UNIVERSITY-BUSINESS COOPERATION FOR REGIONAL DEVELOPMENT

Case of Indonesia

Edwan Kardena
• World is facing many problems. There are problems in the US...early this week Bill Gate was interviewed in CNN and asked on what is his opinion on if student follow his path...drop out from university but the success in doing business...He is addressing the problem in US higher education...by saying that education is something that need to be invested..

• In the UK there are also problems...to day the cost of tuition fee for home students was increased significantly

• I believe there are also problems in Europe and also Asia...
• Global issues such as climate change, global economic resession, food and energy security, environmental and water...are need to be seriously addressed.

• If not university...who else can take the initiative..

• University can contribute not only by the work of their professors through research, development and innovation but also by producing graduates having global competences that can survive and meet high criteria of global world
International Presidential Forum hosted by KAIST in Korea on 8th November 2011 pointed out the need of university to adjust themself so that they can produce graduates with global competences......a borderless and creative education is needed....

New academia must be created....To establish undergraduate and postgraduate programs we only need PhDs/Professors...to establish research university we need research culture..but soon this mind set will also be the pass...Creative Education..that will produce creative and innovative students need creative and innovative system of educations
ORIENTATION OF HIGHER EDUCATION

SCHOLASTICS

ARISTOTLE (384-322 BC)

HUMANISM

CICERO (106-43 BC)

ORIENTATION/DIRECTION OF HIGHER EDUCATION DEVELOPMENT
Globalisation in Higher Education

• Best students want to go to the best university
  – Case of Japan: Best students from (even) best university in Japan want to study in “better university”...such as in to the US or Europe
  – Case of Indonesia: Best students want to study abroad

• Best graduates want to go to the best job. Best job in a global context...means that best graduates will mostly go global
Interregional Migration of
College Graduate Human Resources (stock base 2000)

Accelerating Expansion of Indonesian Economic Development

“Center for Production and Processing of Natural Products and National Energy Barn”

“Center for Production and Processing of Mining Product & National Energy Barn”

“Center for Production and Processing of Agricultural Products, Plantation, Fishery, Oil&Gas, and Mining”

“Support for National Industries and Services”

“Gateway for National Tourism and Support for National Food Supply”

“Center for Development of Food, Fishery, Energy, and Mining”
Strategies for Development Expansion Acceleration

1. Develop Economic Potentials Through Economic Corridors
2. Strengthen National Connectivity
3. Increase the Capability of National HR and National Science and Technology.

Develop Higher Education in Science & Technology (including engineering and mathematics) to conduct activities on teaching and learning, research, and community services completely and comprehensively to support and in line with economic development program.

Roles of Ministry of Education and Cultures
Roles of Higher Education in Economic Development

KTI: Knowledge and Technology Intensive (OECD)

<table>
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<tr>
<th>Primary Industries</th>
<th>Secondary Industries</th>
<th>Tertiary Industries</th>
<th>KTI Industries</th>
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<tbody>
<tr>
<td><strong>Driver</strong></td>
<td>Produce skilled labors that can improve the work processes so that higher education graduates can increase productivity and added values to industries</td>
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<td><strong>Enabler</strong></td>
<td>Produce research that can be implemented in product and process innovation so that new industries with higher added values are created.</td>
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Model cooperation at the established/big universities
PT MULTISTRADA ARAH SARANA-----National Tyre
Nokia---------- Mobile Application Development
PT. INDOSAT------- Mobile Application Development
PT. PINDAD-------- non-military product
PT. SANYO Indonesia-------- clean water for rural community
YAMAHA-------- together with Hiroshima University
POHANG UNIV OF SCIENCE AND TECHNOLOGY (POSTECH) \n\nINSTITUT TEKNOLOGI BANDUNG (ITB) \n\nPOSCO AND ITB RESEARCH AGREEMENT \n\nResearch activity in iron making, steel making, rolling and other technologies \n\nKRAKATAU POSCO IN INDONESIA \n\nPOSCO STEEL COMPANY KOREA \nKRAKATAU STEEL COMPANY INDONESIA
GRADUATE SCHOOL OF ENVIRONMENTAL STUDIES TOHOKU UNIVERSITY

FTTM AND FTSL ITB

ENERGY SECURITY (SATELITE OFFICE AT ITB)

RESEARCH and CLASS/EDUCATION

Master student 1st year in ITB
2nd moved to TOHOKU
PhD student 1st year in ITB
2nd year moved to TOHOKU
3rd year back to ITB

ITB GRADUATES (S1 AND S2)
Enrol I as master and PhD student of TOHOKU

ITB STUDENTS (S1)
Sit in at TOHOKU
Class in ITB

2 ITB professors
Teach in this program

JAPEX (financial)

2 TOHOKU Professors
Stay in ITB

A group of TOHOKU professor
Come to ITB to teach regularly
INDUSTRY NEEDS (PROBLEMS)

PROBLEM SOLVED

UNIVERSITY’S EXPERTISE

GRADUATES

ALL CONTRACT DONE THROUGH:
university’s FOUNDATION
Institute for Research and Community Services
university owned companies
EDUCATION/TEACHING AT UNIVERSITY

GAP

INDUSTRIAL NEEDS

Training Center ---- HUAWEI Indonesia
Software donation ---- Schlumberger
Equipment donation ---- TOTAL Indonesie
Internship -------------
PT Garuda Maintenance Facilities (GMF)
• UNIVERSITY JOB FAIR.........
• CAREER DEVELOPMENT CENTRE (CDC)
• INFORMATION SESSIONS
• AGREEMENT WITH INDUSTRIES TO PROVIDE FACILITIES FOR STUDENT INTERNSHIP
• DEVELOPING ENTREPRENEURIAL SKILL through Institute for Innovation and Entrepreneurial Development/Incubator business
Ordered Oriented Training

• Normally at master level
• Students are employee of industries
• Examples:
  – Master of logistic (ordered by BULOG)
Regional Development
Accelerating Expansion of Indonesian Economic Development

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Expansion of Laboratorium of Kampar Palm Oil Polytechnique (Sumatra)

- Establishment New Laboratorium for teaching and innovation in down stream process (especially using waste as material) enabling students to learn how to establish zero waste palm oil mill industries
- Involving budget from KOICA and company from Korea
- Supported by 36 palm oil mill industries in the region
- Supervised by one big national university
Other Polytechniques linked with Industries

• Chevron/Caltex Polytechnique (Sumatera)
• Balikpapan Politechnique (Kalimantan)
• Art Polytechnique (Central Jawa)
Development of New Program Related to the Specific Need of the Region

• Mining Engineering at Cendrawasih University (Papua)
• Maritime/Ocean Engineering at Pattimura University (Maluku)
• Involving funding and technical assistant from Dutch government and universities...partnering with Indonesian universities...ITB for mining engineering and ITS for maritime/Ocean engineering