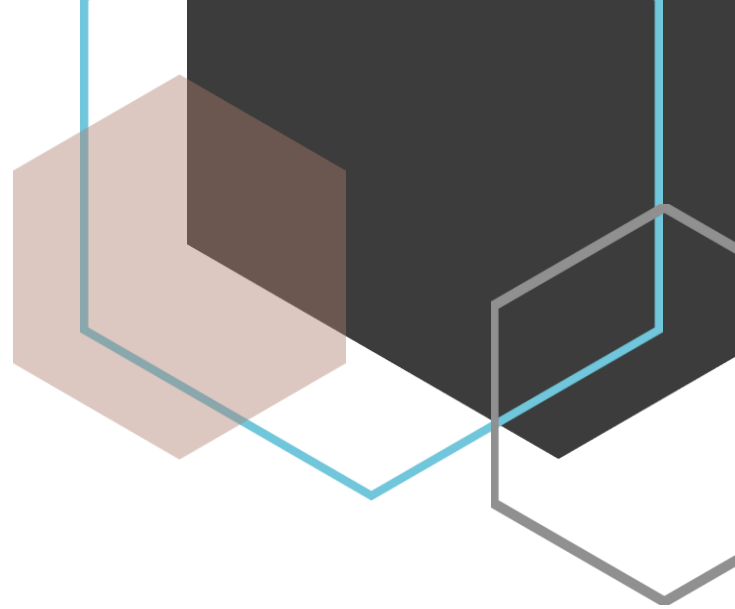




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## SCREENING REPORT

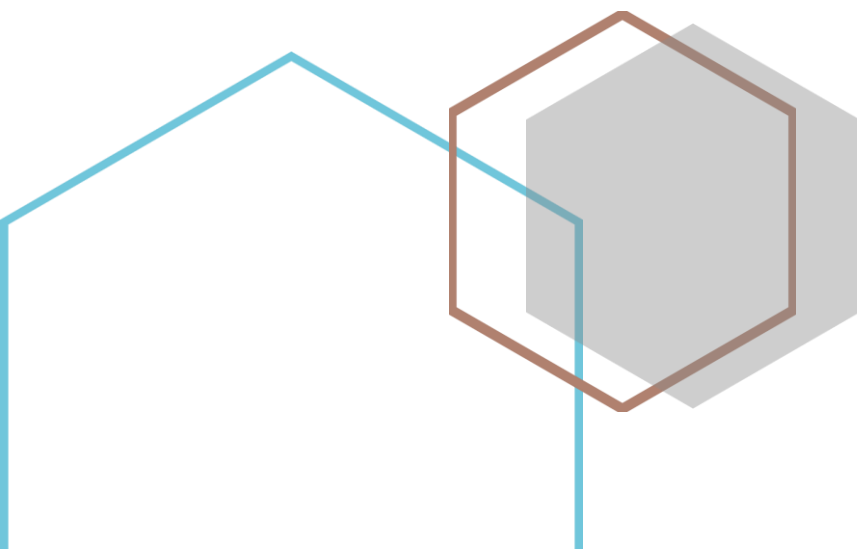
# ENTREPRENEURSHIP, INNOVATION & STUDENTS TALENT DEVELOPMENT

**BENGUET STATE UNIVERSITY, PHILIPPINES**

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

**586227-EPP-1-2017-1-BG-EPP**



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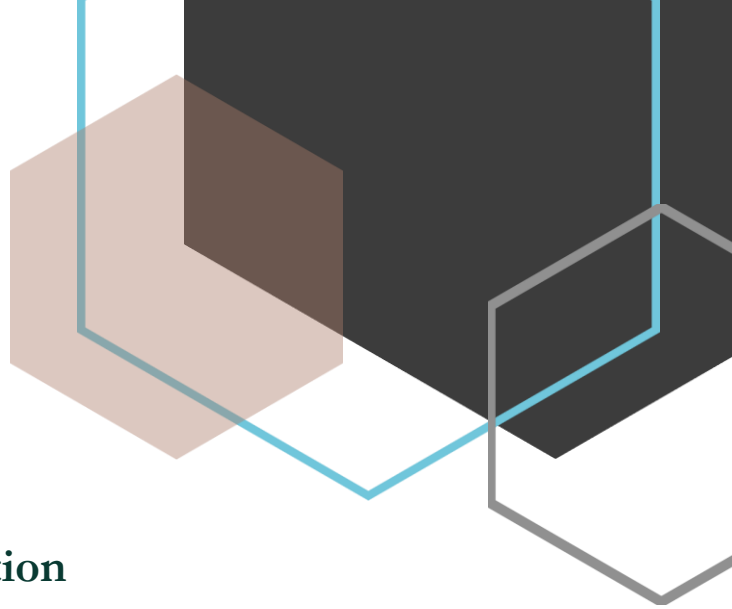
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The report aims at providing a clear picture of the University's starting conditions and capacities in the areas of graduates' employability, innovation capacity and talent development. The reports points out the strengths and weaknesses of the institution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

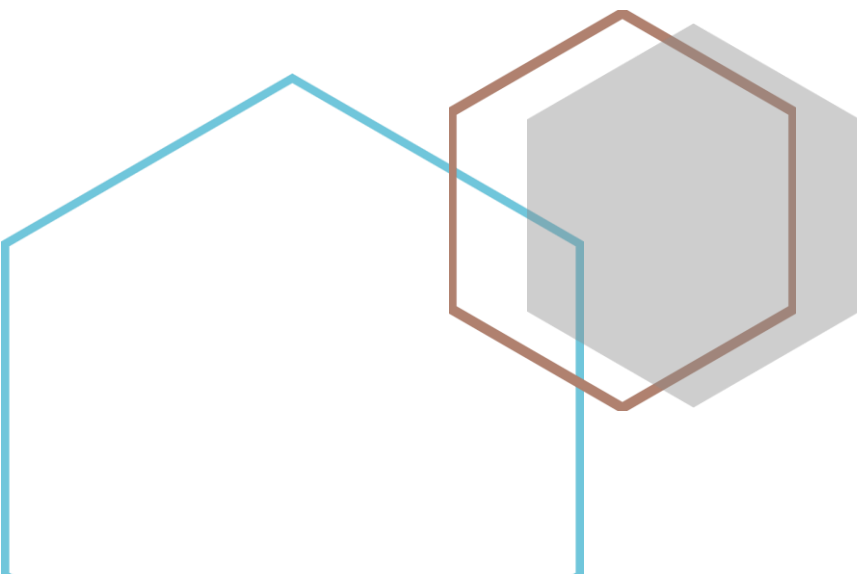
The report can provide insights into the following broad elements of organizational performance of the University:

- 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 is the Screening Report (output 1.4) of Benguet State University (later BSU). The aim of the Screening Report is to “provide a clear picture of the respective PC university’s starting conditions and capacities related to the area of the project.”, i.e. screening the PC HEI capacity to promote graduates’ employability and develop students’ talent through innovation. It has been developed using a completed Scorecard for the respective PC University (based on output 1.1). This reports points out the strengths and development points of the university.

There is a noticeable will in the Philippines to increase its level of competitiveness. In the past years the government has adopted acts and launched initiatives which address especially innovation, entrepreneurship (SMEs) and education (here scoping in higher education). The government has, for instance, set (as on the presentation HEI and entrepreneurship):

- Philippine innovation act: the act incorporates and puts a strong emphasis on innovation the country’s development. The act includes the SME aspect e.g. through programmes.
- Young Innovators programme (YIP), which provides financial assistance to promising researchers
- University Act RA 10931 (in 2017): to provide equal access to quality tertiary education for all independent of the socioeconomic class
- RA 10687: to ensure the regional equity in education.

Ensuring equal access, on a general and regional level, to quality tertiary education is essential. It does not only help nurture talent, but it has the potential to reduce inequality, and hence address innovation potential from this point of view. On the other hand, as mentioned in one of the presentation during the First INNOTALC Collaboration Workshop, there is a great number of startups established in the Philippines, but also there is a great incidence of their discontinuation.

This Screening Report focuses on the BSU university (<http://www.bsu.edu.ph/>), and specifically on outlining the starting conditions and capacities of BSU in promoting HEI graduates’ employability and develop students’ talent through innovation.

## 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:

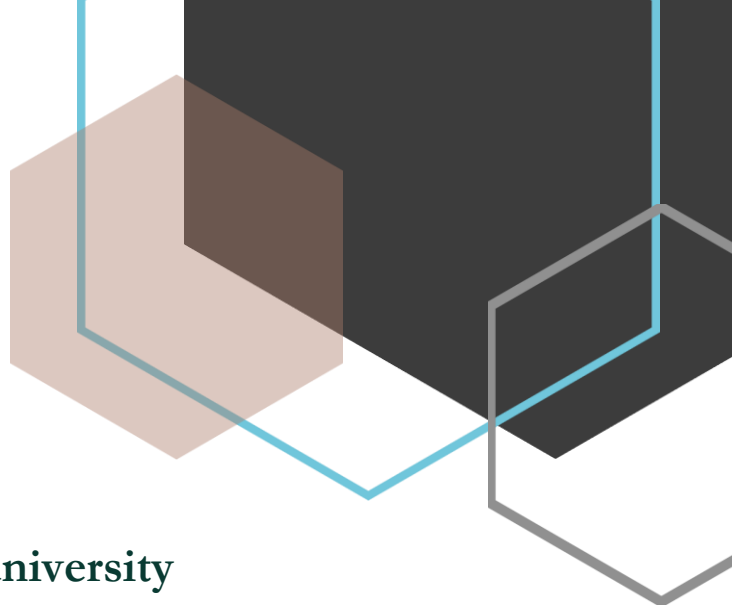
- University capacity to provide entrepreneurship education across various disciplines
- University capacity for innovation
- University capacity for promoting graduates’ employability and developing students’ talent

The reports aims to provide a clear picture of the University’s starting conditions and capacities related to graduates’ employability, innovation and

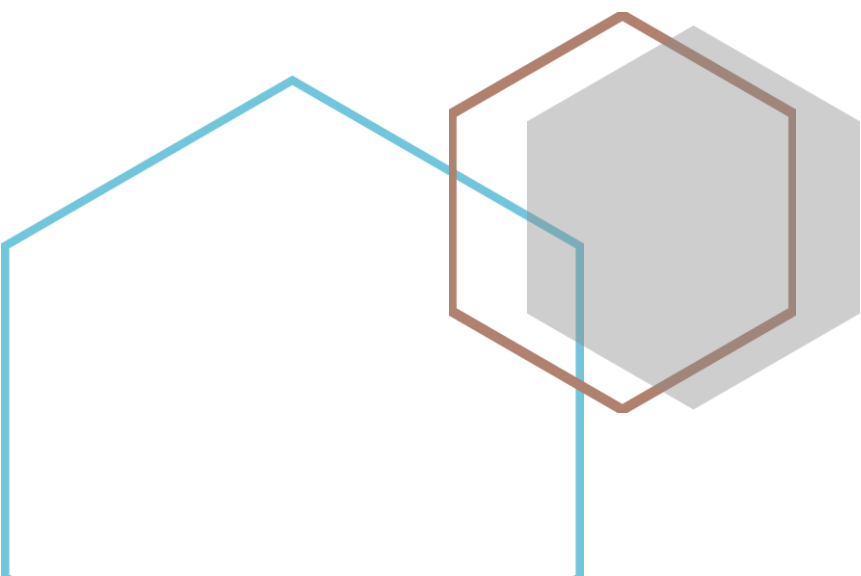


talent development. The report has been developed on the basis of the scorecards developed in the frame of the INNOTAL project.





## Profile of the university



## ESTABLISHMENT

Benguet State University (BSU) was established in 1916 as La Trinidad Farm School. It earned its status of a University in 1986. Today it has over 70 programmes – 20 undergraduate and 50 graduate/post graduate (e.g. in philosophy, science, education, library and information science, public administration, system management, science in mountain engineering). The university is currently undergoing ISO 9001:2015 certification for the Instruction process (target certification date: August 2018).

- The university Promotes graduate's employability by:
  - ✓ Ensuring quality of the programs and processes:
    - i. subjecting courses/ programs to accreditation/ audit by external bodies
    - ii. undergoing ISO 9001:2015 certification for the Instruction process (target certification date: August 2018).
  - ✓ Incorporating internship for students in some undergraduate programs,
  - ✓ Using case studies and real-life projects in teaching
  - ✓ Providing an additional training ground, by employing students under the Student Assistantship program and SPES
- Promote graduates' employment by:
  - ✓ Having a Vocational Placement Unit (under the Office for Student Services)
  - ✓ Involving students in extension activities (in coordination with the Office for Extension Services) and in outreach (student volunteerism) programs, to add to their experience
  - ✓ For programs with licensure/ board examination, incorporating an additional subject in the final year (like a 'review' or 'revision' class), to increase passing rate
- Develop students' talent through innovations by:
  - ✓ Involving students in governance
  - ✓ Providing support for students' business ideas
  - ✓ Having a Coordinator for Student Economic Enterprise Development (under the Office for Student Services)
  - ✓ Providing financial support for students' studies, especially for students from disadvantaged backgrounds
  - ✓ Allowing student organizations (including the College/Institute Student Government) to organize and conduct co-curricular and extra-curricular activities on their own.



**MISSION AND  
VALUES**

*“To provide quality education to enhance food security, sustainable communities, industry innovation, climate resilience, gender equality, institutional development and partnership.”*

(<http://www.bsu.edu.ph/content/vision-mission-goal-0>)

Values (core values)

- Student centered
- Leadership
- Integrity
- Diversity
- Efficiency
- Service

**Organisational structure:**

The university is a public state university. Hence, the national legislation does impact it.

The organisational structure is as follows:

- Governance: as a state university, BSU is governed by a Board of Regents
- Administration: presidents and vice presidents, appointed by the Board of Regents upon the president’s recommendation
- Administrative Council: University Chairman (President of the university), the Vice Presidents(s), deans directors and other members of equal rank
- The Academic Council: President as the Chairman and members of instructional staff with a rank no lower than assistant professor.
- Has the power to review and recommend the curricular offerings and rules of discipline
- Fixing the requirements for the admission of students, graduation and conferment of degrees (subject of approval/review by the Board of Regents through the president of the university)

Source: <http://www.bsu.edu.ph/content/mandate-governance>

Degree of autonomy for decisions concerning financial issues, e.g. student fees, non-public funding, management of real estate: Just recently, the Philippine government has enacted into law Republic Act 10931 which provides for Free Higher Education in the country. Students will no longer have to pay for tuition and other fees as long as they pass all their courses (for returning students). However, the university Board of Regents still have to make decisions in relation to utilization of all the funds that are generated by the university. The Board of Regents have to make decisions in relation to specific land uses even as the University Land Use Plan had just recently been approved by them.





## SIZE OF THE UNIVERSITY

- Number of students (bachelor, master and PhD): 10.000 students of which 8.000 are undergraduate and c. 255 PhD (source for PhD <http://www.bsu.edu.ph/files/2017%20Annual%20Report.pdf>)
- Number of academic staff (teaching and research): 400 faculty members
- Number of administrative support staff: 600 non-teaching staff
- Budget: The budget of the university comes from two main sources: from government appropriations, and from income generated internally or externally. The 2018 budget of the university from the Government Appropriations Act is about 551 million pesos (9.03 million EUR). Internally generated funds are those coming from collections made from the various income-generating projects of the university like the food processing, the guest houses, the bakery, the poultry, etc. and from leases made of university properties by other public and private groups. Externally generated funds are from grants and donations made by international, regional, national and local partners to support the instruction, research, development, and extension functions of the university. Total funds from internal and external source is about 216 million pesos (3,535 EUR).

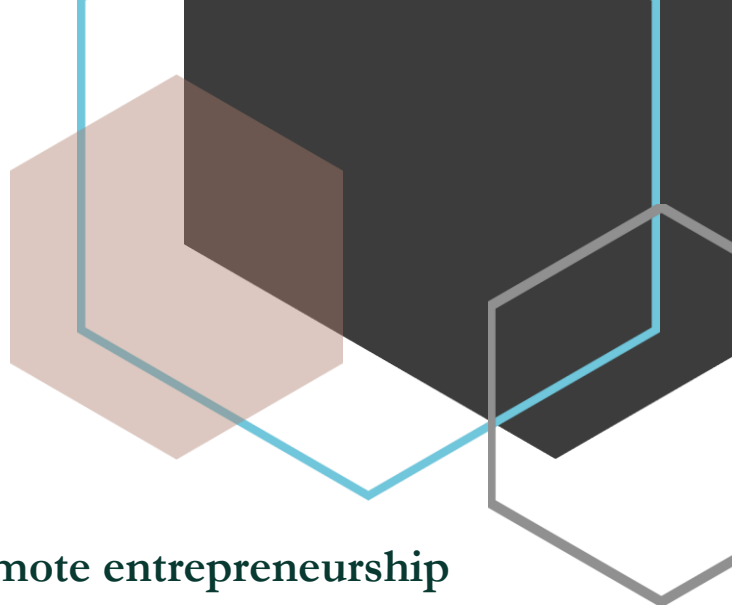
## ROLE OF THE UNIVERSITY IN ITS REGION

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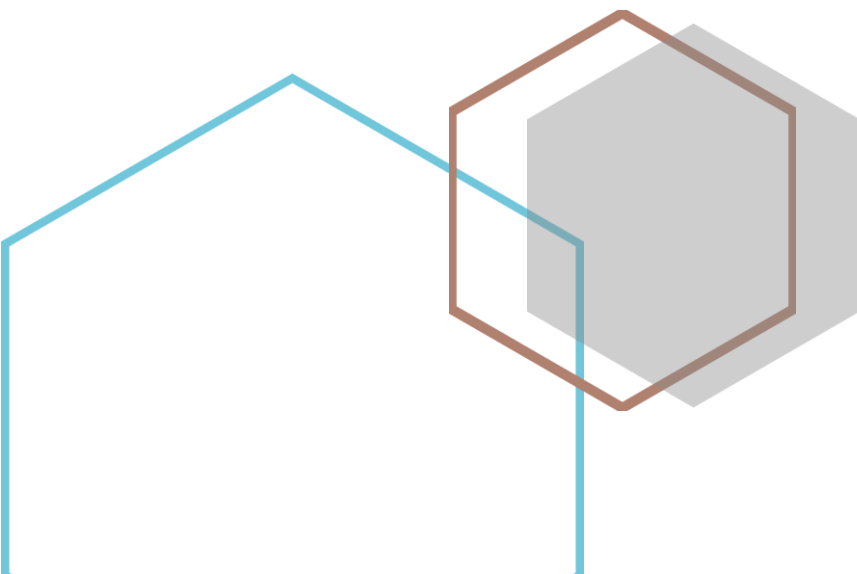
As the regional university BSU fulfils the functions of a State University. It is linked in many ways to the surrounding society, in particular:

- Educating skilled workforce
- Boosting entrepreneurship in the region
- Conducting research and extension to address community needs and problems
- Strengthening private-public partnerships
- Conducting research and extension to address environment and sustainable development





## Capacity to provide and promote entrepreneurship education



**2.1. Relative number of bachelor/master/post-graduate programs offering entrepreneurship courses/training** = [Number of bachelor/master/post-graduate programs offering entrepreneurship elective courses/training] / [Total number of students in bachelor/master/post-graduate programs] (%)

**Answer:**

7 Programs/7361 students

= 9.509 (100%)

= .095 or .10%

**2.2. Relative number of students in bachelor/master/post-graduate entrepreneurship programs** = [Number of students in bachelor/master/post-graduate entrepreneurship programs] / [Total number of students in bachelor/master/post-graduate programs] (%)

**Answer:**

533 students/7361 total number of students

=0.0724(100%)

=7.24%

**2.3. Relative number of staff teaching entrepreneurship courses** = [Number of staff teaching entrepreneurship courses] / [Total number of staff] (%)

**Answer:**

26 staff/360 total number of staff

=0.0722(100%)

=7.22%

**2.4. Relative number of entrepreneurship-related research projects** = [Number of entrepreneurship-related research projects] / [Total number of research projects] (%)

**Answer:**

5 entrepreneurship-related research projects

/50 research projects in total

= 0.1 (100)

=10%

An example of a BSU entrepreneurship-related project is the product development of the local smoked-pork “kinuday” or “Etag” which is a traditional food delicacy in the region. The project focused not only on product development but on training students and existing entrepreneurs on market development. Another entrepreneurship-related project conducted in the past was the development and marketing of organic fertilizers.

**2.5. Relative number of bachelor/master/post-graduate entrepreneurship courses in which case studies or study visits are used to enhance learning** = [Number of bachelor/master/post-graduate entrepreneurship courses in which case studies or study visits are used to enhance learning] / [Total number of bachelor/master/post-graduate entrepreneurship courses] (%)

**Answer:**

14 / 14

=1(100%)

=100%

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

**Answer:** Yes

**2.7. There is an institutional strategy on entrepreneurship education** (Yes/No), please describe

**Answer:** Yes

(see at the beginning)

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

curriculum development (Yes/No)

**o Answer: YES**

For example, in the review of a Bachelor of Science in Agribusiness Management curriculum, some members of the public and private sectors were invited to give their suggestions

teaching (Yes/No)

**o Answer: YES**

For example, Mr. A. Barcelona, the owner-manager of Harbest Agribusiness Corporation, served as a resource person to students in training sessions, or the students are brought on-site to interview business owners like that of the Jacks Restaurant in La Trinidad.

participation in decision-making or consultative bodies at institutional level (Yes/No)

**o Answer: YES**

In the annual planning process of the university, stakeholders from public agencies as well as private agencies are always invited to participate.

**2.9. Relative number of staff that has participated in entrepreneurship training** = [Number of staff that has participated in entrepreneurship training] / [Total number of staff teaching entrepreneurship courses] (%)

**Answer:**

15 staff/ 22 Total number staff  
= (.68) (100%)  
= 68%

**2.10. Relative number of industry or business practitioners involved in delivering entrepreneurship courses in bachelor's/master's/post-graduate degree** = [Number of practitioners involved in delivering entrepreneurship courses in bachelor's/master's/post-graduate degree] / [Total number of faculty teaching entrepreneurship courses in bachelor's/master's/post-graduate degree] (%)

**Answer:**

18 staff/ 22 Total number staff  
= (.8181) (100%)  
= 81%

An already mentioned example is the C.E.O of the Harbest Agribusiness Corporation who serves as resource speaker to students.

**2.11. Relative number of university employees who also have (temporary) work contracts in industry/business** = [Number of university employees who also have (temporary) work contracts in industry/business] / [Total number of faculty in bachelor's/master's/post-graduate degree] (%)

**Answer:** None

**2.12. Existence of opportunities for staff mobility (including adjunct faculty) across the university-business divide (Yes/No)**

**Answer:** Yes

This is being done with some local partnerships with some animal farms for the animal science and veterinary medicine students. However, it is not very popular.

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**2.13. Existence of university entrepreneurship centres supporting university-business relations and entrepreneurship in general (Yes/No)**

**Answer:** Yes

This experience is not full-blown. BSU now has an agri-based technology incubation and innovation center at the university that is starting to be a central point for university-business relations, although

some of the colleges like the College of Agriculture have their own links like for instance with agricultural input suppliers.

**2.14. Provision of support to bachelor/master/post-graduate students for access to internship and/or placement schemes (Yes/No)**

**Answer:** Yes

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**2.15. Real case studies provided by business/enterprises are included in entrepreneurship teaching (Yes/No)**

**Answer:** Yes

BSU often uses case studies that are already written by others like from the University of the Philippines in Diliman, strategic management books, and downloadable from Internet. Examples of this are the case study of the Jollibee Corporation in the Philippines. A major comment is the need to update the cases.

**2.16. A competence-based approach is used to assess the results and impact of studies (Yes/No)**

**Answer:** Yes

**2.17. The university monitors the development of students' soft skills (leadership, teamwork, communication, etc.) (Yes/No)**

**Answer:** Yes

Monitoring of the students' soft skills is done through the regular activities approved by the Office of the Student Affairs and the College departments.

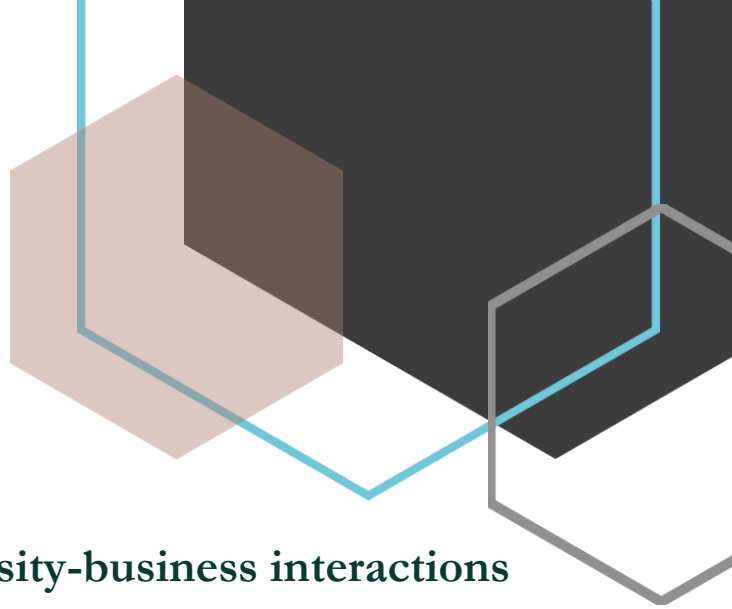
RECOMMENDATIONS

- Developed or adopted guidance and standards for entrepreneurship education:
- BSU follows the prescribed guidelines of the Commission on Higher Education for curriculum development on entrepreneurship education.
- How are real-world challenges addressed in the teaching process?
- Real-world challenges are addressed in the teaching process by simulating these situations in the classroom. Students are involved in games where they overcome hurdles and solve production and marketing problems as it is happening in the real world.
- Are there specialized internship programs in start-up projects, technology transfer offices, venture capital firms, and industry?
- BSU arranges internship programs for students. The agri-based technology incubation and innovation center is the new initiative to help students in start-up projects.
- Do students meet and learn from experienced young entrepreneurs?

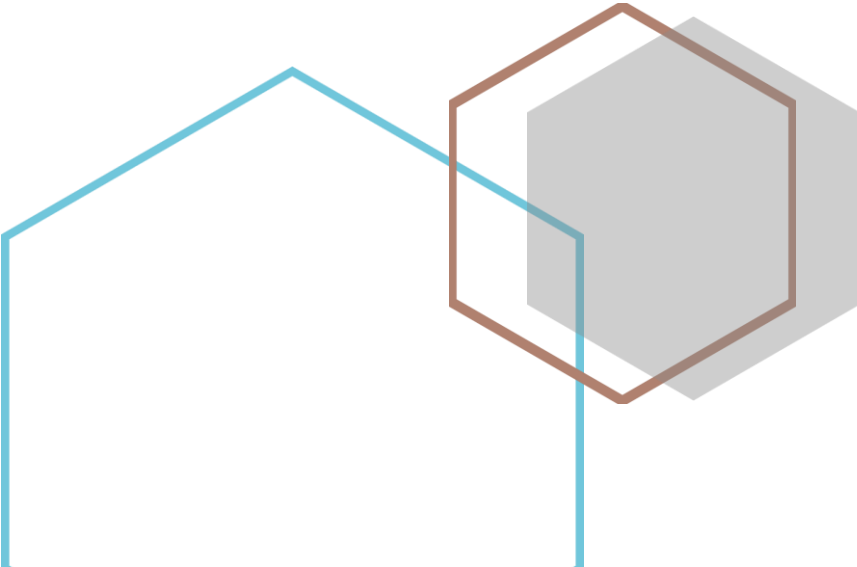


- BSU allows students to attend forums and seminars and even lets them view videos where young entrepreneurs have a chance to share their experiences.
- Competitive opportunities for students
- Students compete with their business ideas in national competitions. Students in the agribusiness course had the chance to present their product ideas and win some prizes for innovative ideas in national events of this sort.





**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] (%)

**Answer:**

$$\begin{aligned} &80,601,341.94\text{-Php } 52.00 / 759,167,033.94\text{- Php } 52.00 \\ &=80,601,289.94 / 759,166,981.44 \\ &=0.1061 (100) \\ &=10.61 / 11\% \end{aligned}$$

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

**Answer:**

$$1: \text{Php } 476,515.00$$

**3.3. Relative number of spin-off firms supported by the university per full-time employed academic staff** [Number of spin-off firms supported by the university] / [Total number of full-time employed academic staff] (%)

**Answer:** None

**3.4. Proportion of academic staff holding international and national research grants** [Number of full-time employed academic staff at the university holding international and national research grants] / [Total number of full-time employed academic staff] (%)

**Answer:**

$$\begin{aligned} &85 \text{ number of full-time staff} / 360 \text{ total number staff} \\ &= (0.2361) (100) \\ &= 23.61 \text{ or } 24\% \end{aligned}$$

**3.5. Proportion of academic staff holding industry research grants** [Number of full-time employed academic staff at the university holding industry research grants] / [Total number of full-time employed academic staff] (%)

**Answer:**

$$\begin{aligned} &50 \text{ number of staff} / 360 \text{ total number of staff} \\ &= (0.1388) (100) \\ &=13.88 \text{ or } 14\% \end{aligned}$$

**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] (%)

**Answer:**

68.33 average number of publications/ 360 total number of staff

=0.1888(100)

=18.88 or 19%

- 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] (%)

**Answer:**

18 average number of citations in Scopus and Web of Science database

/ 360 total number of full-time employed academic staff

=0.05(100)

=5%

- 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] (%)

**Answer:**

17 intangibles /360 Total number of full-time employed academic staff

=0.047(100%)

=4.72% or 5%

It is relatively recent that patents, licenses and copyrights, etc. are being applied for by faculty members and researchers of the university.

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

**Answer:** Yes

The mission statement of the university is to provide quality education to enhance food security, sustainable

communities, industry innovation, climate resilience, gender equality, institutional development and partnerships.

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

**Answer:** Yes (although not written official policy)

Benguet State University has an extension office to share generated R&D technologies. It has a technology and innovation incubation center that is agri-based. Both offices are part of Benguet State University's strategy on innovation, innovation support or knowledge transfer to the external environment.

- 3.11. Implementation of research and research training planning and policy (Yes/No)**

**Answer:** Yes

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

**Answer:** Yes

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

**Answer:** Yes

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

**Answer:** Yes

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

**Answer:** Yes

For instance, in the revision of the curriculum for the Bachelor of Science in Agriculture, the Commission on Higher Education has revised it so that it is now ladderized and allows determining where in the first two years of the study progress the students can already get competencies that will enable them to be employable or to be self-employed. Entrepreneurship courses have been introduced in the curriculum. This is true for the other programs of the university as well.

**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/No)

**Answer:** Yes

- technological parks (Yes/No)

**Answer:** Coming

- technology transfer offices (Yes/No)

**Answer:** Yes

- incubators (Yes/No)

**Answer:** Yes

BSU has the agri-based technology incubation and innovation center where there are already a number of farmers and other graduates who are serving as incubatees on improved farming technologies and food processing.

accelerators (Yes/No)

**Answer:** Yes

- applied research centres (Yes/No)

**Answer:** Yes

- research and development units (Yes/No)

**Answer:** Yes

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

**Answer:** Yes

**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] (%)**

**Answer:**

1652 average number of students / 7361 total number of students

$$= 0.22(100\%)$$

$$= 22\%$$



**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] (%)

**Answer:**

22 students/360 academic staff

=0.611(100%)

=**6.11%**

**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] (%)

**Answer:**

10 average number of PhD students

/20 Number of PhD students who and who did not defend their thesis

= (.5) (100)

=**50%**

**RECOMMENDATIONS**

- Research and development priorities

*The research and development priorities of the university are anchored on the national, regional and local plans. As an institution in the country that specializes on semi-temperate crops, BSU research priorities focuses on this area, among others.*

- Student involvement in research projects

*In the College of Agriculture, some of the students do parts of the research required in some of the projects that are being done. They make this as their individual thesis topics, or as classroom-based projects in groups.*

- Innovation culture at the university

- Research for solving real-world problems.

*The university is very research oriented and the topics of student theses address real-world problems.*

- Engaging academic staff in innovation activities that correlate with their academic disciplines.

*Research and innovation is one of the criteria in the promotion of the faculty. The University provides some local funding to encourage*

*This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.*



*research and innovation in the colleges.*

- Comprehensive innovative process that incorporates technology development and commercialization efforts-

*Technology development is very much an item for research in the university research centers. However, commercialization is a weak area.*

- Sharing of best practices and new ideas for developing and commercializing new products.

*The university shares best practices and new ideas through the annual in-house reviews where research findings are presented to the scientific community and the farmers.*

- Involving community leaders and local entrepreneurs in the development of technology and start-up companies.

*Farmers are involved in the development of technologies through the demonstration farms where the famers showcase in their own farms the technologies generated by the university. Through the university extension program HERALDS, community leaders and entrepreneurs are involved in the conceptualization of programs/projects by participating in the needs assessment surveys, and in the actual conduct of capacity building activities.*

- Foundations or NGOs affiliated to the university

*BSU has recently initiated a partnership with an umbrella NGO like the Center for Development Programs in the Cordillera.*

- Engaging with industry

*Collaborations aimed at obtaining research and technology development ideas, capital, and other types of support - Examples of this are the collaborations with Harbest Agribusiness Corporation, Allied Botanical Corporation and some farmer associations.*

- licensing policy

✓ none

- long-term partnerships with large corporations

✓ none

- industry presence on campus

✓ of late, the Harbest Inc, an agri-based company has been very visible On campus giving a seminar open to faculty and students

- Multi-disciplinary projects

*An example of a multidisciplinary project is on coffee where the university provides technical expertise and is in partnership with the Department of Trade and Industry and the local and regional chambers of commerce to promote coffee entrepreneurship*

- Internships with industry

*At the moment, there are many student internships with industry where BSU sends students for practicum like with some farm business establishments, hotels and restaurants*

- Technology transfer functions

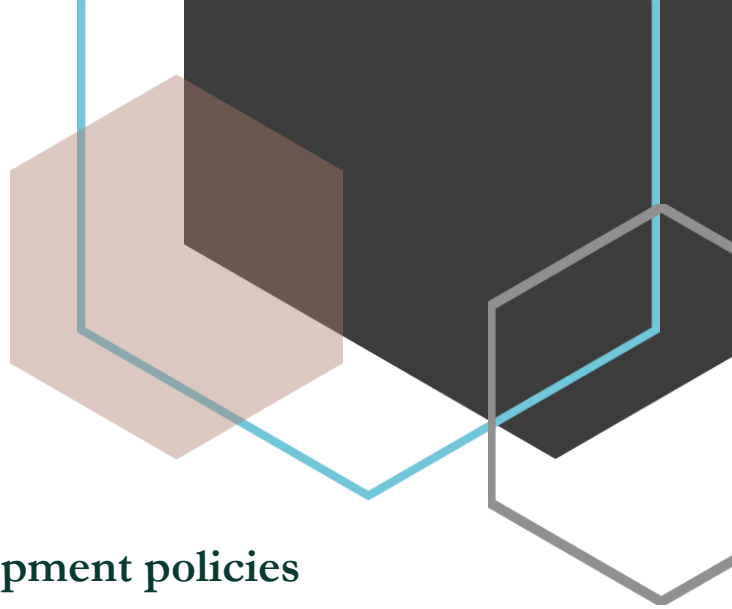
*A major strategy in technology transfer is the involvement of the clients i.e., farmers in the demonstration farms in order for them to be convinced themselves of the technologies. It is expected that soon a harvest festival will be done for other farmers to see and learn about the technology. In this process, provision of technical staff and logistics is ensured by the university, and also in coordination with farmer organizations and the local communities.*

- Licensing and start-up activity

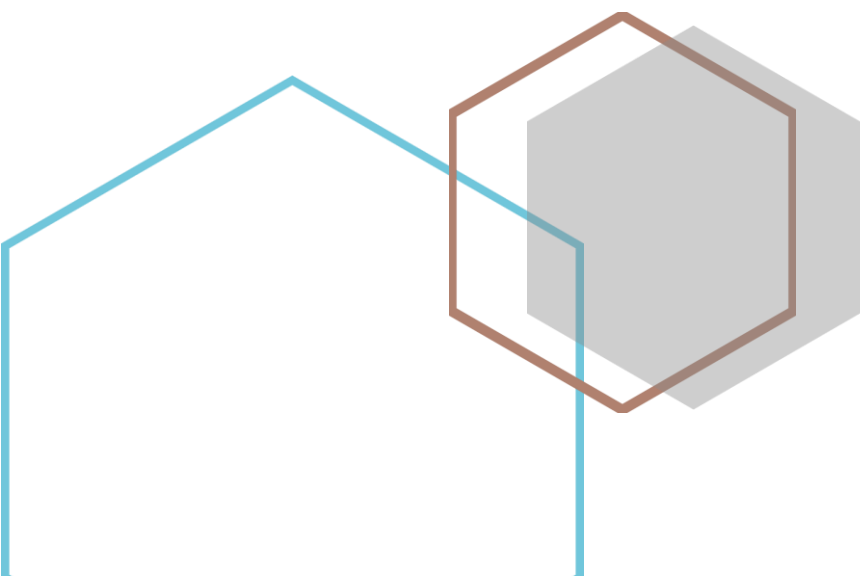
*Promotion of start-up is done through the agro-based technology incubation and innovation center of the university although licensing is still a weak issue*

- Greater focus on the triple bottom line (environmental, social, and economic)

*Part of the vision of the university is the promotion of sustainable development amidst climate change. Concern for the environment is given equal importance alongside social and economic growth*



## Student talent development policies





**CAPACITY TO  
ATTRACT AND RETAIN  
TALENT**

**4.1. A marketing strategy for attracting talented students exists at the university (Yes/No)**

**Answer:** Yes

**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] (%)

**Answer:**

10 Number of foreign students enrolled/ 7361 Total number of students

=0.0013(100)

**=0.12%**

**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] (%)

**Answer:**

They take licensed exam 6 months after graduation. More information about the examination at [www.prc.gov.ph](http://www.prc.gov.ph)

However, the unemployment rate of HEI graduates in the country in January 2018 is estimated 5,3%.

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

**Answer:**

7361 total number of students/360 total number of faculty and staff involved in teaching

=20.44

**(Ratio)1:20**

**4.5. Existing students' enrolment and services office (Yes/No)**

**Answer:** Yes

**4.6. Existing quality management system for academic excellence (Yes/No)**

**Answer:** Yes

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

**Answer:** Yes

STUDENT WELFARE  
SUPPORT

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

**Answer:** Yes

The strategy depends on the recently approved Land Use Plan of the university, and on the Medium-Term Development Plan of the university. The Land Use plan includes zoning of the university property for particular uses especially academic and commercial (as the university is leasing to some public and private groups some parts of its land). The Medium-Term Development Plan incorporates strategies to improve the delivery of quality education which includes construction of student dormitories, modernization of the sports facilities, etc.

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

**Answer:** Yes

- 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] (%)

**Answer:**

263 approved applications of students

/264 total number of application in the university

=0.99(100%)

=99%

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

**Answer:** Yes

- 4.12. Share of students who receive financial support (scholarships, student loans, etc.)** [Number of bachelor/master/post-graduate students who receive financial support] / [Total number of bachelor/master/post-graduate students at the university] (%)

**Answer:**

3681 students/ 7361 total number of students

=0.5000(100)

=50%

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

**Answer:** Yes



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

- 4.14. Share of mature student entrants in total number of students enrolled** [Number of mature (over 29 years of age) bachelor/master/post-graduate student entrants enrolled at the university] / [Total number of bachelor/master/post-graduate students at the university] (%)

**Answer:**

736 number of mature students  
/ 7361 total number of students  
=0.0999(100)  
**=10%**

- 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] (%)

**Answer:**

35 students/ 7361 total number of students  
=.0047(100%)  
**=.47%**

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

**Answer:** Yes

- 4.17. Existing built environment with universal design for students with disabilities** (Yes/No)

**Answer:** Yes

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

**Answer:** Yes

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

**Answer:** Yes

- 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

PERFORMANCE IN  
DEVELOPING  
STUDENT TALENT



bachelor/master/post-graduate students at the university] (%)

**Answer:**

533 Students/ 7361 Total number of students

=0.0724(100%)

= **7.24%**

**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] (%)

**Answer:**

1385 students/7361 Total number or students (100%)

=0.188(100%)

= **18.8 or 19%**

**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] (%)

**Answer:**

1494 number of students/ 7361 Total number of students

= (0.2029) (100)

=**20.29%**

**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] (%)

**Answer:**

141 Students/ 7361 Total number of students

= (0.019) (100)

=**1.91 or 2%**

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

**Answer:** Yes

**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.) (Yes/No) – please specify**

**Answer:** Yes

Once a year a seminar is organized for students to showcase their ideas.

The students are encouraged to join various fora and entrepreneurship conferences where they can present their ideas. The fora and conferences are organized by associations promoting entrepreneurship. Of late, one BSU Agribusiness student was selected to join the competitive American Chamber of Commerce for a Business Plan Training in Manila. The BSU student won an award for good business idea. In some cases, the students receive some fund to further develop their ideas. The latest cases in point are the Team ConfiHealth of the College of Home Economic and Technology who received a PhP 100,000 (1,639 EUR) grant for winning in the Unilab Foundation’s Ideas Positive, and two students who are in the Hotel and Restaurant Management Course who got a 1 million pesos (16,393 EUR) product development fund from the Department of Agriculture-Bureau of Agricultural Research Cookfest competition.

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

**Answer:** Yes

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**4.27. Student participation in official decision-making bodies at the university (e.g. Academic Council, Department Council, Student Council, etc.) (Yes/No) – please specify**

**Answer:** Yes

The President of the Student Council is part of the Academic Council and of the Board of Regents (the highest policy making body of the university)

**4.28. Existing clear and transparent procedures for student involvement in decision-making bodies at the university (Yes/No)**

**Answer:** Yes

**4.29. Students are expert members of quality assurance bodies at the university (Yes/No)**

**Answer:** Yes

Not allowed by law but they are asked to give feedback.

**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/No)

✓ Answer: Yes

EMPOWERING  
STUDENTS AS  
STAKEHOLDERS IN  
UNIVERSITY  
GOVERNANCE



- quality of the teaching (Yes/No)  
✓ Answer: Yes
- student learning (Yes/No)  
✓ Answer: Yes
- assessment methods (Yes/No)  
✓ Answer: Yes
- student resources available to support them (Yes/No)  
✓ Answer: Yes

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

- student support services (Yes/No)  
✓ Answer: Yes
- university social life (Yes/No)  
✓ Answer: Yes

**4.32. The information about quality assurance (procedures, schedules, results) is published and available to students (Yes/No)**

**Answer:** Yes

**4.33. Motivation for student involvement with quality assurance:**

- Monetary compensation (Yes/No)  
✓ Answer: Yes
- Credits (Yes/No)  
✓ Answer: Yes
- Other types of motivation (Yes/No) – please specify  
✓ Answer: Yes: Recognition and awards

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

**Answer:** Yes

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

**Answer:** Yes

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

**Answer:** Yes

**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/No)**

**Answer:** Yes

**4.38. Career guidance is available throughout the whole student lifecycle (Yes/No)**

**Answer:** Yes

**4.39. Career guidance is available during certain stages of the student lifecycle (Yes/No) – please specify**

**Answer:** Yes

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

**Answer:** Yes

**4.41. Career guidance specifically targeted at disadvantaged students is provided (Yes/No) – please specify**

**Answer:** Yes

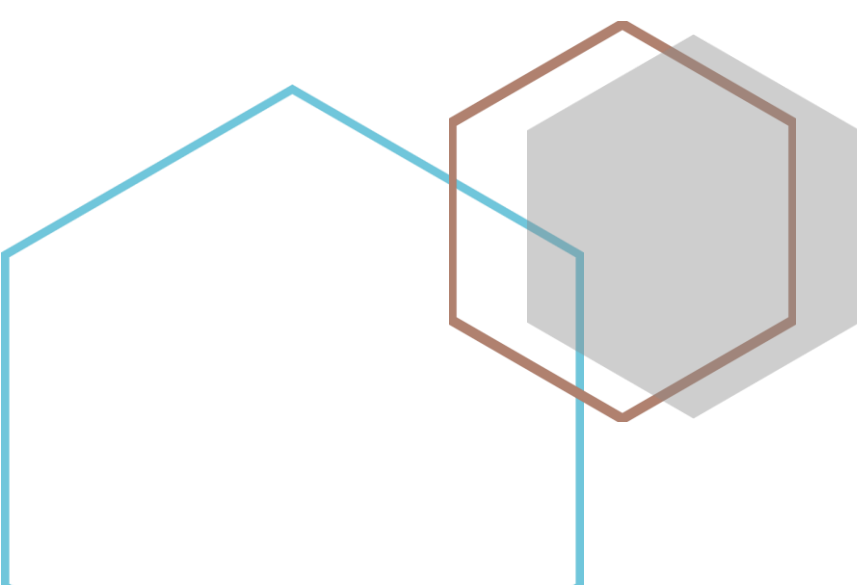
**4.42. Career guidance services are provided for graduates/alumni (Yes/No) – please specify any eligibility period**

**Answer:** Yes





# Conclusions and recommendations





## CONCLUSIONS

This screening report aims to provide an overview of the BSU's starting conditions and capacities to promote graduates' employability and develop students' talent through innovation. The conclusions are drawn from the completed score card and other information obtained, and reflected against factors promoting talent development, innovation and entrepreneurship.

The conclusions combine recognition of university and other stakeholders' engagement with student talent development with impact.

Conclusions for the conditions and capacities to build students' capacity and creating a positive impact are made based on observing the following aspects:

- The conditions
- Teaching
- Research and innovation
- Impact and cooperation with the surrounding society

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

The following text contains direct quotes from the material obtained from BSU. These are marked in cursive.

The author met with the University representatives to discuss the purpose and use of the screening report. Particular care was taken to work through the scorecard to ensure clarity of understanding, in particular to ensure shared understanding of terms that might be unfamiliar to colleagues working outside a European Union context. Given the requirement for basing the conclusion on supporting evidence, a drop box was established to enable partner country colleagues to provide supporting documentation. It has been agreed that in the absence of supporting documentation the author will be working on the presumption that mechanisms are not in place.

## THE CONDITIONS

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

- Governmental level and society

The government support and legislation enables equality in talent development. The country has recently invested greatly in elements that can harness innovation, talent development and employability of youth. These are for instance the Philippine Innovation Act which identifies 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 for instance, inequality in income has impacted equal participation in higher



education (HE), and hence also talent development. Education is an enabler and a tool for sustainable development.

The society also provides interesting topics for education and talent development - from practical training, case studies, external lecturers to real-life challenges as educational assignments and content. For instance, the great disparity in income could prompt social entrepreneurship that seeks to promote equality (e.g. Rags2Riches). The EU sees great potential in social enterprises as a future form of entrepreneurship for a sustainable future. BSU seems to be making good work at this aspect, e.g. by addressing its research and collaboration with stakeholders (e.g. companies) to topics important in the surrounding society and economy, and linking them to sustainable development and environmental issues.

The startup landscape provides great opportunities as well. The country has plenty of eager entrepreneurs as the number of established startups is high, but so is also the closure rate.

- Organisational level

BUS's self-assigned role is to serve the society, creating new information and developing student talent:

- Conducting research and extension to address community needs and problems
- Strengthening private-public partnerships
- Conducting research and extension to address environment and sustainable development

The mission statement of the university, in turn, is to 'provide quality education to enhance food security, sustainable communities, industry innovation, climate resilience, gender equality, institutional development and partnerships'. Part of the vision of the university is promotion of sustainable development amidst climate change. Concern for the environment is given equal importance alongside social and economic growth. The university is well-networked to the surrounding society.

BSU thus emerges as a forward-looking and socially responsible university. The approach can enable student talent development at many levels and into the future, as well as capacity for innovation.

The university receives part of its funding from the government and it also generates its own sources, e.g. from income-generating projects, grants, donations and other external funding. This, with a reasonable budget, should be able to guarantee sustainability of the university in the future. The university has responsibility to make decisions (the Board of Regions) on the investment and consumption of the generated funds. Based on the information obtained, BSU has a strategic approach to this for the benefit of students, university and the surrounding region.

The nature of the university (state university), enables equal access for all students. In addition, the university provides assistance for students to complete their studies, especially for disadvantaged students (see the point c – Students level).

It is a multidisciplinary university. Thus, talent can be developed in many disciplines, and this has the potential to enable multidisciplinary learning situations and assignments, developing talents for future forms of work and for innovation. Multidisciplinary is beneficial also for entrepreneurship education.

The university has at place policies and structures for student talent development, including for instance centres to support university - business relations and entrepreneurial growth (e.g. incubator). BSU attracts talented students with marketing campaigns.

The university is present in the surrounding society. For instance, representatives of industry can function as lectures, stakeholders are heard in curriculum development, and the university rents land for entrepreneurs. The university works with topics that are important to the surrounding society.

Students are heard as well. The results of feedback can be used for improving the quality of education and conditions.

The student/ educational staff ratio is positive: 7361 total number of students/360 total number of faculty and staff involved in teaching =20.44 (Ratio) 1:20. Moreover, the number of non-teaching staff is c. 600. This is expected to enable the university to stay manageable and agile for development and experiments.

- Student level

The university has 7361 students. 10 of them (0,12%) are foreign students. 0,47% of the students are with disabilities and 0,1% are mature students. In addition, there are also other groups of disadvantaged students.

Student talent is developed respecting the national approach to guarantee equal access to higher education for all. BSU provides equal opportunities for all students, which creates basic conditions for talent development, also for those who otherwise might experience barriers to participating in education. For instance, public support is provided to cover the costs of practical training. 50% of the students receive financial support e.g. as scholarships, student loans and other, and the university provides support services for reducing debt load of students, as well as legal advice.

Students are benefit from health services, dormitories (99% of the applications approved) and there is a strategy for the residential environment. In fact, the Medium-Term Development Plan (ref. Land Use Plan of the University) incorporates strategies to improve the delivery of quality education which includes construction of student dormitories, modernization of the sports facilities, etc.

Accessibility covers students with disabilities, who represent 0,47% of the students. The environment/premise is such that it supports their participation and teaching and assessment methods are also adapted to their needs. The university also addresses the needs of other disadvantaged students (mature students e.g. share 0,1%) and adapts

assessment and examination to their needs.

Talent development is also enabled by providing flexibility in learning with an opportunity for online learning. Training and support materials/database/web portal etc. about quality assurance, are provided to students. Student services office and enrolment further support students during their studies.

Students get career guidance when needed during their entire study period. This is available for all students, including the disadvantaged students. The support is also provided for alumni/graduates, and the university uses surveys to know how they have been situated in the labour markets post graduation. As part of student talent development activities, BSU organises a seminar once a year for students to showcase their ideas. It also has a place to showcase and collect innovative ideas from students, staff, faculty, community members.

Students are encouraged to become active in their own development, for instance: the students are encouraged to join various fora and entrepreneurship conferences where they can present their ideas. The fora and conferences are organized by associations promoting entrepreneurship. Of late, one BSU Agribusiness student was selected to join the competitive American Chamber of Commerce for a Business Plan Training in Manila. The BSU student won an award for good business idea. In some cases, the students receive some fund to further develop their ideas. The latest cases in point are the Team ConfiHealth of the College of Home Economic and Technology who received a PhP 100,000 (1,639 EUR) grant from winning in the Unilab Foundation's Ideas Positive, and two students who are in the Hotel and Restaurant Management Course who got a 1 million pesos (16,393 EUR) product development fund from the Department of Agriculture-Bureau of Agricultural Research Cookfest competition.

Events are organised to inform students about the practice of quality assurance. Students also have the possibility to voice their experiences and opinion, and to participate in decision-making. The President of the Student Council is part of the Academic Council and of the Board of Regents (the highest policy making body of the university). Students are asked to provide feedback on quality assurance issues despite legal limitations. They provide opinion on the design of the curriculum, on the quality of teaching, on student learning, on assessment methods, and on student support services and university social life. In turn, quality assurance information is available to students. This accountability approach typically improves the quality of education, empowers students and increases motivation and ownership of learning. Students are also motivated to participate in quality assurance by monetary compensation, credits, recognition and awards.



## TEACHING

The university respects the existing rules about modernisation of curricula in view of new challenges, national priorities and business needs. For instance, in the revision of the curriculum for the Bachelor of Science in Agriculture, the Commission on Higher Education has revised it so that it is now ladderize, thus allowing to determine where in the first two years of study the students can already get competencies that will enable them to be employable or to be self-employed. Entrepreneurship courses have been introduced in the curriculum. This is true for the other programs of the university as well. A quality management system of academic excellence is used.

BSU uses competence-based assessment. Soft skills are monitored.

Employers and labour market representatives also participate in curriculum development, decision-making or consultative bodies at institutional level, and in teaching. This has the potential to:

- Create discussion, learning and cross-fertilisation between different actors
- Allow the university staff to update their knowledge of what takes place in the field
- Sensitise entrepreneurs to the knowledge generated at universities and help the latest discoveries to trickle down from universities to enterprises
- Give university an opportunity to reassess its role in society, reflect on needs of the society, and provide new ideas for education and research.
- Pass tacit knowledge from enterprises to students.

Entrepreneurship education is part of the university's strategy. BSU follows the prescribed guidelines of the Commission on Higher Education for curriculum development on entrepreneurship education.

At BSU 7,24% of students participate in entrepreneurship programmes, and 7,22% of educators teach entrepreneurship (of which 78,9% have themselves participated in entrepreneurship training). Visitors, business practitioners, employers and labour market representatives are involved in entrepreneurship training and provide real cases to enhance learning. Students can attend forums and seminars and view videos where young entrepreneurs share their experiences.

Classroom simulation is used for addressing real-world challenges in teaching, e.g. through games where students have to overcome hurdles and solve production and marketing problems similar to those that happen in the real world. Learning takes place through simulation, play, role-play and problem solving. Working directly for companies or other stakeholders was not mentioned. Case studies are used. These are mostly written by others, e.g. the University of the Philippines in Diliman, strategic management books, and downloadable from Internet. As an example to understand the nature of case studies is the case study of the Jollibee Corporation in the Philippines. BSU's major comment is that case studies need to be updated. However, there was no mentioning of





case studies from smaller enterprises or startups – although this may just not have come up in discussions. Overall, different aspects are included in entrepreneurial and real-life learning. Only case studies need updating and potentially students working directly in cases given by a company or a stakeholder. However, in some courses students are given the chance to write mini-cases themselves.

Entrepreneurship learning is supported by other aspects as well. Students have the possibility of internship. 19% of students have participated in internship in professional settings in farm business establishments, hotels and restaurants. The agri-based technology incubation and innovation center is the new initiative to help students in start-up projects. Hence, these are linked to the region's industry structure and the specialisation of the university. These activities have the possibility to sensitise students to work life and entrepreneurship, or even to help them find employment, perhaps even stay in the region (it is a major challenge in many countries to keep students in a region after graduation). On the other hand, coaching and mentoring involve 20,29% of the students, and 2% participate in study tours. Students are provided an opportunity to participate in national competitions with their business ideas. For example, students of agribusiness course had an opportunity to present their product ideas in a national competition, and be rewarded for their innovative ideas.

BSU uses staff mobility as well but it is not very popular. Educators do not have contracts with industry/business, hence the role of other contacts with enterprises and the society become important.

## RESEARCH AND INNOVATION

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The research and development priorities of the university are in line with the national, regional and local plans. An example of this is having one of the research priorities focus on semi-temperate crops (in line with the national specialisation). BSU focuses its research and collaboration with stakeholders (e.g. companies) on topics important in the surrounding society and economy, and links them to sustainable development and environmental issues. BSU is thus working not just on regionally important topics, but also on globally important topics which are foreseen to further increase in importance (e.g. due to food shortage, climate instability and disasters impacting the availability of food).

The research and innovation capacity of the university is good. BSU has research and innovation strategies and an IPR policy. The research and development budget is c. 10,61% of the whole budget. Funding is own and external. 23,6% of the academic staff hold international grants, and 13,88% of academic staff hold industry research grants (the latter is quite an impressive figure for a state university).

PhD degree completions per full-time employed academic staff is 22 students/360 academic staff =6.11%, and the proportion of PhD completions within planned schedule is 50%. In addition, 22% of students are involved in research projects.

BSU also states that research and innovation is one of the criteria in the



promotion of faculty members. The University provides some local funding to encourage research and innovation in the colleges.

Intangible assets, e.g. copyrights, patents, licenses etc. support activity are a university strategy since recently.

Although technology development had a remarkable weight in research in the university research centers, commercialization is an area that requires attention and improvement. Despite providing seed funding, an existing IPR policy, and existing entrepreneur development bodies (e.g. incubators), the university does not provide spin-off support for full-time academic staff.

The faculty attestation rules envisage rewards of applied research for industry or local development. It is legally possible for researchers to become engaged in research supported by industry. Research addresses real-life topics. 10% of the research is related to entrepreneurship. Environment and sustainable development are included in conducting research. Herewith is described an example provided by BSU: An example of a BSU entrepreneurship-related project is the product development of the local smoked-pork “kinuday” or “Etag” which is a traditional food delicacy in the region. The project focused not only on product development but on training students and existing entrepreneurs on market development. Another entrepreneurship-related project conducted in the past was the development and marketing of organic fertilizers.

### **Student involvement in research**

BSU provided an example of how students are involved in research at the College of Agriculture. Part of the students cover areas of research in their projects. This is realised as thesis topics or as classroom-based projects in groups. This practice could be repeated in other disciplines as well. Other ways to pass research information to students include mentoring, incubators, and real-life topics as subjects of student thesis, which can also be explored at the university.

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BSU works closely with the surrounding society. Regional development and innovation are included in the university’s strategy and mission: the mission statement of the university is to provide quality education to enhance food security, sustainable communities, industry innovation, climate resilience, gender equality, institutional development and partnerships.

The Land Use Plan and on the Medium-Term Development Plan of the university impact on strategy and cooperation with the society as well: The Land Use plan includes zoning of the university property for particular uses especially academic and commercial (as the university is leasing to some public and private groups some parts of its land).

Notable examples of public-private partnerships in which the university is engaged are:

- Sharing of best and new ideas through the annual in-house

reviews where research findings are presented to the scientific community and the farmers.

- Farmers are involved in the development of technologies through the demonstration farms where the farmers showcase in their own farms the technologies generated by the university. Through the university extension program HERALDS, community leaders and entrepreneurs are involved in conceptualization of programs/projects by participating in the needs assessment surveys, and in the actual conduct of capacity building activities.
- BSU has recently initiated a partnership with an umbrella NGO like the Center for Development Programs in the Cordillera.
- Examples of collaborations aimed at obtaining research and technology development ideas, capital, and other types of support: the collaborations with Harbest Agribusiness Corporation, Allied Botanical Corporation and with some farmer associations.
- Stakeholders, enterprises and industry act as lecturers and provide case studies; of late, the Harbest Inc, an agri-based company, has been very visible on campus, giving a seminar open to faculty and students
- Multi-disciplinary projects: An example of a multidisciplinary project is on coffee where the university provides technical expertise and is in partnership with the Department of Trade and Industry and the local and regional chambers of commerce to promote coffee entrepreneurship
- The other forms of cooperation and impact are: providing information to the surrounding society (e.g. research) and renting land.

The university has not had long-term partnerships with large corporations.

The existing structures to facilitate links with industry and local community or structures in which the university is collaborating with external economic actors or the local community are the university research laboratories, incubators and accelerators, applied research centres, research and development units, technology transfer offices. The BSU has also commenced the creation of a technology park is coming. The extension office helps to share generated R&D results. The agri-based technology incubation and innovation center of the university also assists in the promotion of startups. Farmers and other graduates operate here with the objective to improve farming technologies and food processing. These two aforementioned centres are becoming central in BSU's university-business relations. In addition, there are colleges with their own connections. All these units make part of the university's strategy of innovation, innovation support or knowledge transfer to the external environment. These bodies and activities are in line with the industry structure of the region and hence, are highly





relevant. Licensing matters still require attention and development.

Technology transfer functions are implemented through hiring skilled staff, improving technical support to researchers, and increasing access to capital for researchers.

BSU describes as its major strategy in technology transfer, the involvement of the clients i.e., farmers in the demonstration farms in order for them to be convinced themselves of the defectiveness of the technologies.

In addition, a harvest festival for farmers will function as an occasion to see and learn about technology. The university cooperates in this with farmer organizations and the local communities.

## TO SUMMARISE

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Observing the different aspects of Benguet State University capacity, from the general conditions to teaching, research - innovation and cooperation with the surrounding society, it is safe to say that BSU has great potential to positively impact students' talent development and hence employability at multiple levels in the long term. We see the direction of the university as very positive. It is a good point to continue.

Many of the enabling conditions for talent development are at place. BSU 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. [https://ec.europa.eu/education/policy/higher-education/knowledge-innovation-triangle\\_en](https://ec.europa.eu/education/policy/higher-education/knowledge-innovation-triangle_en)). The Knowledge Triangle comprises cooperation and mutual influence between its three parts, thus engaging the Benguet State University to cooperation with its stakeholders as well.

The multidisciplinary university provides equal opportunities for all students, cooperates with the surrounding society, contributes to the regional economy and industry structure, provides research, and educates its staff and the future work force, while also sensitising them to entrepreneurship and innovation. Students and their development are well taken care of and followed up. In addition, BSU continuously develops its processes proactively in line with the societal development and governmental recommendations, the elements of the surrounding society and feedback from the stakeholders and students. The regional embeddedness of the university is a great asset in that it ensures strong (albeit regional) impact and highly relevant educational offer (albeit at regional level). The forward-looking orientation of BSU, e.g. investment in sustainable development, is significant as it has the potential to keep the organisation at the edge of development, serve the surrounding society, and develop students' talent in a future-oriented manner for future professions and changing skills-needs of the labour market.

When talking about innovation and talent development, it is good to remember the sources for both are everywhere in the 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 in 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. Naturally, developing innovation-friendly culture is also important.

A few ideas for development arose from the material provided by BSU and were benchmarked as elements that are usually said to contribute to innovation and talent development:

- Increasing multidisciplinary activity, project work and making students work on assignments provided by companies, organisations and other stakeholders
- Updating case studies. This can be achieved, for instance, by identifying smaller scale case studies and best and worse practices from the surrounding society and SMEs, as often the case studies in the literature are of big successful companies making it difficult to scale the examples into the reality of e.g. smaller companies
- Increasing involvement of stakeholders and target groups into university activities, e.g. attracting them to participate in research
- Investing in culture that promotes innovation, creativity and entrepreneurship, e.g. via novel teaching methods (to mention Design Thinking)
- Continue developing soft skills and intangible competencies needed in the future society (see the list below). The university already monitors these.

Employability is more than infrastructure, research skills or entrepreneurial competencies. For instance in Europe, the unemployment rate of PhD's is high, despite the talent developed, and indeed there have been many development projects addressing this. Other higher education graduates also suffer from unemployment, although far less often. At the same time, the competencies required in work life are changing. Different policies outline competencies that are foreseen to be increasingly important and should be developed to improve the situation. Herewith are some of those for use as a benchmarking example.

Future employability competency clusters:

- PEOPLE DIMENSION, including user-orientation, cooperation, 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 persistent problems, solution-orientation, creativity, ability to tolerate insecurity in decision making, looking for 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 detect and understand change on the systemic level, foresee its impact and adapt to change
- **CURIOSITY AND INTERNATIONALITY**, curiosity is one of the major elements for innovation and creativity. It comprises passion, interest, openness to new ideas, thinking outside the box, and willingness to connect one's own work to something meaningful.

