



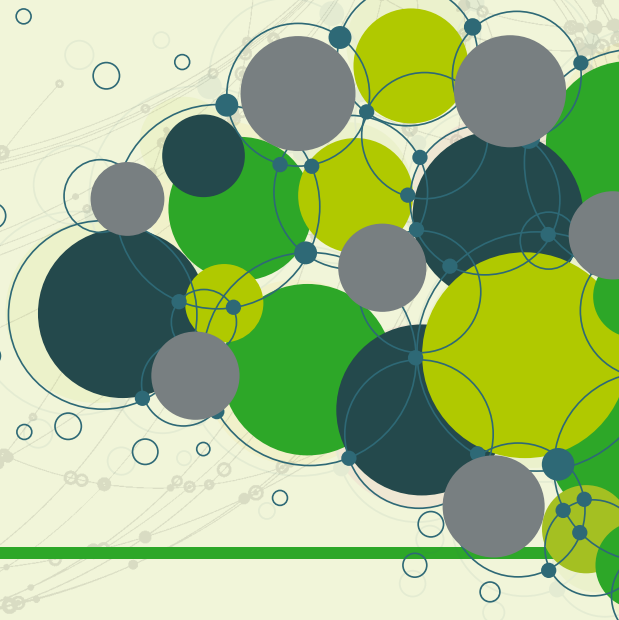
ENHANCE

STRENGTHENING NATIONAL RESEARCH AND INNOVATION CAPACITIES IN VIETNAM

Research and Innovation Management and Implementation in Vietnam

NATIONAL NEEDS
ANALYSIS REPORT

D2.2.1



ENHANCE: Strengthening national research and innovation capacities in Vietnam – NATIONAL NEEDS ANALYSIS REPORT

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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Table of Contents

List of abbreviations	4
1. INTRODUCTION	5
1.1. ENHANCE PROJECT	5
1.2. METHODOLOGY	7
2. Target 1: HIGHER EDUCATION INSTITUTIONS & RESEARCH INSTITUTES	9
2.1. DATA CONCERNING RESPONDENTS	9
2.2. RESEARCH and INNOVATION ENVIRONMENT	12
2.3. CAPACITY BUILDING TO SUPPORT RESEARCH AND INNOVATION	16
2.4. MAIN CONCLUSIONS for HEIs & RIs	19
3. Target 2: HIGHER EDUCATION (HE) AND SCIENCE AND TECHNOLOGY (S&T) AUTHORITIES	20
3.1. DATA CONCERNING RESPONDENTS	20
3.2 COOPERATION WITH HIGHER EDUCATION INSTITUTIONS (HEIs)	22
3.3 EXISTING SUPPORT PROGRAMMES	23
3.4. MAIN CONCLUSIONS for HEIs & S&T authorities	24
4. Target 3: PRIVATE SECTOR	26
4.1. DATA CONCERNING RESPONDENTS	26
4.2. COOPERATION WITH HIGHER EDUCATION INSTITUTIONS (HEIs)	28
4.3. MAIN CONCLUSIONS for PRIVATE SECTOR	34
Acknowledgement	37



List of abbreviations

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



1. INTRODUCTION

1.1. ENHANCE PROJECT

The ENHANCE Project “Strengthening national research and innovation capacities in Vietnam” is a structural project that will operate at a macro level targeting the Vietnamese HE system (R&I management and implementation). Thanks to a complementary consortium involving 6 of the most relevant Vietnamese HEIs with geographical balance, 3 EU HEIs with huge experience in R&I and international cooperation and the participation of MOET and MOST (HE and S&T authorities). The project is in line with national priorities that give a predominant role to R&I in the mid/long term and its activities have been designed as a response to Vietnam real needs.

The main objective of the ENHANCE project is to strengthen capacities of the Vietnamese higher education system by promoting effective research and innovation management and implementation.

The specific objectives of the ENHANCE Project are:

- ★ To build the human capacities in Research and Innovation Management and Implementation by means of a targeted training programme.
- ★ To strengthen the institutional capacity and enhance national networking by means of setting up a Network of Research and Innovation Offices in Vietnam.



The ENHACE project will be implemented by the following consortium:

1. Universidad de Alicante (UA) (Coordinator), Alicante, Spain
2. Glasgow Caledonian University (GCU), Glasgow, UK
3. Slovenská technická univerzita v Bratislave (STUBA), Bratislava, Slovakia
4. Thai Nguyen University (TNU), Thai Nguyen City, Vietnam
5. VNU Hanoi - University of Social Sciences and Humanities (USSH), Hanoi, Vietnam
6. Hue University of Agriculture and Forestry (HUAF), Hue City, Vietnam
7. VNU Ho Chi Mihn-University of Social Sciences and Humanities (HCMUSSH), Ho Chi Mihn City, Vietnam
8. An Giang University (AGU), Long Huyen City, Vietnam
9. Can Tho University (CTU), Can Tho City, Vietnam
10. Ministry of Education and Training (MOET), Hanoi, Vietnam
11. Ministry of Science and Technology - National Institute for Science and Technology Policy and Strategy Studies (MOST – NISTPASS), Hanoi, Vietnam

The project has been grouped into seven work packages. The main objectives of WP 2 “In-depth needs analysis on R&I management and implementation in Vietnam” were:

- ★ 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.

The analysis was carried out jointly by all partners – this required the effort of EU partners for survey definition as well as of Vietnam partners to collect and obtain relevant results. The coordination of WP 2 was performed by STUBA, project partner, with the support of the University of Alicante, project co-ordinator. The report is the first output of the ENHANCE project, specifically deliverable D2.2.1 “In-depth needs analysis report” and it will be used to better define crucial project implementation aspects.

1.2. METHODOLOGY

The main objective of the WP2 is to provide an in-depth analysis of the situation of Vietnamese HEIs in terms of research and innovation management and implementation. Furthermore, it will serve to detect the strengths, weaknesses, opportunities and threats (SWOT analysis) for HEIs in Vietnam in terms of management and implementation.

The National needs analysis report “Research and Innovation Management and Implementation in Vietnam” in the framework of the ENHANCE Erasmus+ project **Strengthening national research and innovation capacities in Vietnam** is divided into three sections depending on groups that have been defined as target 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.

After the Kick-off meeting of the project in February 2016 in Alicante, the leader of WP2 – Slovak University of Technology in Bratislava, with the support of project coordinator and in cooperation with all project partners, prepared the needs analysis guidelines and questionnaires of all three targeted groups. Thanks to Vietnamese partners these questionnaires were translated into Vietnamese language for easier communication with target groups.

Dedicated roles for project partners in WP2 were:

- ★ Leader: STUBA
- ★ Survey dissemination, data collection and partial result analysis: Vietnamese partner Universities
- ★ Data collection and analysis at policy level: MOET & MOST
- ★ Methodological support and participation in results analysis and report drafting: EU Partners.

The following expected deliverables given in the project proposal have to be fulfilled:

- ★ D 2.1.1 Data collection & analysis methodology
- ★ D 2.1.2 In-depth needs analysis report

According to the project proposal project partners should collect data from more than 900 respondents across the three target groups. Therefore, each project partner organisation was asked to clearly define their sample size and the method of data collection (on-line survey, paper based, face-to-face interviews...).



2. Target 1: HIGHER EDUCATION INSTITUTIONS & RESEARCH INSTITUTES

2.1. DATA CONCERNING RESPONDENTS

In the framework of target 1 academics, researchers, managers as well as R&I Units staff of partner and non-partner HEIs & RIs were surveyed. Most of the surveys were conducted to this group of respondents (more than 97 %), according to the following breakdown:

- ★ 37 HEIs from Vietnam: 31 HEIs (non-project partners) and 6 Vietnamese project partner universities.
- ★ 18 Research Institutes (non-project partners).

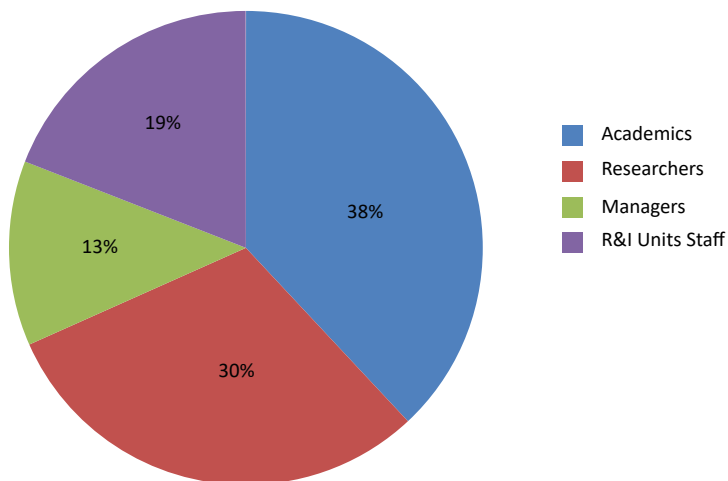
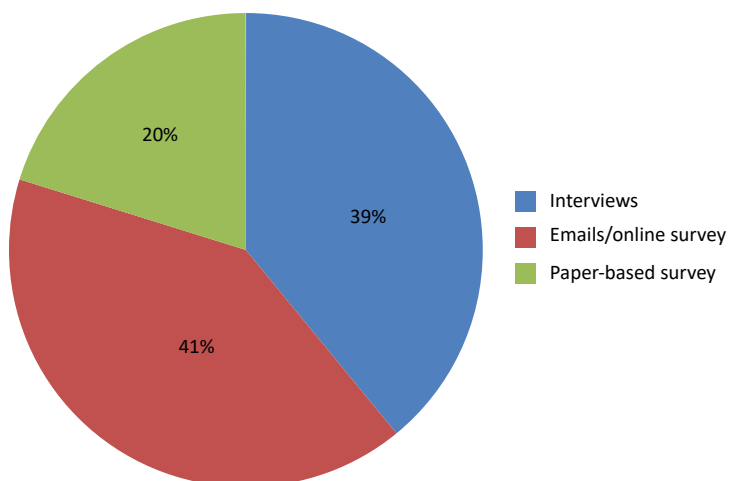
The study was conducted by the 6 Vietnamese project partner universities to 37 Higher Education Institutions and to 18 research institutions all over the Vietnam country. Some of them were huge universities like University of Science and Technology in Da Nang City (15.000 students and 1.000 employees as academic and research staff, or University of Medicine and Pharmacy in Hue City (10.500 students and more than 1.000 employees as academic and research staff).

Methods used for data collection, via the defined questionnaires, were the following:

- ★ e-mail and on-line survey
- ★ paper-based survey
- ★ face-to-face interviews

Tab.1 HEIs & RIs respondents – number, type, method of data collection used

NUMBER AND TYPE OF RESPONDENTS							
REGION	NORTH		CENTRAL	HO CHI MINH CITY	SOUTHWEST		TOTAL
Partner HEIs	TNU	USSH	HUAF	HCMUSSH	AGU	CTU	
Academics	85	90	65	90	21	26	377
Researchers	60	70	50	60	20	40	300
Managers	42	38	15	12	6	12	125
R&I Units staff	39	55	54	32	5	4	189
TOTAL NUMBER	226	253	184	194	52	82	991
METHOD OF DATA COLLECTION USED							
REGION	NORTH		CENTRAL	HO CHI MINH CITY	SOUTHWEST		TOTAL
Partner HEIs	TNU	USSH	HUAF	HCMUSSH	AGU	CTU	
Interviews	110	70	51	124	13	19	387
Emails/online survey	106	126	42	52	35	43	404
Paper-based survey	10	57	91	18	4	20	200
TOTAL NUMBER	226	253	184	194	52	82	991

**Number and type of respondents****Method of data collection used**



The questionnaire was divided into three sections, namely general information about the institution, current research and innovation management system of the institution and capacity building needed to support research and innovation within the institution. The report is focused on the last two sections.

Tab.1 shows the number of HEIs & RIs respondents in Vietnam by category (academic, researchers, manager and R&I Unit staff) and the method of data collection used by the 6 Vietnamese partner universities that have conducted the survey in Vietnam covering the north, centre, Ho Chi Minh City and Southwest. According to the final reports from participating universities some of respondents were working both as academics and researchers. The total number of respondents was 991 mostly surveyed via face-to-face interviews and emails. HUAF preferred a paper-based survey.

2.2. RESEARCH and INNOVATION ENVIRONMENT

The following table shows the answers collected for the question on the Government explicit strategy for supporting Research, Innovation and Knowledge Exchange.

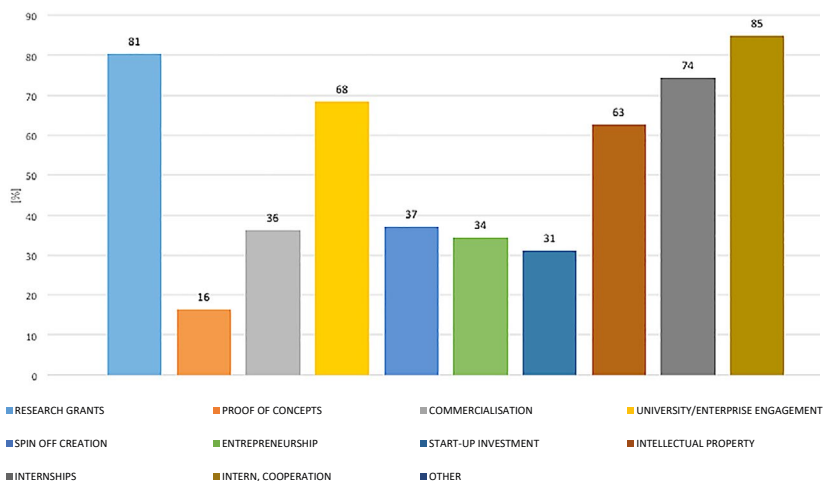


Tab.2 Explicit Strategies of Government for supporting Research, Innovation and Knowledge Exchange

DOES YOUR GOVERNMENT HAVE AN EXPLICIT STRATEGY FOR SUPPORTING RESEARCH, INNOVATION and KNOWLEDGE EXCHANGE? (YES in %)							
REGION	NORTH		CENTRAL	HO CHI MINH CITY	SOUTHWEST		WEIGHTED AVERAGE
Partner HEIs	TNU	USSH	HUAF	HCMUSSH	AGU	CTU	
RESEARCH GRANTS	84,5	87,0	86,5	76,8	40,4	73,1	81
PROOF OF CONCEPT	12,4	14,3	18,0	17,0	15,4	28,6	16
COMMERCIALISATION	48,2	19,5	48,9	35,1	23,1	30,2	36
UNIVERSITY/ ENTERPRISE ENGAGEMENT	81,0	55,8	73,7	65,5	59,6	68,6	68
SPIN OFF CREATION	42,5	21,4	51,1	38,1	21,2	42,3	37
ENTREPRENEURSHIP	51,3	23,4	37,9	28,4	17,3	35,3	34
START-UP INVESTMENT	38,5	23,4	34,6	27,8	19,2	39,1	31
INTELLECTUAL PROPERTY	68,6	44,8	80,3	61,3	53,8	63,5	63
INTERNSHIPS	79,7	73,4	88,6	62,9	59,6	66,0	74
INTERN. COOPERATION	92,0	87,0	95,7	77,8	55,8	71,7	85
OTHER	0	0	0	0,5	0	0	81



Does your government have an explicit strategy for supporting research, innovation and knowledge exchange? (Yes in %)





Tab.2 illustrates the survey results from 991 respondents (managers, academics, researchers and R&I Units staff) being asked about implementation of explicit strategies of the Government to support research, innovation and knowledge transfer at Vietnamese HE institutions. The survey results have shown that International cooperation, Research grants and Internship are the top strategies most important for academic environment (HEIs and RIs) supported by the Government. Besides the mentioned strategies, the University and Enterprise Engagement is also considered by the Government as an important strategy.

Tab.3 Office to support Research, Innovation and Knowledge Exchange

REGION	DOES YOUR INSTITUTION HAVE AN OFFICE SPECIFICALLY TASKED FOR SUPPORTING RESEARCH, INNOVATION and KNOWLEDGE EXCHANGE?		
	Partner HEIs	YES	%
NORTH	TNU	No Info	-
	USSH	101	65,6
CENTRAL	HUAF	124	67,8
HOCHIMINH CITY	HCMUSSH	179	92,3
SOUTHWEST	AGU	No Info	-
	CTU	No Info	-



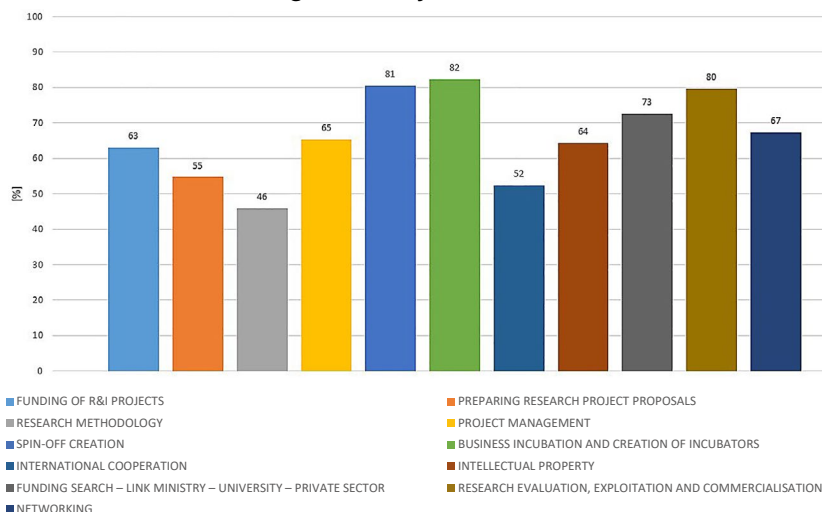
2.3. CAPACITY BUILDING TO SUPPORT RESEARCH AND INNOVATION

Tab.4 Response on capacity building to support research and innovation

WHAT KIND OF TRAINING WILL SUPPORT RESEARCH AND INNOVATION MANAGEMENT AT YOUR INSTITUTION? (YES in %)							
REGION	NORTH		CENTRAL	HO CHI MINH CITY	SOUTHWEST		WEIGHTED AVERAGE
PARTNER UNIVERSITY	TNU	USSH	HUAF	HCMUSSH	AGU	CTU	
FUNDING OF R&I PROJECTS	81,4	58,3	63,9	50,0	53,8	61,0	63
PREPARING RESEARCH PROJECT PROPOSALS	70,8	48,2	56,2	44,3	36,5	61,0	55
RESEARCH METHODOLOGY	57,1	45,3	37,8	39,7	34,6	57,0	46
PROJECT MANAGEMENT	75,2	67,0	61,6	57,2	51,9	69,0	65
SPIN-OFF CREATION	88,1	77,8	93,5	67,5	71,0	75,0	81
BUSINESS INCUBATION AND CREATION OF INCUBATORS	89,0	85,7	86,6	67,5	86,5	77,0	82
INTERNATIONAL COOPERATION	62,0	51,5	41,7	47,5	53,8	63,0	52
INTELLECTUAL PROPERTY	70,8	58,5	59,7	64,4	57,7	77,0	64
FUNDING SEARCH – LINK MINISTRY – UNIVERSITY – PRIVATE SECTOR	79,2	68,2	78,7	65,0	63,4	77,0	73
RESEARCH EVALUATION, EXPLOITATION AND COMMERCIALISATION	80,1	74,3	85,9	76,3	84,6	85,0	80
NETWORKING	77,0	67,4	65,1	59,2	42,4	80,0	67



What kind of training will support research and innovation management at your institution?



Figures stated in **Tab.4** are the addition of positive answers expressing the willingness that the mentioned issue “**should be included**” or “**it currently exists but further training is needed**”. They should emphasize that capacity building to support scientific research and innovation is one of the most important roles in higher education and research institutions. Besides “traditional” topics like funding of R&I projects, preparation of research projects proposals, R&I management incorporates more and more new issues such as spin-off creation, intellectual property or creation of incubators in academic conditions. Very important, according to the survey, seems to be the fundraising on a link through ministry – university – private sector as well as research evaluation, exploitation and commercialisation.



Coming from the survey the following findings can be pointed out:

Strengths:

According to the survey results, **International Cooperation, Internships, Research Grants** are three out of ten strategies with the highest number of positive responses. It means that Government has strategies to support HEIs and RIs in research, innovation and knowledge exchange with the three above mentioned strategies. Funding of universities is guaranteed mostly by NAFOSTED (National Foundation for Science & Technology Development) Agency lead by MOST, some other Ministries are delivering granting programmes (Ministry of Agriculture and Rural Development or Ministry of Resources and Environment), as well.

Weaknesses:

According to respondents four indicators have received the smallest score – proof of concept, entrepreneurship, start-up investment and spin-off creation. This can be the result of not understanding these topics but it is a reason to deepen the knowledge in this field of survey.

Recommendations coming from Vietnamese partners

It is recommended that ENHANCE project European partner universities provide relevant experience to Vietnamese universities in these activities, including not only the weakest ones (Proof of Concept, Entrepreneurship, Start-up Investment, Research Evaluation and Commercialization, Spin-off Creation, Intellectual Property) but also the strongest ones that need to be further



improved. In spite of these topics the main interest of respondents is focused on further improvement on topics such as Research Methodology, Research Project Proposal Preparation, Networking, especially international networking.

2.4. MAIN CONCLUSIONS for HEIs & RIs

Some recommendations to help improving the research and innovation capacity in HEIs and REIs in the framework of the ENHANCE project are the following:

- ★ To organize and to help to organize training on research proposal writing, project management (financial, staff and asset) monitoring and evaluation of project, and report writing.
- ★ To establish a network of national training institutes in the region to foster regional cooperation for the design of training courses and programmes and sharing of various training sources.
- ★ To provide solutions to minimize the gap between research and teaching – that has led to a waste of resources and limited the training quality in universities and research institutes.
- ★ To strengthen institutional research capability through close connections with the private sector and to provide more motivation for research activities of HEIs & RIs.
- ★ Later, the ENHANCE project should introduce or recommend partner universities who gained good achievements in Research and Innovation for the purpose of meeting the requirements of society. Moreover, ENHANCE should suggest and introduce current supporting policies and methods of the government in European countries in Research and Innovation.



3. Target 2: HIGHER EDUCATION (HE) AND SCIENCE AND TECHNOLOGY (S&T) AUTHORITIES

3.1. DATA CONCERNING RESPONDENTS

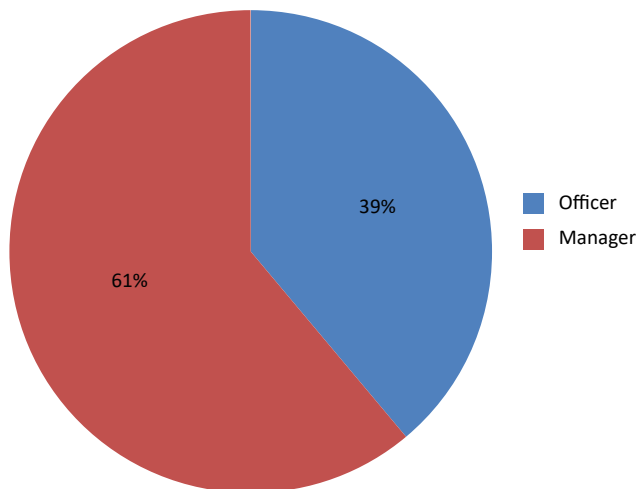
In the framework of target 2, Higher Education and Science and Technology authorities were surveyed. A consolidated report was prepared by project partners MOET (Ministry of Education and Training) and MOST (Ministry of Science and Technology).

Tab. 5 Number and type of respondents at HE and S&T authorities and method of collection used

INSTITUTION	MOET	MOST	Other E&T/ R&I	TOTAL
Officer	1	2	4	7
Manager	2	3	6	11
TOTAL NUMBER	3	5	10	18
METHOD OF DATA COLLECTION USED				
Interviews	0	0	0	0
Emails/online	0	0	0	0
Paper-based	3	5	10	18



Percentage and type of respondents at HE and S&T authorities



Method of data collection used





According to their report three managers from MOET (Department of Science and Technology Management) responsible for management of HEIs have been surveyed. Furthermore, five persons have been interviewed by MOST officers, choosing authorities or managers responsible for management of R&I at universities. Maybe the most important seem to be two managers from NAFOSTED (National Foundation for S&T Development) as well as the manager from NATIF (National Technology Innovation Fund) and from ONARP (Office of National S&T Research Programs). Other Education & Training (E&T)/R&I authorities were involved in total number of ten. Among them there were organisations such as Vietnam Academy of Social Sciences (VASS), Vietnam Academy of Science and Technology (VAST), National Academy of Public Administration (NAPA), Vietnam Atomic Energy Institute (VINATOM) and National Centre for Technological Progress.

3.2 COOPERATION WITH HIGHER EDUCATION INSTITUTIONS (HEIs)

MOET and MOST are the most important authorities in the Academic sector in Vietnam, responsible not only for strategy development of all kind but also for financing of Vietnam universities. Most projects for international cooperation, bilateral programs, research and development projects are running under the leadership of MOET and MOST. The cooperation between HEIs and RIs with the mentioned ministries gives a good opportunity for HEIs and RIs staff to build and enhance their capacities in research, innovation and knowledge exchange. Through agreement with foreign partners, HEIs and RIs have implemented many exchange and research projects to help the staff to participate in



the long-term and short-term training courses, international conferences, training workshops or exchange programs among staff.

3.3 EXISTING SUPPORT PROGRAMMES

In the context of Vietnam, Research Grants at national level are known as NAFOSTED (National Foundation for Science and Technology Development) affiliated with the Ministry of Science and Technology. Besides, the academics and researchers have been able to develop research proposals to receive various research funds from other Ministries (Ministry of Agriculture and Rural Development, Ministry of Resources and Environment, etc.) depending on their background. Especially, universities always get annual research budget from Ministry of Education and Training to carry out research projects. At institutional level, the annual research grant deducted from the students' fees (started in 2015 according to Decree No. 99/2014/NĐ-CP of Vietnamese Government) is provided for activities in science and technology among staff and students at their institutions.

The main goal of NAFOSTED except of national research funding is to encourage HEIs and RIs in Vietnam to build a durable, innovative and conducive environment to research activities at universities and institutes as well as to improve the research capacity of young scientists and establish research centres that meet international standards. Another very important goal is to encourage international cooperation for Vietnamese scientists to approach international research knowledge and to attract external funding for Vietnam scientific projects.



3.4. MAIN CONCLUSIONS for HEIs & S&T authorities

Strengths:

- ★ Supported strategy of the Government through two ministries, i.e. MOET responsible for higher education programmes in Vietnam and MOST responsible for Science and Technology development.
- ★ Developed strategy for International Cooperation (bilateral and multilateral agreements) at both ministries.
- ★ Financing of major public universities (VNU) fall directly under the Prime Minister's office.
- ★ Research projects are guaranteed and supported by both ministries as well as by some professional ministries (Ministry of Agriculture and Rural Development, Ministry of Construction, Ministry of Natural Resources and Environment or Ministry of Transport).

Weaknesses:

- ★ Lack of information about the start-up investments, spin-off centres (technological incubators) as well as transfer of results of research and applied science from HEIs and RIs into practice.
- ★ Legislative support for fundraising on a link through ministry – university – private sector.
- ★ More support of MOET and MOST for international oriented programs and involved projects.



Final conclusions for the ENHANCE project team:

- ★ Some recommendations for the ENHANCE project to help to improve the research and innovation capacity in HEIs and REIs authorities are the following:
- ★ To strengthen institutional research capability through close connections with the private sector and to provide more motivation for research activities of HEIs & RIs.
- ★ To organize and to help to organize training on better understanding of strategy for foundation of spin-off centres and technological incubators for creation of connecting link between academic and private sector.
- ★ To inform about advantages of technological incubators in order to attract the higher education system.
- ★ To provide more information on fundraising possibilities in Europe as well as on project participating countries dedicated for support of start-up and spin-off companies in academic conditions in the framework of the ENHANCE project.



4. Target 3: PRIVATE SECTOR

4.1. DATA CONCERNING RESPONDENTS

In the framework of this target, entrepreneurs and managers from Vietnamese enterprises were surveyed. The total number of respondents according to Tab. 6 is 53 coming from 19 enterprises. Most partner universities surveyed 3 managers from 3 enterprises. Only USSH interviewed 4 enterprises with 38 respondents.

Tab. 6 Number and type of respondents and method of collection used

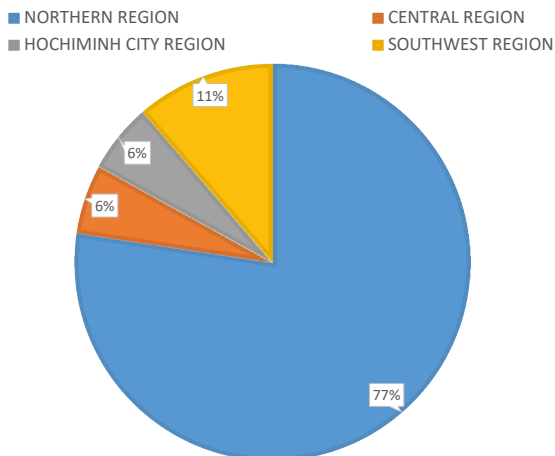
REGION	NORTH		CENTRAL	HO CHI MINH CITY	SOUTHWEST		Total
PARTNER UNIVERSITY	TNU	USSH	HUAF	HCMUSSH	AGU	CTU	
<i>Respondents</i>	3	38	3	3	3	3	53
<i>Number of enterprises</i>	3	4	3	3	3	3	19
METHOD OF DATA COLLECTION USED							
<i>Interview</i>	3	38	3	3	0	0	47
<i>Paper-based</i>	0	0	0	0	3	3	6

Vietnam national research team has chosen several enterprises with different number of employees as well as different number of activities. The evidence for it are the following large private companies – CP Group located in Dong Nai province (16.000 employees), Thai Nguyen Garment JSc. (10.600 employees), Loc Troi Group located in An Giang province (3.600 employees), VNG Corporation located in Ho Chi Minh City (1.700 employees) or medium companies like Hoa Binh Construction & Investment, Ltd.

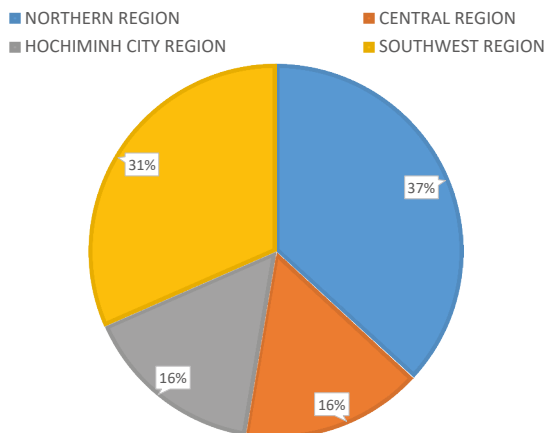


(150 employees) located in Mekong Delta region in South Vietnam or small companies like DHG Pharma (18 employees) located in the centre of Can Tho City.

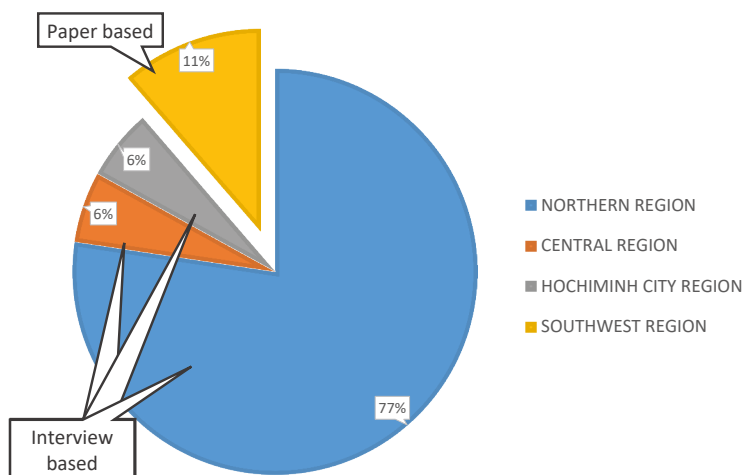
Number of respondents



Number of enterprises involved



Method of collection used



4.2. COOPERATION WITH HIGHER EDUCATION INSTITUTIONS (HEIs)

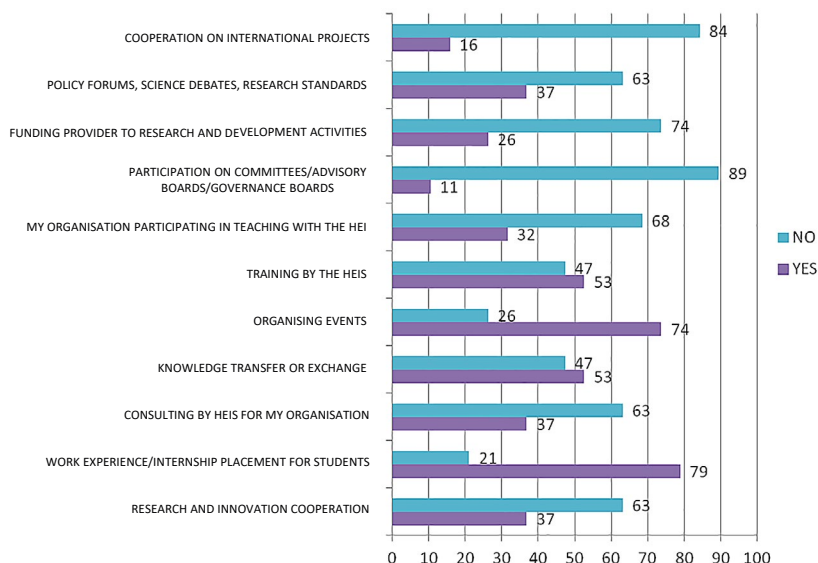
The first section in Target 3 was about the cooperation of enterprises with higher education institutions in several fields of activities. We have analysed the answers of all enterprises from private sector, i.e. the total number interviewed enterprises was 19.



Tab. 7 Cooperation with higher education institutions in the last 5 years

TOTAL RESPONSES (19 ENTERPRISES)	YES	NO
RESEARCH AND INNOVATION COOPERATION	7	12
WORK EXPERIENCE/INTERNSHIP PLACEMENT FOR STUDENTS	15	4
CONSULTING BY HEIS FOR MY ORGANISATION	7	12
KNOWLEDGE TRANSFER OR EXCHANGE	10	9
ORGANISING EVENTS	14	5
TRAINING BY THE HEIS	10	9
MY ORGANISATION PARTICIPATING IN TEACHING WITH THE HEI	6	13
PARTICIPATION ON COMMITTEES/ADVISORY BOARDS/GOVERNANCE BOARDS	2	17
FUNDING PROVIDER TO RESEARCH AND DEVELOPMENT ACTIVITIES	5	14
POLICY FORUMS, SCIENCE DEBATES, RESEARCH STANDARDS	7	12
COOPERATION ON INTERNATIONAL PROJECTS	3	16

Intention to cooperate with higher education institutions (in %)



Intention to cooperate with higher education institutions (tab.8) shows that the majority of interviewed managers expressed their willingness to introduce jobs and internships to students and to create an exchange forum between enterprises, students and universities. The majority of interviewed enterprises are organizing common events with HEIs and cooperate in the framework of knowledge transfer or exchange as well as in the framework of training activities (tab.7). Very weak seems to be the participation of managers on committees or advisory boards of HEIs and RIs (tab.7).

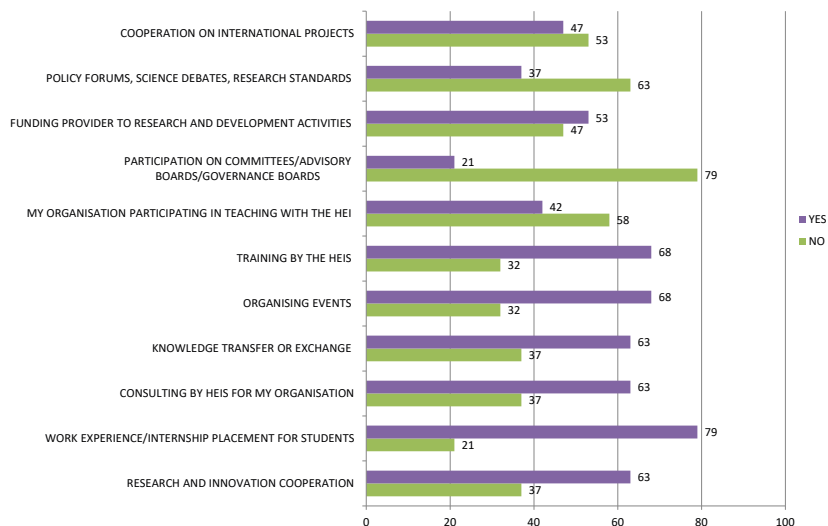


Tab. 8 Intention to cooperate with higher education institutions

TOTAL RESPONSES (19 ENTERPRISES)	YES	NO
RESEARCH AND INNOVATION COOPERATION	12	7
WORK EXPERIENCE/INTERNSHIP PLACEMENT FOR STUDENTS	15	4
CONSULTING BY HEIS FOR MY ORGANISATION	12	7
KNOWLEDGE TRANSFER OR EXCHANGE	12	7
ORGANISING EVENTS	13	6
TRAINING BY THE HEIS	13	6
MY ORGANISATION PARTICIPATING IN TEACHING WITH THE HEI	8	11
PARTICIPATION ON COMMITTEES/ADVISORY BOARDS/ GOVERNANCE BOARDS	4	15
FUNDING PROVIDER TO RESEARCH AND DEVELOPMENT ACTIVITIES	10	9
POLICY FORUMS, SCIENCE DEBATES, RESEARCH STANDARDS	7	12
COOPERATION ON INTERNATIONAL PROJECTS	9	10



Intention to cooperate with higher education institutions (in %)

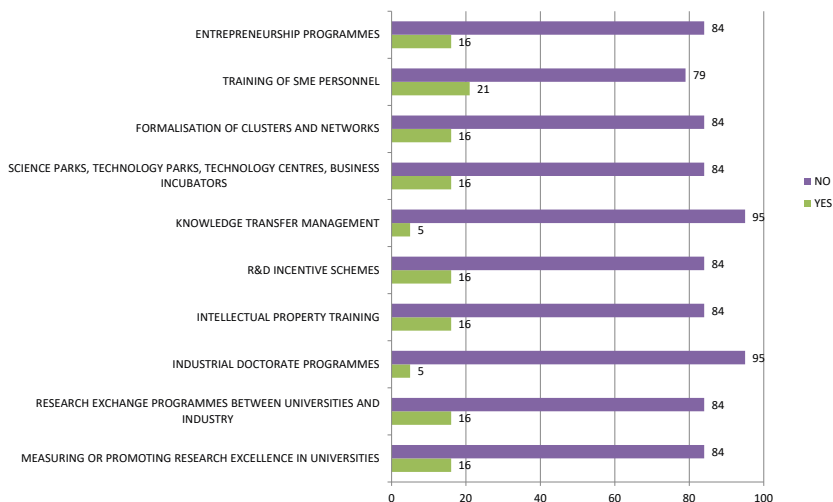




Tab. 9 Awareness of national/regional programmes supporting following activities

TOTAL RESPONSES (19 ENTERPRISES)	YES	NO
MEASURING OR PROMOTING RESEARCH EXCELLENCE IN UNIVERSITIES	3	16
RESEARCH EXCHANGE PROGRAMMES BETWEEN UNIVERSITIES AND INDUSTRY	3	16
INDUSTRIAL DOCTORATE PROGRAMMES	1	18
INTELLECTUAL PROPERTY TRAINING	3	16
R&D INCENTIVE SCHEMES	3	16
KNOWLEDGE TRANSFER MANAGEMENT	1	18
SCIENCE PARKS, TECHNOLOGY PARKS, TECHNOLOGY CENTRES, BUSINESS INCUBATORS	3	16
FORMALISATION OF CLUSTERS AND NETWORKS	3	16
TRAINING OF SME PERSONNEL	4	15
ENTREPRENEURSHIP PROGRAMMES	3	16

Awareness of national/regional programmes supporting following activities(in %)



4.3. MAIN CONCLUSIONS for PRIVATE SECTOR

By analysing data from surveyed companies some general information was achieved. A very important fact was that not only companies with high number of employees were surveyed but also SMEs have been involved in the survey. From surveyed data it can be seen that the cooperation between universities and enterprises is narrow, although the activities are sometimes limited in organizing common events to introduce jobs for prospective students, policy forums or consultation and scientific debates. Activities related to research and innovation, international projects and involvement of managers into teaching process at higher education institutions are not taken into serious consideration.



Very important is the fact that in market-based economy the HEIs have to observe a principle that their training products should be flexible and meet the demand of the labour market. From this point of view enterprises play in Vietnam very important role and the intent for mutual exchange and consultancy between HEIs and surveyed enterprises is highly appreciated and warmly welcomed.

Strengths:

- ★ Internships of students as well as enrolment of suitable graduates in leading enterprises.
- ★ Growing mutual exchange of knowledge and consultancy between HEI's and enterprises.
- ★ Organisation of common events on professional consultation base.
- ★ Knowledge transfer coming in direction from HEIs to enterprises through several training programmes.

Weaknesses:

- ★ Gap between study programmes of HEIs and real needs of the society still exists and leads to unpractical education and research.
- ★ Insufficient research and innovation cooperation of surveyed enterprises with universities.
- ★ Very low participation of experienced representatives of enterprises in teaching activities in universities to avoid possible "re-education" of graduates.
- ★ Lack of information from labour market through websites and other information technologies.



- ★ Weak awareness of companies about international, national as well as regional support programmes.

Final conclusions for the ENHANCE project team:

- ★ Introducing successful models of cooperation between HEIs and enterprises in European countries.
- ★ Sharing experience on building mutually fruitful cooperation between HEI's and enterprises effectively and sustainably.
- ★ Supporting the spirit and activities regarding start-up and spin-off creation for bilateral sustainable development.
- ★ Enhancing mobilities of academic and research staff.
- ★ Pointing out fundraising from international sources (e.g. HORIZON 2020) to attract the research cooperation between HEIs and enterprises for better technology transfer.



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