



# **Current and Future Direction in Teaching and Learning: A Case for UniKL Malaysian Institute of Information Technology**

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# INTRODUCTION



<b>UNIVERSITY</b>	<b>UNIVERSITI KUALA LUMPUR</b>
<b>FACULTY</b>	<b>MIIT (School of IT)</b>
<b>TOTAL NO. OF STUDENTS</b>	<b>MIIT : 2600 UNIKL: 23,000+_</b>
<b>ACADEMIC PROGRAM</b>	<b>5 Diploma 7 Degrees 1 MSc 1 PhD</b>
<b>LOCATION</b>	<b>KL City Centre</b>

# ACADEMIC



# ACADEMIC PROGRAM

LEVEL	PROGRAM
DIPLOMA	<ul style="list-style-type: none"><li>• <i>Diploma in Networking</i></li><li>• <i>Diploma in Computer Engineering</i></li><li>• <i>Diploma in IT</i></li><li>• <i>Diploma in Multimedia</i></li><li>• <i>Diploma in Animation</i></li></ul>
BACHELOR	<ul style="list-style-type: none"><li>• <i>Bachelor in Networking System</i></li><li>• <i>Bachelor in Computer Engineering</i></li><li>• <i>Bachelor in Computer Security System</i></li><li>• <i>Bachelor in Software Engineering</i></li><li>• <i>Bachelor in Computer Entrepreneurial Management</i></li><li>• <i>Bachelor in Interactive Multimedia</i></li><li>• <i>Bachelor in Animation</i></li></ul>
MASTER	MIT (Research)
PhD	PhD (IT)

## STRATEGY 1: EMBEDDED PROFESSIONAL CERTIFICATE

DEGREE	PROFESSIONAL CERTIFICATE
<i>Bachelor in Networking System</i>	<ul style="list-style-type: none"> <li>✓ CCENT</li> <li>✓ CCNA</li> <li>CCNA Security</li> <li>CCNP I (Advanced Routing)</li> <li>CCNP 2(Multilayer Switching)</li> <li>CCNP 3(Network Troubleshooting)</li> </ul>
<i>Bachelor in Computer Engineering</i>	* MicroChip
<i>Bachelor in Computer Security System</i>	<ul style="list-style-type: none"> <li>✓ Certified Ethical Hackers</li> <li>✓ CCNA Security</li> </ul>
<i>Bachelor in Software Engineering</i>	<ul style="list-style-type: none"> <li>✓ Certified Professional Requirement Engineer</li> <li>✓ Certified Tester Foundation Level</li> <li>✓ InfoSys</li> </ul>
<i>Bachelor in Computer Entrepreneurial Management</i>	<ul style="list-style-type: none"> <li>✓ InfoSys</li> <li>✓ SAP</li> </ul>
<i>Bachelor in Interactive Multimedia</i>	<ul style="list-style-type: none"> <li>✓ Adobe Certified Associate</li> </ul>
<i>Bachelor in Animation</i>	<ul style="list-style-type: none"> <li>✓ NUKE Level 1 Certification</li> </ul>



CERTIFIED  
ASSOCIATE

**Microsoft**<sup>®</sup>

*Technology  
Associate*

Infosys<sup>®</sup>



**NUKE**  
BY THE FOUNDRY

PROFESSIONAL  
CERTIFICATE BODIES

CERTIFICATE BODIES

**MSTB**  
Malaysian  
Software Testing Board

**CEH**<sup>TM</sup>  
Certified Ethical Hacker

**SAP**



**MICROCHIP**

*Academic Program*

**CISCO**<sup>TM</sup>

Networking  
Academy

## Strategy 2: PROFESSIONAL CERTIFICATE – A requirement to graduate

PERIOD	
2010 - 2014	EMBED PROFESSIONAL CERTIFICATES IN ACADEMIC PROGRAM
	PREPARE STUDENTS FOR EXAMINATION
	ENCOURAGE STUDENTS TO SIT FOR THE EXAM BEFORE THEY GRADUATE
2015 +	PROFESSIONAL CERTIFICATE: REQUIREMENT TO GRADUATE

### PROFESSIONALLY CERTIFIED NO. OF STUDENTS

YEAR	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cert			200	300	500						

PROVIDE INCENTIVE FOR STUDENTS TO GET PROFESSIONAL CERT!!

## Strategy 3: INDUSTRY ATTACHMENT AND MOBILISATION (Overseas) IN THE FORMULATION OF CURRICULUM

SEMESTER	LIST OF SUBJECTS	OUTCOMES	ACADEMIC PLAN
1			
2			
3			
4			INDUSTRIAL ATTACHMENT
5			EXCHANGE 1- (OVERSEAS)
6			EXCHANGE 2 - (Overseas)/ FINAL YEAR PROJECT 1
7			FINAL YEAR PROJECT 2
8	INDUSTRIAL TRAINING		INDUSTRIAL TRAINING

**COMPULSORY FOR STUDENTS TO SPEND AT LEAST 1 SEMESTER AWAY FROM UNIKL/MALAYSIA!!**



## EXAMPLES OF CURRICULUM INCLUDING LIST OF SUBJECTS AND OUTCOMES

- [Matrixes for Bachelor of Multimedia Technology in Interactive Multimedia Design](#)

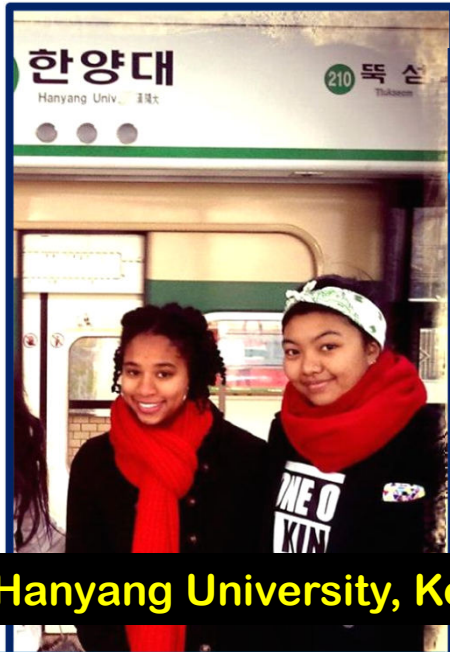
# GLOBAL MOBILISATION



## INTERNATIONAL STUDENTS EXCHANGE ( OUTBOUND )

Year	Universities	Students
Jul 2010	Carinthia University of Applied Sciences, Austria	3
	Politeknik Seni Yogyakarta, Indonesia	6
Jan 2011	Royal University of Agriculture, Cambodia	11
Jul 2011	Hanyang University, South Korea	2
	Royal University of Agriculture, Cambodia	5
	Semyung University, South Korea	4
Jan 2012	Royal University of Agriculture, Cambodia	5
	Semyung University, South Korea	5
Jul 2012	Hanyang University, South Korea	1
	Royal University of Agriculture, Cambodia	6
Jan 2013	Royal University of Agriculture, Cambodia	10
	Semyung University, South Korea	7
Sept 2013	Royal University of Agriculture, Cambodia	9
	Semyung University, South Korea	2

# INTERNATIONAL STUDENTS EXCHANGE ( OUTBOUND )



**Hanyang University, Korea**



**Semyung University, Korea**



**Royal University of Agriculture, Cambodia**



**CUAS, Austria**

## INTERNATIONAL STUDENTS EXCHANGE ( INBOUND )

Year	Universities	Students
Jul 2009	Carinthia University of Applied Sciences, Austria	2
Jul 2010	Carinthia University of Applied Sciences, Austria	3
	Politeknik Seni Yogyakarta, Indonesia	6
Jul 2011	Semyung University, South Korea	5
Jul 2012	Semyung University, South Korea	5
	ECE Paris, France	13
Jan 2013	Semyung University, South Korea	6
	ECE Paris, France	29
Sep 2013	Carinthia University of Applied Sciences, Austria	4
	ECE Paris, France	31
	Hanyang University, Korea	1
	Semyung University, Korea	3

# INTERNATIONAL STUDENTS EXCHANGE ( INBOUND )



**IITU, Kazakhstan**



**Semyung Uni, Korea**



**Hanyang Uni, Korea**



**ECE Paris, France**



**Politeknik Seni Yogya, Indonesia**



**CUAS, Austria**

## INTERNATIONAL STUDENTS EXCHANGE ( SHORT COURSES )

Year	Universities	Programmes / Duration	Students
Jun 2011	International Information Technologies University, Kazakhstan	Edu-Tourism ( 2 weeks )	21
Jan 2012	Hanyang University, South Korea	English as a Second Language ( ESL ) ( 2 months )	20
Jan 2013	International Information Technologies University, Kazakhstan	Internship ( 1 month )	13
Jun 2013	Hanyang University, South Korea	Korean Cultural Programme ( 2 weeks )	24
Jul 2013	Semyung University, South Korea	English as a Second Language ( ESL ) ( 1 month )	33

# INTERNATIONAL STUDENTS EXCHANGE ( SHORT COURSES )



**MIT – SMU ESL Program**



**IITU Edu-Tourism**



**HYU Korean Cultural Program**



**HYU ESL Program**



# AWARD / SCHOLARSHIP



**ERICA Scholarship  
( combined Masters and Doctoral in Engineering studies )  
by HANYANG UNIVERSITY, KOREA**

# AWARD / SCHOLARSHIP



**ACE GLOBAL Scholarship  
( Degree )  
by SEMYUNG UNIVERSITY, KOREA**

## ACADEMIC MOBILISATION



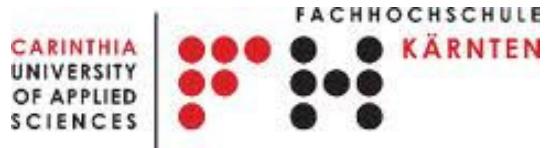
**IITU, Kazakhstan**  
AP Dr Shamsul Anuar Mokhtar  
( Sept – Dec 2012 )

## LECTURERS EXCHANGE

**KazaTU, Kazakhstan**  
Samratul Janin Sidal  
( Nov – Dec 2012 )



# CURRENT UNIVERSITY PARTNERS



AUSTRIA



**ECE**

PARIS ÉCOLE D'INGÉNIEURS

FRANCE



CAMBODIA



INDONESIA



KOREA



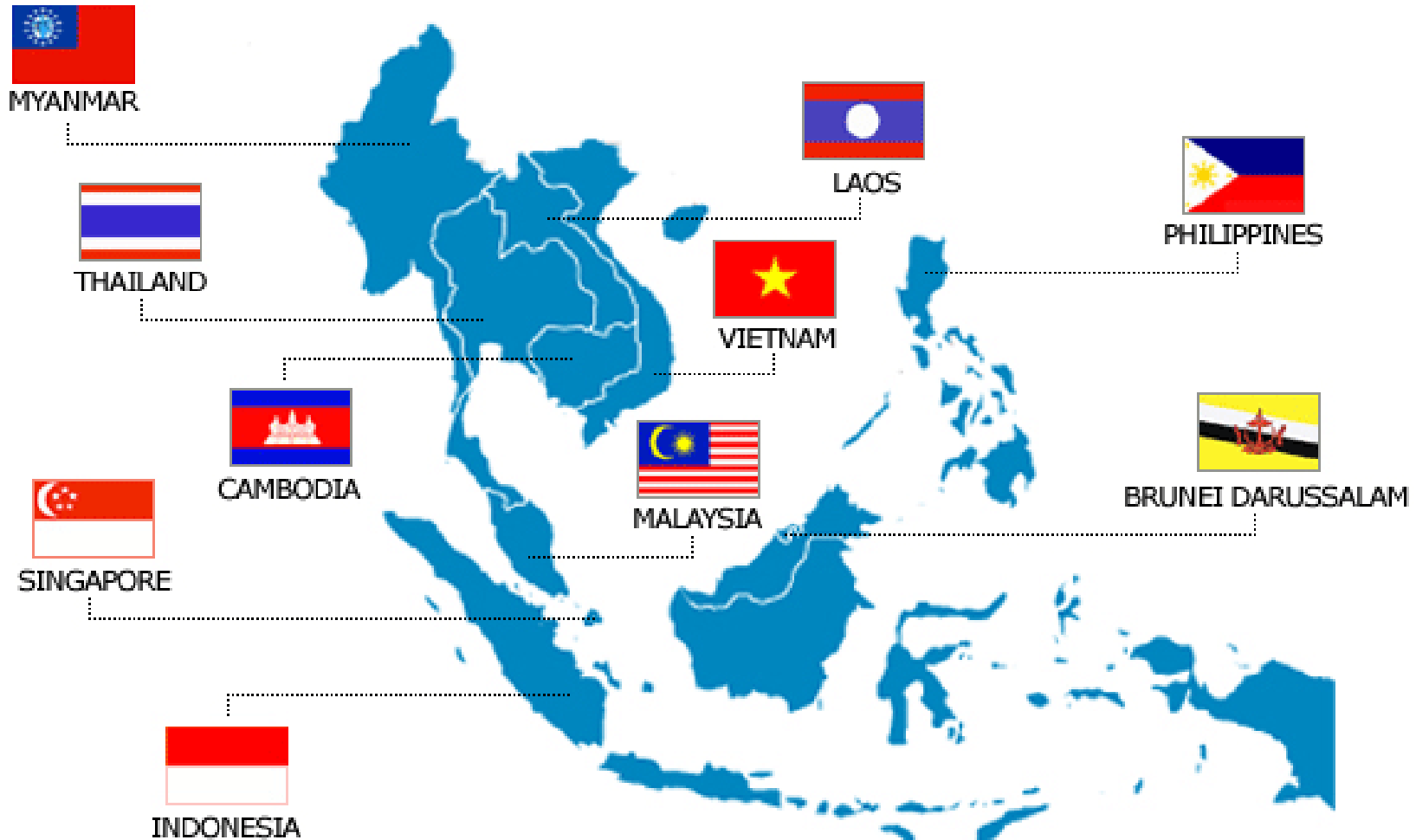
KAZAKHSTAN



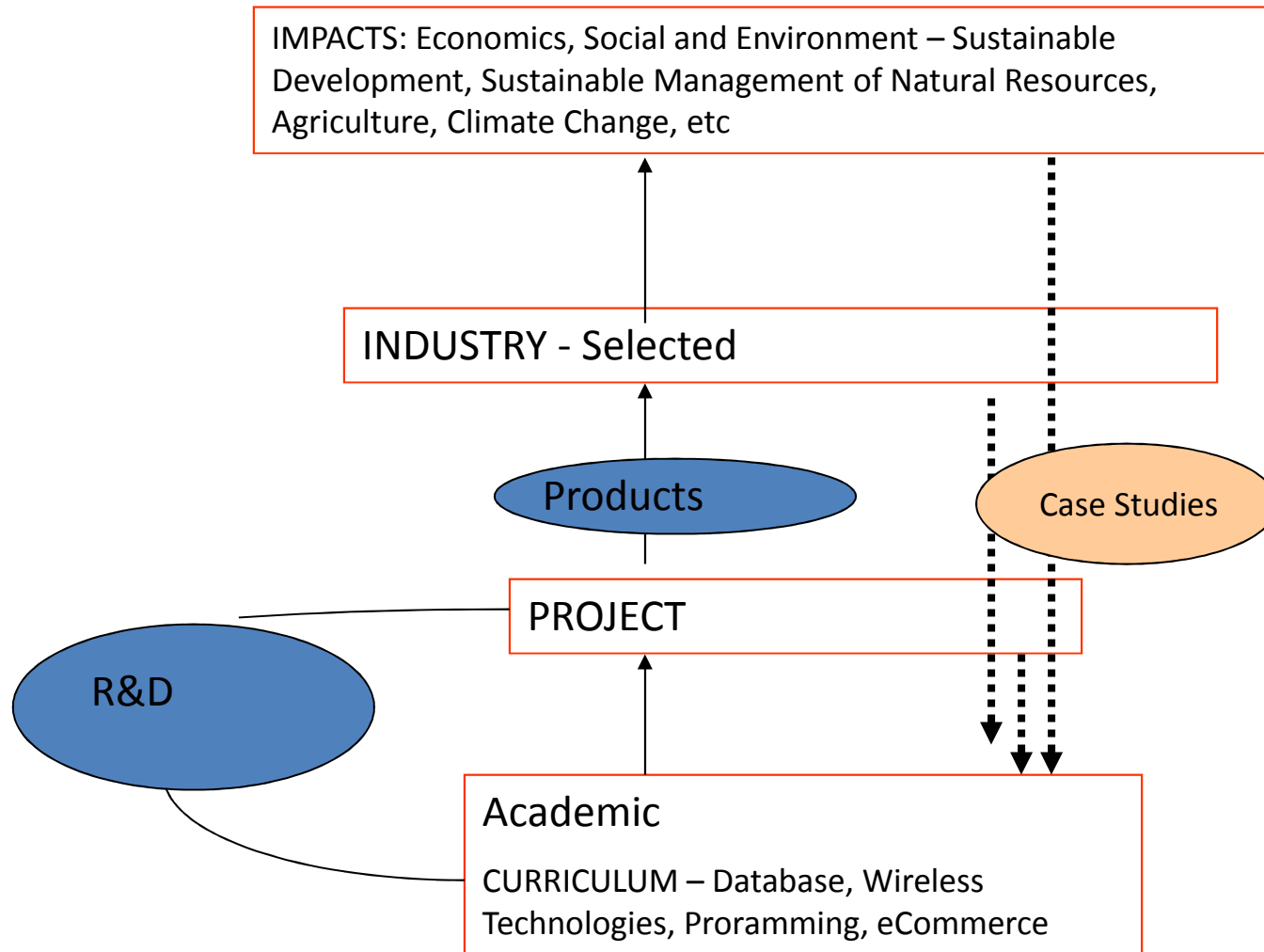
## Strategy 4: Promote the Concept of “Associate Campus”

- Register your partner universities as your associate campus
- Gred and subjects studied in associate campus will be calculated as part of GPA and CGPA.

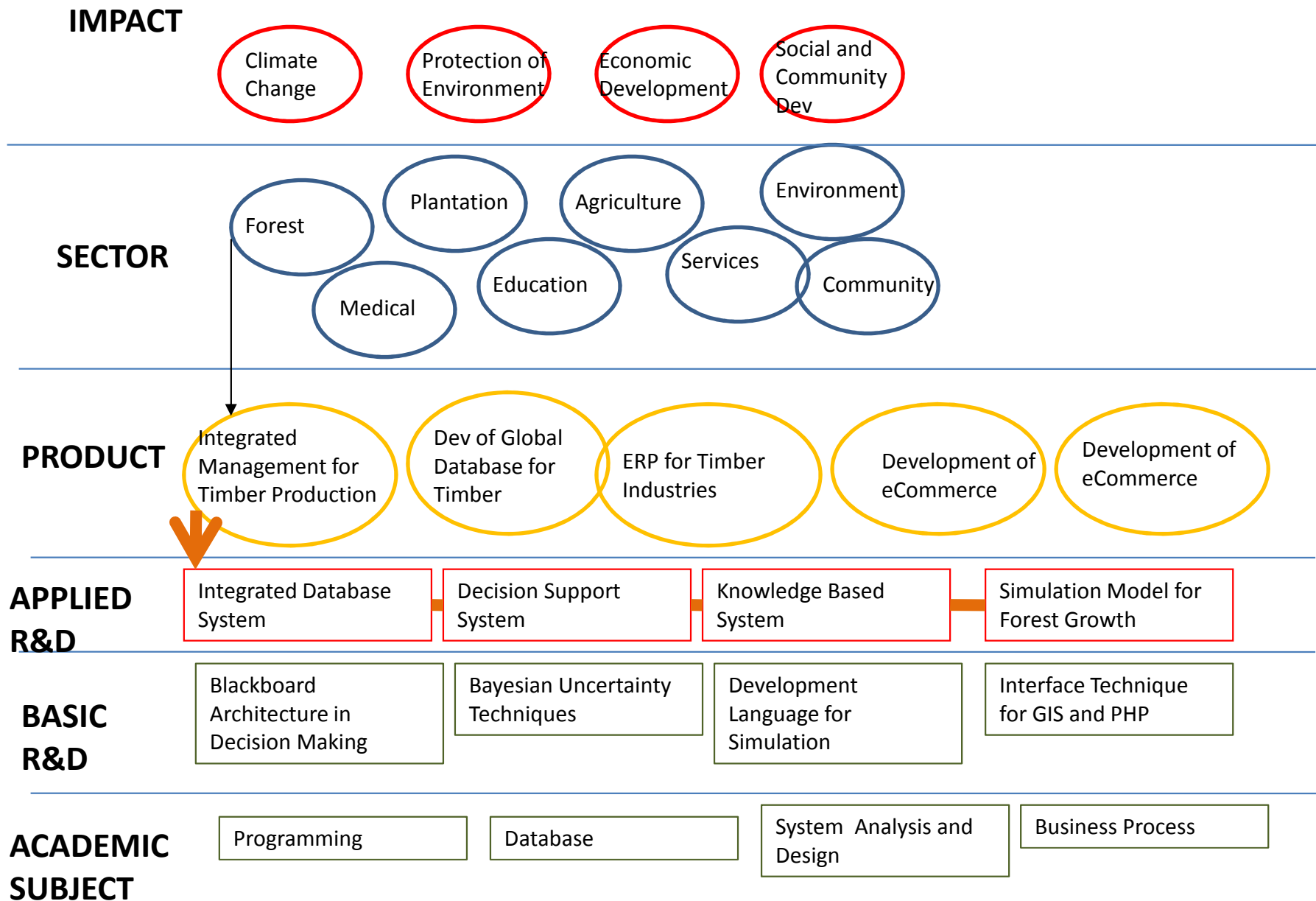
# Extension: Universities in ASEAN countries – Associate Campus



## Strategy 5: R&D to Support Academic Excellence

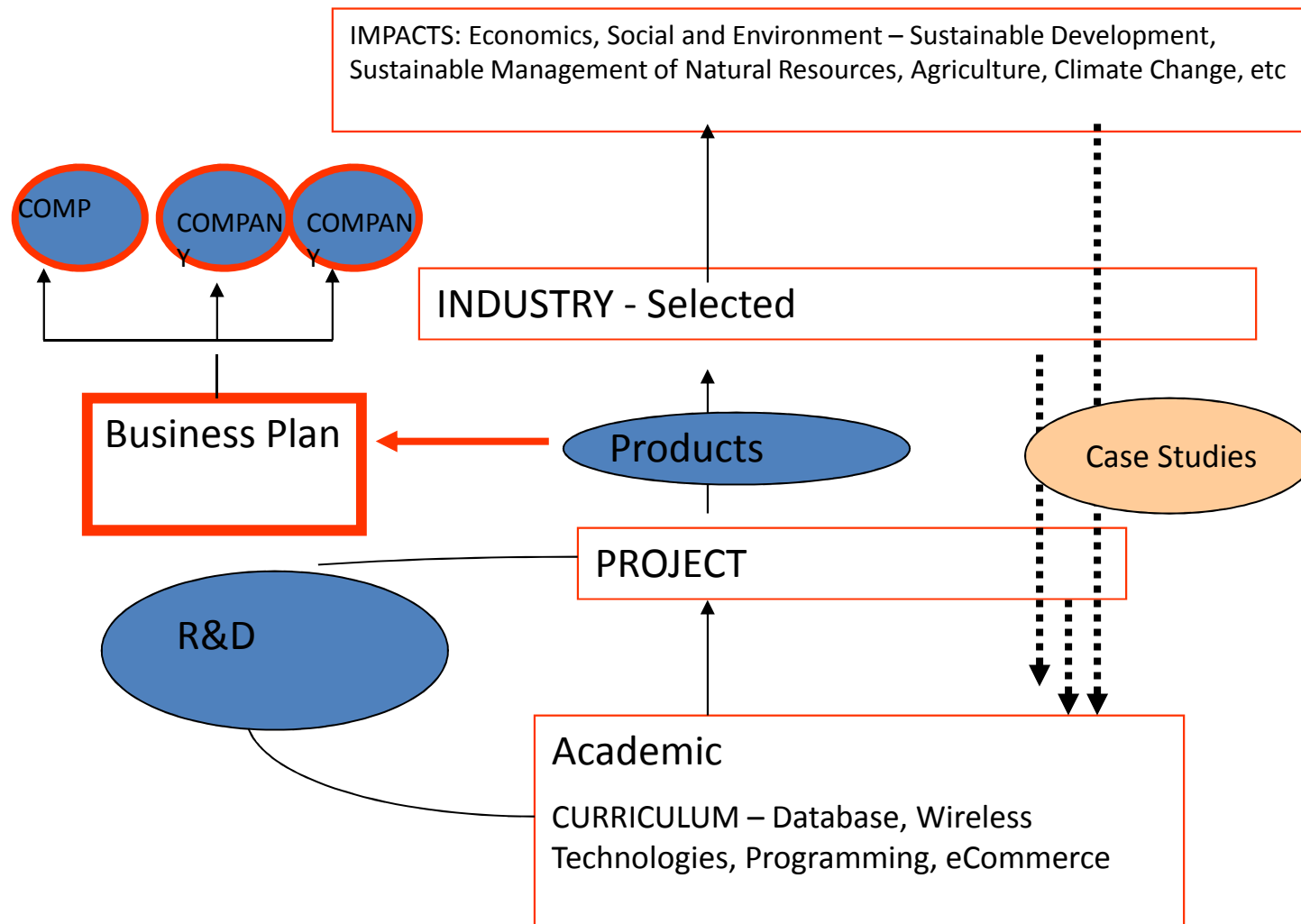


# IDENTIFICATION OF PROJECTS – OUR APPROACH

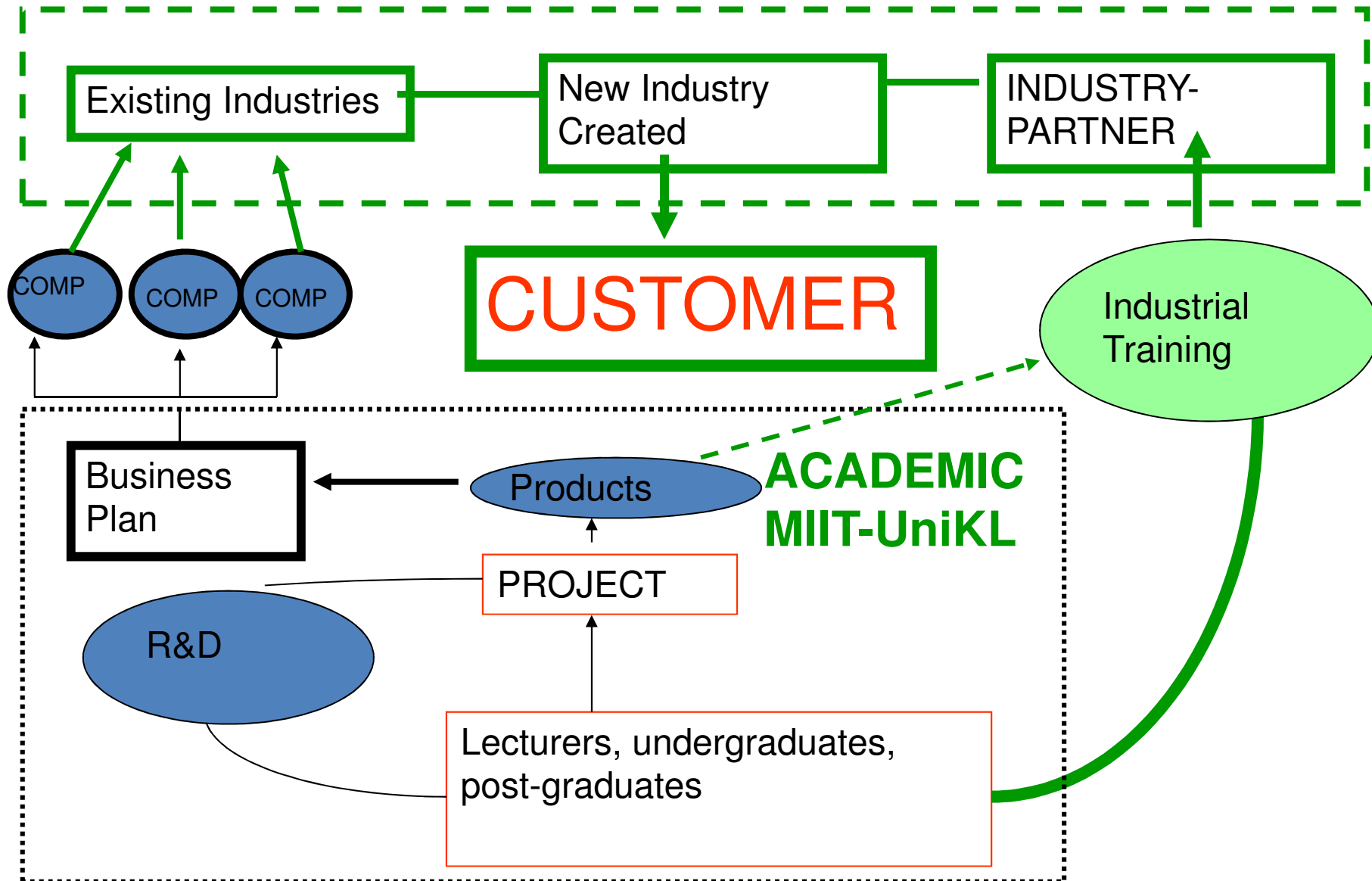




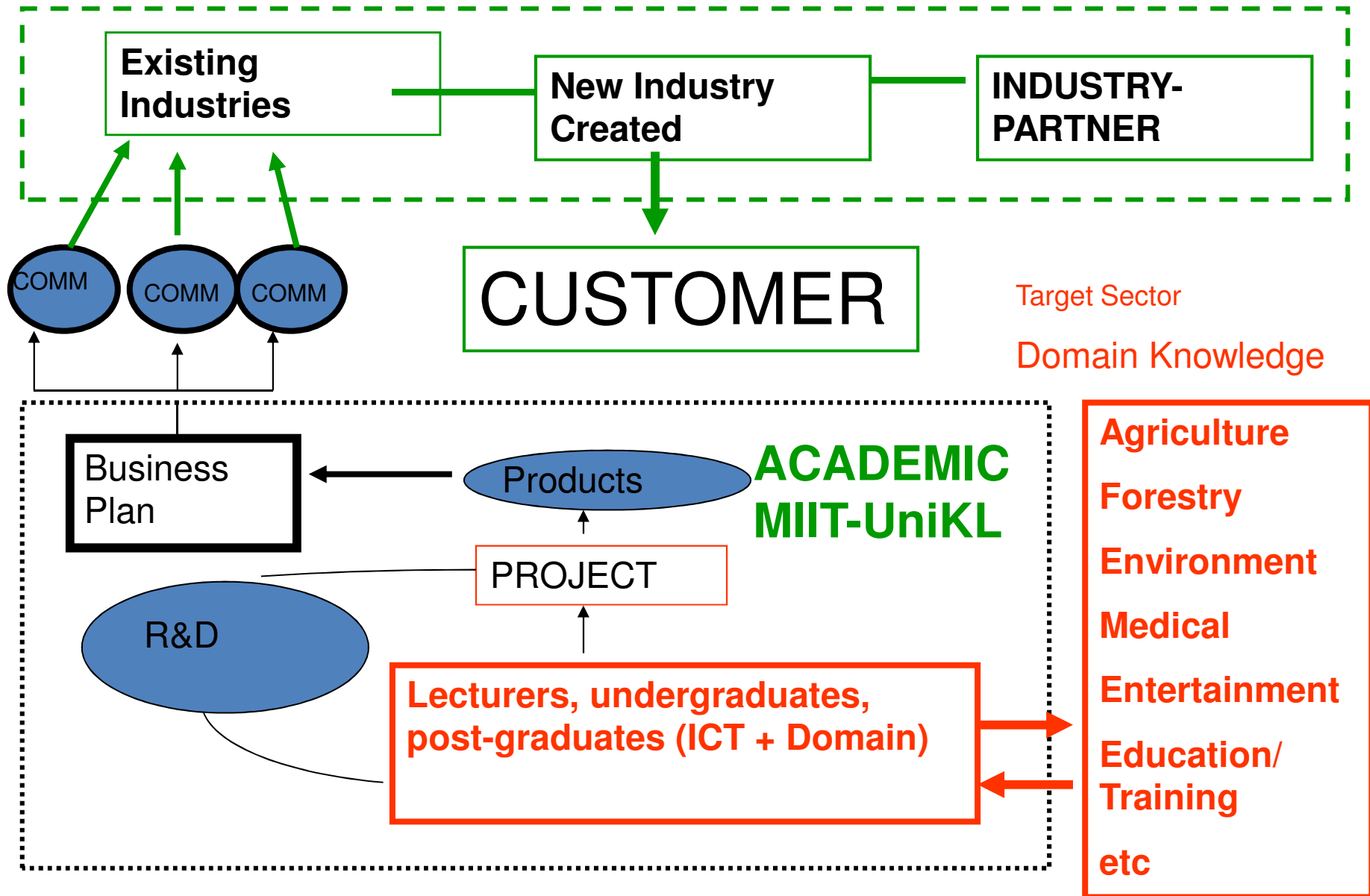
## Strategy 5b: Integrate ACADEMIC, R&D AND TECHNOPRENUER



# Strategy 5c: Strengthen Linkages with Industries - CUSTOMER BASE

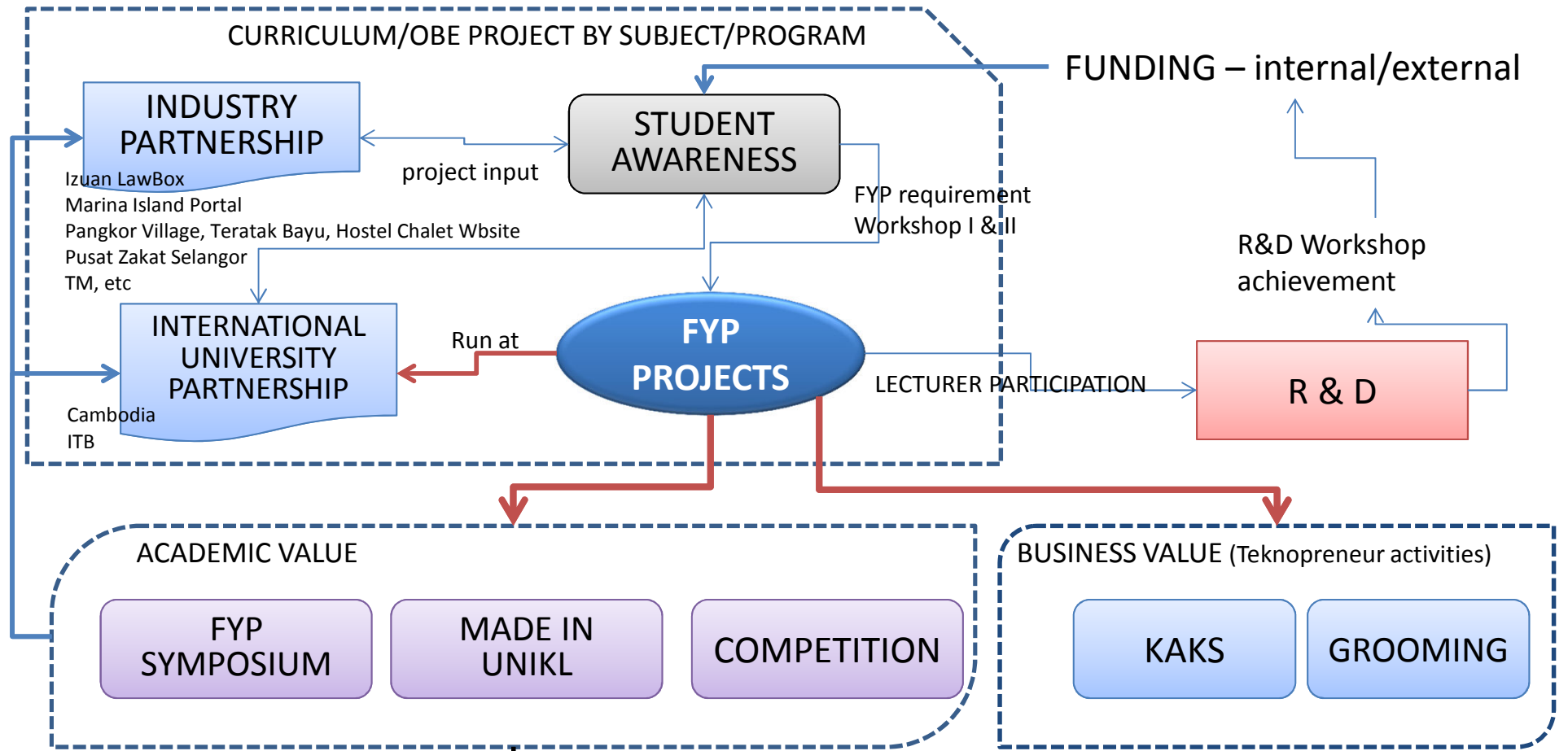


# Strategy 5d: Focus on Specific Sector

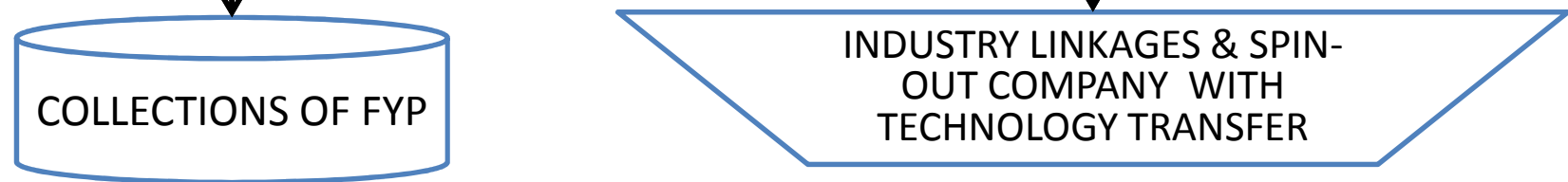


# Strategic 6: FYP – Integration of Academic, R&D and Technopreneuership

**PHASE I**



**PHASE II**



# CURRENT R&D ACTIVITIES – PRODUCT & COMMERCIALIZATION

<b>SEG - AGRICULTURE &amp; FORESTRY PROJECT</b>		
<b>PROJECT</b>	<b>SIG</b>	<b>STATUS</b>
Flexible Smart Greenhouse Computing	AI, Robotic	FYP PROJECT – APPLY FOR MARA & STRG
Hybrid Bio-Kinetic wireless charger	IMAGE	FYP PROJECT
Robot Surveyor	ROBOTIC	FYP PROJECT
An Integrated Learning Infrastructure using Cloud-based Environment	SECURITY	FYP PROJECT – APPLY FOR MARA & STRG

# CURRENT R&D ACTIVITIES – PRODUCT & COMMERCIALIZATION

<b>SEG - AGRICULTURE &amp; FORESTRY PROJECT</b>	
<b>PROJECT</b>	<b>SIG</b>
Price Determination Mechanism Using Artificial Neural	AI, DATA MINING, E-COMMERCE
Implementation of electronic payment gateway for agriculture sector in Cambodia	E-COMMERCE
Mixed Network Model using Very Small Aperture Terminal (VSAT) and Wireless (Wi-Fi) Technology during the rain climates in Rural of Cambodia	SECURITY, E-COMMERCE
A comparative studies and critical evaluation of the E-Cities Mobile Application.	E-COMMERCE
The studies on technological acceptance and the organizational impacts of E-Cities mobile application.	E-COMMERCE

# CURRENT R&D ACTIVITIES – PRODUCT & COMMERCIALIZATION

SEG - ENTERTAINMENT	
PROJECT	SIG
Interactive augmented reality and embedded video for printed material	IMAGE PROCESSING
Designing Web-based 3D Educational Virtual Environments (EVESs_ to support Learning Basic Physiotherapy for Medical and Allied Sciences Education	
Preserving Historical Artifact Using 3D Hologram Projector	ANIMATION
BizzAR : Interactive Augmented Reality (AR) Business Card	MULTIMEDIA
Panglima Awang	ANIMATION
A guideline for 2D Animator to create effective Autism Body Gesture In Short Animation "A Christmas Gift"	IMAGE PROCESSING & MULTIMEDIA

# CURRENT R&D ACTIVITIES – PRODUCT & COMMERCIALIZATION

SEG - EDUCATION	
PROJECT	SIG
A study of an assistance for the mobility impaired to an innovative solution adapted based on Holistic Cognitive Voice Haptic Architecture (HCVHA model) as an approach to aid and support human independent living (HIL) for visually impaired community	Education
Agent-based Personal Learning Environment (aPLE): Students Approach on using Social Networks as Learning Tools	Education
A computerized framework for outcome based education (OBE) assessment in higher education	Education
An empirical study of Attitude towards problem solving and mathematics achievement among engineering technology students	Education
Computer Mediated Learning Framework for Engineering Mathematics in MARA Learning Institutes	Education



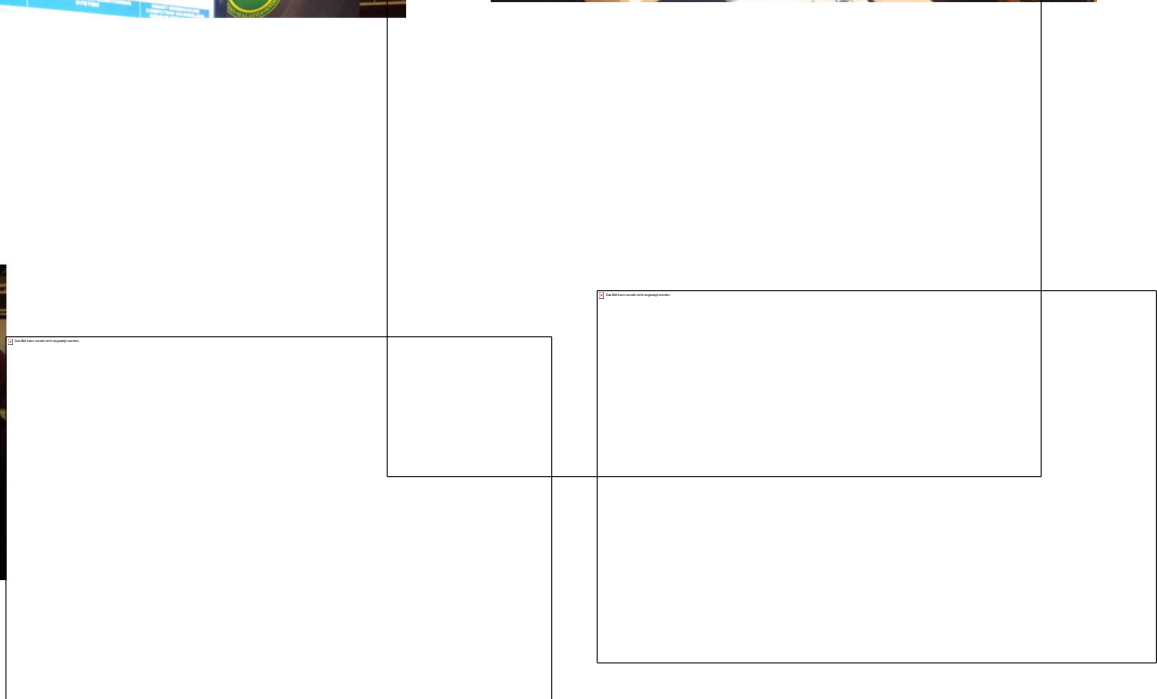
# CURRENT R&D ACTIVITIES – PRODUCT & COMMERCIALIZATION

SEG- MEDICAL & FORESTRY	
PROJECT	SIG
Knowledge Pattern Discovery for Outbreak Detection in Public Health Surveillance : Dengue Cases	AI, DATA MINING
Optimization model based on Simulated Annealing technique for harvest planning : selective cutting for Timber Harvest Planning	EXPERT SYSTEM
Spatial association model of new indicator using data mining approach for dengue preparedness	EMBEDDED SYSTEM

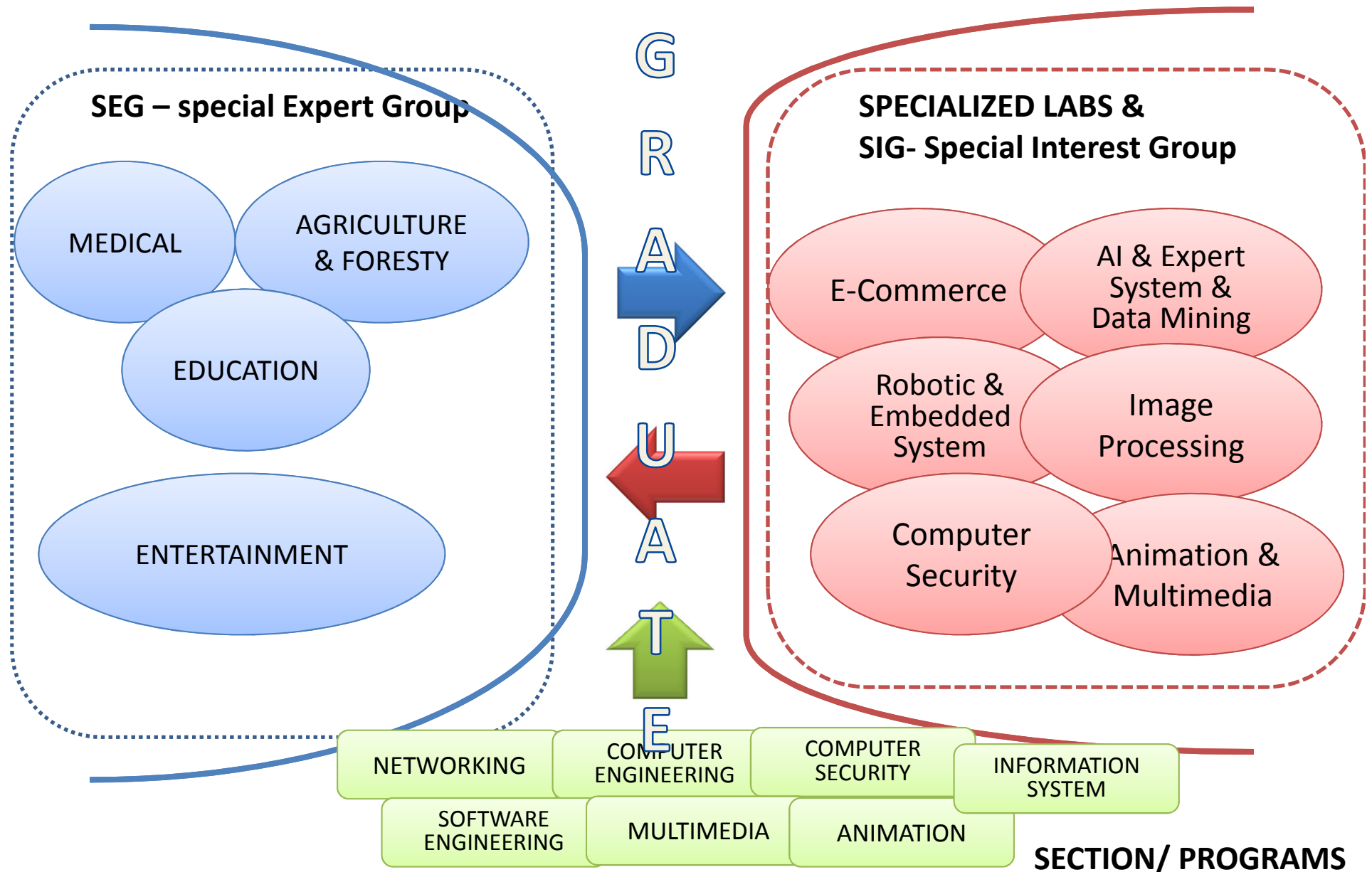
# FYP ACTIVITIES 2012-13– PRODUCT & COMMERCIALIZATION



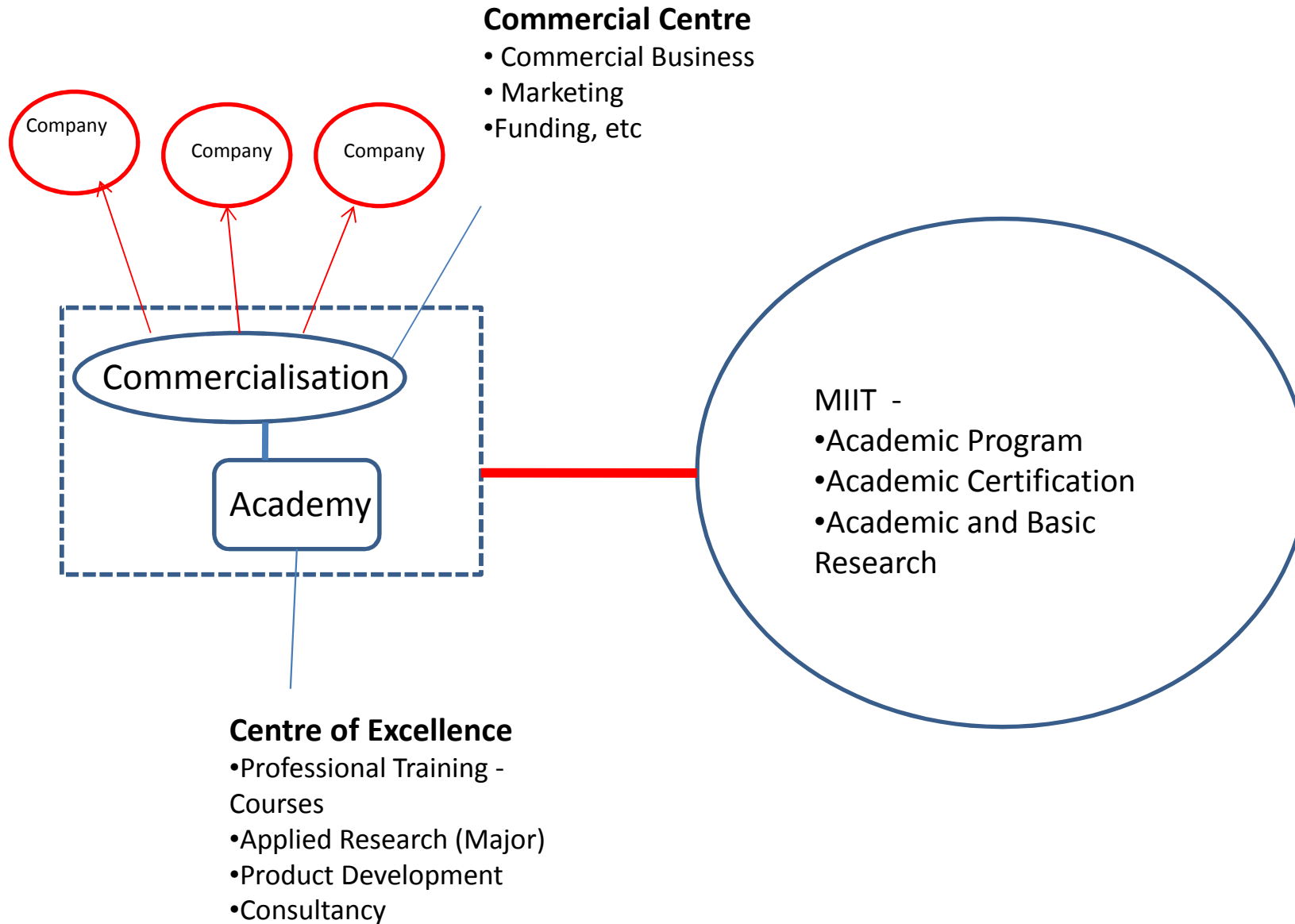
# COMPETITION ACTIVITIES 2012-13



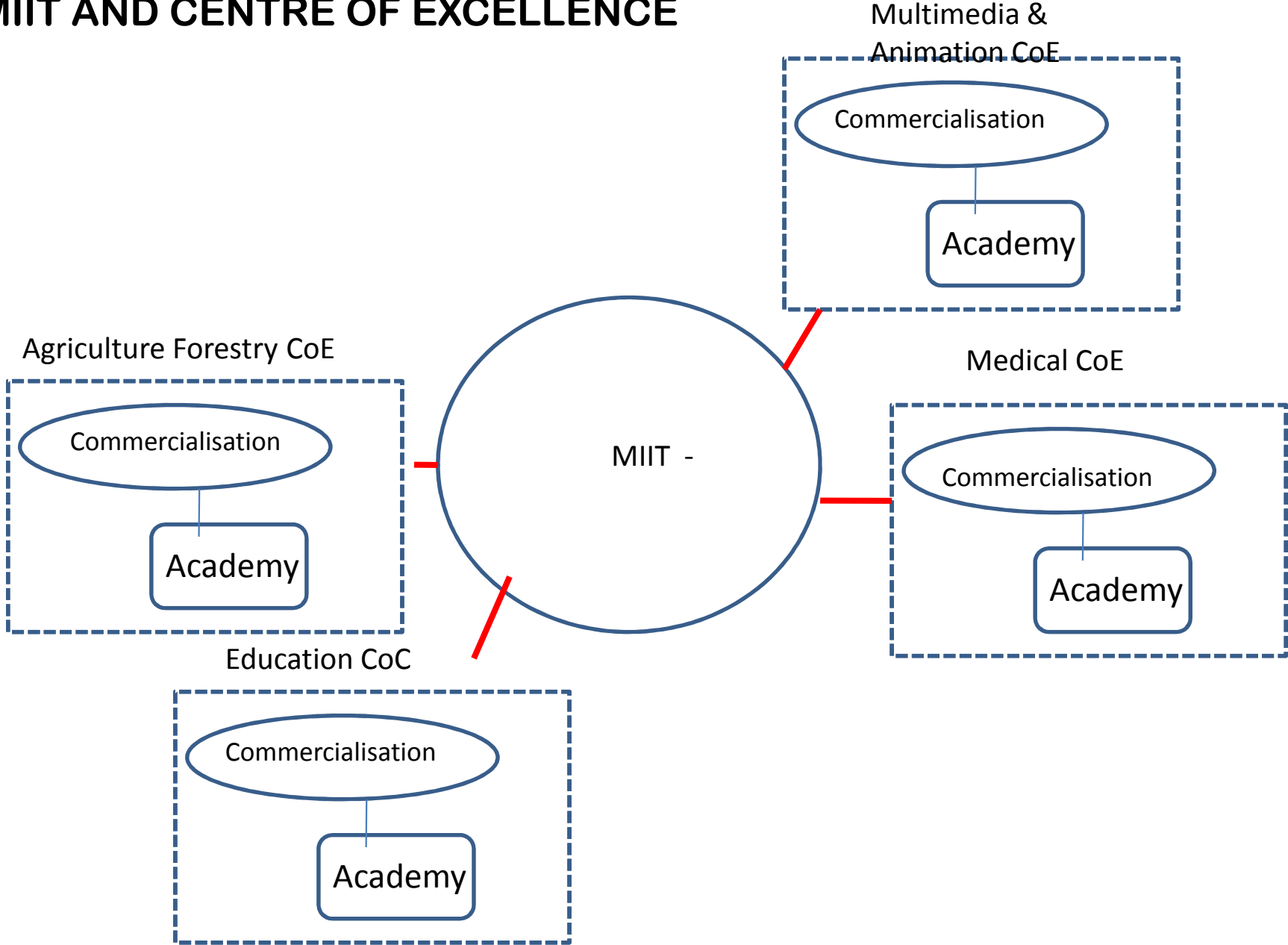
# Strategy 7: Create Centre of Excellence



# Strategy 7: Create Centre of Excellence

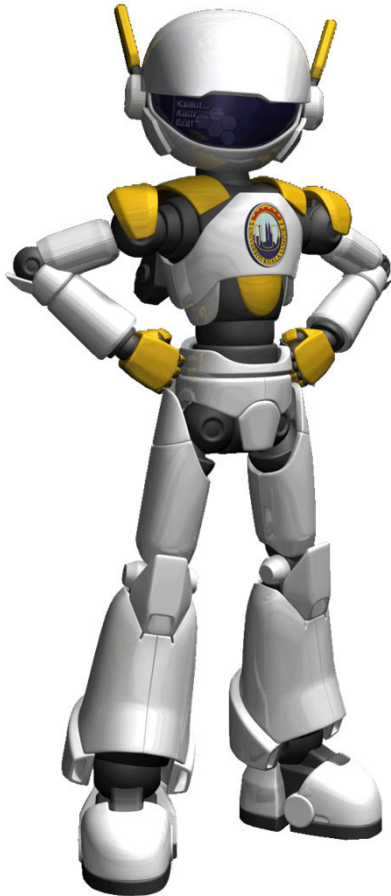


# MIIT AND CENTRE OF EXCELLENCE



## **CONCLUSION**

- **To produce highly skilled graduates for national development (in various economic sectors)**
- **Graduates that are competitive in the international market due to international exposures**
- **Produce graduates that can create new and commercial products and employment**
- **Products that have impacts to society and national development.**



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