Framework for Academe-Industry Linkages: University of Science and Technology of Southern Philippines (USTP)
Outline of Presentation

• Profile of State Universities and Colleges (SUCs)
• State of SUCs’ Collaboration with Industries
• USTP Framework for Academe – Industry Collaboration
• Operationalizing the A-I Framework
SUC Profile in the Philippines

Distribution of Higher Education Institutions

230 (12%) Public
1,712 (88%) Private
1,942 TOTAL
Excluding 447 SUC Satellite/Extension Campus

Distribution of Students

1.62M (45%) Public
1.95M (55%) Private
3.57M TOTAL

Source: CHED, AY 2016-17
Distribution of SUCs per Region

<table>
<thead>
<tr>
<th>REGION</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV-A</th>
<th>IV-B</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
<th>X</th>
<th>XI</th>
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Distribution per Discipline

- Engineering & Technology: 98 SUCs
- Agriculture: 58 SUCs
- Teacher Education: 96 SUCs
- Others: 91 SUCs

Total of 111 SUCs
SUC Faculty Profile

6% (943) Professors

22% (3,761) Assoc. Professors

Php 1.1B Research Funding estimate (2017)

Note: No. of respondents – 65 SUCs; Total Faculty: 16,914

Source: CHED, August 2016
State of SUC-Industry Research Collaboration

21% : [0] Academe-Industry Collaboration

57% : [2-6] Academe-Industry Collaboration

22% : [7-10 or More] A-I Collaboration
Why SUCs score so poorly on industry research collaboration?

- **Rewards and incentives of Faculty**
  - Faculty assignment and performance
  - Tenure and promotion
  - Incentives are associated with publish or perish principle
  - Added hassle, but no contribution to economics

- **SUCs Leadership**
  - Lack or limited appreciation by SUC leaders
  - SUC’s capacity to collaborate
  - Status quo is less risky

- **Governmental policies and regulations**
  - Existing policies and regulations do not encourage A-I collaboration
  - SUCs Performance (SUC Levelling, PBB, Accreditation)
  - Ambiguous legal requirements, rules and regulations
Education, Human Capital, and Innovation

Academe-Industry Partnership
- Teaching and learning
- Research

HUMAN CAPITAL DEVELOPMENT
- Improve graduate outcomes and effective knowledge transfer
- Ready-for-work graduates
- Graduates with entrepreneurial orientation
- Technology solutions to pressing industry problems
- Quality and relevant research with commercial value
- Opportunities, motivation, and develop the ability of students and faculty

Key Principles
- Innovation propels economic development
- Innovation thrives on the quality of human capital
- Human capital is developed through quality and relevant education

USTP

INDUSTRIES

INNOVATION

ECONOMIC and SOCIAL DEVELOPMENT
USTP Framework for Academe-Industry Linkages

Seamless environment for teaching and research. Teaching and learning is enhanced thru research.

Lessen job-skills mismatch thru adoption of teaching factory concept and DTS with industries involvement.

The university and industry sharing and utilizing expertise and gaining access to skilled faculty researchers providing solutions to problems.

International recognition for leading-edge research & technology solutions to global challenges.

Provision of technology solutions and innovations to pressing industry problems to stimulate industrial growth and development.

Develop new ideas, products, and services with practical applications and commercial value.

INSTRUCTION: Teaching and Learning

RESEARCH

EXTENSION: Contribution to Society

Knowledge Transfer

Technology Innovations-Knowledge Creation

Creating, Sharing, and Utilizing Knowledge

Creating, Sharing, and Utilizing Knowledge

INSTRUCTION: Teaching and Learning

USTP’s Mission

EXTENSION: Contribution to Society

INSTRUCTION: Teaching and Learning

RESEARCH

EXTENSION: Contribution to Society

INSTRUCTION: Teaching and Learning

RESEARCH

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INSTRUCTION: Teaching and Learning

RESEARCH

EXTENSION: Contribution to Society
Seamless Link Between Research-Teaching

INSTRUCTION: Teaching and Learning

Knowledge Transfer

USTP’s Mission

RESEARCH

Technology Innovations-Knowledge Creation

- Teaching and learning facilitated thru research findings
- Faculty conducting breakthrough and applied research to contribute to the advancement of knowledge and economy
- Research works are conducted with the participation of industry and business thereby ensuring commercial value
- Faculty assignment - either teaching or research or a combination thereof
- Faculty promotions and incentives are based on their performance and productivity in teaching and/or research
S & T Industry locators as experts in keeping the DACUM process in curriculum design (Sec 32, RA10919)

Dual Training System (1 year OJT requirement) (Sec 32, RA10919); learning by doing

Science and Technology Park for DTS and others (Sec 28, RA10919)

Review of curricular offerings by Industry-Academe Council (Sec 28, RA10919)

Determination and approval of curricular programs rest solely on the Governing Board; governmental policies and standards may serve only as guide (Sec 17, RA10919)

Tax incentives for industry partners (Sec. 29, R.A 10919)
• Technology solutions to pressing industry problems
• USTP sharing financial resources on research benefiting the industry (Sec 31, RA10919)
• Partnership from conceptualization, prototyping to commercialization (Sec. 31, RA10919)
• Faculty Development to industries for research undertakings (Sec. 32, RA10919)
• Faculty industry immersion (Sec. 32, RA10919)
• Industry – Academe Council (Sec. 43, RA10919)
  • Monitor Joint Research Project
  • Clearing house for joint research project proposal
• Science and Technology Park (Sec. 28 RA10919)
• Tax incentives for industry partners (Sec. 29., R.A 10919)
Operationalizing A-I thru Faculty Appointment and Promotion

Appointments of Faculty (Sec. 46, RA 10919)

- Faculty may opt for teaching or research or services to society or a combination thereof
- Faculty promotion thru NBC no. 461 (DBM-CHED-PASUC agreement)
- Hiring of foreign experts as faculty is allowed (Sec 46, RA 10919)
It is not only firms who innovate; public sector entities also innovate by introducing new approaches to provide quality public services and better respond to society's needs. The public sector includes all public corporations and general government at central, state and local levels.

(www.innovationpolicyplatform.org)
Public Sector Innovation: USTP-Gov’t Collaboration

Business Permit Management System [BPMS]

- a new system of processes and procedures developed by USTP-ICT to assist the City Gov’t.
OBO Services:

- Building Permit Applications
- Evaluation
- Approval
- Monitoring
- Issuances
- Notifications
- Reporting

THE PROBLEM

- Processing Time: 2-5 months
- Presence of “FIXERS”
- Turn-off to investors

High Economic Loss
Public Sector Innovation: USTP-Gov’t Collaboration

**USTP’s Intervention**

- Conducted research and analysis on OBO’s processes
- Recommended appropriate policies to be adopted
  - Developed and enhanced processes and procedures
  - Design and integrate an automation system
  - Capacitate personnel on the use of ICT

**THE RESULT**

REDUCED processing period from 5 months to 3 DAYS
Food Innovation Center

Product Innovation: FOOD
USTP-Gov’t-Industry Collaboration

SERVICES:
- Product Development
- Packaging & Labelling
- Intellectual Property
- Training Programs
- Consultancy
- Research

OUTPUTS:
- 200 SMEs Assisted
- 40 Products Developed
- 32 Clients for Consultancy & Training
Business Incubation Technology Entrepreneurship and Startups (BITES)

SERVICES:
- Incubation mentoring/coaching
- Trainings
- Networking events
- Other basic services

Startup Companies
- Hyperstack
- Wela: Bai Web and Mobile Lab
- Scribbles
- Tome
- XGN
- Shoplocal
- CtrlShift Web Technologies
- MicDrapp

For the pre-incubation phase
# USTP Techno Park (Sec. 28, RA10919)

## AREA TABULATION

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<thead>
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<th>Area</th>
<th>Area (Ha)</th>
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<tr>
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<td>Housing</td>
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<td>Commercial Center</td>
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<td>USTP Main Campus</td>
<td>90.00</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>292.00</strong></td>
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Mindanao’s income contributes significantly to the national economy with the largest share coming from the services sector.

Region X, on the other hand, has one of the fastest growing economy in Mindanao averaging at 6% annually in the last 10 years. It has recorded a per capita Gross Regional Domestic Product (GRDP) of P485 billion in 2014. The Philippine Statistics Authority reports that out of the country’s 17 regions, Northern Mindanao is one of the 8 regional economies recorded with accelerated growths from 2013 to 2014 with acceleration of 5.3 to 7.2%.
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