Thailand

ICT for Education: Policy and development

Handout available at
http://bit.ly/eduonlinesea2015

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TOPICS

I. **Background situation**

    I. **Higher Education Profile**

    II. **ICT for Education Policy**

II. **ICT for education development**

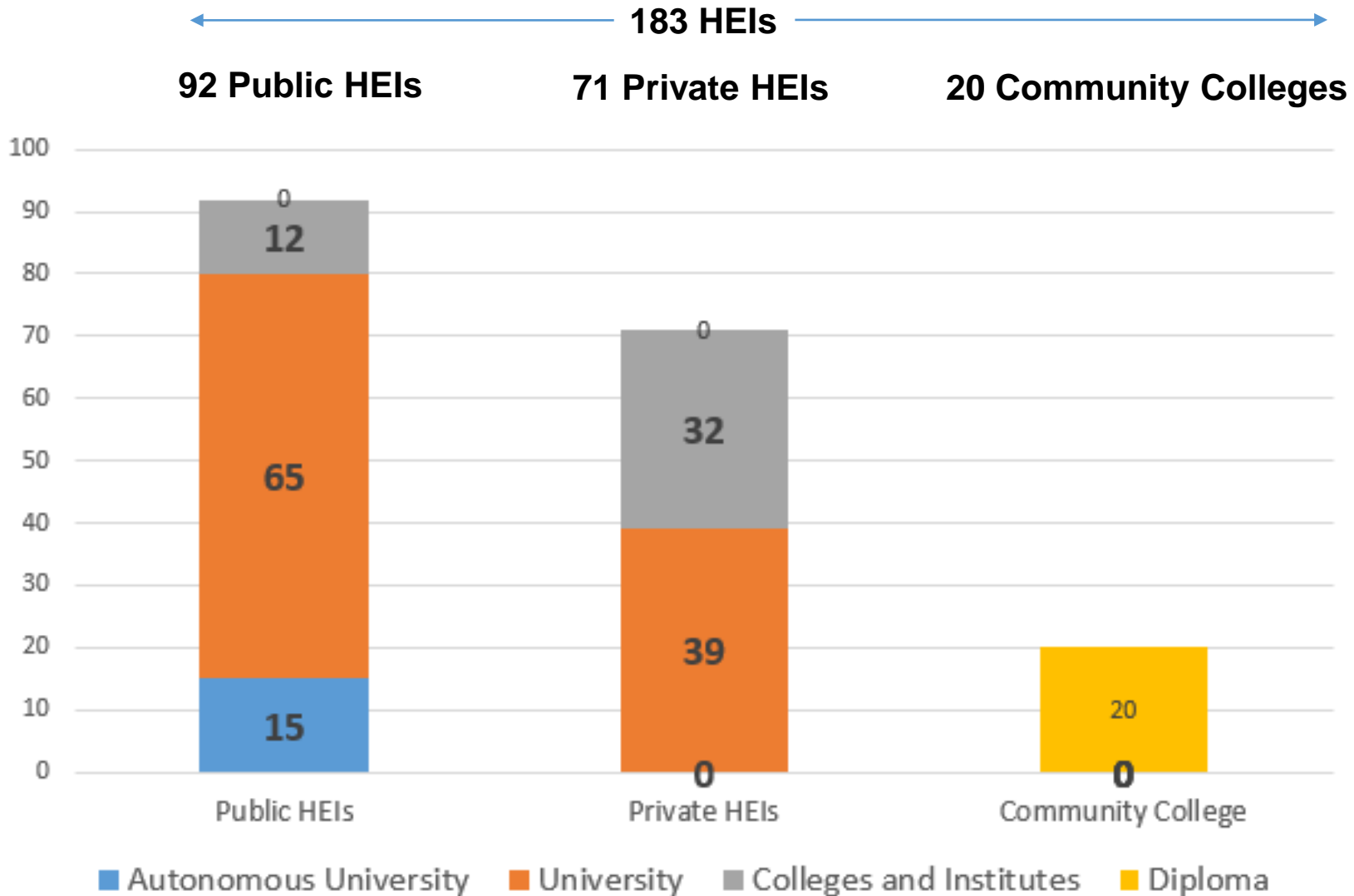   I. **UniNet -> NEdNet**

    II. **Thailand Cyber University Project**

III. **The establishment of Thai-MOOC**

I. Background situation

Demographic of Thailand HEIs

183 HEIs

92 Public HEIs   71 Private HEIs   20 Community Colleges

2,000,000+ students in higher education institutes

Student drop out statistics

Student education level	N / 10
Have job within one year	☺
Graduate bachelor degree	☺ ☺☺
Enter university	☺☺ ☺☺
Enter upper secondary school	☺☺☺ ☺☺☺
Enter lower secondary school (compulsary)	☺☺☺☺ ☺☺☺☺☺
Enter elementary school (6 years old)	☺☺☺☺☺ ☺☺☺☺☺

*   Quality Learning Organization (2012) Public organization supported by Government
** Grade 9 is compulsory education

Using ICT in Education

The National Education Act A.D. 1999, Thailand's first of its kind, forms the core of the education reform movement. For the first time, direction points toward the philosophy of education provision for the purpose of lifelong learning and societal participation.

Also the first time that National Education Act stated explicitly about use ICT for education including ICT for support teaching and learning, enabling access to education as well as use of ICT and distance education to meet the needs and aspirations of all citizens for continuous education and skills upgrading without regards to age, profession, distance, or geography.

พระราชบัญญัติ

การศึกษาแห่งชาติ

พ.ศ. ๒๕๔๒

ภูมิพลอดุลยเดช ป.ร.

ให้ไว้ ณ วันที่ ๑๔ สิงหาคม พ.ศ. ๒๕๔๒

เป็นปีที่ ๕๔ ในรัชกาลปัจจุบัน

Thailand ICT for Education Policy

A.D. | 2005 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25

Ministry of ICT

IT2010 Policy (2001-2010)

ICT2020 Policy (2011-2020)

Use ICT for e-Commerce, e-Industry, e-Education, e-Society and e-Government

2nd Thailand ICT Master plan (2009-2013)

3rd Thailand ICT Master plan (2014-2018)

National Broadband Policy (2011-2020)

Digital Economy Plan (2014-present)

Ministry of Education

ICT for Education Master plan 2008-2010

ICT for Education Master plan 2011-2013)

ICT for Education Master plan 2013-2025

New Distance education law (2005)

Updated DE regulation (2014)

OHEC

The second 15 year long range higher education plan (2008 – 2022)

- Seamless connection from Basic education, Vocational education and Higher education
- Emphasized on developing infrastructure for lifelong learning to enabling knowledge based society

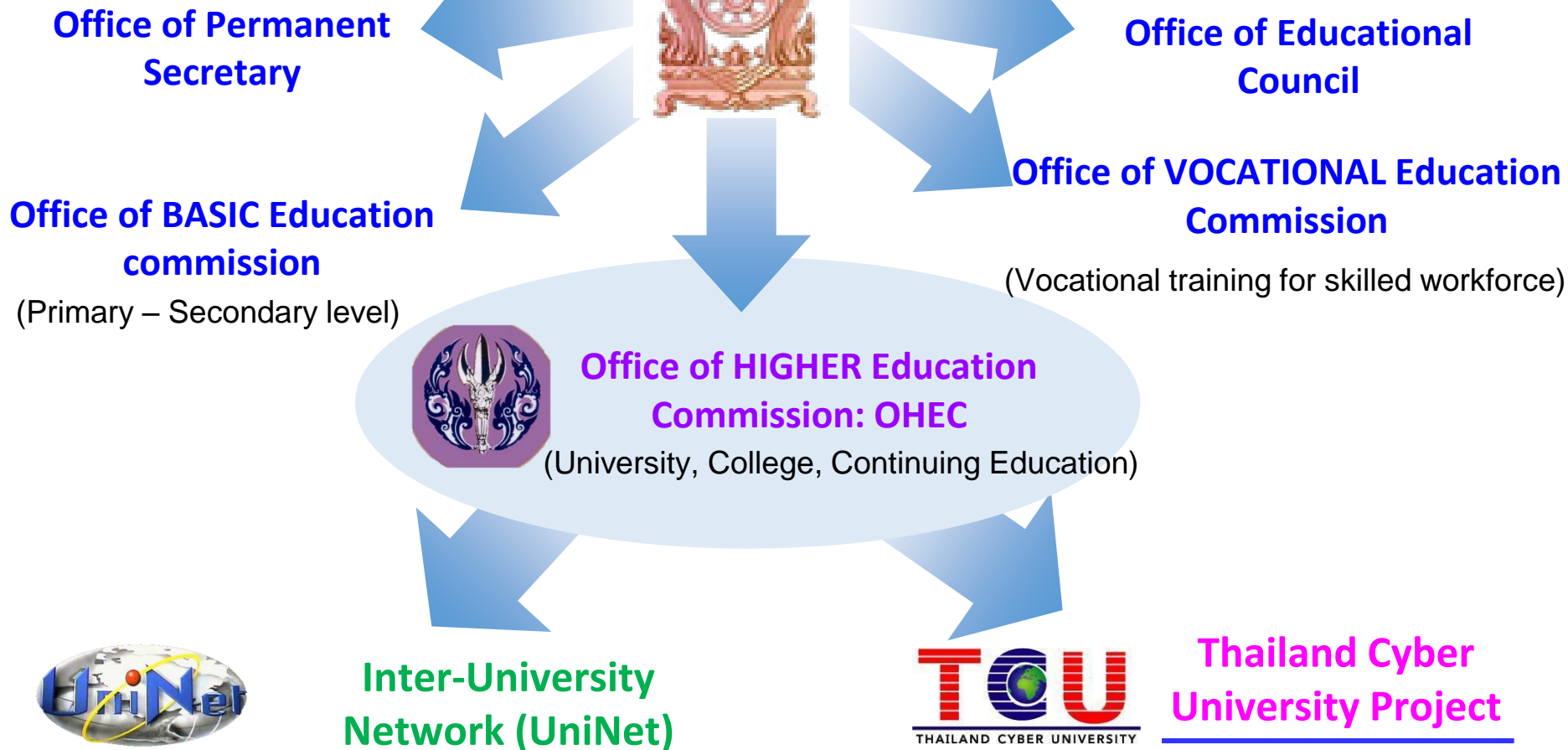# Statistics of Online distance education programs

Type of University	Number	Number of program		
		Undergraduate	Master	Ph.D.
Public	-	-	-	-
Autonomous	1	-	1	-
Private	7	16	14	2
Total	8	16	15	2

33 programs

No	Area	Number of programs
1	Business administration	11
2	Education	8
3	Political sciences	8
4	Law	2
5	Communication arts	2
6	Public health	2
	รวม	33

** Not include programs opened by Sukhothai Thammathirat Open University

Ministry of Education: MOE

Office of Permanent Secretary

Office of BASIC Education commission
(Primary – Secondary level)

Office of Educational Council

Office of VOCATIONAL Education Commission
(Vocational training for skilled workforce)

Office of HIGHER Education Commission: OHEC
(University, College, Continuing Education)

Inter-University Network (UniNet)

- **Development of ICT Infrastructure for Education**
- **Administrate and support the system that inter-connect public universities (founded 1996)**

Thailand Cyber University Project

- **Initiate, promote and support online distance education in higher education**
- **Create local and international universities network on e-learning, R&D, Learning resources sharing (founded 2005)**

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OHEC

The second 15 year long range higher education plan (2008 – 2022)

UniNet (1996) → NEdNet (2012) →

TCU (2005) →

II. ICT for education development

Ministry of Education: MOE
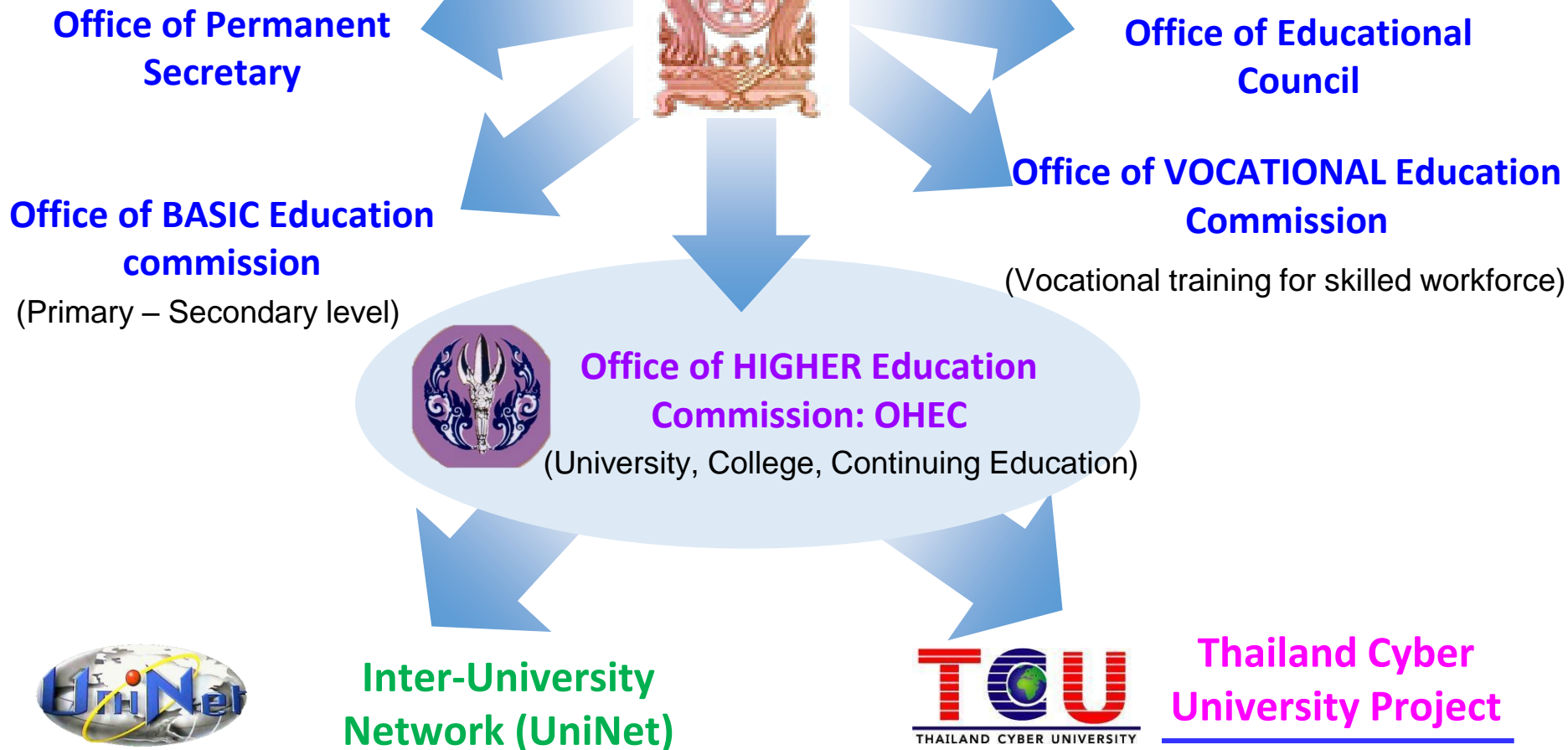
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UniNet

- Interconnecting Thailand University and connecting to research network

- Consortium of Thailand University for
  - Increase the buying power of Internet Bandwidth
  - University ICT's human resource development
  - Research and Development of technology and application for effective and efficient use of inter-university network

- Central hub for connecting to other national and international network

From UniNet to NEdNet (2012)
(National Education Network)

- Interconnecting 4 major educational network to become one National Education Network

- The previous education networks are
  - MOE Net (Ministry of Education)
  - OBEC Net (Elementary, Secondary schools)
  - VEC Net (Vocational education)

- Government stimulus package 2 (116 M US)

Thailand University and Research network
Peering Network Map

Research and Education Network

TOT_NIX — CAT_NIX

CAT_IIG

APAN/JGN — TEIN4 — Internet2

10G

10G 40G 60G

1 Gbps 450G

UniNet/NEdNet

1G ThaiREN

1G

1G

ThaiSARN

1G

:National Internet Exchanged

:International Internet Gateway

:Research and Education Network

MOE_Net

UniNet
Next Generation network

Updated March 2014
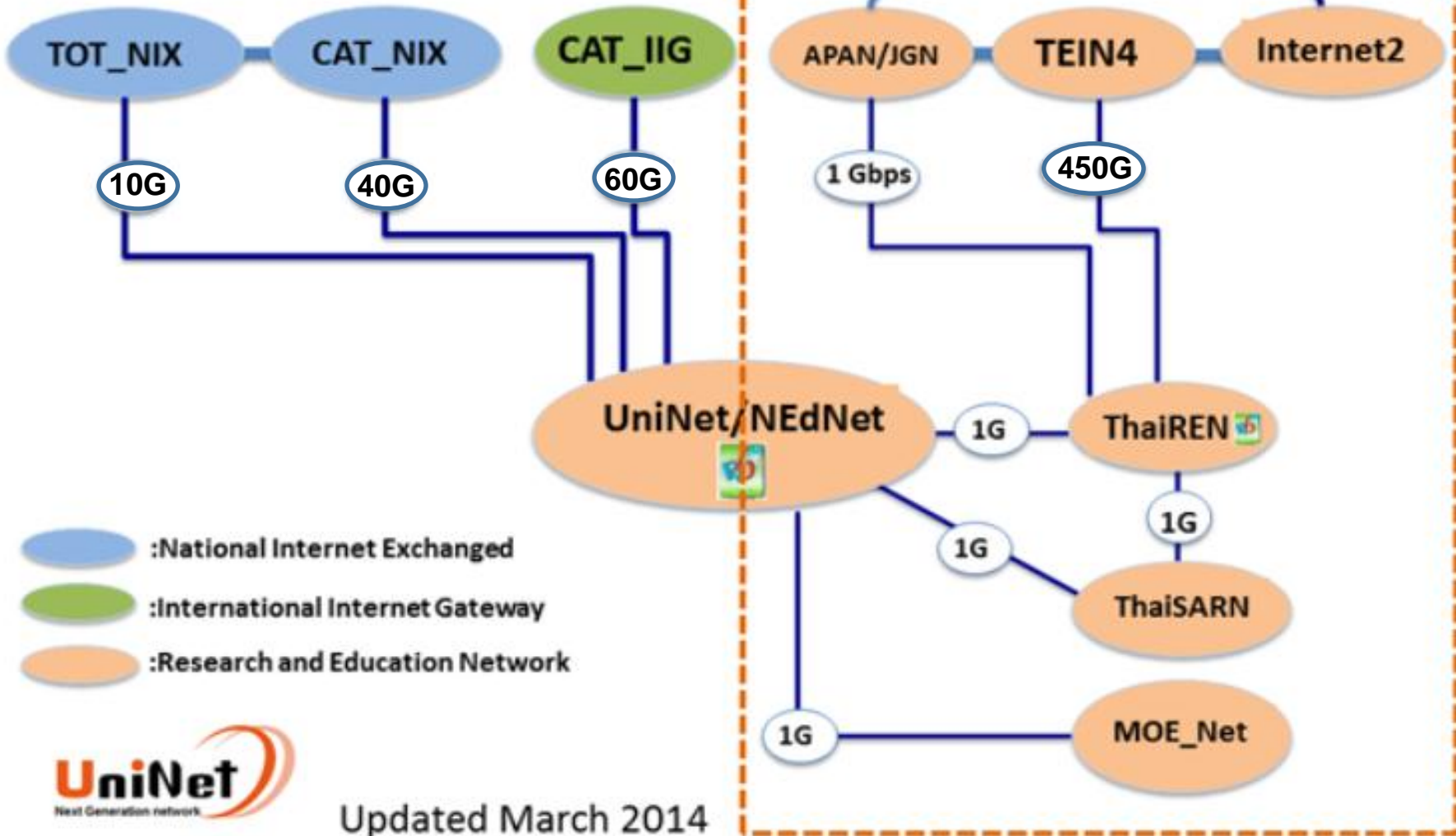
Uninet connected to more than 10,743 sites (2014) Include
1. All public universities and campuses 223 sites
2. Public Vocational education campuses 426 sites
3. Public secondary schools 9,715 sites
4. Others public institutes / libraries

DWDM Technology

Legend

⭐	Metropolitan Area
—	Dark Fiber
🟣	Core Router
🟡	DWDM NODE
🟠	Distribute Router

UniNet Backbone (UniNet II)
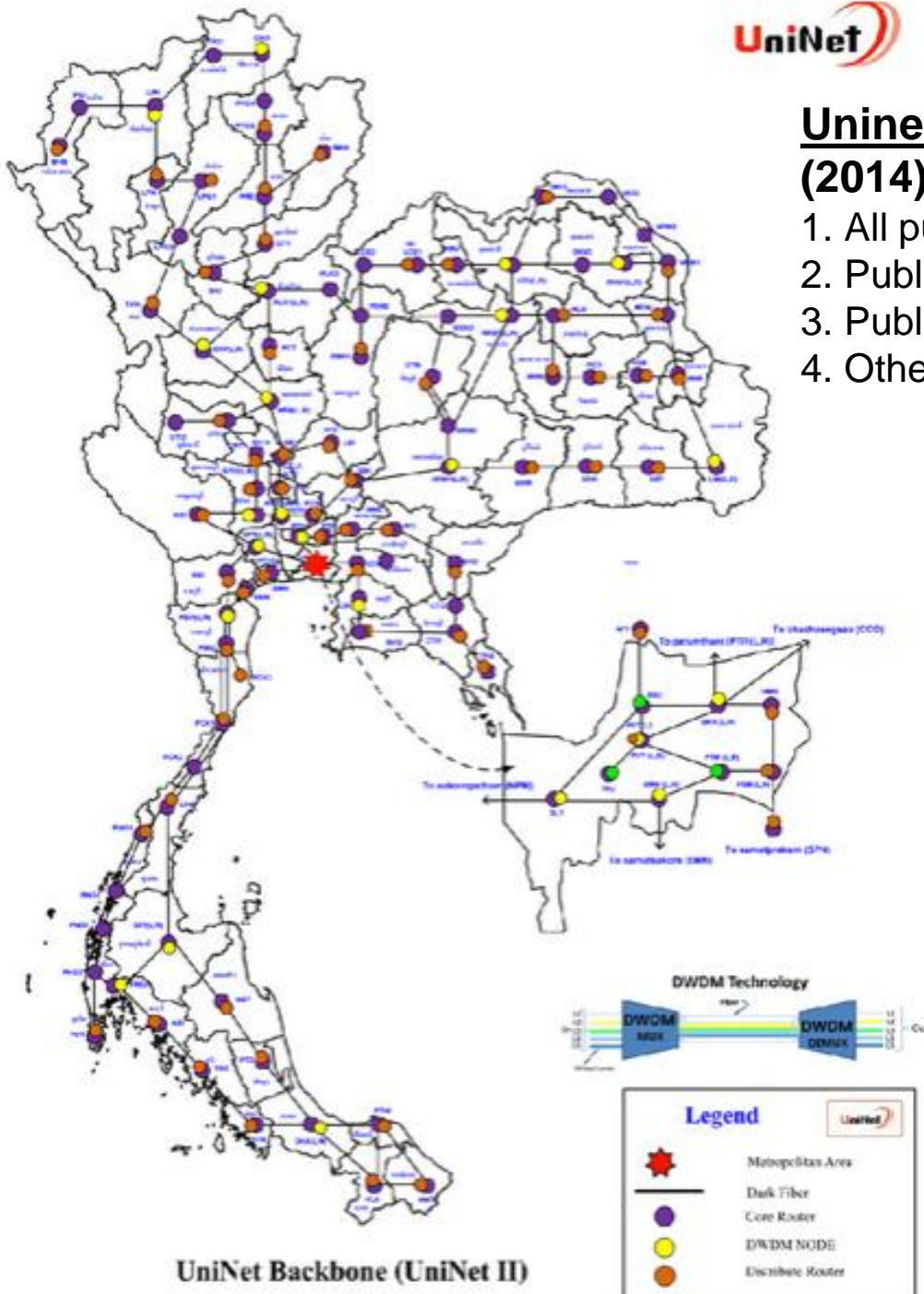
ICT Development Index

Figure 2.1: Three stages in the evolution towards an information society

ICT Readiness (infrastructure, access) → ICT Use (intensity) → ICT Impact (outcomes)

ICT Capability (skills)

ICT Development Index
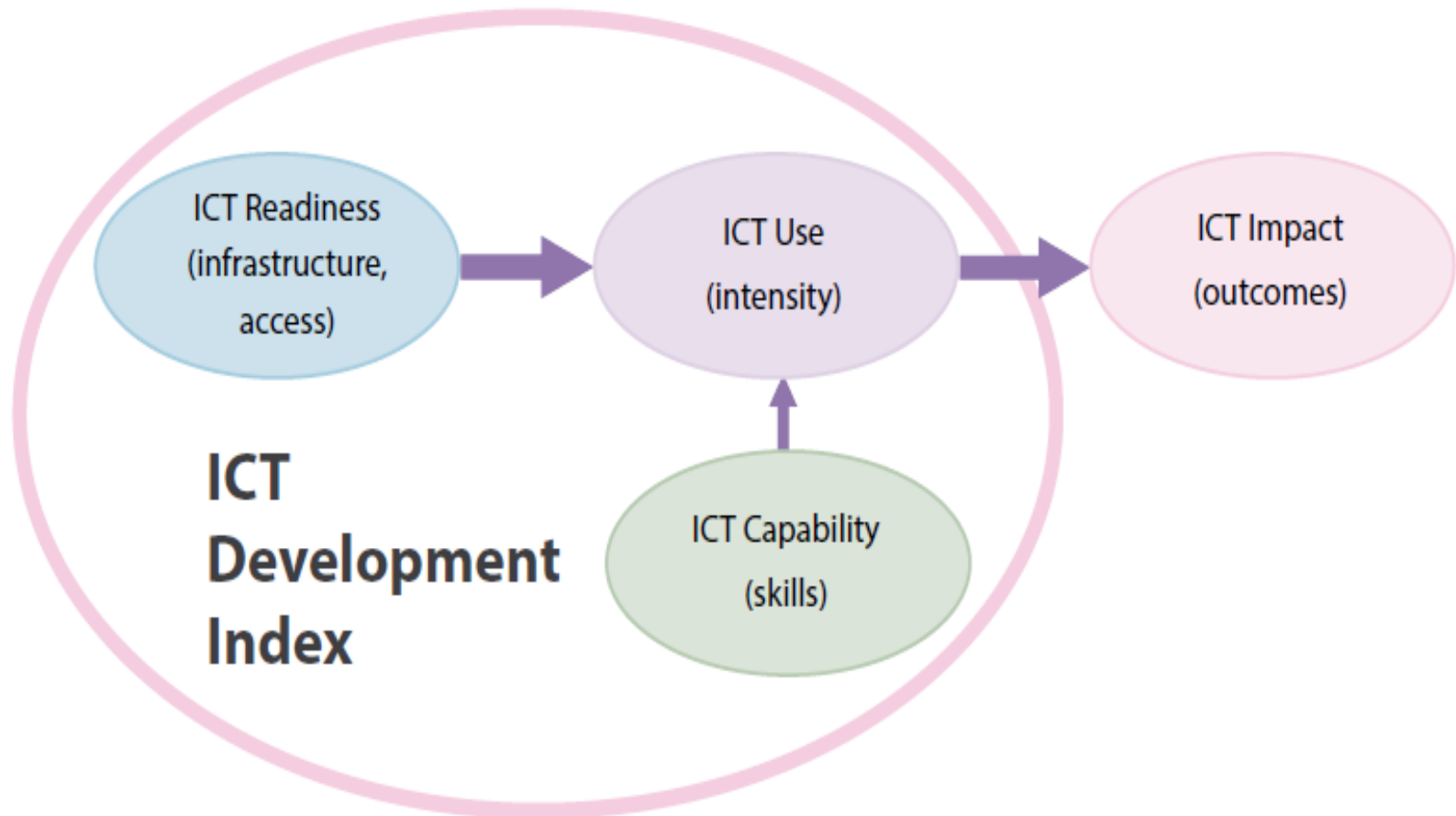
ICT Development Index

Chart 3.6: IDI values compared with the global, regional and developing/developed-country averages, Asia and the Pacific, 2013

Source: ITU. Measuring the Information Society Report 2014
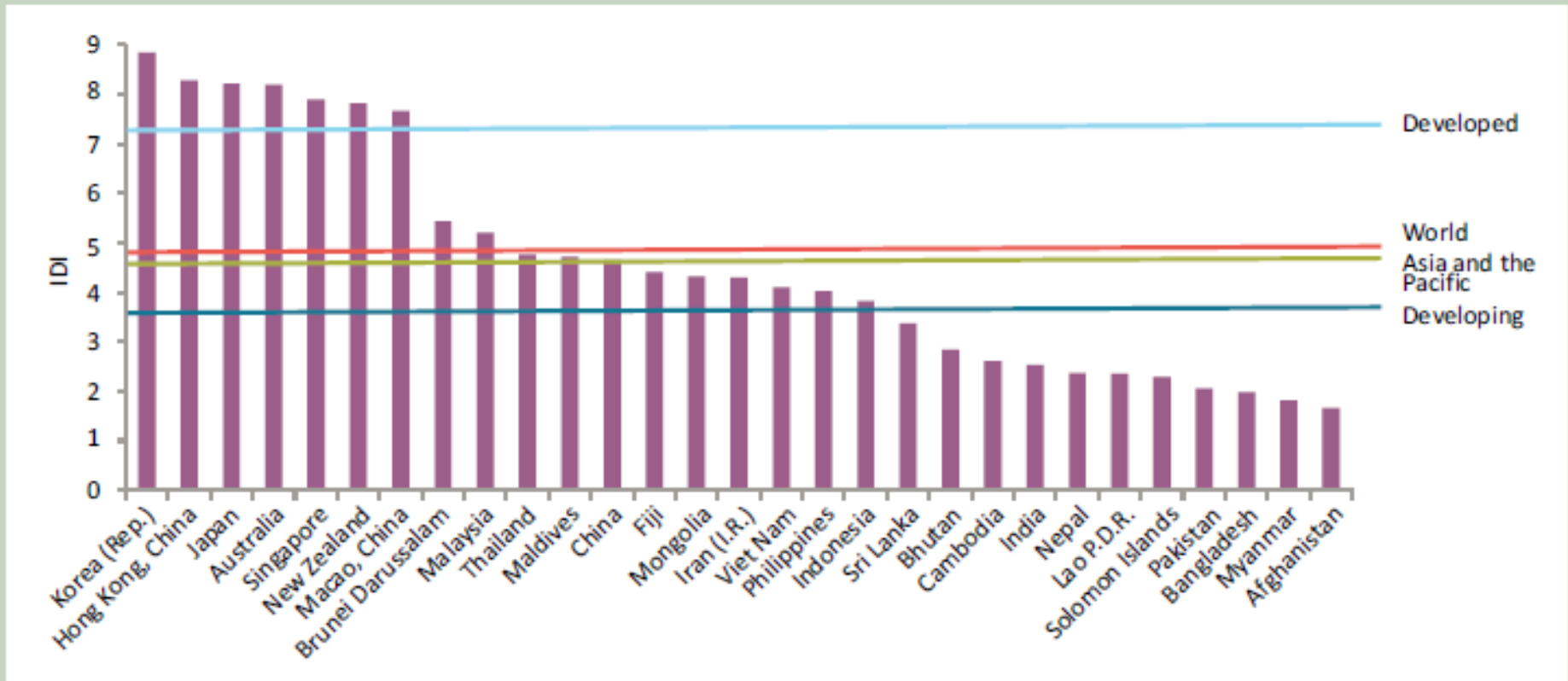
Thailand Cyber University Project

- Promote and support Thai University to utilize ICT for raising the quality of higher education
  - Promote sharing resources (courseware, human, etc.)
  - Promote sharing knowledge (conduct e-learning conference 2 times annually – one International / one National conference)
  - Online and in class training for capacity building

- Support all Thai University to provide quality online distance education

- Research and development in e-learning Quality guideline / Quality assurance including Innovative technologies for e-learning

TCU Strategies

To improve the quality of higher education through e-Learning by:

- **Empower 9 regional universities** to be regional e-Learning hub

- **Promote share open coursewares and learning resources** among universities

- **Human resources development** through e-training, conducts national and international conference

- **Research for e-Learning quality standard / best practice / guideline**

9 regional universities as e-Learning hubs
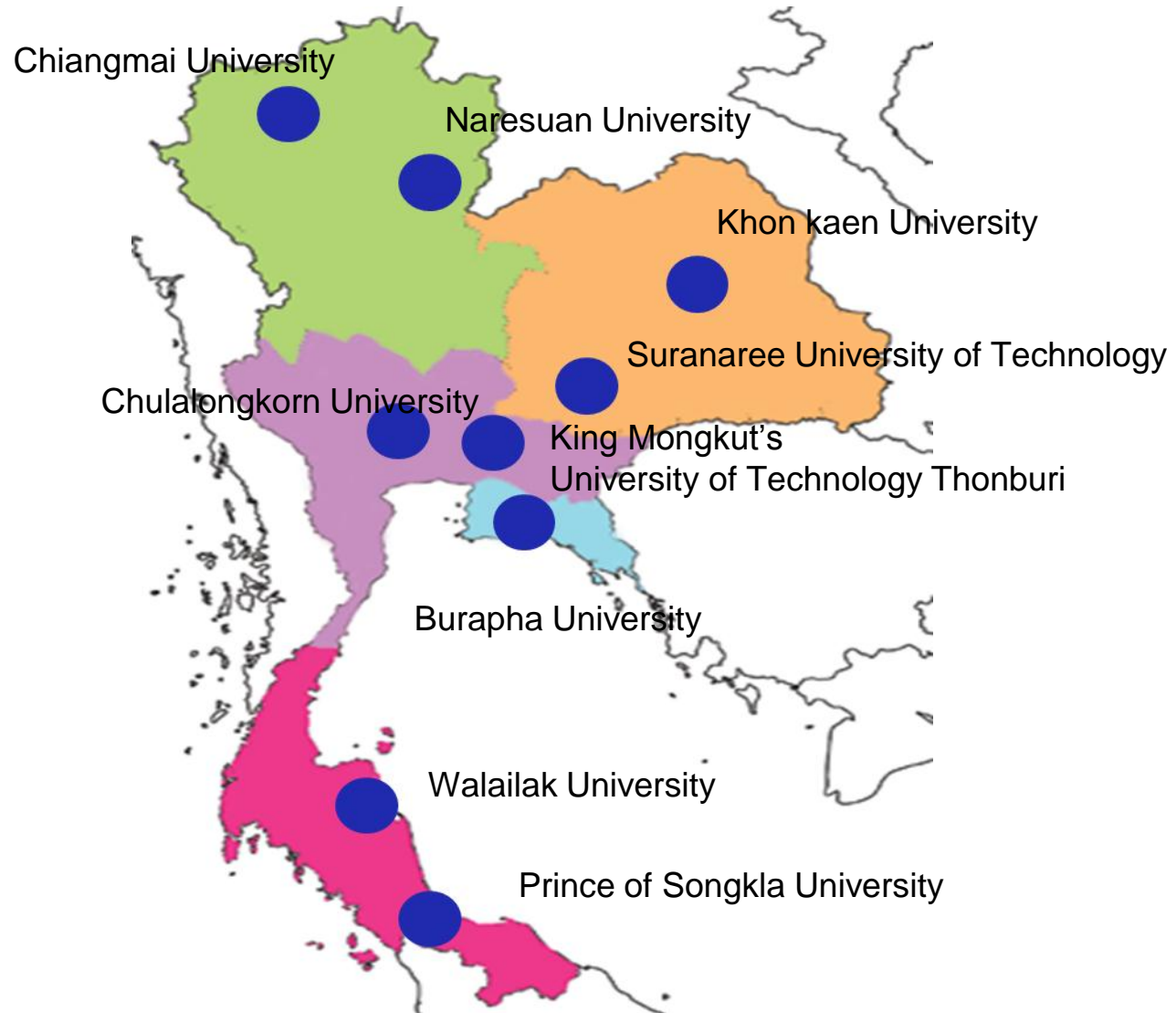
TCU's projects and lesson learned before Thai-MOOC

Sharing open courseware and learning resources

1. TCU Open courseware project (TCU-OCW)

2. TCU-Globe project (interconnecting open courseware portal throughout Thailand and the world)

Human resources development

3. Conduct National and International e-Learning conference annually

3. e-Learning professional training program

TCU Open Courseware project

- TCU invites Universities to share courseware

- TCU funds Major Universities to produce quality courseware and then open for sharing via TCU portal

- TCU supports Universities to localize (quality) open MIT open coursewares

- TCU conducts courseware contest in some specific area (courseware for teaching Democracy, Moral and Ethic, Thai studies)

- TCU provides training on courseware development to university staffs

List of Universities/Organisations in Consortium

- Chulalongkorn University
- Naresuan University
- Chiang Mai University
- Mae Fah Luang University
- University of The Thai Chamber of Commerce
- National Institute of Multimedia Education (NIME), Japan
- Sukhothai Thammathirat Open University
- Rangsit University
- Dusit Rajabhat University
- Rajamangala University of Technology
- Rajamangala Universiry of Te...
- Rajamangala Univer...
- Rajaman...

- Kasetsart University
- Silpakorn University
- Mahidol University
- MIT OCW, USA
- UNESCO BANGKOK
- King Mo...

...nology Krungthep
...ity of Technology Suvarnabhumi
...gala University of Technology Srivijaya
...Gwangju-Jeonnam University e-Learning Research & Support Center, The Republic of Korea

- King Mongkut's University of Technology Thonburi
- The Stock Exchange of Thailand
- Hanyang Cyber University, The Republic of Korea
- ...llaborative education, The
- National Electronics and Computer Technology Center
- S... University of Technology
- Thai Airways International Public Company Limited
- King Mongkut's University of Technology North Bangkok
- Sripatum University
- Surindra Rajabhat University
- Tokai University
- Department of Skill Development, Ministry of Labour
- ENERGY REGULATORY COMMISSION OF THAILAND
- University of Phayao
- The Institute for the Promotion of Teaching Science and Technology (IPST)

38 major public and private universities / HEIs joined TCU consortium to produce high quality open courseware

ไทย EN

Classroom Login

Facebook | TCU

e-Learning News

About Us

User ID

Password

Login

http://www.thaicyberu.go.th

>> Student's Registration

>> Forget password

>> Class Room: e-Learning Professional

- TCU's History
- Message from Excecutives
- Contact Us
- Message Board
- FAQs
- TCU Gallery
- Join Our Newsletter
- UNESCO Honourable Mentions

NAC2013

NCTDA Annual Conference

ส่งข้อความ

Show All

TCU-LMS User Manuals

Check your computer before you start studying

An invitation for students

An invitation for teachers (Experimental Zone)

Video Training for Using

TCU online courses

Self-Paced Learning | Certificate Programme | Bachelor's Degrees | Master's Degrees

After **registering** at TCU, you can study any of more than 616 self-paced learning courses free of charge. You can preview example of courses from the link below.

sa wàt dii khráp
สวัสดีครับ
Hello.

- TCU-TMM101 :: Learning English with Tell Me More **TCU**

www.thaicyberu.go.th/index.php?lang=en-us

สรุปสถิติของมหาวิทยาลัยไซเบอร์ไทย

(ตั้งแต่เปิดให้บริการครั้งแรก เมื่อ 12 ม.ค. 2548)

Number of registered users
จำนวนสมาชิกที่ลงทะเบียน   185,804   คน

   - นักเรียน   185,266   คน

   - อาจารย์   538   คน

จำนวนบทเรียน Number of Open coursewares   811   บทเรียน

จำนวนหลักสูตร   Number of Full curriculums   17   หลักสูตร

จำนวนบทเรียนที่มีการลงทะเบียนเพื่อเข้าเรียน   388,884   บทเรียน

จำนวนครั้งที่มีผู้เข้าใช้บริการในบทเรียน   5,484,221   ครั้ง

มหาวิทยาลัย/หน่วยงาน ที่ร่วมโครงการ   45   แห่ง
Number of universities/Institutions join TCU consortium

ปรับปรุงข้อมูลครั้งหลังสุด : 21 สิงหาคม 2557
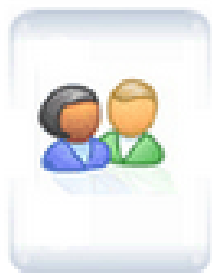
User Online   28

TRACE WATCH   **Website Statistics**   **TCU** THAILAND CYBER UNIVERSITY

Page Views   16,588,727

ร้อยละความพึงพอใจต่อการใช้บริการ : 82.3

TCU-Globe project

- TCU implements TCU-Globe for interconnected major Thailand courseware repositories and connecting to Globe network to increase the "courseware FINDABILITY" and "Global-Reach"

TCU-GLOBE Project: The GLOBE

- GLOBE (**G**lobal **L**earning **O**bjects **B**rokered **E**xchange) is an one-stop-shop for learning resource broker organizations, each of them managing and/or federating one or more learning object repositories.

- GLOBE makes a suite of online services and tools available to its members for the exchange of learning resources, and is set up as a worldwide Open Community.

GLOBE

(Global Learning Object Brokered Exchange)
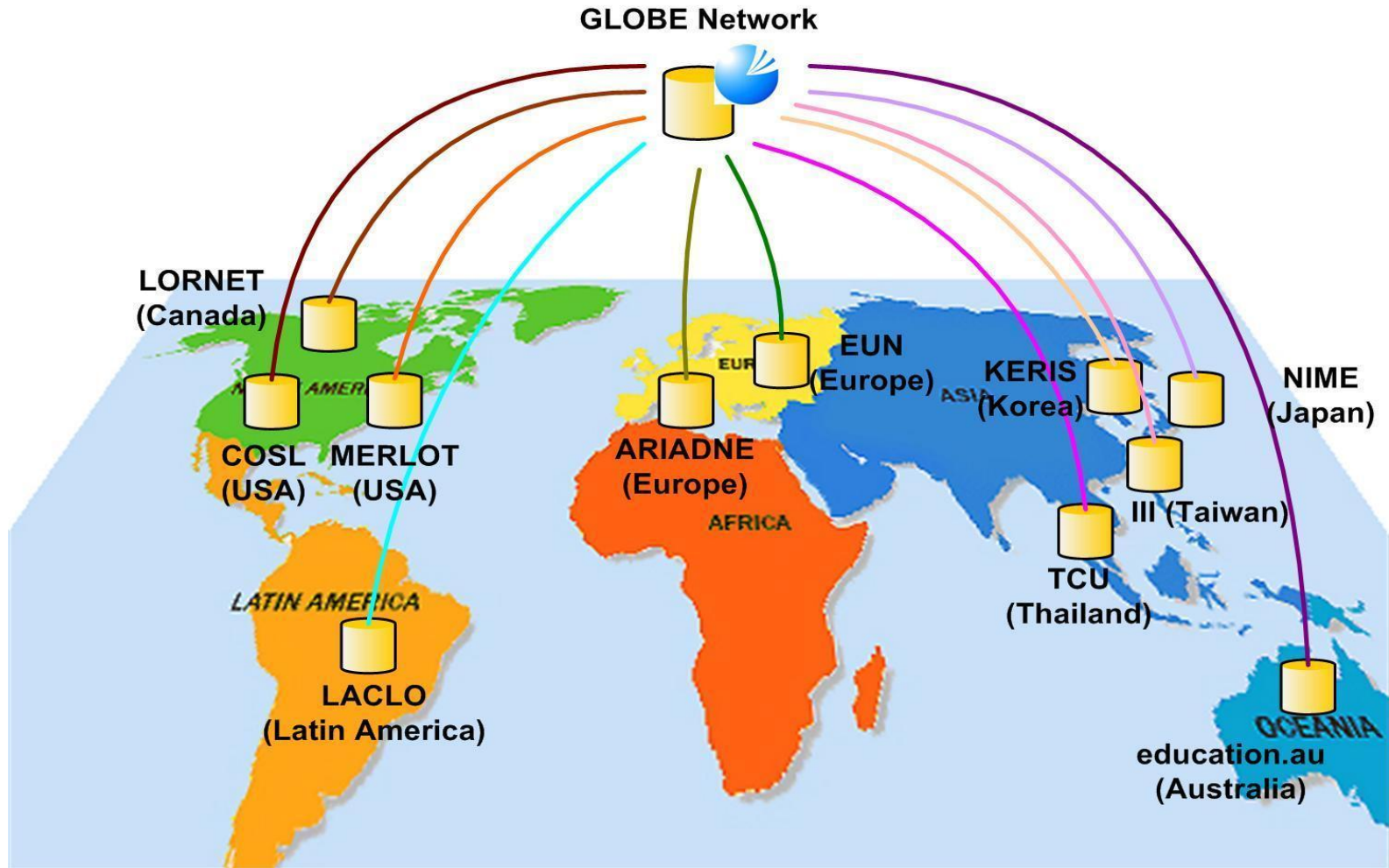
TCU-GLOBE Project: About the Project

- TCU establishes a "Common Infrastructure" for inter-connecting major open courseware providers (universities, institutions) to provide on-stop-shop service to coursewares and learning resources.

- This "Common Infrastructure" enables access of the educational resources that belong to major open courseware providers.

2. TCU-GLOBE Project:
Regional hubs connect together and to GLOBE

From the TCU-Globe project, TCU founded that there are a lot of quality coursewares and learning resources in many universities and they are willing to share among each others network

LORNET
(Canada)

EUN
(Europe)

KERIS
(Korea)

NIME
(Japan)

COSL
(USA)

MERLOT
(USA)

ARIADNE
(Europe)

III (Taiwan)

TCU
(Thailand)

LACLO
(Latin America)

education.au
(Australia)

Human Resources Development (HRD)

- TCU provides in-class and online training to university staffs and faculty members.

- TCU conducts "*e-Learning Professional Development*" certificate program as a model for capacity building of "e-Learning professionals" *which is first MOOC style online course opened in November 2006*.

Thailand Cyber University:
e-Learning Professional Development Program
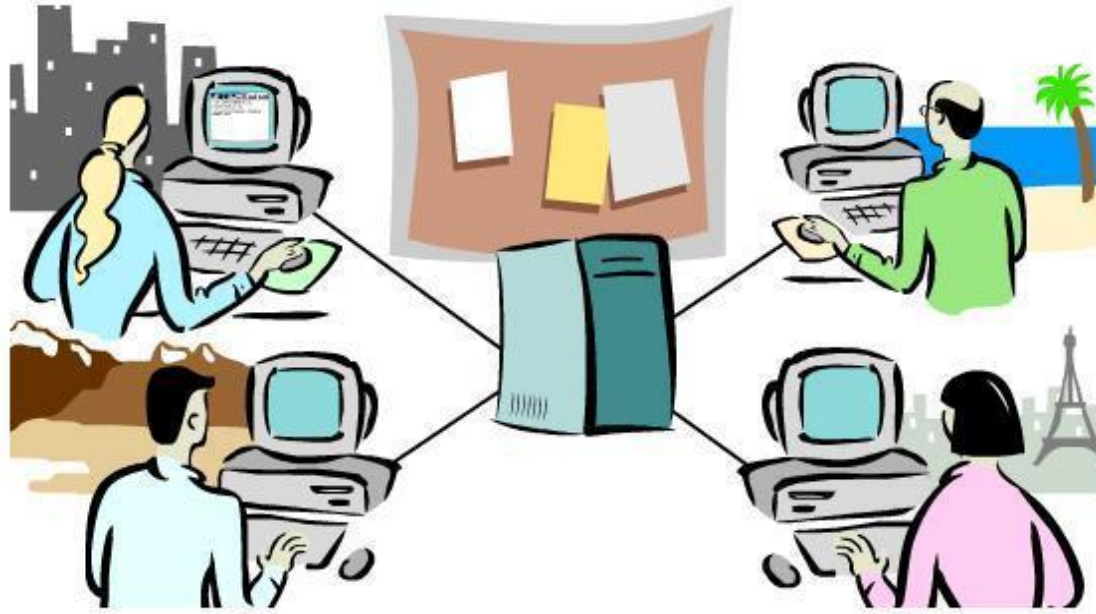
First MOOC in Thailand launched Nov, 2006

e-Learning Professional Development curriculum

course	EL teacher	EL courseware designer	EL project manager
1. **Principle of e-Learning** ★	core	core	core
2. **e-Learning Delivery system** ★	core	core	core
3. **Innovative technology in e-Learning** ★	core	core	core
4. **Quality assurance in e-Learning** ★	core	core	core
5. e-Learning methods and skills	core	core	
6. Evaluation of e-Learning courseware	core		
7. Monitoring e-classroom	core		
8. Designing effective website for e-Learning		core	
9. Evaluation methods and technique in e-Learning		core	
10. Design e-Learning courseware		core	
11. e-Learning project management			core
12. Organizational e-Learning policy and strategy			core

e-Learning Professional Approach

• **Target**	**in-service teachers**
• **Teaching & Learning delivery system**	**100% online mode**
• **Learning management system**	**Moodle**
• **Instructional approach**	**Collaborative learning**

e-Learning Professional Development Program Data Sheet

Number of registered students

Class no.	EL Teacher	EL Courseware Designer	EL Project Manager	
1	59			
2	99			
3				85
			142	580

The e-Learning Professional Development Program was the first MOOC style fully online certificate program in Thailand and found finish rate of 35%

...who have successfully completed the course

Certificate type	total
EL Teacher	66
EL Courseware Designer	70
EL Project Manager	66
total	202

Finish rate = 35%

III. The Establishment of Thai-MOOC

Thailand **M**assive **O**pen **O**nline **C**ourse

Thailand **M**assive **O**pen **O**nline **C**ourse: Objectives

1. To design and develop MOOC platform with standard guideline for supporting Thai HEIs to provide MOOC

2. To provide opportunity for lifelong learning and access to higher education

3. To provide opportunity for HEIs student to take courses from other HEIs (provider HEIs) both for credit and not for credit

4. To implement "the credit bank system" for accumulated and transfer learning credits between HEIs

5. To conduct research on MOOC: system, pedagogy, media and courseware guidelines for providing MOOC in Thai context

Flexible pathways access
to Higher Education

Credit transfer
between HEIs

Wide range of Higher Education Quality

Accommodate more
higher education student

Support drop out
students

Ready

THAI-MOOC

Enabling factors

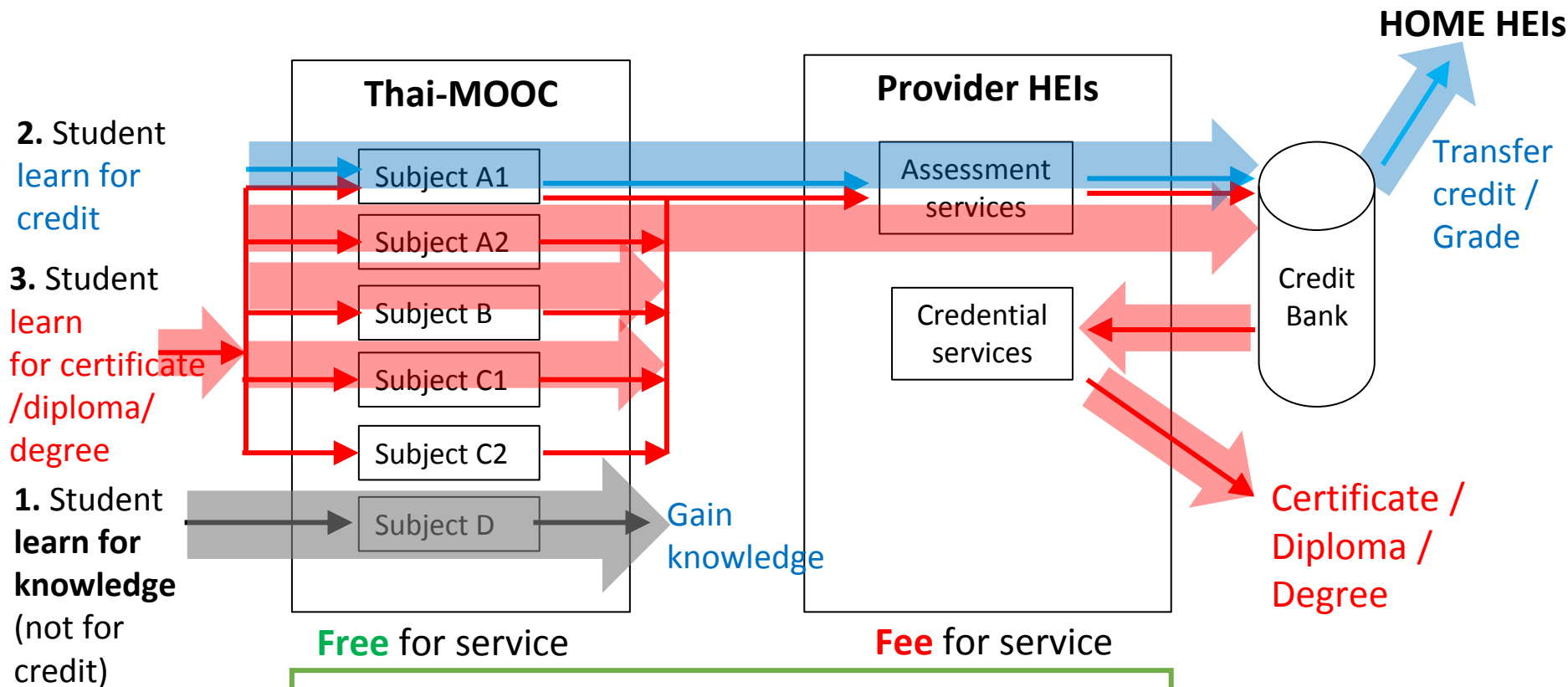Readiness of **learners**

Experience of fully online teaching

Foundation

Reliability & Fast Network

OER / OCW portals & findability

Consortium of Universities

Thailand **M**assive **O**pen **O**nline **C**ourse:
The System

HOME HEIs

Thai-MOOC

Provider HEIs

2. Student learn for credit

Subject A1

Assessment services

Transfer credit / Grade

Subject A2

3. Student learn for certificate /diploma/ degree

Subject B

Credit Bank

Credential services

Subject C1

Subject C2

1. Student **learn for knowledge** (not for credit)

Subject D

Gain knowledge

Certificate / Diploma / Degree

Free for service

Fee for service

| Resources for learning | ICT Infrastructure | Student Administration | Supporting services |

Quality Assurance/ Courses/ Program Accreditation

THAILAND CYBER UNIVERSITY

Thailand **M**assive **O**pen **O**nline **C**ourse:
The Priority MOOC Courses

- General education courses
  (for first & second year student / common for all
  university)

- Languages and Culture (especially Asian countries)

- Life and Health Sciences courses

- Computer and Technology courses

- Business Administration courses

IV. CONCLUSION & PROPOSAL

IV.Conclusion & Proposal

- Thai Government has provided full support to establish Thai-MOOC.

- Thailand Cyber University (TCU) project together with partner universities / institutes will start Thai-MOOC phase I on 2015 targeting to provide 30 MOOC-style courses, "Credit-bank" and "Assessment-center" and enabling

  - Lifelong learning

  - Learn and transfer learning creadit among university

  - Learn and accumurate learning credits to get certificate or bachelor/master degree

IV.Conclusion & Proposal

- Looking forward to partner with Regional MOOCs: ASEAN, ASIAN, GLOBAL MOOCs.

Q/A & Discussion

Thank you   ขอบคุณครับ