commitment due to overloaded work and different roles.

Session 6: ENHANCE White Paper: Recommendations towards the improvement of R&I management and implementation in Vietnam

Ms. Van Thi Nha Truc, Acting Head, Department of American-British Culture and Literature, HCM-USSH, brought to the conference a detailed presentation on various facets of R&I at her institution.

Her presentation began with a description of the current status of Viet HE in the economic development of Viet Nam. According to the talk, many educational institutions have facilitated scientists to do research and then publish their research findings, both nationally and internationally. In addition, results are still very limited, even tending to fall behind many countries in the region and the world.

There are several strategies proposed for supporting research, innovation, and knowledge exchange at VIET HEIs.

The presenter briefly listed all the support from various sides:

Support from the government:

- MOST's annual award for students conducting scientific research
- MOET's annual "Vietnamese young scientific talent" award organized for students of universities
- Annual Euréka award for students conducting scientific research, organized by Ho Chi Minh City, Youth Union and VNU - HCM
- Vietnam Fund for Supporting Technological Creations (VIFOTEC) award for excellent students of all Vietnamese universities

Support from ENHANCE VIET partner HEI:

Thai Nguyen University:

- Increasing international publications in ISI/Scopus listed Journals; supporting patents registration;
- Scientific capacity building for young scientists, considering that for quality output of every project at Ministry level, there should be at least one PhD member/candidate;
- Establishing a regulation on using at least 5% of University revenue for R&I.
- Organizing annual conference on youth's science and creativity hosted by Youth Union of TNU;
- Conducting a monthly peer – reviewed Journal of Science and Technology;
- Organizing annual awards for students and young lecturers with outstanding achievements in all fields of scientific research and to grant recognition for excellence.

From USSH Hanoi:

- Organizing 30 international conferences annually, supporting faculty staff's international publications;
- Organizing two annual scientific conferences for undergraduate and graduate students; presenting awards to students with outstanding scientific works.

- Issuing a program on promoting international publication and supporting graduate training;
- Publishing a peer-reviewed VNU Journal of Social Sciences and Humanities every two months;
- Establishing 17 research centers to support academic activities and conduct research projects.

From USSH HCM:

- Awards for students with outstanding scientific works, annual conference on science for both undergraduate and graduate students.
- Research centers such as Centre for Vietnamese and Southeast Asian Studies, Centre for Theoretical and Applied Culturology, Centre for Ocean and Island Studies, etc.
- Seminar regarding necessity for students majoring in social sciences to know law on intellectual property, organized by Office for Inspection - Legislation - Intellectual Property and Youth Union of HCMUSSH.
- More than 10 international scientific conferences and projects per year; Journal of Science and Technology published by VNU-HCM.
- Many lecturers have been sent abroad for attending international conferences or doing post-doc research.

Support from AGU:

- Facilitating and organizing international scientific conferences and workshops to enhance research capacity, knowledge dissemination, and collaboration with partners.
- Enhancing research capacities of academics and researchers by raising international funds and finding grants for R&D.
- Increasing quality and quantity of scientific research activities through scoring scientific works from Journal of Science.
- Fostering relationship with international universities and research institutes by making contracts to welcome and work with overseas students, volunteers and researchers in interdisciplinary field.

- Formulating regulations and guidelines in scientific research, technology transfer, and intellectual property;
- Organizing training workshops for academics and researchers on technology transfer and commercialization of research results.

From CTU:

- Ensuring its quality through continual innovation and integration in education, creativity and dynamics in research and technology transfer;
- Incorporating theory into practice to prepare graduates with sufficient knowledge and skills -> to perform work efficiently, formulate leadership and adapt themselves to changes.
- Establishing and implementing efficient, creative, innovative, professional and responsible governance system;
- Governing activities through computerized procedures, applying innovative approaches and undergoing regular monitoring and assessment.

After that, Ms. Truc went on with challenges in managing R&I.

Budget allocation for research in Vietnam: lower research budget, as compared to that in European countries and financial needs for research are not well accommodated. There is no concrete measurement for value added by HEIs' research to the country's economy. Other challenge included: Weak academic autonomy in VIET HEIs, IP Management in Vietnam is not well performed, Academic/research community in VIET HEIs may be familiar with the term 'IP Management' but not really aware of how to adapt the IP issue in their work.

However, there are opportunities:

- VIET HEIs' role has become more crucial for the market-oriented society.
- IP Management has been fostered at national and institutional levels.
- More private enterprises are willing to invest in VIET HEIs for research collaboration.

TNU's Research and Innovation Unit:

- to promote research and technology transfer activities so as to practice and promote applicable scientific products;

- to create favorable conditions to boost commercialization of research findings from university's research units to enterprises.

HNUSSH's Office of Research Affairs: R&I Unit

- responsible for all matters related to scientific and research activities of HNUSSH;
- providing favorable conditions for academics to produce excellent research & finding opportunities to transfer research results to Industry in order to be applied and implemented.

HUAF's Office of Science, Technology & International Cooperation:

- giving advice to Board of Rectors about planning, implementing and managing Science and Technology to promote effective research activities in agriculture, forestry, fisheries, rural development and environment toward a leading research-based university in central region and in the country

HCMUSSH's Office of Scientific Research and Project Management:

- providing advice to the University in planning and managing scientific and technological research (scientific conferences, seminars and research projects of all kinds/levels) in order to enhance the research capacity regarding social sciences.

HCMUSSH's Office for Inspection - Legislation - Intellectual Property:

- providing advice to President on IP-related issues so as to review, exploit and manage intellectual property in the University;

participating in IP-related activities and activities concerning education, scientific research and technology transfer.

HCMUSSH's Office of International Cooperation and Project Development

- facilitating development of international cooperation programs between international partners and faculties/departments/offices;
- promoting and formulating international cooperation plans;
- managing and monitoring implementation of international cooperation programs and activities, including international conferences, in collaboration with Office for Scientific Research and Project Management

AGU's Research Management and International Relations Office

- giving advice and assistance to Board of Rectors in organizing and managing scientific research, technology transfer, intellectual property, and Journal of Science.

CTU's Department of Research Affairs:

- Training researchers, teaching staff, private sectors and other stakeholders in CTU -> get used to the Unit equipment and other facilities for their R&I work;
- Improving researchers' data analysis ability;
- Conducting research and carrying out technology transfer services to improve training quality;
- Providing training services for capacity building of researchers and research management;
- Conducting training on both theories and practices in social sciences & humanities, natural sciences, education and other fields to produce online reports, papers, journals, etc.;
- Facilitating other legal activities and paper work.

Funds

- NAFOSTED (National Foundation for Science and Technology Development)
- NATIF (National Technology Innovation Fund)
- 19 other national programs in Science and Technology available for academic/research communities in Vietnam
- Each Ministry has a program for R&D.
- Regional governments also have their own programs for R&D.

The presentation concluded with some recommendations:

To Higher Education:

- Strengthening network among VIET HEIs with focus on research and the bond between academia and enterprises simultaneously.
- As for R&D, scientist's income should come from output of their study (not from research funding).
- Collaborating with private sector to put scientific research into practice by making companies aware of the key role of HEIs as a R&D partner.

- Working with private sector to identify employment sector's real needs and allow students to work as interns in order to gain work experience.
- Promote driving forces that create relationship between academia and enterprises; orient expectations, and support building of trust and commitment.
- Offering solutions and innovative programs for multidisciplinary collaboration among the university, the business, and the designers.
- Changing and updating the lecturing methods: making students more active in studying and conducting research.
- Ensuring equality in job competition.
- Equipping students with more soft skills to meet the social demands.
- Completing policies system for orienting and adjusting collaborative activities between HEIs and enterprises
- Fostering relationship between academia and enterprises by establishing many official channels between HEIs and enterprises;
- Making proper adjustments regarding education and training.
- Launching a system assisting co-establishment of development funds between HEIs and enterprises, to increase stakeholders' responsibility;
- Legislative support for fundraising on a link through ministry – university – private sector;
- Financial support from Government for studies in basic science;
- Research funding from private companies for studies in applied science.
- More support from MOET and MOST for international oriented programs and projects.
- Some support from Government such as proposing stable policies and suitable tax policy for enterprises and researchers (tax reduction of corporate income, personal income taxes, etc.), funding for both enterprises and university on R&D.

Day one concluded at around 17:00.

Session 7: Discussion

1. Dr. Khoa, USSH Hanoi, raised 2 concerns:

- Some recommendations in the White Paper are general.
- Patent registration in VN takes too long; when it is approved/accepted, the innovation/invention may become outdated.

2. Dr. Ho Thanh Binh, CTU, raised some points/recommendations:

- Enterprises invest in R&I only when they see potential profits; HEIs should encourage their investment by providing mutual benefits; something should be done in order to raise businessmen's or rich people's awareness of their role/investment in R&I.
- Commercialization of research results/outputs in VN experiences some mechanism/administrative constraints as compared to that in other countries.
- The role of social media/communications in raising businessmen's or rich people's awareness of their role/investment in R&I.

3. Mark Anderson, GCU, gave his feedback to Dr. Binh's second point.

4. Dr. Thai Cong Dan, CTU, gave his feedback to Dr. Khoa's first point:

- The six Viet ENHANCE partners have worked with each other on the White Paper; therefore, first and foremost, the White Paper is intended for the six partners; they have a chance to reflect on what they have done in term of R&I and gain some experience from the other partners. They are quite aware of the fact that they cannot change the mechanism in a short time/overnight; they still face lots of institutional or administrative constraints but at least they know what they should do in terms of R&I.

5. Noelia, UA, argued back Dr. Dan's idea:

- It is difficult to improve the mechanism at short notice but we can do staff capacity building for R&I.

6. Ms. Truc, HCMUSSH, agreed with Dr. Khoa, HNUSSH, that some recommendations in the White Paper are general, but she argued that the fact is that we cannot tell in detail what MOET and MOST must do to enhance R&I in VIET HEIs, and that the complicated procedures for patent registration in VN may disadvantage the applicants. She also supported Dr. Dan's idea by adding that the six VIET ENHANCE partners did learn a lot in term of R&I implementation and management during the ENHANCE project and that there should be, say, a post-ENHANCE project or another project in order to actualize all the recommendations in the White Paper.

END OF DAY ONE

DAY TWO: Thursday, 20th September 2018

Session 1: Presentation of the day's agenda

Session 2: Accreditation and evaluation system of higher education and research

Day two began with a briefing by Ms. Noelia López, OGPI Senior Project Manager, of the day's agenda. After that, Prof. Julius Soltesz, PhD., STU Bratislava, SK, continued with a presentation on **Accreditation and evaluation system of higher education and research**.

The presentation started with a scientific definition of research evaluation. According to the speaker, it is an act of evaluating the scientific work performed by an organization engaged in scientific activities in order to identify truly important and successful research. Outcomes from the research evaluation serve as the decisive factor for allocation of funding. Fields of research for the purpose of research evaluation represent clusters of fields of study issued in the List of Study Fields in Higher Education in the Slovak Republic.

Next in the presentation is about the process of evaluation. Organizations engaged in research activities are evaluated by an external body within the scope of higher education accreditation targeting the following:

- Comparative level of their research and development contributions
- Comparative level of their artistic and other creative activities

Evaluation is based on 3 evaluation attributes: Attribute of outputs; Attribute of the environment (for research environment); and Attribute of acknowledgements. Evaluation attributes consist of evaluation components.

PROCESS OF RESEARCH EVALUATION EVALUATION ATTRIBUTES:

COMPONENTS (1)

Components of the attribute of outputs

- Articles, published scientific work, chapters in scientific monographies, studies
- Textbooks – internationally and nationally applicable
- Published patent applications or awarded patents

- Published or publicly acknowledged important architectural, engineering or urbanistic piece of work, etc.

Components of the attribute of the environment

- Extent and results of doctoral studies (weight: 1/6 of overall score)
- Academic ranking of employed staff (weight: 3/6 of overall score)
- Amount of financial means – grants (weight: 1/6 of overall score)
- Quality of the research infrastructure – research equipment, computation facilities, laboratories, libraries, etc. (weight: 1/6 of overall score)

Components of the attribute of acknowledgements

- Overall number of citations for the top 10% most cited academic staff in the faculty according to WOS and other relevant databases (WOS: Web of Science)
- Acknowledgement of the academic staff and their students received from national and international institutions for achievements in science and research
- Given requested lectures at conferences
- Membership in national and international scientific committees, editorial boards, conference administrations, etc.

Evaluation classes for components in the attribute of outputs and acknowledgements:

- **A class:** peak international quality of work
- **B class:** internationally recognized quality of work
- **C class:** nationally recognized quality of work
- **D class:** work quality that is not nationally recognized or work does not meet requirements for evaluation or sufficient documentation material was not presented to the day of evaluation

Evaluation classes for components in the attribute of environment:

- **A class:** peak national quality of work
- **B class:** above-average national quality of work
- **C class:** average national quality of work
- **D class:** below-average national quality of work

Quality profile of a faculty in the considered field of research is based on the overall evaluation of all three attributes for the considered field of research.

Each attribute has different weight contribution:

- **Attribute of outputs:** 55% at least
- **Attribute of the environment:** 15% at least
- **Attribute of acknowledgements:** 20% at least

After this careful explanation of research evaluation, the speaker presented several real examples and concluded with a slide on polite advice:

- Copy the best system for research evaluation and adjust it for your requirements
- Introduce it for testing into your UNI system
- After 3 years evaluate the system and improve it.

Session 3: Measure of Scientist's Impact

Dr. Andrej Bartok, PhD., senior lecturer, Slovak University of Technology, Bratislava, Slovakia, continued the morning session of Day 2 with his presentation on Measure of Scientist's Impact. The presentation was divided into 3 units:

- **Unit I. Introduction to Research Evaluation Metrics and Related Indicators**

- Citation Analysis
- Concepts of Bibliometrics, Scientometrics Webometrics, etc.
- Common Bibliometric Indicators

- **Unit II. Innovations in Measuring Science and Scholarship**

- Citation Databases
- Analytical Products with Journal Performance Metrics

- **Unit III. Measure of Scientist's Impact**

- Hirsch Index: introduction
- Specific features of H-index
- Critique of H-index
- Disadvantages of H-index – proposals to modification
- Disadvantages of H-index: proposals to modification: G-index

Session 4: Technology transfer in Thai Nguyen university: Opportunities and Challenges

Next to speak was Prof. Duong Van Minh. He addressed the issues on Technology Transfer at Thai Nguyen University. Following is a detailed description of the opportunities and/or advantages for technology transfer:

DECISION 418/QĐ-TTg issued on April 11th 2012 by Prime Minister about the Strategy for Science and Technology Development for the 2011-2020 period stated following major viewpoints:

- Development of science and technology together with education and training are the top national policies and key motivations for the country's fast and sustainable development. Science and technology must play a decisive role to make development breakthrough in productive force, innovate growth models, enhance the competitiveness of the economy and speed up the country's industrialization and modernization.
- The State increases investment level of and prioritizes investment for national science and technology tasks and national products. The socialization and mobilization from all resources are pushed up, especially from enterprises to invest in science and technology development.
- International integration on science and technology is an objective and at the same time an important solution which contributes to Vietnam's science and technology to soon reach at the international level. International integration on science and technology must be implemented in an active, proactive and creative manner, ensuring the national independence, sovereignty and national security, equality and mutual benefits.

There are various supports from legal sides:

- Circular No.19 /2012/TT-BGDDT (dated 01/06/2012) promulgating regulations on students' scientific activities in HEIs.
- Decree No.99/2014/ND-CP (dated 25/10/2014) regarding investment in the development of potentials and encouragement of scientific and technological activities in HEIs.
- Circular No.47/2014/TT-BGDDT (dated 31/12/2014) regulating the working regime for lecturers in HEIs, including tasks related to scientific research and technology transfer.

- Circular No.24/2015/TT/BGDDT (dated 23/09/2015) regarding national standards against HEIs, including standards related to scientific and technological activities as well as international relations

At Thai Nguyen University:

- TNU identified as one of the key partners playing in Technology transfer in the region
- Having high human resources with 2700 lecturers and researcher, amongst those, there are 13 full professor, 120 associate prof; more than 800 PhD holders.
- TNU has 8 specific labs with hi-end equipment
- There are 8 Centers for Research and Technology transfer and 1 small enterprise for technology transfer.

Despite many opportunities and advantages for technology transfer, there are still various challenges:

- Research output or technologies from TNU are just at embryonic stage, therefore it is risky to develop and invest.
- Practical utility has not yet been proven: Technologies was not developed in response to market need (only at Lab.-level, lack of collaboration with industries and business);
- Funding accessibility is very slim for Centers and Offices promoting technologies transfer at TNU due to these entities are not depended or autonomous.
- The size of Vietnamese enterprises is still very small, 90% of enterprises have less than 5 billion VND in capital; more than 90% of those are small or medium enterprises.
- Lack of IP policy and lack of encouragements for innovation, promotion and technology commercialization for the technology makers and the transferees;
- Lack of offices or bodies which specialized in the commercialization of research results or patents.
- Poor utilization of patent information for research;
- Poor IP protection at TNU which affected university technology transfer and creativity within TNU;

- Lack of encouragements and incentives such as financial policies, fund for innovation, remuneration and bonuses for parties successfully executing university technologies transfer contracts.
- Imbalanced between basic and apply research;
- Limited in research and practice bonds;
- Limited in scale up and or scale out research results;
- Income from technology transfer is low;
- Improprate proportion between teaching and researching of staff (more teaching activity and researching activity). The requirement on publication mandatory has not yet in effect for senior staffs);
- Low investment, poor infrastructure of research facilities.

In order to tackle the issues, TNU has taken actions on various levels and from many sides:

Issued the university's regulation on IP and technology transfer

- Promoted/encourage innovation and technology transfer with incentives
- Mobilize financial resources for research: Government (MoET, MOST, and other ministries), provinces, university sources (5% from tuition fee for research);
- Organize national as well as international conferences to establish scientific networking for researchers at TNU.
- The applicable research products: There were 196 research products created and applied in actual practice (including practical procedure, computer software, plants and animal breeding program etc.)
- IP registration: There were 9 patents and 8 plant varieties was 20 years IP protection

Following is TNU's Publications in 2017 compared to the last years:

Year	Number of Workshop Conference	Publication			
		International publication			National publication
		ISI	Scopus	Other	
2011 - 2015	202	314	17	165	3274

2016	30	72	6	39	668
2017	30	89	19	230	1084
Total	262	475	42	434	4358

Session 5: Challenges and Strengths of Research and Innovation Management and Implementation in Vietnam: Views from USSH Hanoi

Prof. Dr. Pham Quang Minh, President, Ha Noi USSH extended the ideas of opportunities and challenges in Research and Innovation Management and Implementation in Vietnam: Views from USSH Hanoi.

The presentation began in a thought-provoking question: Why internalization of research? In order to answer this, he proposed:

- Research is one of the three missions of most higher education institutions. Research should, by its very nature, be internationalized.
- Why internationalization? for various purposes: to gain another perspective, to gain access to complementary expertise unavailable domestically, to obtain additional funds and overcome the high cost of research through sharing of resources or infrastructure, to gather data from another part of the world, and increasingly in order to tackle global issues.

In order to support the internationalization of research, universities have been creating researcher networks/ institutional networks which focus primarily on promoting collaborative research. For example: International Research Universities Network, International Alliance of Research Universities, Universitas 21, League of European Research Universities - LERU, International Education Research Network (IERN), etc.

Challenges of Internationalization of Research at Vietnamese Universities:

- Long-lasting Teaching-Oriented Tradition versus Newly-emerged Research-Oriented Trend
- Limited investment (small budget) for research at most of Vietnamese universities
- The network of research-funding agencies in Vietnam so far: NAFOSTED as the only state Foundation; lacking Private Foundations/Funds comparing to the other countries

- “Publish or Perish”: Staffs' Mindset toward Research-Oriented Universities: still need a Revolution!

The presentation continues with ample examples of International Publication/Internationalization of Research at USSH Hanoi.

The speaker concluded with some thoughts:

INCREASING THE AWARENESS AMONG STAFFS:

- Research-Oriented University is UNAVOIDABLE
- Flat World: Cooperation for Co-existence à International Research Collaboration is also INEVITABLE
- Creating the “Publish or Perish” Culture

PROMOTING FUNDING AGENCIES

- State-level: developing the Network of Foundations
- University-level: building Research Funds

Session 6: Research and Innovation through International Cooperation at Can Tho University, Vietnam

The last presentation before the break is from Prof. Dr. Ha Thanh Toan, Rector of CTU. He talked about Research and Innovation through International Cooperation at Can Tho University, Vietnam.

The current status of research and innovation at CTU is described below

- Most of staff members graduated from foreign universities. They become ambassadors for both sides: CTU and foreign universities to share common interests on research and innovation.
- Joining universities associations: IFS (Fishery), AFFA, Engineering U. Network, etc. Learning each other to improve research and innovation activities.
- International environment at CTU: more international students and lecturers
- Exchanging culture and knowledge, building global thinking: 500 students go abroad, received 500 exchange students and staff, 3000 international guests.

Advantages of Mekong delta:

- Unique conditions of Vietnam and Center of the Mekong Delta —> Potential for research and innovation
- Business and academic hub to connect foreign and domestic institutions: Dealing with climate change effects, renovation Agricultural sector
- Opportunities for cooperation to boost research and innovation
- CTU alumni networking: 160.000 undergraduates, 9.000 graduates —> Forum to connect CTU alumni together as well as link CTU students and staff to share and support research and innovation activities
- Connecting with local and International industries: R&D
- Demand from global market push international industries tight to universities
- Incubation with cooperation with industry: Korean-Vietnam Incubation Park —> Research and innovation starting from students with initial supports from industries.

Foreign University – Industry - CTU:

- Research and innovation are carried with cooperation between foreign universities and CTU, funded by international industries through MOU signed with International Organizations (130 MOU's); Establishing Join Research Center for High Tech Agriculture

 10:15 - 10:45
 COFFEE BREAK

Session 7: Demonstration of ENHANCE online tool

Next to speak was speaker Ms. Rose Cawood, Project Manager from Glasgow Caledonian University. The presentation guided the audience through 7 modules:

Tools designed for Researchers

- Module 1: Digital Tools for Researchers
- Module 2: Academic Impact

Tools designed for Research Offices

- Module 3: COAP
- Module 4: Collaboration Agreements

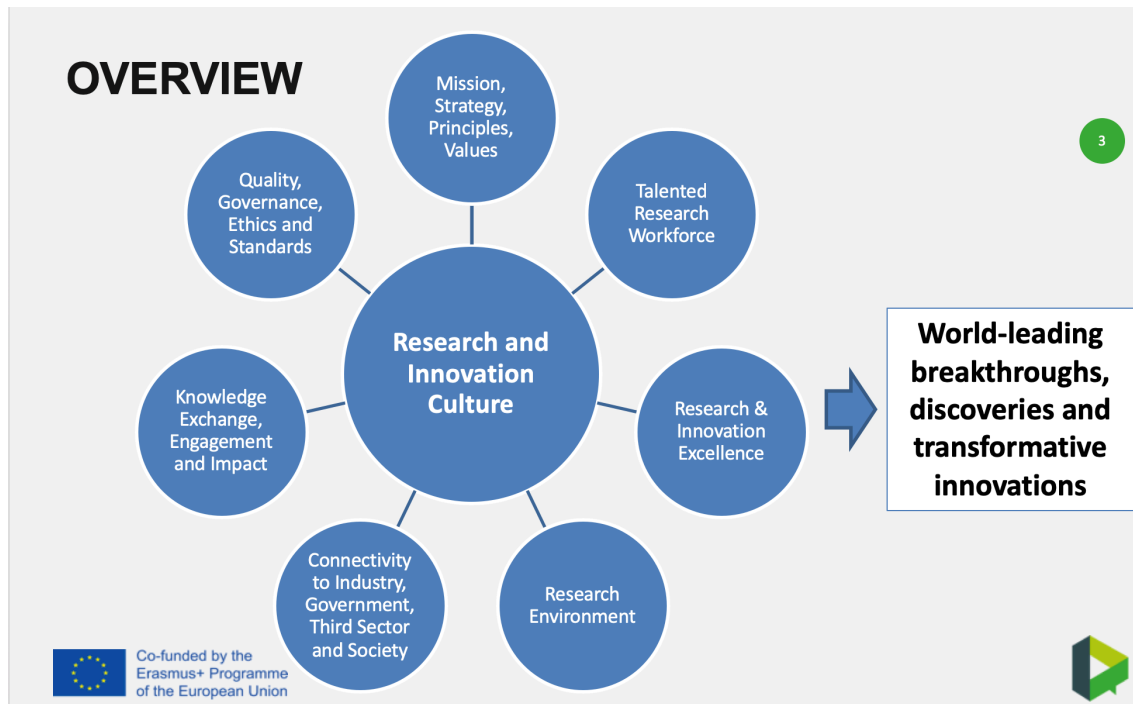
Tools designed for Senior Management

- Module 5: Consortium Agreements
- Module 6: Engagement Strategy
- Module 7: Tools for Research Management

Session 8-9: Workshop: How to create a Research and Innovation Culture within the University and in the wider Ecosystem?

The workshop was hosted by Professor Jim Woodburn (Associate Dean Research), and Mr. Mark Majewsky Anderson (Director of Research and Innovation, Glasgow Caledonian University, UK)

The workshop started with a general landscape encapsulated within the following chart:

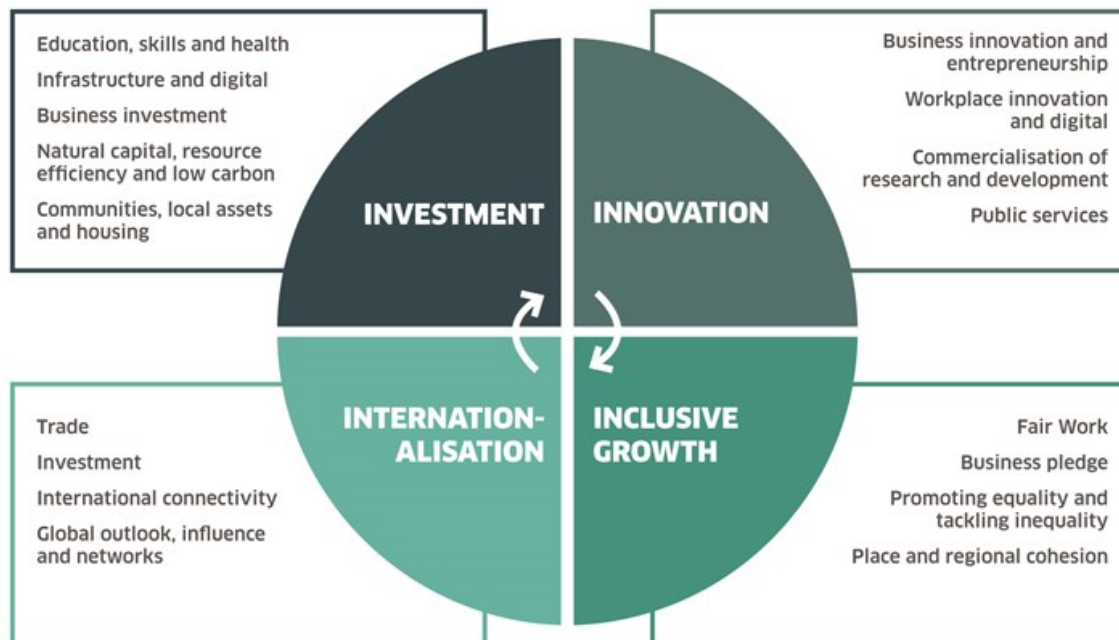


Mission, Strategy, and Values:

- Strong synergy between institutional strategic priorities and research and innovation culture,
- Well-defined, supported and invested areas of research and innovation excellence,
- Scalable from local-to-global context (e.g., grand-societal challenges),

- Strategic goals.

In terms of strategies, there are four interrelated components:



Talented research workforce:

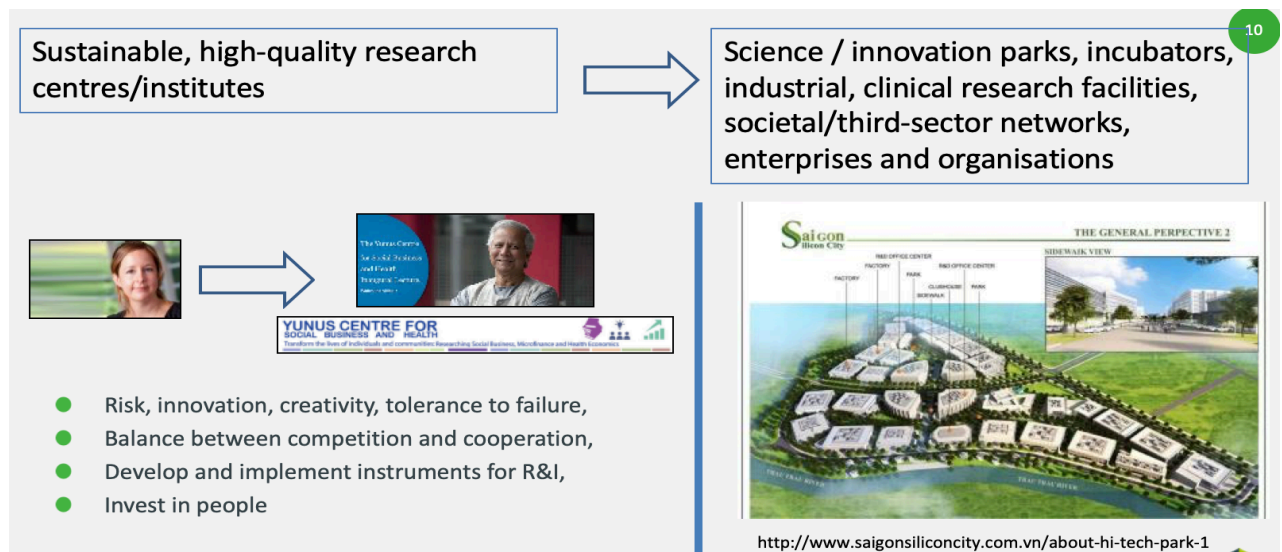
- Recruitment and retention of world-leading researchers,
- Across the career pathway from ECR to senior professors and academic leaders,
- Building interdisciplinary teams that work across sectors and internationally (3i's),
- Researchers that are networked, mobile, connected and engaged, In combination with...
- Talented research support teams, project managers and administrators with shared values and goals

Research and innovation excellence:

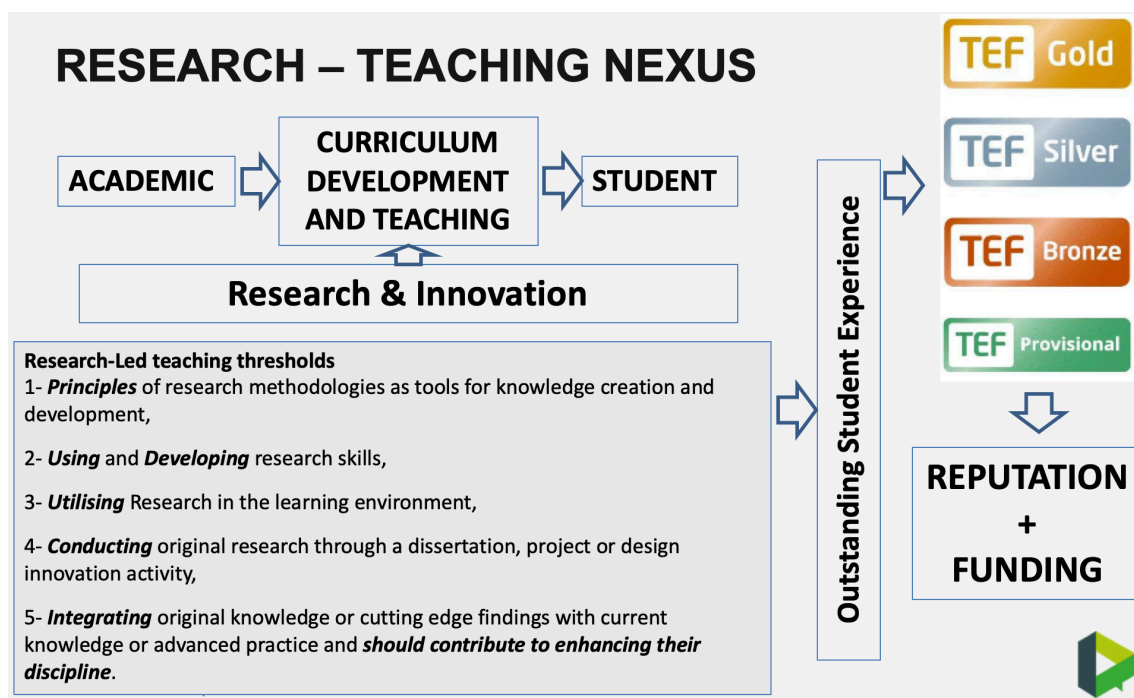
- Build portfolio's of high-quality research funding building from regional, national to international scale,
- Publish high-quality impactful research outputs in high-quality journals and demonstrate reach and significance (impact factor and citation scores etc),
- Support, invest in and mobilise creativity, entrepreneurship and innovation to deliver step-change research with high impact (societal, environmental, economic etc),

- Build research WITH rather than FOR end-users, key stakeholders and beneficiaries,
- Build research with international partners and consortia,
- Beyond academia – spin-outs, start-ups, enterprises and patents for exploitation (growth and impact),
- Benchmarking nationally and internationally.

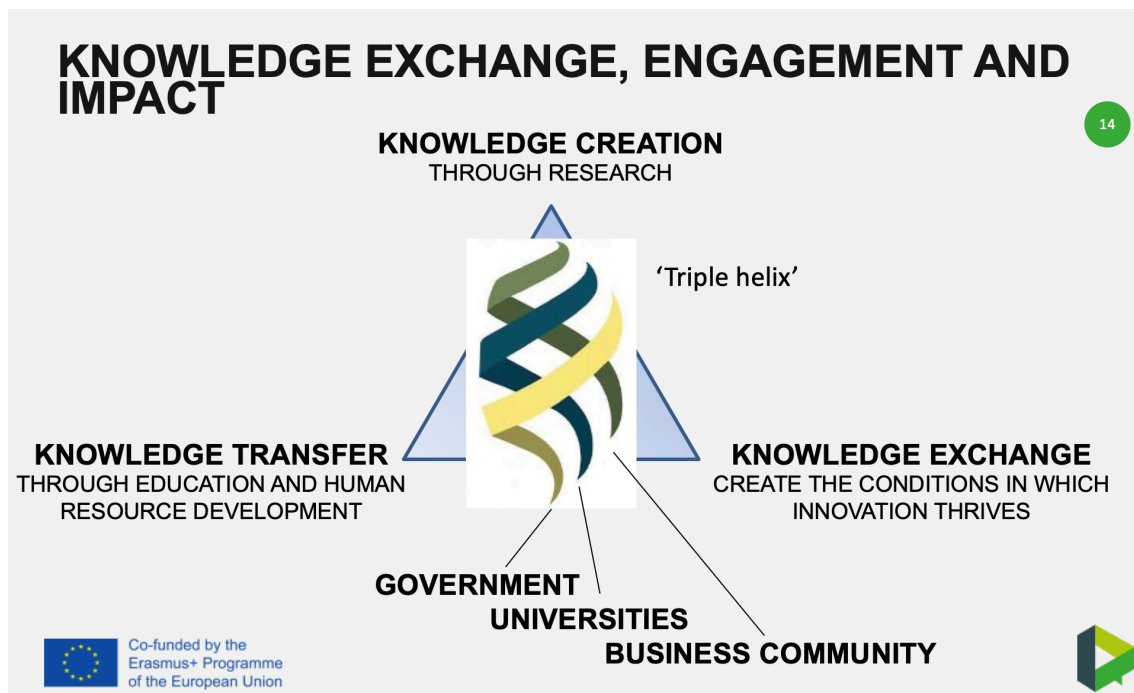
Research environment



Research – teaching nexus



In terms of connectivity, various sectors are involved including Academia, Industry and Business, Government, Third Sector, and Society.



WORKING WITHIN THE WIDER ECOSYSTEM FOR IMPACT



INTERNATIONAL IMPACT...PATHWAYS FOR VIETNAM

Some key developments: Global shift to ‘challenge based’ collaboration; **Increased** multi-institution collaboration; Increased breadth of funding; Dominance of SDGs

The Newton Fund Vietnam has identified a number of priority areas:

- Health and life sciences.
- Environmental resilience and energy security.
- Future cities.
- Agriculture.
- Digital innovation and creativity.
- Quality, governance, ethics and standards

Establish Research Governance Framework (RGF):

- Ethics,
- Research conduct,
- Finance and risk,
- Intellectual property,
- Health and safety,
- Data,
- Personal and scientific conduct,
- Leadership and accountability.
- Swot analysis – on completion of enhance...

EXPLOITING STRENGTHS

- Development of research capacities and capabilities?
- Research and Innovation initiatives and supporting instruments and structures?
- Emerging and established success stories?
- Access to knowledge and funding from international partners?
- Successful engagement with committed government?
- Swot analysis – on completion of enhance...

TACKLING WEAKNESSES

- Weak/low volume outputs – technology developments to continually feed innovation/TT pipeline?
- Development of the innovation ecosystem in Vietnam + competencies/capabilities?

- Research and Innovation resources – research enterprises – SMEs etc?
- TT structure and instrument development?
- Swot analysis – on completion of enhance...

EXPLOITING OPPORTUNITIES

- Growing demand for Vietnamese enterprises?
- Emerging R&I capacities and competencies as national partners for KE and TT?
- Build overarching national KE/TT networks exploiting R&I advances?
- Establish international partnerships with technology / KE providers?
- Swot analysis – on completion of enhance...

ADDRESSING THREATS

- High dependency on foreign technologies as drivers for economic development?
- Low value-added manufacturing,
- Failure to develop a knowledge economy and technology-intensive sectors?
- Failure to realize the knowledge/ technology transfer potential of Vietnamese universities?

 13:00 - 14:00
 LUNCH BREAK

Session 10: Round Table: The Future of Research and Innovation in Vietnam

The last part of the two-day conference is the round table discussion. The topic was **The Future of Research and Innovation in Vietnam** moderated by Mr. Mark Majewsky Anderson, Director, Research and Innovation Office, Glasgow Caledonian University, with three panelists Mr. Hoang Van Tuyen, Ministry of Science and Technology, Ha Noi, Viet Nam; Mr. Tran Van Lieng, Chairman/President, Vietnam Cacao Joint Stock Corporation, Viet Nam; and Mr. David Ngo, Vice president of Technology, Saigon Silicon City, Viet Nam. Mr. David Ngo started the discussion by sharing his views on the Future of Research and Innovation in Vietnam.

- Today, R&D strategies in Universities and Research Institutes which are more applied solutions than in basic and academic research.
- How to identify, appreciate and evaluate the research topics? And ideas can be applied for filing patent applications into National or International Patent Office?

- Ability to spin off, spin out a patent / thesis research become a start-up or patent licensing commercialization.
- Packaging patent portfolio into intangible asset for IPO, M&A and attracting investors (VC, AC, Bankers, etc.)

The question he posed was HOW TO IDENTIFY THE RESEARCH TOPICS? AND IDEAS CAN BE APPLIED FOR FILING PATENT APPLICATION?, which is then made specific into eight smaller ideas:

- How do I protect my ideas?
- Is my idea protectable (eg. patentable)?
- What IP types should I protect & employ?
- How do I employ IP protection to further my commercialization objectives?
- Do I have the right to enjoy the IP rights I have obtained?
- What are the IP-related preparation required for commercialization or fund-raising?
- Who are my potential competition?
- Who are my potential partners?

Up next was Mr. Tran Van Lieng's diagnosis of Vietnam status:

- 24.000 PhD degree holders (2014).
- 13.172 researches published internationally 15 years (1996-2011) = 1/5 Thailand = 1/6 M'sia = 1/10 S'pore
- High caliber researchers employed as management in public sectors/governmental agencies as career path.
- Degree mill epidemic results in poor researches and innovation if not saying "zero".
- Researches are not attractive to businesses as "vitro" not much "in vivo" and fails to catch up with markets.

With that diagnosis, he proposed the following objectives:

- Nurture and enhance researches and innovations from Vietnam to outreach international recognition.
- Benefit local businesses from results of effective scientific works and researches.
- Transform Vietnamese science and technology locally and internationally.

In order to realize the objectives, the method should be effective:

- Focus on key strengths and competitive edges: 114 fields and categories (Decision No. 66/2014 from Prime Minister) put in priority, including: IT/AI/Tech 4.0, Hi-tech/organic agricultural products, Bio-censoring/solar energy, Develop an eco-system inclusive of researches, investment and commercialization.

Finally, evaluation:

In a specific period of time:

- Value added in intellectual products and services.
- Internationally recognized national brands.
- Transforming local businesses globally.

After that, Mr. Tuyen shared his perspectives:

FORMING R&D UNITS AND SR GROUPS IN HEIS

Strengths

- More and more organizations in the form of R&D institutes and centers have been inaugurated at the HEIs.
- Some research teams have had certain developments (teams in VNU-HN; VNU-HCM; HUST, etc.)

Challenges

- There are still “embarrassing” issues in transforming, restructuring the system of research and HEIs;
- The time spent for research activities of university staff have still been limited.

STRENGTHENING “ACADEMIC FREEDOM” AND “AUTONOMY” OF HEIS

Strengths

- HEIs have had certain academic freedom and autonomy;
- HEIs have been autonomous on some issues: use of funding sources, personnel recruitment and use.

Challenges

- There have not been created conditions for the comprehensive implementation of autonomy and self-responsibility.
- HEIs have still been under control of line-ministry

IMPROVING STHR IN HEIS

Strengths

- Some HEIs have developed various types of programs and training contents for highly qualified staff training.
- Salary of S&T staff has gradually improved with the income from the outside S&T contracts, part-time regime
- The role of S&T staff and researchers has been emphasized. - The S&T recruitment regime has certain flexibilities.

Challenges

- Models, methods and content of S&T staff training remain some shortcomings.
- No specific incentives for scientists and researchers (such as high income tax remains taxable level as for that of other areas).

FINANCING AND FUNDING FOR S&T ACTIVITIES IN HEIS

Strengths

- “Many financial channels” have been formed to fund HEIs for conducting research activities through S&T projects/ programs at different levels;
- Many scientists and researchers have been mobilized to take part in scientific research and many valuable results have been created (S&T journals, and many inventions filed and granted, etc).

Challenges

- Funding for scientific research in HEIs needs to be transformed strongly to the competitive funding models
- Applying for state funding in the form of S&T programs, schemes and projects often must meet many conditions.

DEVELOPING S&T INFRASTRUCTURE, EQUIPMENT AND INFORMATION

Strengths

- S&T facilities and equipment in several HEIs have gradually been improved.
- Many HEIs formed e-libraries, S&T information network and others

Challenges

- The efficiency and effectiveness of using equipment in the labs for scientific research activities of many HEIs have still been limited.
- Effective use and exploitation of the S&T information system (even national S&T information database) of many HEIs have rather been limited.

ENHANCING LINKAGES AMONG HEIS, OUTSIDE INSTITUTES AND ENTERPRISES

Strengths

- Some linkage models (in the triple helix model) represent the effective transfer of knowledge and technology.
- Some spin-offs, NTBFs

Challenges

- Regulations on “time framework” in implementing research activities of each university staff, lecturer;
- Academic staff, lecturers in HEIs are under the high pressure of teaching time, not enough time to perform scientific research activities.
- The intermediary organizations to create the so-called “bridge” in promoting the R&D commercialization (TTO, TLO and others, etc.) in many HEIs have been established not so much.

EXPANDING INTERNATIONAL COOPERATION AND INTERNATIONALIZATION

Strengths: There have been branches of foreign HEIs established in Vietnam;- HEIs have established relationships with many universities in the world.

Challenges

- The foreign HEIs in Vietnam have not really focused much on research activities and create linkages between training and research.

- The internationalization ability of many Vietnam HEIs is still limited (programs, foreign student recruitment, foreign expert invitation to teach in Vietnam, etc.).

DIVERSIFYING SOURCES IN HEIS

Strengths- Building and developing “key universities”;

- Favorable conditions or attracting international well-known, highly reputable universities in launching new sub-universities, to collaborate with domestic partners to organize programs on S&T human training in Vietnam

Challenges- Limited state budget and external resources - Too many HEIs

DISCUSSION SESSION BETWEEN PANELISTS AND PARTICIPANTS

1. Can innovation happen without patenting?

- Francesco: New products are not coming from HEIs, are coming from the market.
- David: scientist & researchers don’t have the attitude to patent. Innovation Centre in HCM for innovation & development.

Question from the audience: How can HEIs inspire industry? Industry need the people to work for them, to innovate, they don’t need the products.

- Francesco: HEIs have people skilled enough to develop the product, they have intangible assets.

Question from audience (Dan, CTU): patent internationally

- Francesco: wish more joint activities between HEIs and industry following the ENHANCE project. Students need attitude, to be organised. Financial support from Francesco’s company to students.

2. How do you see your role working with HEIs in helping society in Vietnam?

- Francesco: the costumer is the final voice in the product. After 6 months if the product survives....
- Tuyen: Viets need to have programmes to enhance collaboration between HEIs and industry.

3. What can we do next? How can we continue this? How can we have a formula to keep this going?

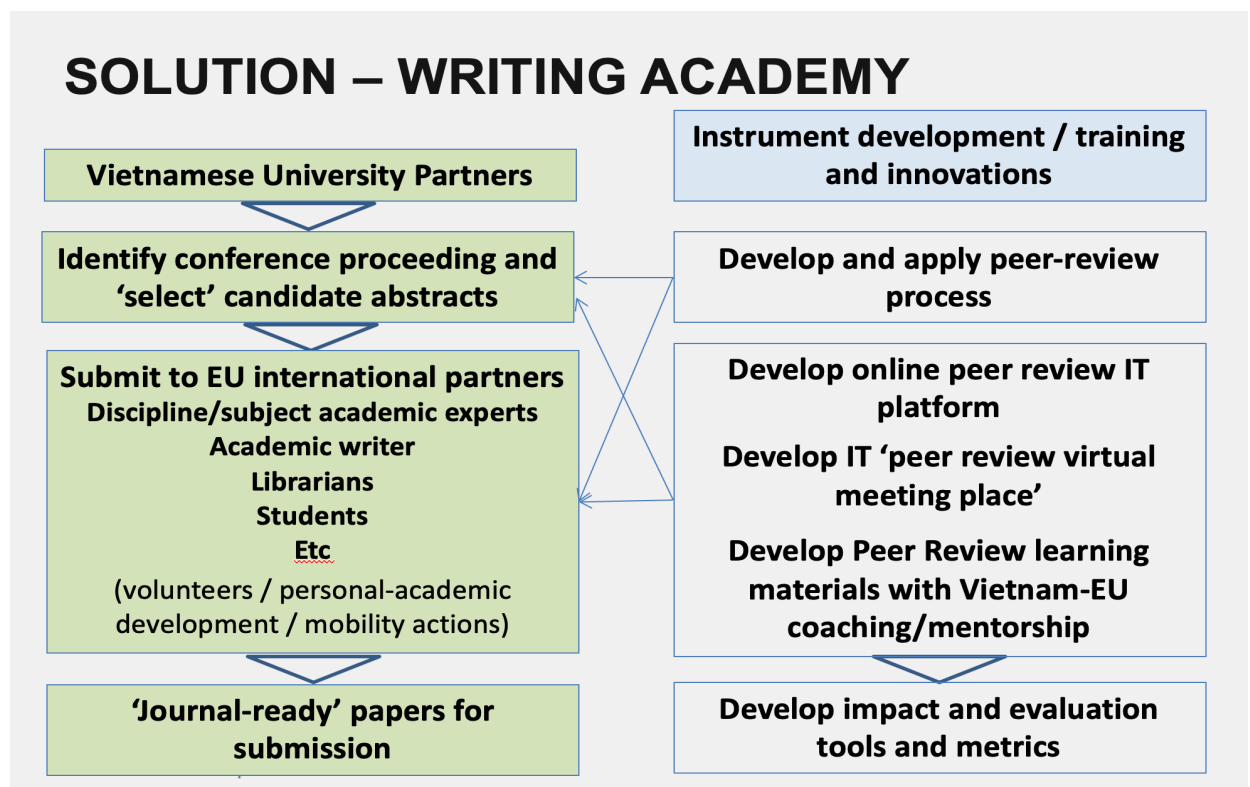
Before the closure, Prof. Jim from GCU presented his proposal for the future: **Scientific writing: An academic community partnership.**

The goal to achieve is “To increase capacity and capability in academic writing and publication in Vietnam”

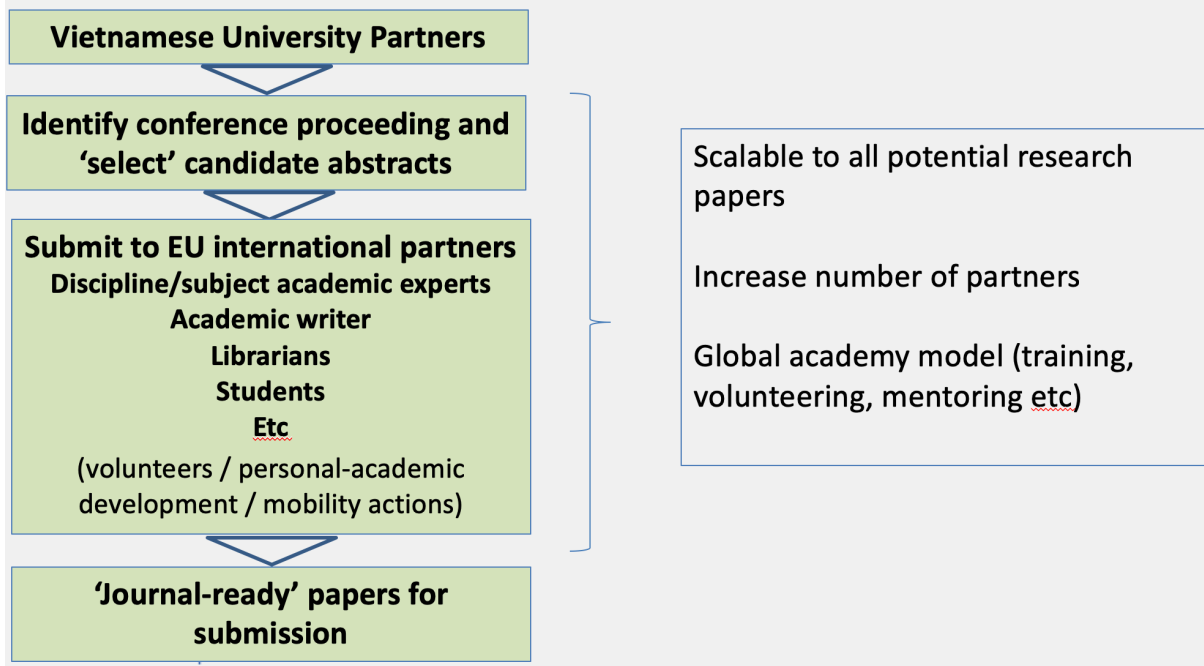
There are challenges:

- Scientific meetings and related activities generate conference proceedings published (in country in Vietnamese),
- External confirmation that material is high quality and publishable,
- There is however a low-rate of conversion from abstract to journal paper.

Jim proposed the following procedure of solution:



SOLUTION – WRITING ACADEMY



Impact / evaluation

- Establish current size of problem (how many conference proceedings, how many abstracts, conversion-to-paper rates, journal profile, authorship profiles, citations etc)
- Establish project outcomes (short-term)
- Higher abstract-to-paper publication conversion rates (increase by X% over Y time),
- Institutional international publication rates,
- International collaborative authorship profiles
- Journal impact factors
- Outcome metrics (longer term)
- Citation scores

Question by Prof. Dr. Dang Van Minh, Vice President, TNU: quality of paper, how to develop....

- Mark: once you have a platform you can build in both ways, people sharing ideas and advising, improve the ideas and talk about projects, create a

community...it has an international dimension. Mark has some money for this idea...papers need to be translated into English.

- Ty: great idea to create this platform for Viet researchers. For him to implement this model is difficult. In Vietnam organise many writing courses, invite Australian researches to train Viet researchers via courses. They have research projects high quality in Vietnamese. Instead of papers/proceedings, projects.
- Mark: we have to be realistic. This is a network, a community that make comments.

When Viet researchers write a paper...do we have to include EU names in the paper?

- Jim: publications rules. It's an intellectual asset. Volunteering. It's not for CV promotion. Terms of reference needed. Ty is right there are IP issues.
- Francesco: it must be clear, measurable, either in Vietnamese or English.
- Mark is willing to invest in this project. Please think if you could match the little of money from UK to put some money from Vietnam. Think about it.

Conference closure

Around 16:00, Dr. Phan Thanh Dinh, Vice President, HCM- USSH delivered his closing remarks, which is reproduced here:

“Dear:

- Dr. Manuel Palomar, Rector of University of Alicante
- Dr. Roberto Escarré, Director of International Project Management Office, University of Alicante
- Representatives of six Vietnam member universities, professors from Europe and staff members of the ENHANCE Project
- Dear all participants

After two days of the Final Conference, we finally reached the end of an arduous, yet practical journey. For all the hard works that have been done, I would like to express my heartfelt gratitude for the participation of representatives from European universities and all the guests. You are the ones who help consolidate the experience on research

management and innovation in Vietnam. You are the ones who bring about the benefits to Vietnam higher education.

This event is a precious opportunity for us to have a more comprehensive understanding of cooperation in terms of research management among universities. All of the opinions shared during the conference are of great help for us to learn more of the importance of research and innovation management and implementation in higher education.

We want to express our appreciation to the representatives of European universities for all the advice during the course of implementing the project. We would also like to send our deepest thanks to all the participants for your comments and opinions on the project and especially, from the European representatives, in order for a better development on research management in Vietnam.

Once again, we would like to thank Dr. Manuel Palomar, Dr. Roberto Escarré, representatives from six member universities, professors, and all the staff members of the ENHANCE Project, together with all the guests from private companies, Ministry of Education and Training, Ministry of Science and Technology and all the students.

I sincerely wish success and great health to all of you.

Thank you.”

THIS CONCLUDED THE TWO-DAY CONFERENCE OF THE ENHANCE PROJECT

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For more information about the ENHANCE project,
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www.project-enhance.eu

