SCREENING REPORT

ENTREPRENEURSHIP, INNOVATION & STUDENTS TALENT DEVELOPMENT

IFUGAO STATE UNIVERSITY, PHILIPPINES

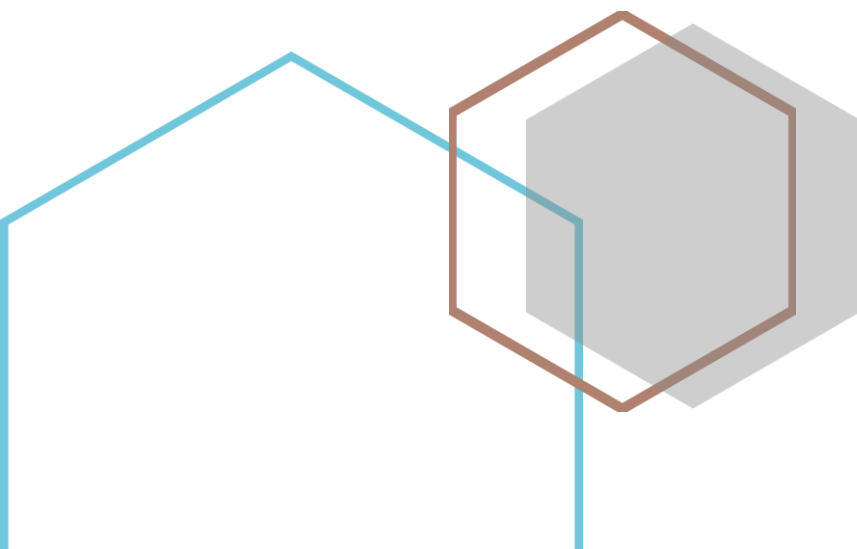**Integrating Talent Development into Innovation Ecosystems in Higher Education**

INNOTAL

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The report aims at providing a clear picture of the University's starting conditions and capacities in the areas of graduates' employability, innovation capacity and talent development. The reports points out the strengths and weaknesses of the institution in these fields. It has been developed by external experts, representative of the INNOTAL partners.

The report can provide insights into the following broad elements of organizational performance of the University:

- organizational motivation, including mission, prevalent culture, incentive structures and support structures
- organizational capacity (structure, physical and financial resources, technology resources, human resources
- leadership, decision-making process, management and inter-organizational linkages); c) organizational performance (financial viability, efficiency, effectiveness, relevance)
- external environment (administrative, legal, social, cultural, economic, political, etc.)
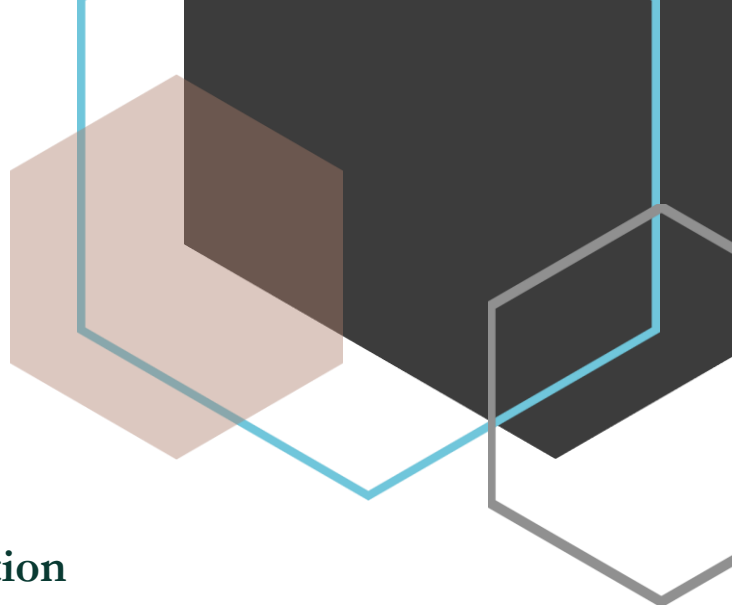
Introduction
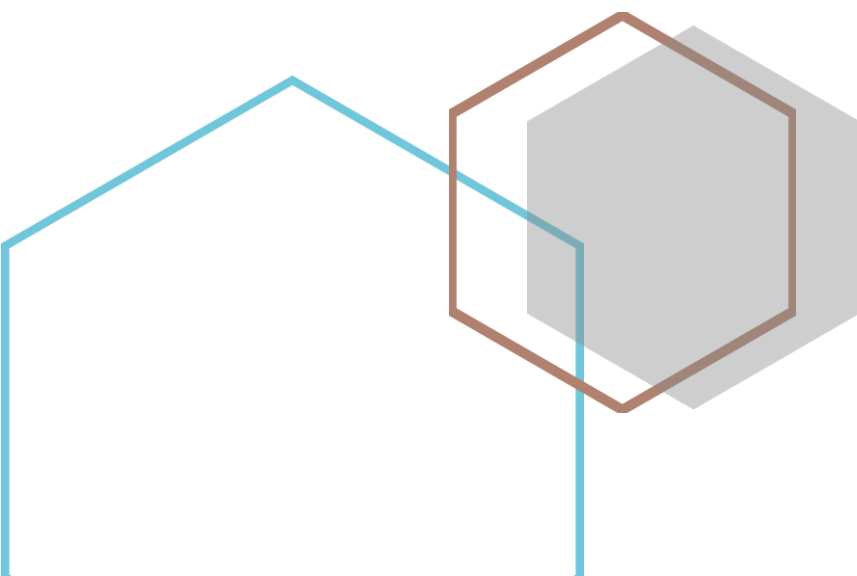
CONTEXT

This report focuses on Ifugao State University (IFSU). Its aim is to provide a clear picture of the university's starting conditions and capacities related to the area of the project. It has been developed using the Scorecard completed for the respective University (Project Output 1.1). This report points out the strengths and development needs of the higher education institution.

There is a noticeable will in the Philippines to increase economic competitiveness. In the past years the government has passed legislative acts and launched initiatives to address innovation, entrepreneurship (especially in SMEs) and education (here we will focus specifically on higher education). The government has, for instance, passed:

- Philippine Innovation Act: the act puts a strong emphasis on innovation in support of the country's development. The act includes the SME aspect e.g. through support programmes.

- Young Innovators programme (YIP), which provides financial assistance to promising researchers

- University Act RA 10931 (in 2017), which provides equal access to quality tertiary education for all citizens, irrespective of their socioeconomic class

- RA 10687: to ensure regional equity in education.

Ensuring equal access, on a general and regional level, to quality tertiary education is crucial. It does not only bring the talents ahead, but it has the potential to narrow the gap on inequality, hence address innovation potential from this point of view.

A notable feature of the entrepreneurship and innovation ecosystem in the Philippines is the great number of start-ups established, unfortunately coupled with a great number of their discontinuation.

This Screening Report outlines the starting conditions and capacities of Ifugao State University (http://ifsu.edu.ph/) to promote graduates' employability and develop students' talent through innovation.

IFSU has performed a survey and provided a set of documents to assist the writing of this report. Further, the author has performed a structured interview with the project team during the First Collaboration workshop of the project.

On the other hand, no information was provided for some of the screening questions as the University lacks centralized system of information and there are no statistical data available.

SCOPE

This Report is produced in the frame of the project's first stage, which is focused on preparatory research and understanding the context in which further capacity building activities shall take place. The purpose is to provide an external assessment of:

- University capacity to provide entrepreneurship education across

various disciplines

- University capacity for innovation
- University capacity for promoting graduates' employability and developing students' talent

The reports aims to provide a clear picture of the University's starting conditions and capacities related to graduates' employability, innovation and talent development. The report has been developed on the basis of the scorecards developed in the frame of the INNOTAL project.
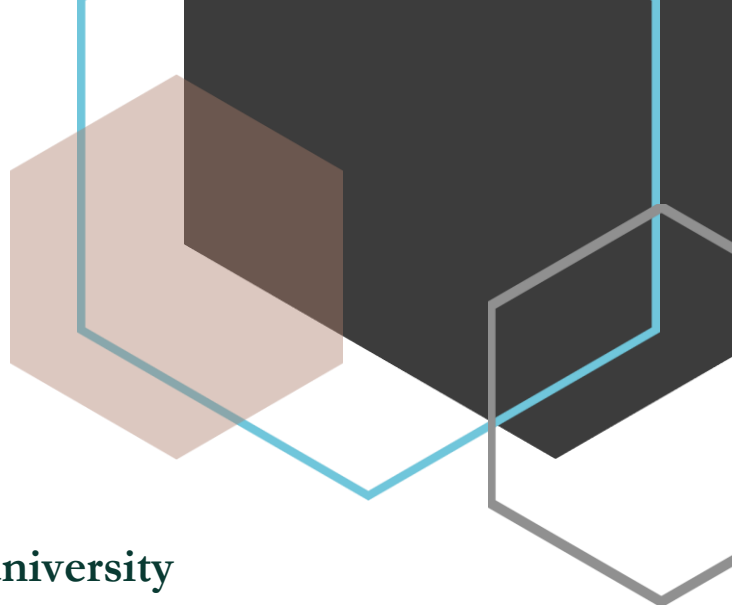
Profile of the university
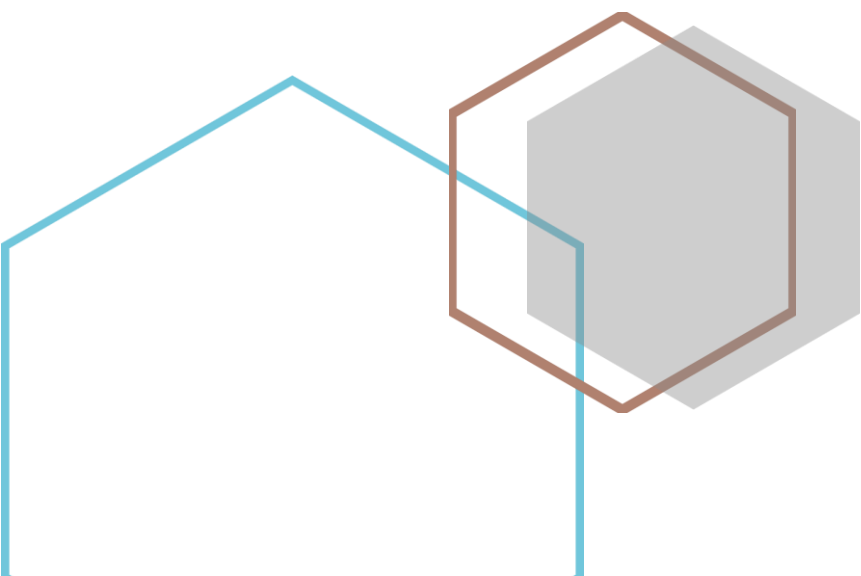
ESTABLISHMENT AND GOVERNANCE

Ifugao State University (IFSU) is the premier institution of higher learning in the Province of Ifugao and was recognized as a Level IV state university in 2016.

IFSU started in 1920 as a Farm Settlement School. In 1959, it was renamed as Ifugao Pilot Opportunity School for Agriculture (IPOSA). In 1967, the high school department was established and subsequently renamed as Payon Bugan Pilot Opportunity School of Agriculture (PBPOSA). In 1972, it was elevated into Ifugao Agriculture and Technical College (IATC) offering secondary and tertiary/undergraduate courses. In 1982, it was further expanded into Ifugao State College of Agriculture and Forestry (ISCAF) offering various Baccalaureate and Masters courses. The quest for university status started in 2003, with the expansion of programs to other fields in the baccalaureate, masters and doctorate levels. In 2007, ISCAF was declared as a Level III State College. Immediately thereafter, a bill for its conversion into a university was filed in the House of Representatives.

On October 14, 2009, Republic Act No. 9720 was signed into law formally converting ISCAF into what is now known as Ifugao State University (IFSU) with campuses in Lamut (Main Campus), Aguinaldo, Hapao (in Hungduan), Lagawe, Potia (in Alfonso Lista) and Tinoc.

The formal launch of IFSU was on January 6, 2010 with the adoption of its Implementing Rules and Regulations (IRR), the University Code and University Development Plan.

As a comprehensive State University, IFSU offered more curricular programs and expanded some of the old ones via innovative and blended learning approaches under its Open Distance and Transnational Education System, attracting students all over the country and in the Asia Pacific region.

Ifugao State University has thus come a long way from a settlement farm into a university. Today it offers education in tourism, agriculture, education, arts, psychology, business, computing, criminology, nursing, public administration and engineering. The curriculum comprises subjects that are related to entrepreneurship.

The importance of research is recognized and the University's Research and Development manual outlines all the policies and procedures to Research and Development (source: http://ifsu.edu.ph and the IFSU project team input).

MISSION AND VALUES

The mission of the University is:

"To provide quality education, research and extension services to bring about educated and morally upright individuals endowed with professional and entrepreneurial skills who will take the lead in enhancing sustainable development towards improved quality of life."

The University subscribes to the values: integrity, faith, service, unity, patriotism, equality, accountability, creativity, and excellence.

IFSU has five (5) development goals:

- Goal 1 – Pursue excellence in instruction;
- Goal 2 – Pursue excellence in research and development;
- Goal 3 – Pursue excellence in extension and training;
- Goal 4 – Pursue excellence in resource generation; and
- Goal 5 – Pursue excellence in administration and governance.

Strategic Objectives

1. To upgrade the quality of instruction.
2. To upgrade the quality of instruction-support services.
3. To build the capacity of human resources in R&D.
4. To intensify the conduct of research in line with the specialization & mandate of the university.
5. To increase the visibility of research outputs in the local, national and international arena.
6. To generate, package and patent relevant technologies/systems/programs.
7. To package and transfer relevant knowledge and technologies responsive to target communities.
8. To intensify the monitoring, evaluation and impact assessment of extension programs.
9. To intensify linkages and networking with other institutions at local, regional, national and international levels.
10. To build the capacity of human resources for extension and training.
11. To enhance Income Generating Projects and utilize them for the conduct of employees' and students' research and the extension services of the university.
12. To provide employment opportunities to students and graduates of IFSU and the community.
13. To continue modernizing offices and processes.
14. To continue improving administrative proficiency and financial management.
15. To continue adhering to good governance conditions.

Accomplishments have been measured through key performance indicators and targets by Major Final Outputs (MFO), Support to Operations (STO) and General Administration and Support Services (GASS) in accordance to the University's Performance-Informed Budget for the period.

The university is a public state university. Hence, the national legislation does impact it. The Organizational Structure is shown in Figure 1.

Organisational structure of IFSU
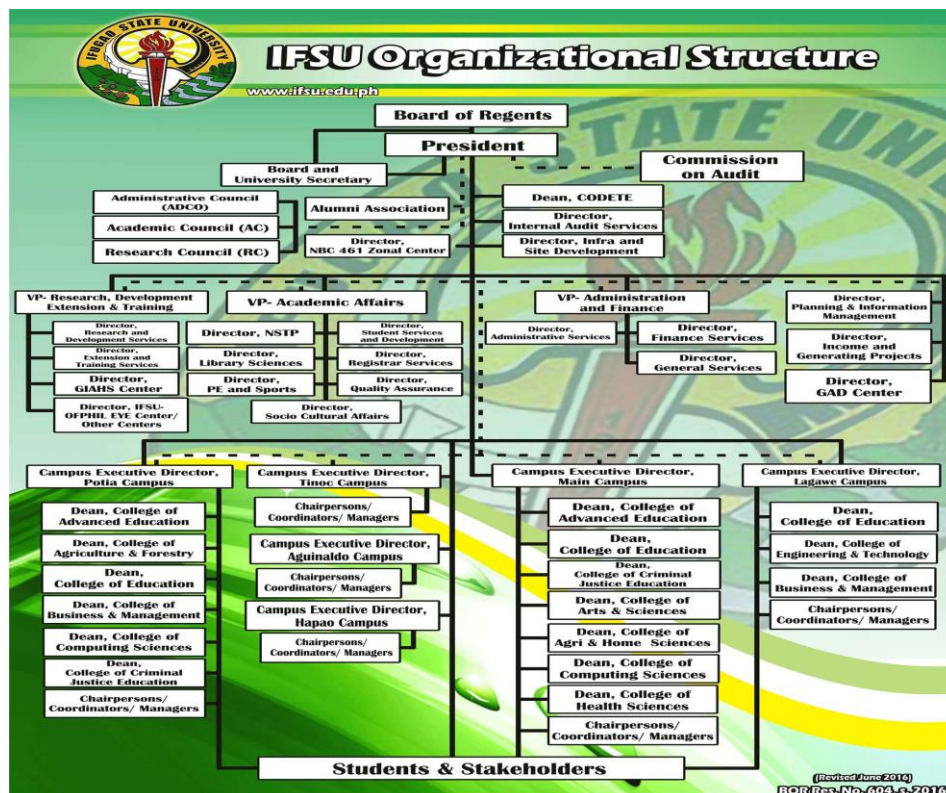
Degree of autonomy (decisions concerning academic affairs and financial issues, e.g. student fees, non-public funding, management of real estate)

IFSU gained its university status under Republic Act No. 9720 signed by Her Excellency, President Gloria Macapagal-Arroyo on October 14, 2009. According to the provisions of the university charter, the university enjoys full autonomy in decision making and governance.

The Board of Regents, the governing board of the University, promulgates and implements policies in accordance with the declared State policies on education and other pertinent provisions of the Philippine Constitution on education, agriculture, science and technology, as well as policies, standards and thrusts of the CHED under Republic Act 7722, otherwise known as the "Higher Education Act of 1994."

The university follows quality standards (ISO) and e.g. the issuance of the Administrative order No. 25.

Number of students (bachelor, master and PhD)

The University has six campuses. The main one is in Lamut while the external campuses are located in Lagawe, Potia, Tinoc, Aguinaldo and Hapao. For the academic year 2017-2018, the university has a total of 4,711 enrolled students during the first semester and 4,597 during the second

semester.

Figure 2. Distribution of students per campus per semester A.Y. 2017-2018

Campus	Bachelor's Degree		Master's Degree		Doctorate Degree	
	1st sem	2nd sem	1st sem	2nd sem	1st sem	2nd sem
Lamut	1,846	1,509	297	346	21	25
Lagawe	960	820	25	25	-	-
Potia	961	861	78	101	-	-
Tinoc	100	94	-	-	-	-
Aguinaldo	69	39	35	40	-	-
Hapao	51	8	21	14	-	-
CODETE	-	-	149	146	98	111
Total	3,987	3,331	605	672	119	136

Based on the records of University Registrar A.Y. 2017-2018

Number of academic staff (teaching and research)

The university has a total of 266 faculty members, 205 of whom are permanent and 61 are non-permanent (contract of service and guest faculty). Of the whole, 49 are presently engaged in research.

Figure 3. Distribution of academic staff per appointment per campus

Appointment	Lamut	Potia	Lagawe	Aguinaldo	Hapao	Tinoc
Permanent	96	48	44	6	3	8
Temporary	7	8	6	3	3	3
Contract of Service	15	4	7	2	1	2
Total	118	60	57	11	7	13

Based on the latest available data from HRMDO as of August 2018

62 faculty members have graduated with Master's Degree, while 41 are currently enrolled in different national institutions. 56 faculty members have graduated with doctoral degrees while 66 are currently enrolled.

Figure 4. Number of faculty members who graduated or are currently enrolled in Master's Degree and in Doctoral Degree

Institution	Master's Degree		Doctoral Degree	
	Total No. of Faculty Graduated	Total No. of Faculty Currently Enrolled	Total No. of Faculty Graduated	Total No. of Faculty Currently Enrolled

National Institutions:				
1. University of the Philippines	18	1	2	5
2. State Universities and Colleges	41	20	27	25
3. Private Universities/Colleges	-	20	27	36
Foreign Institutions				
Asia	3	·	-	-
Australia	-	·	-	-
Europe	1	·	-	-
North America	-	·	-	-

*Based on the latest available data submitted by HRMDO

Number of administrative support staff

There are 279 administrative support staff at the university. Of the total, 122 have permanent work status while 157 are non-permanent (contractual).

Figure 5. Distribution of administrative support staff per appointment per campus

Appointment	Lamut	Potia	Lagawe	Aguinaldo	Hapao	Tinoc
Permanent	72	25	17	3	1	4
Temporary	-	-	-	-	-	-
Contract of Service	98	20	24	3	6	6
Total	170	45	41	6	7	10

*Based on the latest available data from HRMDO as of August 2018

Budget

In 2018, the University was allotted a budget of PhP 381,624,000.00 from the national budget for State Universities and Colleges (SUCs) in the Cordillera Administration Region (CAR), second highest to Benguet State University.

ROLE OF THE UNIVERSITY IN ITS REGION

IFSU has the functions of a regional university. It is linked in many ways to the surrounding society, including:

- Educating skilled workforce and researchers
- Research, including research and development centres, laboratories, facilities and a demo-farm
- Farming: renting land to farmers

- Boosting entrepreneurship in the region and maintaining linkages with partner-agencies, business enterprises, SMEs, civic and other organisation

- Providing funding to talented students with no financial resources.
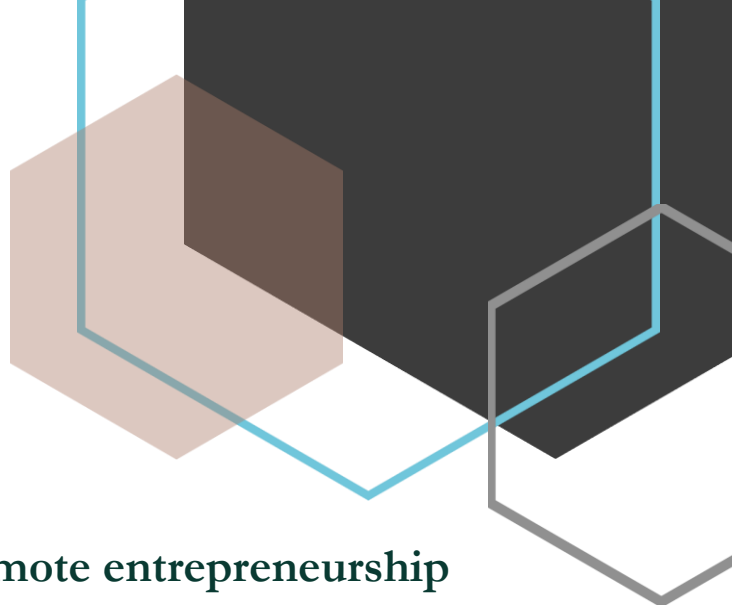
Capacity to provide and promote entrepreneurship education

2.1. Relative number of bachelor/master/post-graduate programs offering entrepreneurship courses/training
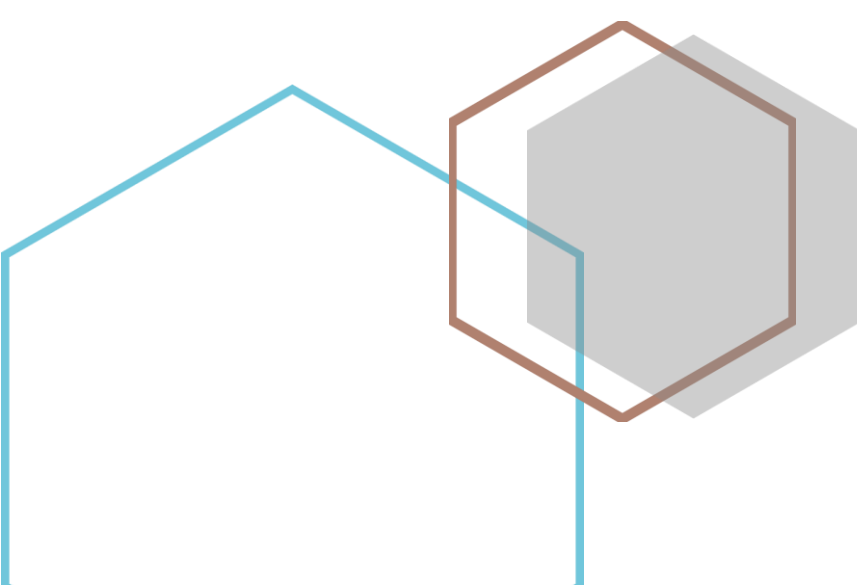
The University has 49 undergraduate programs across campuses, and the curricula of programmes (e.g. agriculture) include subjects related to entrepreneurship (e.g. in the College of agriculture and home sciences & the College of business and management. Students have the possibility of internships in local and international business establishments, there are entrepreneurship related competitions (e.g. bookkeeping, project proposal making), and IFSU has different facilities and centres, e.g. science laboratories, rice wine laboratory, demo-farm, hotel/hostel, food services for instruction/on-the-job-training, etc. to support entrepreneurial development.

However, the University was not able to specify a specific number of programs that include a clear entrepreneurial element. During the course of the project, IFSU introduced two new programs - Bachelor of Science in Entrepreneurship and Bachelor of Science in Business Administration major in Entrepreneurship. This issue needs to be addressed during the next stages of the project.

2.2. Relative number of students in bachelor/master/post-graduate entrepreneurship programs

IFSU offers Bachelor of Science in Entrepreneurship and Bachelor of Science in Business Administration major in Entrepreneurship in its satellite campuses but lacks enrollees as yet.

2.3. Relative number of staff teaching entrepreneurship courses

The University was not able to specify the number of staff members that teach entrepreneurship-related courses.

2.4. Relative number of entrepreneurship-related research projects

There are research studies related to business entrepreneurship and management. However, the number of entrepreneurship-related research projects is minimal. However, there are cases of successfully commercialised technologies where the research conducted has led to the commercial application of technologies, e.g. in bio-organic fertiliser, Bayah (Rice wine), and dragon fruit–pineapple wine.

2.5. Relative number of bachelor/master/post-graduate entrepreneurship courses in which case studies or study visits are used to enhance learning

The University has not been able to specify the number of such courses.

2.6. Support for entrepreneurship and entrepreneurship education are included in the mission or core strategy of the university (Yes/No)

Yes. It is included in the mission and strategic objectives of the

University.

The mission statement of the University explicitly refers to the development of entrepreneurial skills. Entrepreneurship appears to be perceived an important element of the core activities of the University and its role in the region.

2.7. There is an institutional strategy on entrepreneurship education (Yes/No)

The university does not have a dedicated strategy on entrepreneurship education. However, elements of such a strategy are included in the developmental plans and the key policies of the University, such as the Research and Development manual which is regularly updated as part of the IFSU code. This RD manual defines all policies related to R&D. In addition, the university has a policy on Intellectual Property Rights.

The University has recently elaborated a new 8-year development plan. It sets new goas, focused on 10 key areas:

- academic excellence
- comprehensive internationalization
- strong research leadership and culture
- sustainable extension and community engagements
- efficient resource generation and mobilization
- dynamic human resource management and development
- tech4dev: technologizing IFSU
- lean, green, safe and GAD-responsive university environment
- excellent public service and good governance
- cultural heritage conservation.

The University aims to establish income-generating projects to operate as self-sustaining entities and serve as a training ground for students. These entities can be used to develop students' technical, managerial and manipulative skills, support research and extension and showcase different technologies for clients to emulate. There are organizations of young entrepreneurs at the university such as Future Agriculturists and Entrepreneurs of the Philippines (FAEP) and Enactus IFSU (Social Entrepreneurship).

2.8. The university involves (officially or unofficially) employers or labour market institutions in:

- curriculum development: Yes
- teaching: Yes
- participation in decision-making or consultative bodies at institutional level: Yes

The University has not provided more details about the involvement of employers.

2.9.   Relative number of staff that has participated in entrepreneurship training

The University has been unable to provide such information.

2.10.   Relative number of industry or business practitioners involved in delivering entrepreneurship courses in bachelor's/master's/post-graduate degree

The University has been unable to provide such information.

2.11.   Relative number of university employees who also have (temporary) work contracts in industry/business

As of September 2018, 10.90% (29 out of 266) of the university employees have (temporary) work contracts in industry/business.

2.12.   Existence of opportunities for staff mobility (including adjunct faculty) across the university-business divide

Such mobility is in principle allowed and the University could take advantage of it.

The University supports the professional development of its staff in its quest for academic excellence, including through staff mobility across the university-business divide. The staff members, both teaching and non-teaching staff, are sent to local and international seminars, trainings and workshops, which serves to improve their skills and to allow them to benefit from sharing experience.

.13.   Existence of university entrepreneurship centres supporting university-business relations and entrepreneurship in general

The following structures exist at IFSU:

- Research and development centres
- Demo-farm
- Science laboratories
- Internet laboratories
- Rice-wine laboratories
- Hotel/hostel, food services for instruction and on-the-job training
- Income generating facilities (i.e. piggery, poultry, bakery, etc.)
- Internet connectivity

These structures are facilitated by IFSU maintaining relations and linkages with partner agencies, business enterprises, SMEs, civic and

other organisations.

2.14. Provision of support to bachelor/master/post-graduate students for access to internship and/or placement schemes

The University provides support to the students for the processing of documents for training in industries and the government sector. Faculty also provides monitoring and moral support needed in internships and/or placement schemes. Financial support is subject to the availability of funds.

2.15. Real case studies provided by business/enterprises are included in entrepreneurship teaching

One teaching strategy of the academic staff is the integration of real case studies into learning in order to deepen students' entrepreneurial knowledge and skills and to expose them to real world situations.

2.16. A competence-based approach is used to assess the results and impact of studies

The University prioritizes the academic growth of students and the development of their research and professional through the use of competence-based approach.

2.17. The university monitors the development of students' soft skills (leadership, teamwork, communication, etc.)

The Department of Student Services and Development is in charge of devising programs that help students to improve and enhance their capabilities through trainings, symposiums, and seminar workshops. This department provides guidance and counselling.
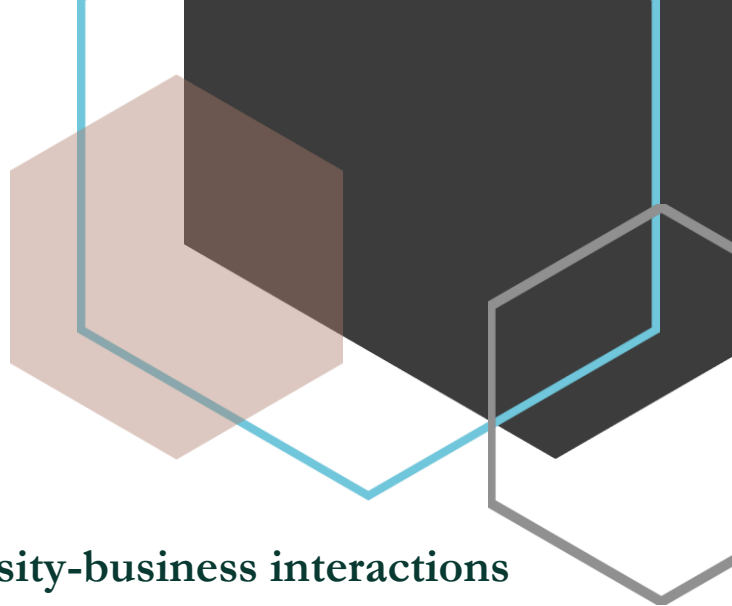
Innovation capacity and university-business interactions
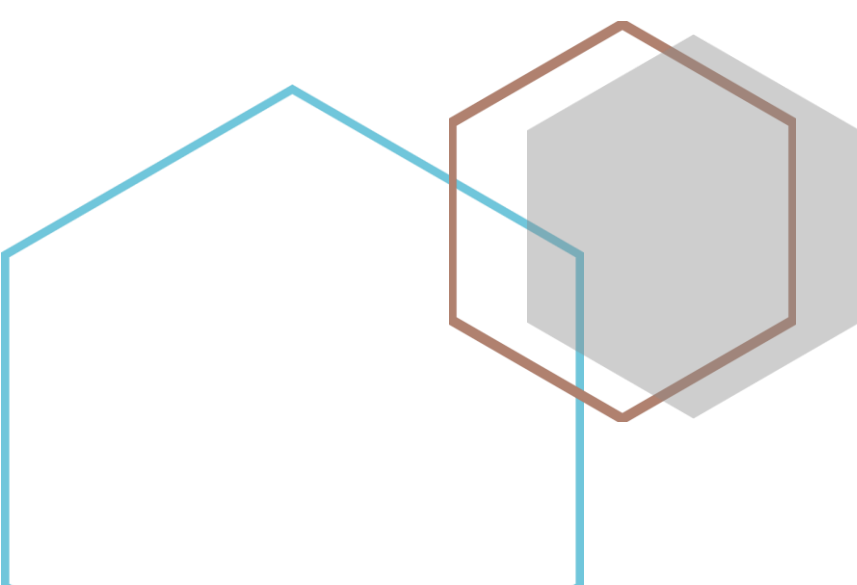
3.1. **R&D expenditures as a share of total university's budget** = [R&D expenditures - local currency] / [Total university budget - local currency] (%)

PhP 8.827.000 /381.624.000,00 total university budget in 2017)

= 0,023 (100%)

= 2,3%

3.2. **Ratio of total grant funding and funding from external sources to full-time employed academic staff**

The University has been unable to provide such information.

3.3. **Relative number of spin-off firms supported by the university per full-time employed academic staff**

0%

3.4. **Proportion of academic staff holding international and national research grants**

Out of 239 full-time academic staff members at the university, 6% (15) hold international and national research grants. Most of the research grants are from government agencies and international foundations.

3.5. **Proportion of academic staff holding industry research grants**

0%

3.6. **Number of weighted publications per full-time employed academic staff (averaged over the last 3 calendar years)** [Average number of publications of full-time employed academic staff at the university over the last 3 calendar years] / [Total number of full-time employed academic staff] (%)

The number of weighted publications per full-time employed academic staff at IFSU is 25%.

Additional information

Table 12. Target Accomplishments as Per Key Performance Indicators

	Target (As Planned)	2013 Baseline	2014	2015	2016	2017	Accom-plishment Rate*
No. of researches completed in the last 3 years	105	49	69	99	85	106	101%
% of research outputs published in refereed journals/patented/submitted for patenting in the last 3 years	66%	53%	58%	65%	63%	66%	100%
% of researches completed according to the timeframe	100%	100%	100%	100%	100%	100%	100%

*% of accomplishment above target.

3.7. **Number of citations in Scopus and Google Scholar database per full-time employed academic staff (averaged over the last 3 academic years)** [Average number of citations in Scopus and Web of Science database of full-time employed academic staff at the university over the last 3 academic years] / [Total number of full-

time employed academic staff] (%)

The number of citations in Scopus and Google Scholar database per full-time employed academic staff is 2-3 %

3.8. **Relative number of intangibles in the form of patents, licenses, copyrights, trademarks, policy recommendations, etc. per full-time employed academic staff** [Number of intangibles in the form of patents, licenses, copyrights, trademarks, policy recommendations, etc. of full-time employed academic staff and the university] / [Total number of full-time employed academic staff] (%)

62 patents /301 total number of full-time employed academic staff = 20.6%.

3.9. **Support for innovation and regional development is included in the mission or core strategy of the university** (Yes/No)

The University's new development plan is conducive to innovation as it prioritizes academic excellence; comprehensive internationalization; strong research leadership and culture. The same plan is also conducive to the promotion of regional development as it includes also a focus on sustainable extension and community engagements.

3.10. **There is an institutional strategy on innovation, innovation support or knowledge transfer to the external environment** (Yes/No), please describe

The University does not appear to have a dedicated and focused strategy in these areas, but it addresses them in the general development plans of the institution. The development of a separate strategy in these areas is likely to bring about an even more effective approach.

The university seems to have a strong innovation culture. This is supported by educational solutions and topics, research, investment in the development of the staff, various centres and laboratories, and connections to the surrounding society. In addition, the university ranks high in many educational achievements, which may impact positively on the innovation culture of the university. Besides education, other avenues for student talent development, e.g. on-the-job training, are provided. The university reflects monthly on programs for students' skills and talent development, student organisations support the activity as well.

The number of researches completed annually has increased reaching the aim set in 2017, and research projects have been completed on time.

Research is linked to real work issues and – notably – leads to the commercialization of technologies, e.g. bio-organic fertiliser, Bayah

(rice wine) and Dragon-fruit-pineapple wine.

There is a strong will to develop the excellence of staff. The university believes in investing in staff. In recent years there has been an increase in Master and Doctoral degrees among staff.

Innovation is increased as the university is connected to the surrounding society on local, region, national and international level. For instance, it reaches annually out to the communities and other stakeholders to improve the quality for their lives, and every year the number of beneficiaries of extension services increases both for trainings and technical advisory services. According to many analysts, connection to society is regarded as an element to improve the innovativeness level of the university (e.g. due to cross-fertilisation).

IFSU has invested greatly in building its technology transfer capacity. Investment has focused on improving the level of skills of the employees, and in investing infrastructure, i.e. library services and ICT.

3.11. Implementation of research and research training planning and policy

The university has a Research and Development manual which is regularly updated as part of the IFSU code. This RD manual defines all policies related to R&D. In addition, the university has a policy on IPR.

3.12. The University provides financial resources in the form of seed funding (Yes/No)

In Income Generating Projects funding or seed capital for new projects may be sourced out from the funds of existing projects, provided that the same amount shall be returned to the respective project where the amount was borrowed.

3.13. There is a clear IPR policy followed by the university in its relations with economic agents (Yes/No)

Yes, there is an approved policy on IPR. There Ris a step-by-step procedure in application for patentable/copyrightable works. All applications are evaluated first by an R&D staff member to be submitted to the Intellectual Property Office of the Philippines (IPOPhil), a government agency responsible for the registration of intellectual property and conflict resolution of intellectual property rights in the country. A Certificate of Registration will be issued to the author/s once the work is published.

The University has not provided their detailed IPR policy in order to enable the project teams to judge the extent of development of the IPR policy.

3.14. Do the faculty attestation rules envisage rewarding of applied research for industry/local development (Yes/No)

Cash incentives are given to researchers for every paper presented or published.

3.15. **Existing rules about modernization of curricula in view of new challenges, national priorities and business needs** (Yes/No)

The University responds and addresses the needs of the time specifically the DepEd K to 12 Basic Education Curriculum. It adheres to the CHED Memorandum on policies and standards governing program curricula which is issued every five years.

The University has not provided more concrete information.

SUPPORT STRUCTURES AND LINKAGES FACILITATING INNOVATION AND UNIVERSITY-BUSINESS INTERACTIONS

3.16. **Existence of university structures facilitating links with industry and local community or structures in which the university is collaborating with external economic actors or the local community**

- university research laboratories (owned or shared with other entities): Yes

- technological parks: not yet, but coming

- technology transfer offices: Yes

- incubators: Yes

- accelerators: Yes

- applied research centres: Yes

- research and development units: Yes

3.17. **Legal possibility for researchers to become engaged in research supported by industry** (Yes/No)

Researchers are allowed to engage in industry supported research.

HUMAN RESOURCES CAPACITY FOR INNOVATION AND UNIVERSITY-BUSINESS INTERACTIONS

3.18. **Proportion of students in bachelor's/master's/post-graduate programs involved in research projects (averaged over the last 3 academic years)** [Average number of bachelor/master/post-graduate students involved in research projects over the last 3 academic years] / [Total number of bachelor/master/post-graduate students] (%)

The University has been unable to provide numeric data.

Research is a compulsory subject across all disciplines at the University. The students can pick a topic of their choices (but limited to the scope of their courses) and can work individually or in a group. They are also allowed to make use of the available research and extension facilities of the University.

Moreover, students can be junior researchers involved in research programs and projects. Financial or material support is granted if funds are available. This is intended to strengthen students' research

capabilities by providing financial or material assistance.

There is a University Research and Extension Exposition Forum (by Category) that serves as an avenue for students to present their researches and extension projects/activities. A plaque of recognition and cash awards are given to the most outstanding researcher and extensionist.

3.19. **PhD degree completions per full-time employed academic staff (averaged over the last 3 academic years)** [Average number of PhD students at the university over the last 3 academic years] / [Total number of full-time employed academic staff] (%)

The University has been unable to provide such information.

3.20. **Proportion of PhD completions within planned schedule (averaged over the last 3 academic years)** [Average number of PhD students, who defended their PhD thesis within planned schedule at the university over the last 3 academic years] / [Number of university PhD students, who defended their PhD thesis, and students, who were not able to defended their PhD thesis] (%)

The University has been unable to provide such information.

- Research and development priorities

The R&D functions of the University are geared towards countryside development. They are designed to facilitate the development of rural community and agricultural farming practices through generation, verification and adaptation of appropriate technologies to increase agro-industrial productivity, as well as to seek new knowledge and alternatives for the maintenance of a balanced ecosystem and the improvement of professional services. The program components of research include basic and applied research in the following priority areas: (1) Sustainable Crop Production, (2) Sustainable Animal Production, (3) Inland Aquaculture/Fisheries, (4) Support to Agriculture, (5) Floral and Faunal Diversity, (6) Reforestation/Afforestation Conservation Farming and Forest Protection, (7) Engineering and Physical Science, Industrial Technology, (8) Small Scale Industry Development, (9) Education, Languages, Social Sciences and the Humanities, (10) Peace and Order, Risk Reduction, (11) Climate Change Mitigation and Adaptation, (12) Health Care and Medicine, Alternative Medicine, Food Nutrition and Safety, Product Development, (13) Gender and Development Areas, (14) Other areas needed by the community and those that cater to the interest of the students and faculty members.

- Innovation culture at the university
  - research for solving real-world problems
  - engaging academic staff in innovation activities that correlate with their academic disciplines
  - comprehensive innovative process that incorporates

technology development and commercialization efforts.

The university seems to have a strong start for innovation culture. This is supported by educational solutions and topics, research, investment in development of the staff, various centres and laboratories, and connections to the surrounding society. IFSU's Code includes a Research and Development Manual, and the university appears to have an approved policy for Intellectual Property Protection.

Besides education, there are other avenues for student talent development, e.g. on-the-job training, and the university reflects monthly on programmes for students' skills and talent development. Student organisations support the activity as well.

The number of research studies completed annually has increased in 2017, and research projects have been completed on time.

The university is connected to the surrounding society at local, region, national and international level. For instance, it reaches annually out to communities and other stakeholders to improve the quality for their lives, and every year the number of beneficiaries of extension services has increased both for trainings and technical advisory services.

- Rewarding faculty innovation and entrepreneurship
  - celebrating faculty achievements
  - updating tenure and sabbatical leave guidelines
  - supporting, rewarding, and funding the work of faculty members.

The university acknowledges the efforts of faculty members who have contributed in the innovation and entrepreneurship aspects. A distinguished service award is given to project managers who have contributed to the growth and development of a program for the production year and an incentive in the form of cash is given to project managers who have exceeded their target yield/income for the production year.

Researchers whose research paper/articles are presented (oral or poster) and are chosen and ranked as best papers/posters during the Agency In-House review, regional, national and international R&D symposiums may be given incentives, subject to availability of funds. Scientific papers presented in public fora and conferences are also given incentives, subject to availability of funds. Similarly, scientific papers published in journals, books, and magazines are also given incentives.

IFSU conducts a search among its rank and file for Outstanding Researcher and Outstanding Extension Worker to recognize contributions in the field of research and development and extension services of the University. The search aims to motivate and honor those engaged in research and extension. The award is given annually during the University Charter Day.

A sabbatical leave is a privilege granted to a faculty member who has demonstrated above average ability in instruction, scholarship, research, or other creative accomplishment as published work, in his teaching or over-all

performance.

- Public-private partnerships in which the university is engaged.
    - sharing of best practices and new ideas for developing and commercializing new products
    - involving community leaders and local entrepreneurs in the development of technology and start-up companies
    - foundations or NGOs affiliated to the university

The University has maintained partnerships with government agencies (municipal, provincial and regional level), private individuals/organizations, non-government organizations, academic institutions and foundations both local and international.

- Engaging with industry
    - collaborations aimed at obtaining research and technology development ideas, capital, and other types of support
    - licensing policy
    - long-term partnerships with large corporations
    - industry presence on campus
    - multi-disciplinary projects
    - internships with industry.

The university has successfully commercialised research technologies, e.g. bio-organic fertiliser, Bayah (rice wine) and Dragon-fruit-pineapple wine. It works connected with stakeholders, and students have the possibility for on-the –job-training OJT).
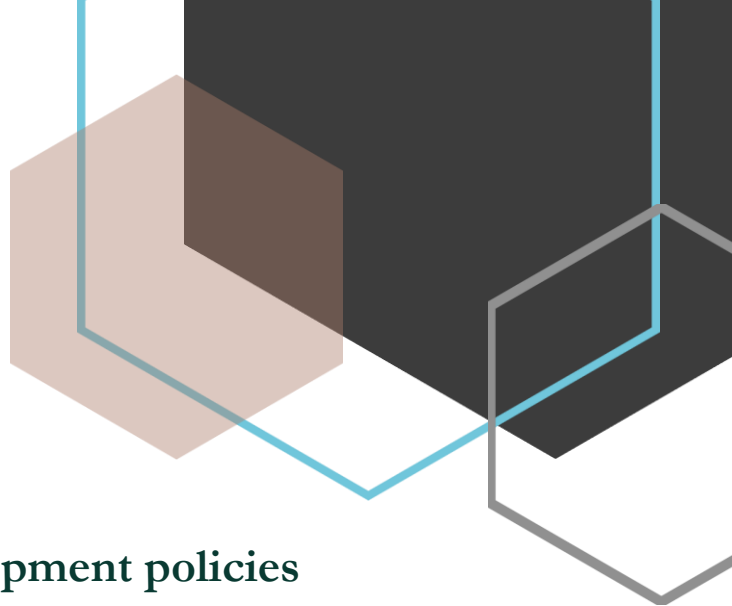
Student talent development policies
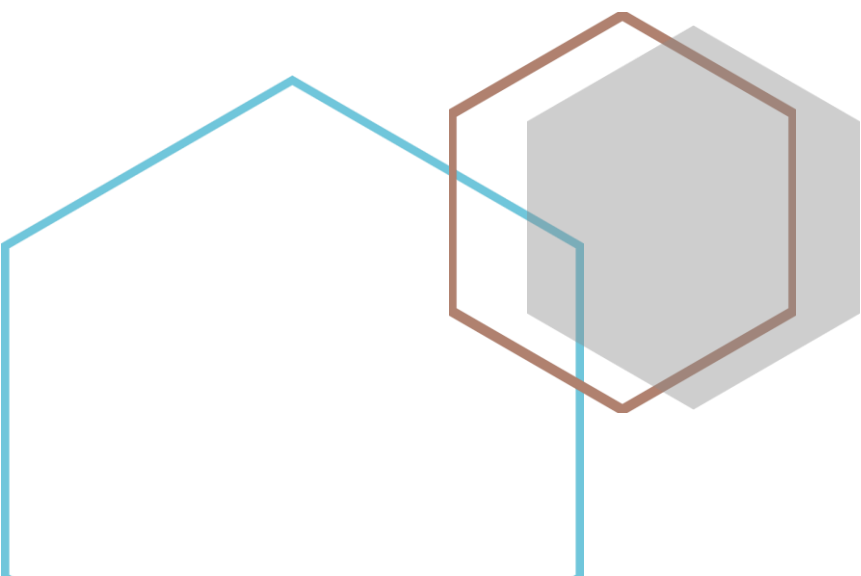
4.1. **A marketing strategy for attracting talented students exists at the university** (Yes/No)

Yes, there is such as strategy. The University attracts talented students through the creation of different student organizations; extra-curricular activities such as sports fest and socio-cultural contests; extension training programs; scholarship grants; awards and recognition; and facilities and equipment.

IFSU sends students abroad through University Mobility in Asia and the Pacific (UMAP) exchange programs.

4.2. **Share of foreign students in total number of students enrolled** [Number of foreign bachelor/master/post-graduate students enrolled at the university] / [Total number of bachelor/master/post-graduate students at the university] (%)

As of to date, there are 21 foreign students enrolled in the University offshore and onshore programs; hence the share is very low.

4.3. **Share of students that started work in their field of study within 6 months after graduation/or board exam** [Number of students that graduated during last academic year and started work in their field of study within 6 months after graduation/or board exam] / [Total number of graduated students during last academic year at the university] (%)

Students take a licensed exam 6 months after graduation. No information about their ability to start work within the same period or shortly after that exists.

4.4. **Student-teaching staff ratio** [Total number of students] / Total number of faculty and staff involved in teaching]

4711 Number of students/ 266 Faculty and staff involved in teaching

= 17.71

= (Ratio) 1:17

4.5. **Existing students' enrolment and services office**

The University has a Registrar, a Department of Student and Services and Development, a Clinic, a Guidance Office, and College Deans.

The Department of Student Services and Development is in charge of guidance and counselling, student organizations and activities, student housing, student publication, scholarships and financial assistance, campus ministry, socio-cultural affairs, and alumni affairs.

4.6. **Existing quality management system for academic excellence**

The University follows a quality management system. Unfortunately, no additional information has been provided.

4.7. **Existing options for part-time/distance /flexible learning at the university** (Yes/No)

Yes, options for part-time/distance /flexible learning exist at the

University.

Various distance educational models provide time and geographic flexibility for learning. IFSU is being supported by the University of the Philippines – Open University (UP-OU) in strengthening its blended mode of teaching-learning. Open Distance and Transnational Education has grown notably.

The University is committed to deliver inclusive global education to target learners constrained by time, work, space and distance through blended learning and maximum use of technology. The College of Open Distance & Transnational Education (CODETE) is offered in Baguio/Benguet, Aklan/Kalibo, Bacolod, Capiz/Roxas, Iloilo and Thailand (http://ifsucodete.edu.ph/).

CODETE offers the following programs: Doctor of Philosophy in Educational Management, Doctor of Philosophy in Management, Master of Arts in Teaching, Master of Arts in Education, Master in Public Administration, Master in Business Administration, Master of Arts in Nursing and Diploma in Teacher Education.

Figure 5. Distribution of College of Open Distance Education and Transnational Education (CODETE) students per area per semester A.Y. 2017-2018

Area	1st semester	2nd semester
Baguio/Benguet	119	144
Aklan/Kalibo	-	-
Bacolod	80	80
Capiz/Roxas	-	-
Iloilo	28	13
Thailand	20	20
Total	247	257

4.8. **Existing strategy for residential environment improvement, including dormitories for students, active student welfare office, sport facilities** (Yes/No) – please specify

IFSU provides high-quality non-academic support services to its students. These cover, e.g. registration and admission, guidance and counselling, student housing, scholarship, food services, health services, accounting and cashiering services, students' organisations, and student publication, to provide holistic service and care for students. The satisfaction of students with provided services is notably high, standing at 97%.

4.9. **Existing health service at the university premises** (Yes/No)

There is a school clinic in every campus that is tasked with providing

primary medical care to students, faculty and personnel and the community and with ensuring a healthy working environment for the students, employees and faculty members. In addition, IFSU has an eye center located at Potia wherein at least 1,461 patients with eye problems have been treated from June to August 2018.

4.10. **Share of approved applications for university dormitories or for provision of support for student accommodation** [Number of approved applications of bachelor/master/post-graduate students for university dormitories or for provision of support for student accommodation] / [Total number of applications for university dormitories or for provision of support for student accommodation submitted by bachelor/master/post-graduate students at the university] (%)

The rate of student village occupants is decreasing because some of the cottages in the village are under repair, others have been demolished for reconstruction. The rising number of dormitories and apartments nearby the campuses might also be the reason. Figure 6 shows the summary report of student village occupants recorded by student housing section chief in the main campus.

Figure 6. Distribution of Student Village Occupants per semester

Name of the Village	2012-2013		2013-2014		2014-2015		2015-2016		2016-2017	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd
Hungduan	134	137	135	138	101	92	89	83	42	37
Banaue	49	45	41	44	32	32	22	22	10	8
Kalanguya	61	66	51	57	76	76	65	61	38	35
Ayangan	43	39	36	48	35	32	25	23	17	16
Mayoyao	19	18	16	17	29	29	27	22	3	0
Lamut	41	44	43	45	36	34	28	24	19	17
Total	**347**	**349**	**322**	**349**	**309**	**295**	**256**	**235**	**129**	**113**

4.11. **Existing support service for reducing debt load of students** (Yes/No)

Since 2017 student study free of charge. The current administration has passed the bill granting free tuition in State Universities and Colleges, the Republic Act No. 10931 or otherwise known as Universal Access to Quality Tertiary Education. Students can receive financial support in the form of scholarships.

Considering the fact that majority of the students are from low income families, assistance in the form of Scholarship and Financial Assistance (FA) are provided. The University offers 57 scholarships to students: 11 IFSU sponsored scholarships, 38 government sponsored scholarships, and 8 private scholarships and financial assistance.

4.12. **Share of students who receive financial support (scholarships, student loans, etc.)** Currently, a monthly fee is paid to the top 5 students who meet targets.

Before 2017, when the government implemented the tuition fee free policy in State Universities and Colleges (SUCs), 72% of the total student-population (Table 19) enjoyed scholarships and/or financial assistance as a result of partnership of the University with agencies, organizations and private individuals. This reflects the University's commitment in providing access to quality tertiary education for more students from poor/underprivileged families in the province and nearby provinces.

Table 19. Students enjoying scholarship and financial assistance

	ISCAF			IFSU							
	<2003	2003	2009	2010	2011	2012	2013	2014	2015	2016	2017
Scholarship Grantees	492	603	3091	3272	4470	4775	4416	4068	4321	4926	4401
% of Student scholars	18%	21%	58%	60%	72%	73%	59%	76%	58%	72%	100%

4.13. **Existing options for legal advice for students** (Yes/No)

Students can receive legal advice.

4.14. **Share of mature student entrants in total number of students enrolled**

At IFSU this percentage is very low

4.15. **Share of students with disabilities in total number of students enrolled** [Number of bachelor/master/post-graduate students with disabilities at the university] / [Total number of bachelor/master/post-graduate students at the university] (%)

Very low, hence there is no systematic recording of data.

4.16. **Existing specialized support for disadvantaged groups of students (students with disabilities, mature students, minority groups, etc.)** (Yes/No)

There are support services including housing, scholarship and health services. In addition, the percentage of undergraduate programmes accredited level 1 have increased significantly evolving into increase on levels 2 and 3 in 2018. This reflects the University's vigorous efforts to offer additional programs to expand access by indigenous Ifugaos to quality higher education and at the same time to subject these programs to accreditation to ensure quality and excellence.'

4.17. **Existing built environment with universal design for students with disabilities** Yes, the built environment is adjusted to the needs of people with disabilities

4.18. **Existing adapted teaching process for disadvantaged students** (Yes/No)

CAPACITY TO ATTRACT AND RETAIN STUDENT TALENT FROM DISADVANTAGED GROUPS AND THE GROUP OF NON-TRADITIONAL LEARNERS

Yes, the teaching process can be adjusted to the needs of people with disabilities. Unfortunately, the university has not provided details or examples. It appears that disadvantages other than disability do not qualify for special treatment.

4.19. **Existing adapted assessments and examination process for disadvantaged students** (Yes/No)

The assessments and examination process can be adjusted to the needs of people with disabilities. Unfortunately, the university has not provided details or examples. It appears that disadvantages other than disability do not qualify for special treatment.

PERFORMANCE IN DEVELOPING STUDENT TALENT

4.20. **Share of students engaged in practicing entrepreneurship skills (e.g. teamwork, leadership, project management, business plan development and competitions, idea competitions for solving community and social issues, elevator pitch contests, public speaking, network creation)** [Number of bachelor/master/post-graduate students engaged in practicing entrepreneurship skills at the university] / [Total number of bachelor/master/post-graduate students at the university] (%)

The University has been unable to provide such information.

4.21. **Share of students who participated in internships in professional settings** [Number of bachelor/master/post-graduate students who participated in internships in professional settings] / [Total number of bachelor/master/post-graduate students at the university] (%)

In 2017, 484 students participated in internships in professional settings (on-the-job training) /4401 Total number of students

= 0,1099 (100%)

= 11%

IFSU sends graduating students to different organisations/industries for on-the-job-training (OJT). In this way students have more exposure and experience in the real work environment. OTJ trainings take place in the province, nearby provinces, cities and in other countries.

4.22. **Share of students included in coaching/mentoring programmes** [Number of bachelor/master/post-graduate students included in coaching/mentoring programmes at the university] / [Total number of bachelor/master/post-graduate students at the university] (%)

The University has been unable to provide such information.

4.23. **Share of students who participated in study tours (domestic and/or international)** [Number of bachelor/master/post-graduate students who participated in study tours (domestic and/or international)] / [Total number of bachelor/master/post-graduate students at the university] (%)

There are very few such students, since the Commission on Higher Education issued new and stricter set of policies and guidelines on local off-campus activities otherwise known as CHED Memorandum Order No. 17, series of 2012.

POLICIES/STRUCTURES FOR DEVELOPING STUDENT TALENT

4.24. **Public financial support is provided to (partially) cover the costs of practical training** (Yes/No)

Students receive financial support for the purposes of practical training. No details have been provided.

4.25. **Existing policy/structure in support of student talent development (e.g., initiatives for business/product development, local and/or global community partnership, arts-based ventures, etc.)**

There is support for student talent development. Some examples include:

- The University Academic Calendar reflects monthly programs and activities which provide avenues for students' skills and talents to be displayed and developed

- Various student organizations are supported if their activities and programs are believed to have important roles in promoting the well-being of students

- Major university events such as Foundation Days, Inter-campus Meets, Intramural Meets, and College Days are conducted to provide more avenues for students to showcase their talents and skills and get them more developed.

- Student scholarships and grants

- Supporting distance education

- Laboratories and centres

- On-the-job-training

- Infrastructural and enabling support: library services, students services, ICT resources and Internet connection (increasing investments)

- Investing in the professional development of teachers, professors and staff

4.26. **Existing dedicated place to showcase and collect innovative ideas from students, staff, faculty, community members** (Yes/No)

Yes, such places exist. For instance, events are organised specifically to provide students with more possibilities to demonstrate their achievements. These are for example Foundation Days, Inter-campus Meets, Intramural Meets, and College Days and they can last one week.

44.27. Student participation in official decision-making bodies at the university (e.g. Academic Council, Department Council, Student Council, etc.)

All elected student government officers of the different campuses of the University confederate and form the University Student Supreme Government (USSG) Federation. The USSG serves the purpose of unifying all efforts of the university system student governments in addressing the needs of the student population through representation in the Board of Regents.

4.28. Existing clear and transparent procedures for student involvement in decision-making bodies at the university

Each student organization must comply with the guidelines of the university to have a Constitutions and By-Laws (CBL) approved by the DSSD and Campus Executive Directors. In case of major issues raised by the student body, the leaders/presidents relay their message or concerns to the USSG. The USSG is the highest governing body of students and is created for the purpose of serving as a link and bridge between the administration and the student population. All elected student government officers of the different campuses of the University confederate and form the USSG Federation. The President of the federation sits as the Student Regent in the Board of Regents of the University.

4.29. Students are expert members of quality assurance bodies at the university

This is not allowed by law but they are asked to give feedback. Every end of the semester, the students are asked to evaluate the performance of their professors.

4.30. Students are asked to provide information (e.g. through surveys) on the following core aspects of student experience:

- design of the curriculum: Yes

- quality of the teaching: Yes

- student learning: Yes

- assessment methods: Yes

- student resources available to support them: Yes

4.31. Students are asked to provide information (e.g. through surveys) on additional aspects of student experience:

- student support services: Yes

- university social life: Yes

Students are asked to provide information when given (a) evaluation forms or suggestion box, (b) when asked to write a narrative report or present a speech as course requirements, (c) when published as an

article to the official publications of the university.

4.32. The information about quality assurance (procedures, schedules, results) is published and available to students

The information is published and can be accessed to students. Information about quality assurance is published on the official account of the university and made available not only to the students but to everyone.

4.33. Motivation for student involvement with quality assurance:

- Monetary compensation: Yes (see the description below)
- Credits: Yes (see the description below)
- Other types of motivation: Recognition and awards

The University gives awards in the form of cash incentives to the students in recognition of their efforts, achievements, and contributions to the school and community and establishes partnerships with different government and non-government agencies and industries to provide scholarship/financial grants to the deserving students. Students who participate in extracurricular activities, on the other hand, receive points from their teachers in exchange of their active engagement in the university.

4.34. Training and support materials/database/web portal, etc. about quality assurance, are provided to students (Yes/No)

The Department of Student Services and Development provides training (e.g. leadership training) and information materials about quality assurance in the university, which are also published on the official account and newsletter of IFSU.

4.35. Events (briefings, discussions, quality forums) are organised to inform students about the practice of quality assurance (Yes/No)

Before the opening of classes, the Department of Student Services and Development holds an orientation program to inform the students about the practice of quality assurance at the university.

SUPPORTING STUDENTS' CAREERS

4.36. The university monitors the career paths of former students (Yes/No)

IFSU has a tracing office tasked to do that. The Alumni Affairs Office traces and monitors the employment status of graduates and other concerns related to alumni.

4.37. The university carries out or uses student and graduate surveys, where students and/or graduates provide details on their transition to the labour market

Yes, such surveys are carried out.

4.38. Career guidance is available throughout the whole student

lifecycle (Yes/No)

Career guidance services are among the services of the Guidance and Counseling Section. It is provided as early as students enter the University as freshmen or as transfer-in students. This service is made available for students during the duration of their stay at the University. Students in the midyear levels (sophomore and junior levels) who are in need of the service can receive it as well.

**4.39. Career guidance is available to all students** (Yes/No)

Incoming freshmen and transfer-in students are provided with career counseling as they enter the University. Likewise, the University also considers the need for shifters to undergo career counseling through close coordination with College Deans, Enrolling Officers and Registrar. Career Development and Placement Seminar and terminal/exit interview are provided to graduating students. As an annual program under career development and placement services, graduating students are required to undergo Career Development and Placement Seminar in coordination with the Department of Labor and Employment (DOLE). Likewise, graduating students are required to undergo terminal/exit as part of the service. Posters of job vacancies received by the office from prospective employers are being posted for placement purposes. The Alumni Affairs Office traces and monitors the employment status of graduates and other concerns related to alumni.

**4.40. Career guidance specifically targeted at disadvantaged students is provided**

Support for disadvantaged students is obligatory, including with regard to career development.

4.41. Career guidance services are provided for graduates/alumni (Yes/No) – please specify any eligibility period

As an annual program under career development and placement services, graduating students are required to undergo Career Development and Placement Seminar in coordination with the Department of Labor and Employment. Likewise, graduating students are required to undergo terminal/exit as part of the service. Post graduation, posters of job vacancies received by the office from prospective employers are being posted for placement purposes.

Co-funded by the
Erasmus+ Programme
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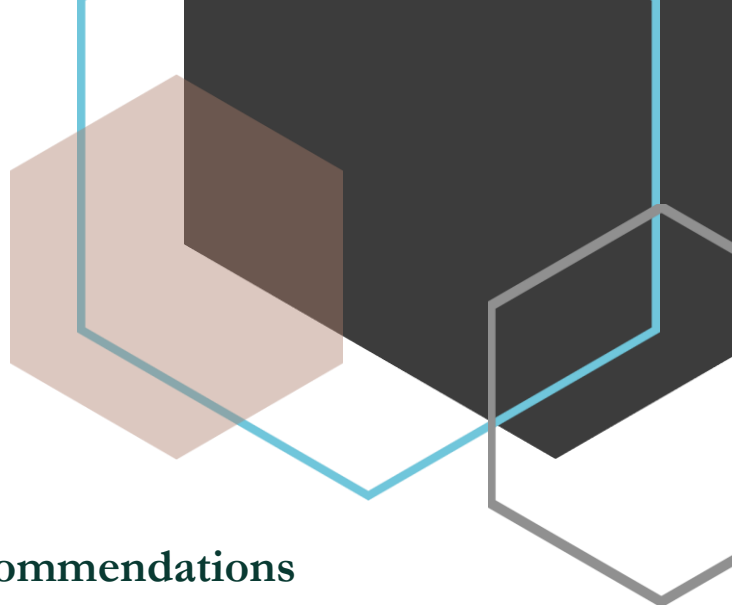
Conclusions and recommendations
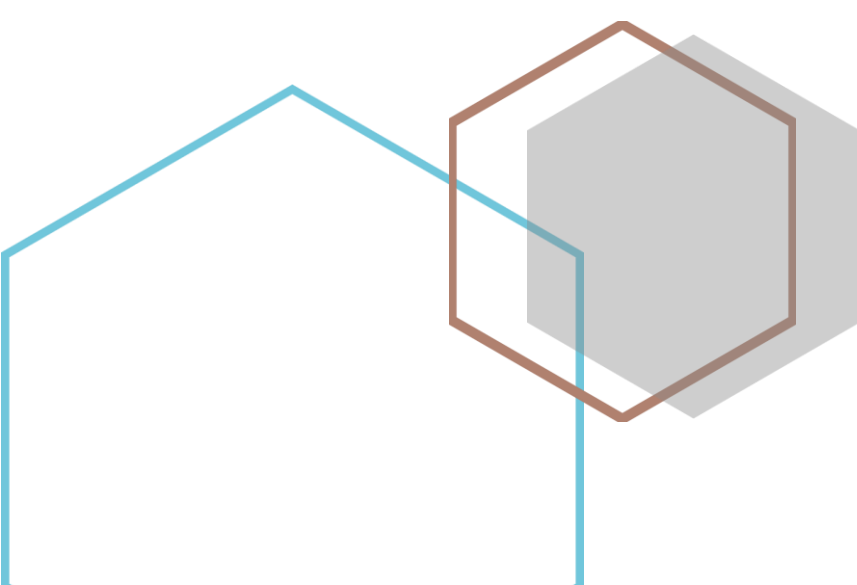
CONCLUSIONS

Our summary evaluation focuses on the following four aspects:

- Conditions
- Teaching and curriculum development, including entrepreneurship education
- Research and innovation
- Impact and cooperation with the surrounding society

Especially in the points 2 – 4, both a general aspect and entrepreneurial aspects are observed. In addition, the aforementioned aspects interlock and impact each other, for instance the outcomes from research can be transferred to education.

The conclusions use the information provided on this screening document and annexes provided by IFSU. These annexes provide essential information for defining the initial state of talent development. The direct quotes from the material obtained from IFSU are marked in cursive.

CONDITIONS

The conditions to support talent development are good at every level:

- Governmental level and society

Government support and legislation enable equality in talent development. The country has recently invested greatly in elements that can harness innovation, talent development and the employability of youth. These are for instance the Philippine Innovation Act which points out innovation as an important factor for the country's development and also addresses the growth of SMEs. The Republic Act 10931 from 2017 underlines the importance of universal access to quality tertiary education. The importance of the Act increases, as inequality in income has impacted equal participation, hence talent development, in higher education as well. Education is an enabler and a tool for sustainable development.

Developments in society can provide interesting topics for education (hence talent development) in practical training, case studies, external lecturers, and educational assignments and content focused on real-life challenges. IFSU seems to be doing a good job in this aspect, e.g. by prioritizing research and collaboration with stakeholders (e.g. companies) that is focused on topics important in the surrounding society and economy, and linking them to sustainable development and environmental issues. The startup landscape may provide great opportunities as well. The country has plenty of eager entrepreneurs: the number of established start-ups is high, although so is also the closure rate.

- Organisational level

IFSU appears to be a forward-looking and ambitious university which has recently undergone major changes, development and growth, with a clear vision of holistic development and a strategy for quality

improvement. The development appears to be ongoing. During this fast development, the University has achieved good results at multiple levels. Further development opportunities and potential exist as the university enjoys full autonomy in decision making and governance, hence necessary decisions on institutional growth, education and students talent can be made flexibly based on observations and needs.

Investment has been made not only in education, research and cooperation with stakeholders, but also in the quality of teaching (with a focus on the competencies of the staff), and in delivering services, infrastructure and premises to support excellence. The university has development goals focused on excellence in instruction, research and development, extension and training, resource generation, and administration and governance. ISO and other standards and quality criteria are used to monitor progress.

The university plays an important role in its surrounding society, not only as an educational institution. Its strategy foresees intensifying linkages and networking with other institution at local, regional, national and international levels, and transferring appropriate knowledge and technologies to target communities, hence fulfilling the third mission of the university, namely impact on the society. The University provides future workforce and research outcomes and facilities, rents land to farmers, and aims to boost entrepreneurship in the region by maintaining linkages with partner agencies, business enterprises, SMEs, and civic and other organisations. On-the-job-training of students and financial support for students further contribute to society wellbeing.

The budget of the university has increased in the recent years, but so have the activities. The incentive structure for staff appears to be sound. Employees can receive additional bonuses in addition to the Mid-Year bonuses and the Performance Enhancement Incentive (PEI). The financial incentives may have a positive impact on the quality of teaching as well.

The university receives part of its funding from the government while another part of it is generated by the university itself, e.g. renting land. This should be able to guarantee financial stability and allow for initiatives focused on innovation and talent development. The university has autonomy to make decisions on financial issues, e.g. student fees, non-public funding, management of real estate.

The university has policies and structures for student talent development on skills and infrastructure levels. The nature of the university (a state institution), enables equal access for all to talent development. Access for people with disabilities and people from disadvantaged backgrounds is protected by law. IFSU invests especially in indigenous Ifugaos and their training. In addition, blended learning solutions provide opportunities for learning despite time and geographic restriction.

IFSU is a multidisciplinary university. The curriculum comprises subjects that are related to entrepreneurship and talent can be developed in many disciplines. This has the potential to enable multidisciplinary learning

and assignments, developing talents for future forms of work, innovation, and for the benefit of entrepreneurship education.

The student/ educational staff ratio is positive: 4711 total number of students/266 total number of faculty and staff involved in teaching = 17,71 (Ratio) 1:17. This is expected to make the university manageable and agile for development and experiments, especially as there appears to be a focus on the professional development of staff involved in teaching.

The aforementioned elements and practices create excellent basis, conditions and potential that may positively influence students' employability, the development of students' talent, and the development of their innovation and entrepreneurship potential.

There were however, many areas of assessment for which the university did not provide data due to the lack of (centralised) information.

- Student level

The university has 4711 students. Only 21 of them are foreign students. The number of mature students is also very low. The structure of the students for different educational degrees forms a pyramid with bachelor students representing the largest share and the bottom of the pyramid, then master students and last doctoral students, thus balancing with the global degree level needs of the labour markets. In addition, the student/staff ratio, as mentioned above, is good, and the university uses systems for monitoring academic excellence.

Student talent is developed on the basis of the national imperative to guarantee equal access to higher education for all. IFSU provides equal opportunities for all students, including those experiencing limitations to participate in education, which creates the basic conditions for talent development. For instance, the number of scholarship and financial assistance has steadily increased over the years reaching 72% in 2016. This reflects the university's commitment to provide quality tertiary education to students from poor/underprivileged backgrounds. Support service for reducing debt and loan and legal advice are also provided to students, and the current government has passed the bill granting free tuition in State Universities and Colleges, which can be expected to help especially talented students with economically less advantages backgrounds. Various distance educational models provide time and geographic flexibility for learning and student talent development. IFSU provides options for part-time/distance /flexible learning for all regardless of time, work and distance constraints. The university premises (built environment) are accessible for students with disabilities and teaching and assignments can apparently be adapted to this special needs group. Housing does not appear to be a problem. The university provides programs suitable to indigenous Ifugaos.

Students are provided health services, registration and admission advice, guidance and counselling, student housing, scholarships, accounting and cashiering services, opportunities for participation in student organisations, library services, ICT resources and student publications,

etc. While the university claims that are asked to provide information (e.g. through surveys) on important aspects of student experience, there is no data from actual surveys and the practice appears to rather be ad hoc consultations or the usual limited feedback mechanisms (e.g. suggestion boxes).

As part of student talent development activities, students are encouraged to invest time and efforts into their own development. On-the-job-training has allowed 11% of the students to participate in internships in professional settings. Different laboratories and centres provide additional support for talent development. Finally, public support can partially cover the costs of practical training. There is no data how many students participate in coaching/mentoring programmes or in study tours. Nevertheless, it is clear that there is talent development potential at the university. It should be noted that the percentage of students that are engaged in internships is low.

Students get career guidance during their entire students' lifecycle as part of the Guidance and Counseling Section. This is available for all students, including the disadvantaged students (for the latter it is mandatory by law) starting from when students enter university, for midyear levels, undecided, and shifters, and extending to alumni/graduates. Placement of graduates is monitored nationally. However, there was no data of the share of students who start working 6 months upon graduation.

Students appear reasonable well integrated in the process of quality assurance. They have the possibility to voice their experiences, opinion and participate in decision-making, although the surveys in the frame of this project revealed that students would actually like to make their voices heard even more.

There are clear and transparent procedures for student involvement in decision-making bodies and students are represented in university governance.

The University claims that it has a marketing strategy to attract students. In reality, it appears to be focused on providing services through e.g. student organizations; extra-curricular activities; extension training programs; scholarship grants; awards and recognition; and facilities and equipment.

Practical work life approach is supported in education through:

- o Case studies - integrating real case studies in learning to deepen students' entrepreneurial knowledge and skills and to expose them to real world situations.

- o Assistance for accessing internships/ placement

- o Entrepreneurial training

Competence development, e.g. through competence-based approach, and soft skills development were mentioned by the university but there is no evidence that there is any clear and focused activity in this regard.

Soft skill training does not appear to be integrated into the curriculum. On a positive note, there are some opportunities for mobility abroad. Unfortunately, no data was provided to assess the real impact of mobility opportunities.

TEACHING

Teaching is offered in 49 undergraduate programmes across campuses, mainly face-to-face, but also as blended learning (being supported by University of the Philippines – Open University). IFSU claims that it uses a competence-based approach to assess the results and impact of studies, and a quality management system of academic excellence is in place.

The quality of teaching staff is essential in developing student talent. IFSU appears committed to the professional development of faculty. Notably, an additional bonus system based on performance is being used. There has been a constant increase in the number of faculty members with Doctorate and Master's Degrees, although the percentages remain low by global standards.

The efforts have provided good results in teaching. For instance, the rate of passing studies is very high and is better than the national rate. IFSU has exceeded the targeted number of graduates by 145%. The target of having at least 90% of graduate programs accredited by 2017 has been exceeded, with the number of accredited programs reaching 100% (9/9) in 2017.

Readiness and teaching ability of educators is strengthened by the fact that as of September 2018, 10.90% (29 out of 266) of the university employees have (temporary) work contracts in industry/business. This can be expected to bring work life orientation into education and to improve the employability of students. The other ways to develop teachers is through research activities and staff mobility. The university supports university-business mobility.

CURRICULUM DEVELOPMENT

IFSU uses curricular review to improve the curricular offer and academic services of the University. Curricula are modernized in view of new challenges, national priorities and business needs are viewed every five years. Unfortunately, no specific information is provided so it is difficult to judge to what extent the process maintains the curriculum up-to-date.

The university claims that it involves employers or labour market institutions in curriculum development, but there is no further information of how this is done.

ENTREPRENEURSHIP EDUCATION

Entrepreneurship education is part of the university's strategy and mission. The University has stated that the curriculum includes subjects related to entrepreneurship but there is no enough information to judge to what extent this is so or whether the University's definition of

entrepreneurship is relevant. On a positive note, there are entrepreneurship related competitions and different facilities and centres, e.g. science laboratories, rice wine laboratory, demo-farm, hotel/hostel, food services for instruction/on-the-job-training, income-generation projects providing training ground for students, etc. to support entrepreneurial development. There are also organizations of young entrepreneurs at the university.

There is no numeric data on how many students participate in entrepreneurship skills training or on how many staff members have themselves had entrepreneurship training. There is no information on how many business practitioners are involved in delivering entrepreneurship courses in bachelor's/master's/post-graduate degree but it appears that representatives of enterprises participate in teaching and curriculum development, and live cases are provided by business/enterprises. Faculty and staff have possibility to move across the university-business divide but there is no information on the extent to which this happens.

On a positive note, there are entrepreneurship-related research projects and commercialised technologies (Rice wine, pineapple wine) and research studies related to business entrepreneurship and management.

The areas where the university currently lacks information can be regarded as the next phase of improving IFSU's quality assurance and monitoring procedures.

RESEARCH AND INNOVATION

The university seems to have a sound innovation culture. The IFSU Code includes Research and Development Manual, and the university has an approved policy for Intellectual Property Protection. Unfortunately, these policies were not presented for review.

The innovation and research capacity of the university appears to be sound and in constant improvement. The university monitors key performance indicators for Research comprising all the targets for completed research works, publication/patenting of research outputs, and timeliness of completion of research work. A substantial number of research outputs have been patented. 6% of the staff hold international and national research grants from government agencies and international foundations. Researchers are allowed to engage in industry supported research, although this is more like a potential than a reality as there is no such research currently.

The research and development priorities of the university are geared towards rural development and focus on agricultural farming practices through development and adaptation of appropriate technologies to increase agro-industrial productivity and to guarantee a balanced ecosystem. This appears to be an appropriate research and innovation agenda. The University appears to be successful in the commercialisation of technologies. This demonstrates that the University is able to link research to real work issues and societal challenges. IFSU actively reaches out to communities and other stakeholders to improve the

quality for their lives, and the number of beneficiaries of extension services has been increasing. The provision of seed funding appears to be limited.

Students are involved in research as a compulsory part of their studies and it appears that they have the option to be involved in research projects. We do not have specific information about any eligibility criteria associated with this practice and the approximate share of students that can benefit from them. If such information is provided at a later stage in the project, this would help focus the project activities better.

Surprisingly, here is no data about the size of grant funding and funding from external sources, on even on PhD degree completions (or even if there are any such completions). While this is probably related to the fact that IFSU became a university only recently, this type of statistics is essential and the university is advised to adopt provisions for monitoring in these areas.

IMPACT AND COOPERATION WITH THE SURROUNDING SOCIETY

IFSU works closely with the surrounding society. Cooperation with the surrounding society takes place through relevant research, through entrepreneurship-supporting centres, and through the commercialization of developed technologies. Further support structures, such as a technology park, are being planned.

The University involves employers and labour market institutions in curriculum development, teaching and university governance. Live case studies are obtained from industry/business, and educational staff can work as researchers or/and in industry. Since no detailed information was provided, however, it is difficult to evaluate the effectiveness of these practices.

Student talent development takes place through on-the-job training in industries and organisations, and local/regional/national/international competitions, programs and activities. It appears that the proportion of students that benefits from these practices is low, however.

OVERALL ASSESSMENT AND RECOMMENDATIONS

IFSU has potential to positively impact students' talent development and employability at multiple levels in the long term.

The institution has recently become a full-fledged university and some of the figures and information on the score card may therefore be expected to be low. However, data was altogether lacking in some crucial areas, which complicates the overall assessment. This data might currently be under development. However, there are many signs that the university has good potential. Among the factors that increase this potential are the university's autonomy and flexibility, a forward-looking strategy and clear objectives.

Growth in IFSU appears to have taken place without compromising quality of teaching. Students increasingly show excellent results and

there is investment in the quality of staff. Research is geared to respond to the needs of the surrounding society.

IFSU already operates on the three main aspects of the so-called Knowledge Triangle where innovation, education and research meet, business being part of innovation (e.g. see https://ec.europa.eu/education/policy/higher-education/knowledge-innovation-triangle en). The Knowledge Triangle comprises cooperation and mutual influence between its three parts and this is expected to increase competitiveness and relevance of the provided education. This principle could be applied (at analytical level) to the Ifugao State University's cooperation with its stakeholders and the surrounding society and graduates employability.

Talent development and employability, including entrepreneurial readiness, are more than academic results. Today's and future's work life requests so-called Work 4.0 competencies which form of sector agnostic soft skills, including e.g. problem solving and people-orientation. These are the skills what employers want. Hence, work life orientation, practical training and solving real-life problems during courses are important. It is not necessary to put academic skills aside, but it is rather a question of combining these skills, understanding their time and place, and using metaskills to combine them. This may upgrade students' employability potential: the combination of substance skills and soft skills to deliver and apply them.

The multidisciplinary university provides equal opportunities for all students, including indigenous Ifugaos, encourages students to showcase their ideas (which develops courage and may lead to employment), contributes to the regional economy and industry, engages in research and educates its staff and the future work force, sensitising them to innovation. There is a clear vision of future directions at the university. IFSU works closely with the surrounding society. This could provide plenty of opportunities to develop students' future-oriented skills set for work life and employability. The surrounding society also offers material for study cases. Hence, IFSU could have increased potential for student talent development herewith with its central role in the society. All this creates a good basis for promoting the employability and talent development of students.

However, educational staff should also be prepared to guide students for this. In general, however, IFSU has not convincingly demonstrated comprehensive practices aimed at developing students' soft skills. Soft skills development appears to happen ad hoc and is not integrated in the curriculum. The use of competence-based approach is not clarified.

When talking about innovation and talent development, it is good to remember the sources for both are everywhere in society and everyday life, not only in cutting-edge research and publications. Innovation is needed in every sector and level, and innovation-related skills are increasingly important as general work-related competencies. Hence, it is important to invest at all levels of education from bachelor education to PhD education. The university seems to be doing this. Sensitising

students to the society and enterprises further promotes this.

A few recommendations arose from this report:

- For many of the indicators included in the scorecard there was no data at the University. While monitoring and quality assurance are going on, it appears that the University needs to focus on purposeful planning and review of achievements and resources related to entrepreneurship education, student employability and degree productivity

- The University should try to increase multidisciplinary activity, project work and making students work on assignments provided by companies, organisations and other stakeholders, and real life case assignments

- The University should provide more internships or training placements in industry/business in order to increase work life orientation

- The University should continue developing the competencies and skills of teaching staff

- The University should consider creating makerspaces and simulation areas for students to develop their skills, competencies and critical thinking. Stakeholders should be involved in this activity, as well as in research, for example through workshops, in co-creation or through participatory methods.

- The University should consider introducing novel teaching methods, alternative thinking and people-oriented approaches

- The University should focus on developing the soft skills and intangible competencies of students (see the list on the next page).

- Career counselling could include a focus on work career reinvention, based on acquired hard and soft skills and competencies that can be used for another purpose and career. This suggestion is due to a broader global challenge that higher education graduates will increasingly face with changing careers and jobs.

Employability is more than infrastructure, research skills or entrepreneurial competencies. For instance in Europe, the unemployment rate of PhD graduates is high, despite the talent developed. Other higher education graduates also suffer from unemployment, although far less. At the same time the competencies in work life are changing. Different policies outline competencies that are foreseen to be increasingly important and should be developed to improve the situation. Below we discuss some of those.

Future employability competency clusters

- PEOPLE DIMENSION, including user-orientation, co-

operation, teamwork and networking skills, multidisciplinary and self-awareness, culture, tolerance

- PROBLEM SOLVING, one of the main key requirements for Work 4.0, detecting central problems and handling information, solving wicked problems, solution-orientation, creativity, ability to tolerate insecurity in decision making, looking solutions in past, present and future

- PROJECT SKILLS, as one of the main forms of the future work. This comprises resilience, tenacity, open-mindedness, taking action, multidisciplinary, ability to handle and balance content, deadlines and other project elements, and ability to act in new situations, read contexts and tolerate insecurity

- READINESS FOR CHANGE, including the ability to modify personal know-how. Top experts of the future will adapt to change, detect and understand change on systemic level and their impact

- CURIOSITY AND INTERNATIONALITY, curiosity is one of the major elements for innovation and creativity. It comprises passion, interest, openness to everything is that is new, thinking outside the box, and willingness connect own doing with something meaningful.