ผลการศึกษา ASEAN ICT Skills Standard ปี 2561

หัวข้อ

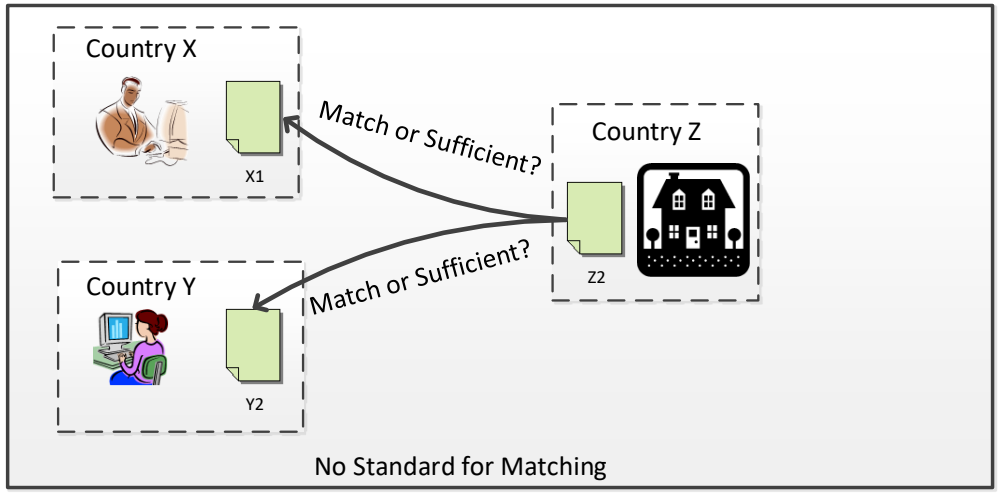
- ที่มาของโครงการ
- หน้าตาของ “ICT Skills Standard”
- หัวใจของ ASEAN ICT Skills Standard
- ภาพรวมของ ASEAN ICT Skills Standard
- ตัวอย่างของ “ASEAN ICT Skills Standard ปี 2561”

ที่มาของโครงการ

สิ่งที่เกิดขึ้นในยุโรป

"..At present, an enterprise in France may hesitate to recruit a job applicant from, say, **Sweden**, because it does **not** understand the level of the qualifications presented by the Swedish candidate. But once the EQF is fully implemented, a Swedish person's certificates will bear a reference to an EQF reference level. The **French** authorities will have already decided where their own national certificates in the field concerned lie, so the French enterprise would use the EQF reference to get a better idea of how the Swedish qualification compares to French qualifications..."

Ref from: http://ec.europa.eu/education/lifelong-learning-policy/eqf_en.htm



สิ่งที่เกิดขึ้นในอาเซียน

1. Problem to be addressed

The first paragraph of the Project Document will define the problem (s) that the project will address. This section should be limited to a brief statement of the problem, as determined in the problem analysis. In general, one project should focus on one large problem. The statement of a single problem will lead to the statement of a single objective.

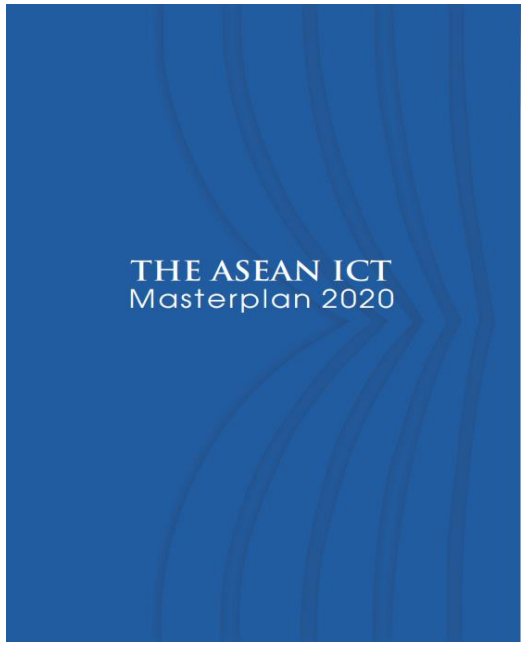
With the formation of ASEAN Economic Community in 2015, ICT sector like other sectors in ASEAN needs to prepare itself for the expected regional integration. For such regional integration to become successful there must be a working mechanism that would facilitate the flow of ICT workforce among ASEAN member states. Hence, there is a need to identify ICT skills that are required in ASEAN with respect to the cross-border flow of ICT workforce. Such skill sets much be given commonly accepted definitions and classified into commonly accepted competency levels. Then, means to certify individuals per the skill sets defined and their respective competency levels must be established. This project addresses the action of Develop ICT certification and skills upgrading programme required under Initiative 5.2: Develop Skills Upgrading and Certification, Strategic Thrust 5: Human Capital Development of ASEAN ICT Master Plan 2015.

ASEAN ICT Master Plan

AIM Strategic Thrust 5: Human Capital Development

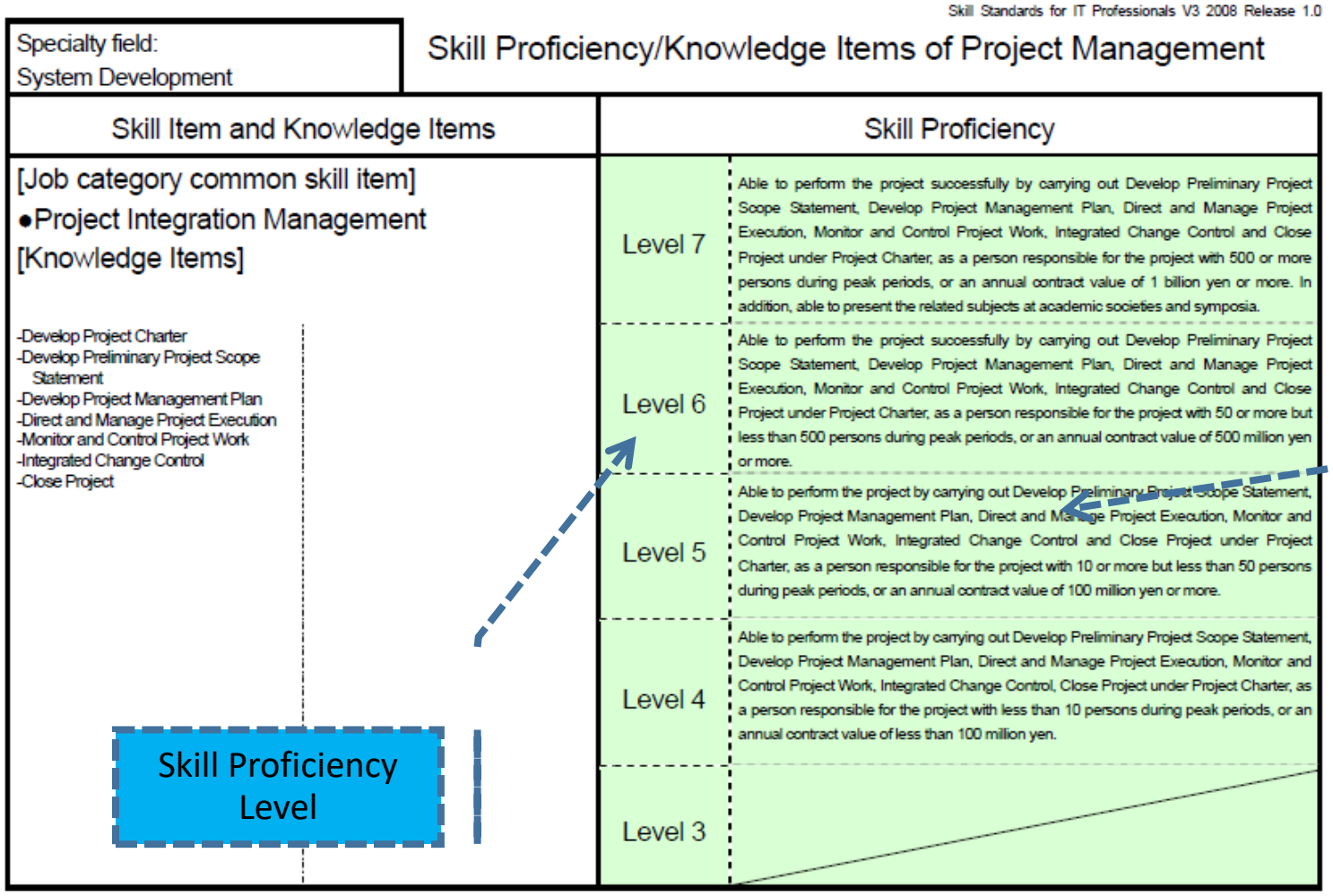
Initiative 5.2 Develop Common ICT Workforce Skills

Action 5.2.1 **Continue** Efforts to Align ICT Skill Standards for ASEAN



หน้าตาของ “ICT Skills Standard”

อะไรคือ “Definition” ของ Skill?



Skill Standards for IT Professionals V3 2008 Release 1.0

Specialty field:
System Development

Skill Proficiency/Knowledge Items of Project Management

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Project Integration Management [Knowledge Items] -Develop Project Charter -Develop Preliminary Project Scope Statement -Develop Project Management Plan -Direct and Manage Project Execution -Monitor and Control Project Work -Integrated Change Control -Close Project	Level 7	Able to perform the project successfully by carrying out Develop Preliminary Project Scope Statement, Develop Project Management Plan, Direct and Manage Project Execution, Monitor and Control Project Work, Integrated Change Control and Close Project under Project Charter, as a person responsible for the project with 500 or more persons during peak periods, or an annual contract value of 1 billion yen or more. In addition, able to present the related subjects at academic societies and symposia.
	Level 6	Able to perform the project successfully by carrying out Develop Preliminary Project Scope Statement, Develop Project Management Plan, Direct and Manage Project Execution, Monitor and Control Project Work, Integrated Change Control and Close Project under Project Charter, as a person responsible for the project with 50 or more but less than 500 persons during peak periods, or an annual contract value of 500 million yen or more.
	Level 5	Able to perform the project by carrying out Develop Preliminary Project Scope Statement, Develop Project Management Plan, Direct and Manage Project Execution, Monitor and Control Project Work, Integrated Change Control and Close Project under Project Charter, as a person responsible for the project with 10 or more but less than 50 persons during peak periods, or an annual contract value of 100 million yen or more.
	Level 4	Able to perform the project by carrying out Develop Preliminary Project Scope Statement, Develop Project Management Plan, Direct and Manage Project Execution, Monitor and Control Project Work, Integrated Change Control, Close Project under Project Charter, as a person responsible for the project with less than 10 persons during peak periods, or an annual contract value of less than 100 million yen.
	Level 3	

Skill Proficiency Level

Skill definition according to a certain “Skill proficiency”

Skill Area and Skill Proficiency

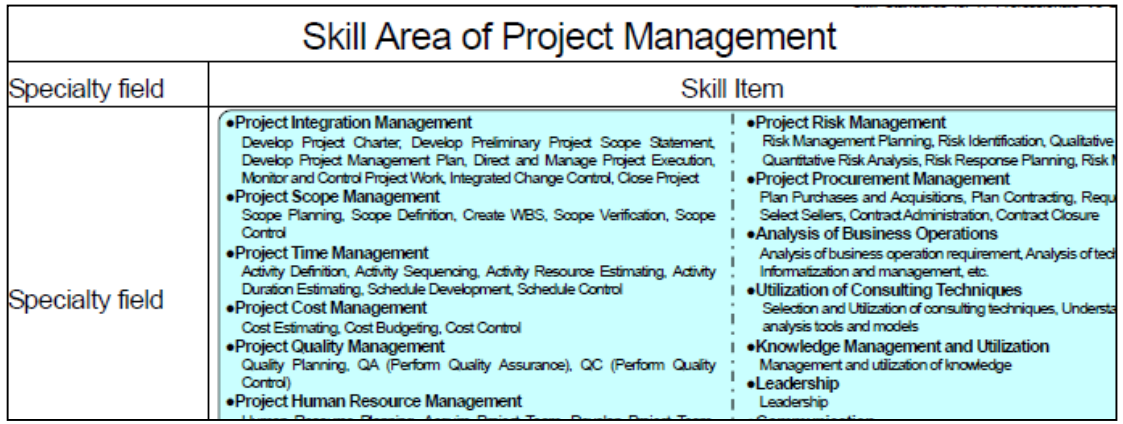
PM-5

ตัวอย่างของ “Skill”

Information technology specialist in applications development	A.6 Application Design B.1 System Design and Development B.2 System Integration B.3 Testing B.4 Solution Deployment B.5 Documentation Production C.1 User Support E.2 Project and Portfolio Management

Example from the German dual system job profile

Referenced from “User Guidelines European e-Competence Framework 2.0“



Skill Area of Project Management

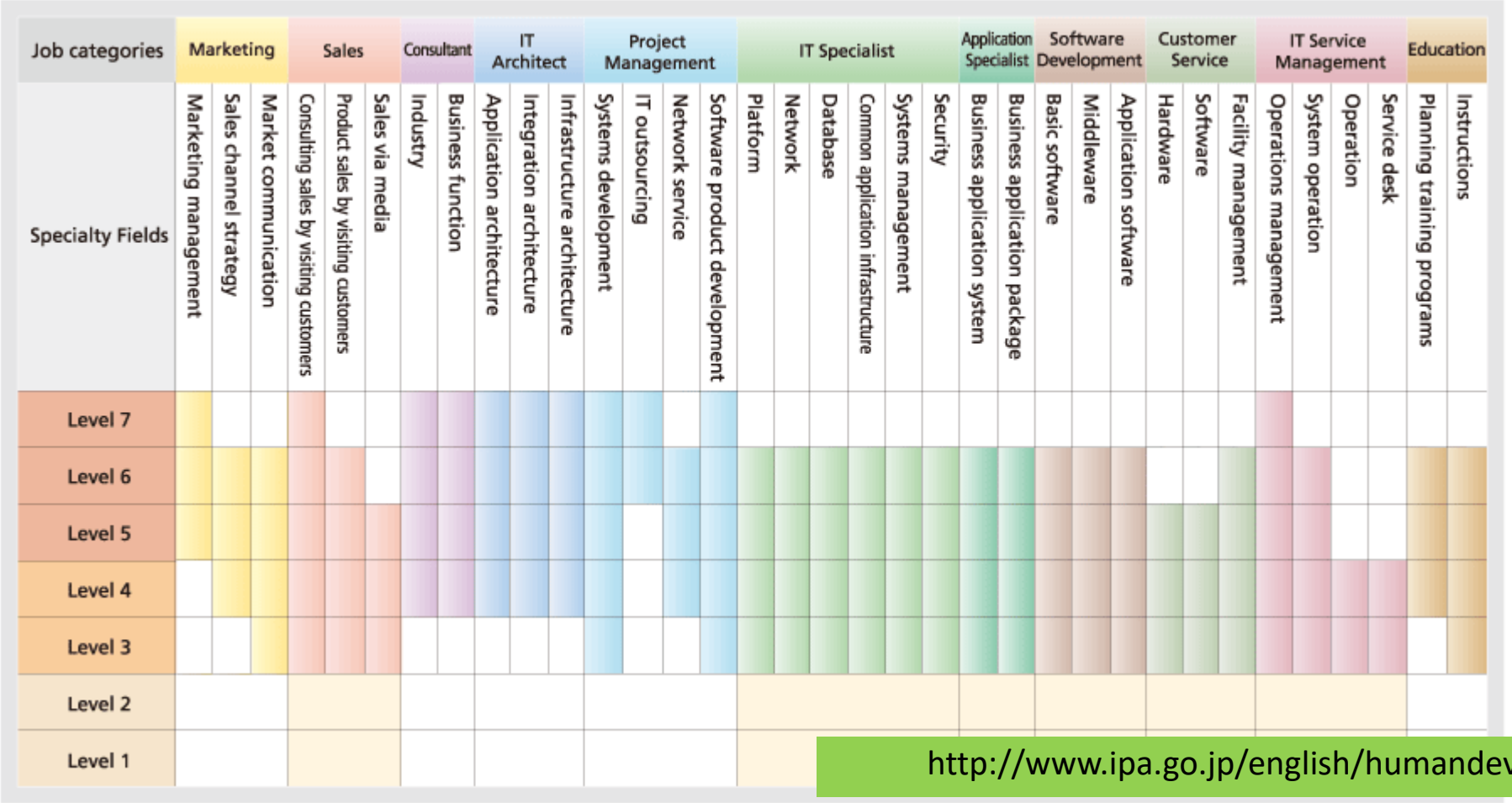
Specialty field	Skill Item	
Specialty field	•Project Integration Management Develop Project Charter, Develop Preliminary Project Scope Statement, Develop Project Management Plan, Direct and Manage Project Execution, Monitor and Control Project Work, Integrated Change Control, Close Project •Project Scope Management Scope Planning, Scope Definition, Create WBS, Scope Verification, Scope Control •Project Time Management Activity Definition, Activity Sequencing, Activity Resource Estimating, Activity Duration Estimating, Schedule Development, Schedule Control •Project Cost Management Cost Estimating, Cost Budgeting, Cost Control •Project Quality Management Quality Planning, QA (Perform Quality Assurance), QC (Perform Quality Control) •Project Human Resource Management	•Project Risk Management Risk Management Planning, Risk Identification, Qualitative Quantitative Risk Analysis, Risk Response Planning, Risk •Project Procurement Management Plan Purchases and Acquisitions, Plan Contracting, Requ Select Sellers, Contract Administration, Contract Closure •Analysis of Business Operations Analysis of business operation requirement, Analysis of tec Informatization and management, etc. •Utilization of Consulting Techniques Selection and Utilization of consulting techniques, Understa analysis tools and models •Knowledge Management and Utilization Management and utilization of knowledge •Leadership Leadership

Example from Japan‘s Skill Standards for IT Professionals V3 2008 Release 1.0

Referenced from “Skill Area and Skill Proficiency: Project Management“

Skill Standards ของประเทศญี่ปุ่น

ITSS Career Framework



http://www.ipa.go.jp/english/humandev/forth.html

European e-Competence Framework

Dimension 1	Dimension 2	Dimension 3				
5 e-Comp. areas (A – E)	36 e-Competences identified	e-Competence proficiency levels e-1 to e-5, related to EQF levels 3-8				
		e-CF levels identified per competence				
		e-1	e-2	e-3	e-4	e-5
A. PLAN	A.1. IS and Business Strategy Alignment				■	■
	A.2. Service Level Management			■	■	
	A.3. Business Plan Development			■	■	■
	A.4. Product or Project Planning		■	■	■	
	A.5. Design Architecture			■	■	
	A.6. Application Design	■	■	■		
	A.7. Technology Watching				■	■
	A.8. Sustainable Development			■	■	
B. BUILD	B.1. Design and Development		■	■	■	■
	B.2. Systems Integration		■	■	■	
	B.3. Testing	■	■	■		
	B.4. Solution Deployment	■	■	■		
	B.5. Documentation Production	■	■	■		
C. RUN	C.1. User Support	■	■	■		
	C.2. Change Support		■	■		
	C.3. Service Delivery	■	■	■		
	C.4. Problem Management		■	■	■	
D. ENABLE	D.1. Information Security Strategy Development				■	■
	D.2. ICT Quality Strategy Development					

http://www.ecompetences.eu/

Skills Framework for the Information Age

Reference and guide to SFIA version 7. Framework status: Beta.

Skills at a glance

Description of all SFIA 7 skills according to category and subcategory

Category	Subcategory	Skill	Levels
Strategy and architecture	Information strategy	Enterprise IT governance GOVN	5 6 7
		Strategic planning ITSP	5 6 7
		Information governance IRMG	4 5 6 7
		Information systems coordination ISCO	6 7
		Information security SCTY	3 4 5 6 7
		Information assurance INAS	5 6 7
		Analytics INAN	3 4 5 6 7
		Data visualisation VISL	4 5
		Information content publishing ICPM	1 2 3 4 5 6
	Advice and guidance	Consultancy CNSL	5 6 7
		Specialist advice TECH	4 5 6
	Business strategy and planning	Demand management DEMM	5 6
		IT management ITMG	5 6 7
		Financial management FMIT	4 5 6
		Innovation INOV	5 6 7
		Research RSCH	2 3 4 5 6
		Business process improvement BPRE	5 6 7
		Knowledge management KNOW	2 3 4 5 6 7
		Enterprise and business architecture STPL	5 6 7
		Business risk management BURM	4 5 6 7

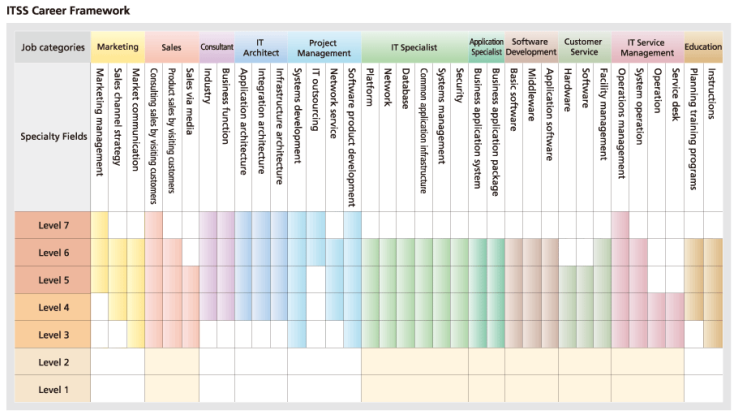
http://www.sfia.org.uk/

The Skills Framework for the Information Age is owned by The SFIA Foundation: www.SFIA.org.uk

จำนวน Skills และ Competency Levels

Country	Standard Title	Number of Skills	Number of Competency Levels
Canada	Canadian Digital Skills Framework	103	5
Europe	European e-Competence Framework (e-CF)	35	5
Germany	Advanced IT Training System (AITTS)	35	3
Japan	Skill Standards for IT Professionals (ITSS)	35	7
United Kingdom	Skills Framework for the Information Age (SFIA)	104	7

สรุปในภาพรวม



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A. PLAN	A.1. IS and Business Strategy Alignment				■	■
	A.2. Service Level Management			■	■	
	A.3. Business Plan Development			■	■	■
	A.4. Product or Project Planning		■	■	■	
	A.5. Design Architecture			■	■	
	A.6. Application Design	■	■	■		
	A.7. Technology Watching				■	■
	A.8. Sustainable Development			■	■	
B. BUILD	B.1. Design and Development		■	■	■	■
	B.2. Systems Integration		■	■	■	
	B.3. Testing	■	■	■		
	B.4. Solution Deployment	■	■	■		
	B.5. Documentation Production	■	■	■		
C. RUN	C.1. User Support	■	■	■		
	C.2. Change Support		■	■		
	C.3. Service Delivery	■	■	■		
	C.4. Problem Management		■	■	■	
D. ENABLE	D.1. Information Security Strategy Development				■	■
	D.2. ICT Quality Strategy Development				■	■

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		Information assurance INAS	5 6 7
		Analytics INAN	3 4 5 6 7
		Data visualisation VISL	4 5
		Information content publishing ICPM	1 2 3 4 5 6
	Advice and guidance	Consultancy CNSL	5 6 7
		Specialist advice TECH	4 5 6
	Business strategy and planning	Demand management DEMM	5 6
		IT management ITMG	5 6 7
		Financial management FMIT	4 5 6
		Innovation INOV	5 6 7
		Research RSCH	2 3 4 5 6
		Business process improvement BPRE	5 6 7
		Knowledge management KNOW	2 3 4 5 6 7
		Enterprise and business architecture STPL	5 6 7
		Business risk management BURM	4 5 6 7

Skills และ Sub-Skills **ไม่มี**มาตรฐานในการ list แต่ภาพใหญ่คือ “ขั้นตอนการทำงาน”

จำนวนของ Competency Levels ก็**ไม่มี**มาตรฐานในการได้มา มีค่าที่ระดับ 3 – 8 ในปัจจุบัน

หัวใจของ ASEAN ICT Skills Standard

60% ของประเทศในอาเซียนมีมาตรฐานใช้อยู่แล้ว

มาตรฐานต้องง่ายต่อการใช้งานและการปรับปรุง

สิ่งที่ทำหรือไม่ทำในโปรเจค (1/3)

We do not re-invent the wheels

3. ITSS Overview

3.1 ITSS Chronology

	Period	Output
2001		
2002	Diffusion period	<Dec.> **ITSS V1 Announcement**
2003	Diffusion period	<Jul.> ITSS V1.1 Announcement <Jul.> Education Roadmap (6 job categories) (SALES, CONS, ITA, PM, ITS, APS)
2004	Interfusion period	<Jan.> ITSS Introduction Manual issued <Oct.> ITSS Guidebook Issued
2005	Interfusion period	<Dec.> Manager's Guide for ITSS management
2006	Utilization period	<Apr.> **ITSS V2 Announcement** <Oct.> ITSS V2 2006 Announcement
2007	Utilization period	<Apr.> Guide to be an IT Professional <Jun.> Training guideline <Jun.> Guide for in-house Professional Certification
2008～	Utilization period	<Mar.> **ITSS V3 Announcement** <Oct.> **ITSS V3 2008 Announcement**

10 years!!

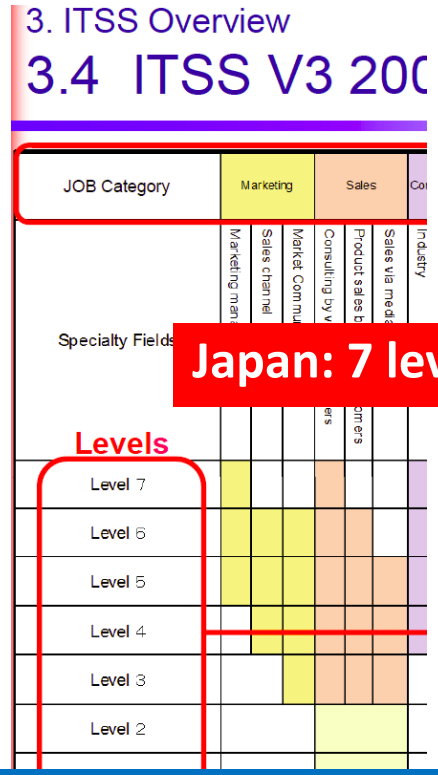
http://www.ecompetences.eu/2038,CEN+ICT+Skills+Workshop.html

สิ่งที่ทำหรือไม่ทำในโปรเจค (2/3)

We do not attempt to replace what already existed in all countries

สิ่งที่ทำหรือไม่ทำในโปรเจค (3/3)

We keep it simple to map and use

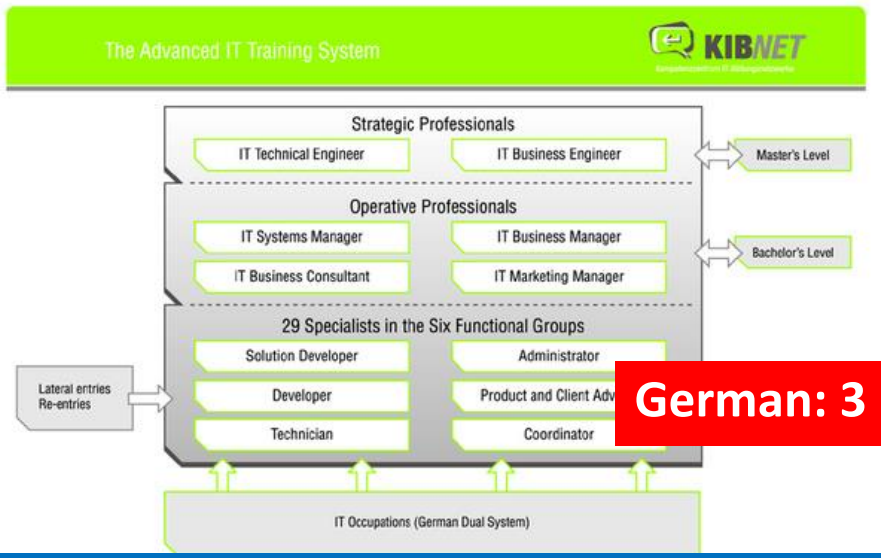


Japan: 7 levels

Referenced from "Skill Area and Skill Proficiency: Project Management"

E-CF: 5 levels
EQF: 8 levels

http://www.ecompetences.eu/1855,Framework+overview.html

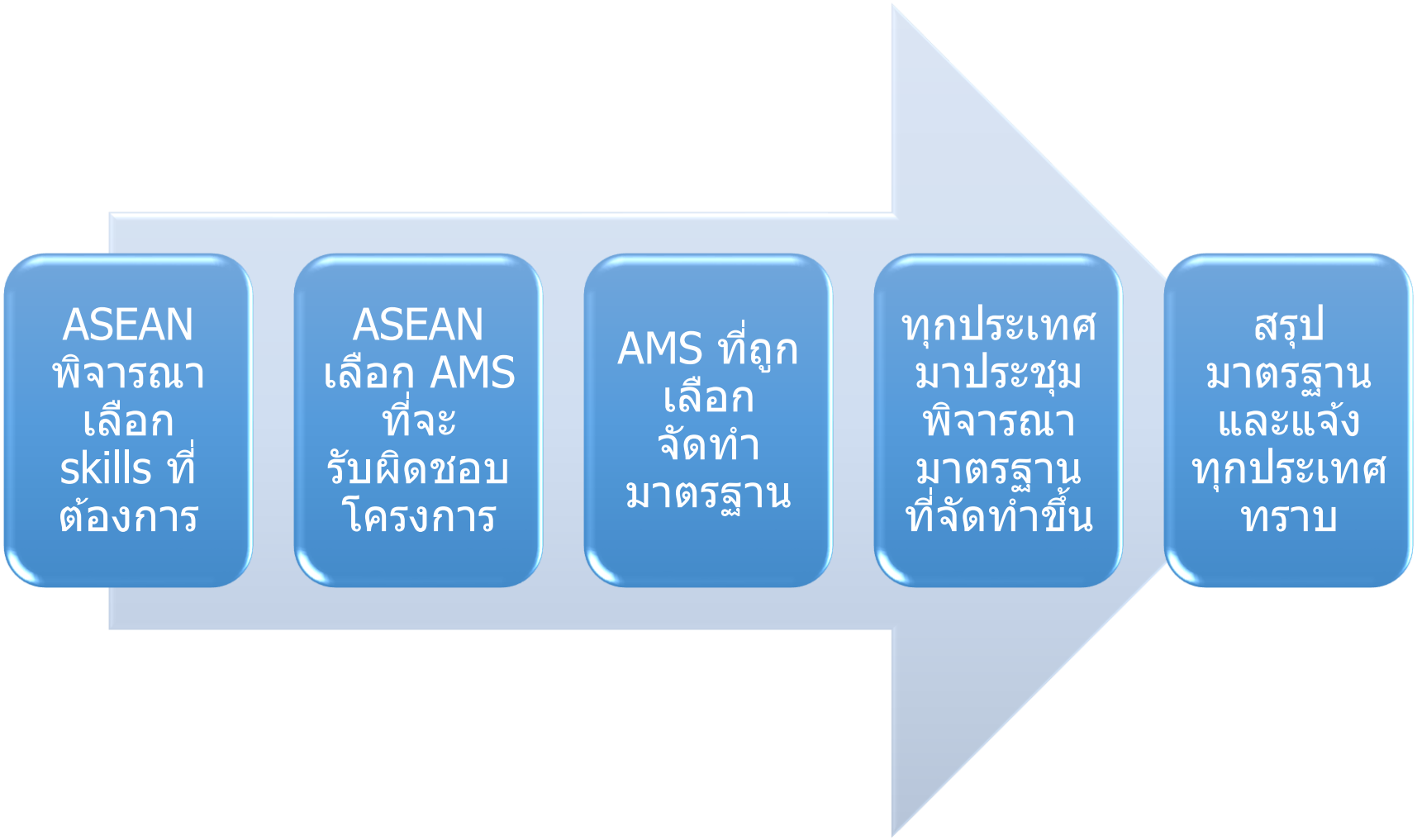


German: 3 levels

http://www.kibnet.org/english/en.aitts/content.en.aitts.4/content.content.en.aitts.4.4/index.html

ภาพรวมของ **ASEAN** ICT Skills Standard

ขั้นตอนการได้มาซึ่งมาตรฐานของอาเซียน



เฟสที่ 1 และ 2

Develop

Phase I

1. Software Development
2. ICT Project Management
3. Enterprise Architecture Design
4. Network and System Administration
5. Information System and Network Security

Develop

ASEAN	Competency Level		
	Level 3: Advanced Level	Level 2: Intermediate Level	Level 1: Basic Level
	Has professional knowledge and skills in both technical and management to lead a team in inexperienced environment	Has professional knowledge and skills to perform a given task(s) independently, and, if required, can supervise others; understand a number of comparative approaches to problems in their fields; and be able to apply them efficiently	Has basic knowledge and skills which is adequate to perform a given task(s) under supervision of management.
Indonesia	Level 7-9	Level 4-6	Level 1-3
Malaysia	Level 4 : Advanced	Level 3: Senior	Level 2: Intermediate
Philippines	Level 3 : Specialist	Level 2: Advance	Level 1: Basic
Singapore	Level 4 : Senior Management	Level 2: Specialist	Level 1: Entrant
Thailand	Level 4 : IT professionals	Level 3: Perform all assigned duties independently	Level 2: Perform assigned duties under the supervision
Vietnam	Level 4 : IT professionals	Level 3: Perform all assigned duties independently	Level 2: Perform assigned duties under the supervision

Develop & Update

Phase II

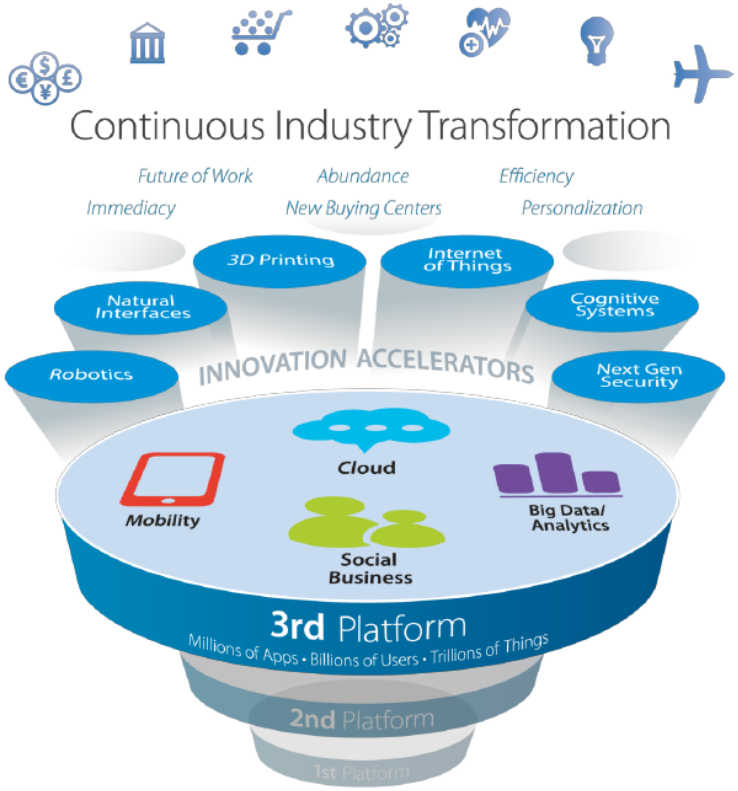
1. Software Development
2. ICT Project Management
3. Enterprise Architecture Design
4. Network and System Administration
5. Information System and Network Security
6. Cloud Computing
7. Mobile Computing

Update

Competency Level	Level 1: Basic Level	Level 2: Intermediate Level	Level 3: Advanced Level
ASEAN	Has basic knowledge and skills which is adequate to perform a given task(s) under supervision of management.	Has professional knowledge and skills to perform a given task(s) independently, and, if required, can supervise others; understand a number of comparative approaches to problems in their fields; and be able to apply them efficiently	Has professional knowledge and skills in both technical and management to lead a team in inexperienced environment
Indonesia	Level 1-3	Level 4-6	Level 7-9
Malaysia	Level 2: Intermediate	Level 3: Senior	Level 4: Advanced
Myanmar	Level 2: Perform assigned duties under the supervision	Level 3: Perform all assigned duties independently	Level 4: IT professionals
Philippines	Level 1: Basic	Level 2: Advance	Level 3 : Specialist
Singapore	Level 1: Entrant	Level 2: Specialist	Level 3 : Expert/Management
Thailand	Level 3: Skilled Worker	Level 4: Supervisor	Level 5 : Middle management
Vietnam	Level 2: Perform assigned duties under the supervision	Level 3: Perform all assigned duties independently	Level 4: IT professionals

Skills ที่ถูกเพิ่มเข้ามาในเฟสที่ 3

- Social business
- Big data
- Internet of Things



http://www.idc.com/

เฟสปัจจุบัน

Develop & Update

This Phase

1. Software Development
2. ICT Project Management
3. Enterprise Architecture Design
4. Network and System Administration
5. Information System and Network Security
6. Cloud Computing
7. Mobile Computing
8. **Social business**
9. **Big data**
10. **Internet of Things**

Update

Competency Level	Level 1: Basic Level	Level 2: Intermediate Level	Level 3: Advanced Level
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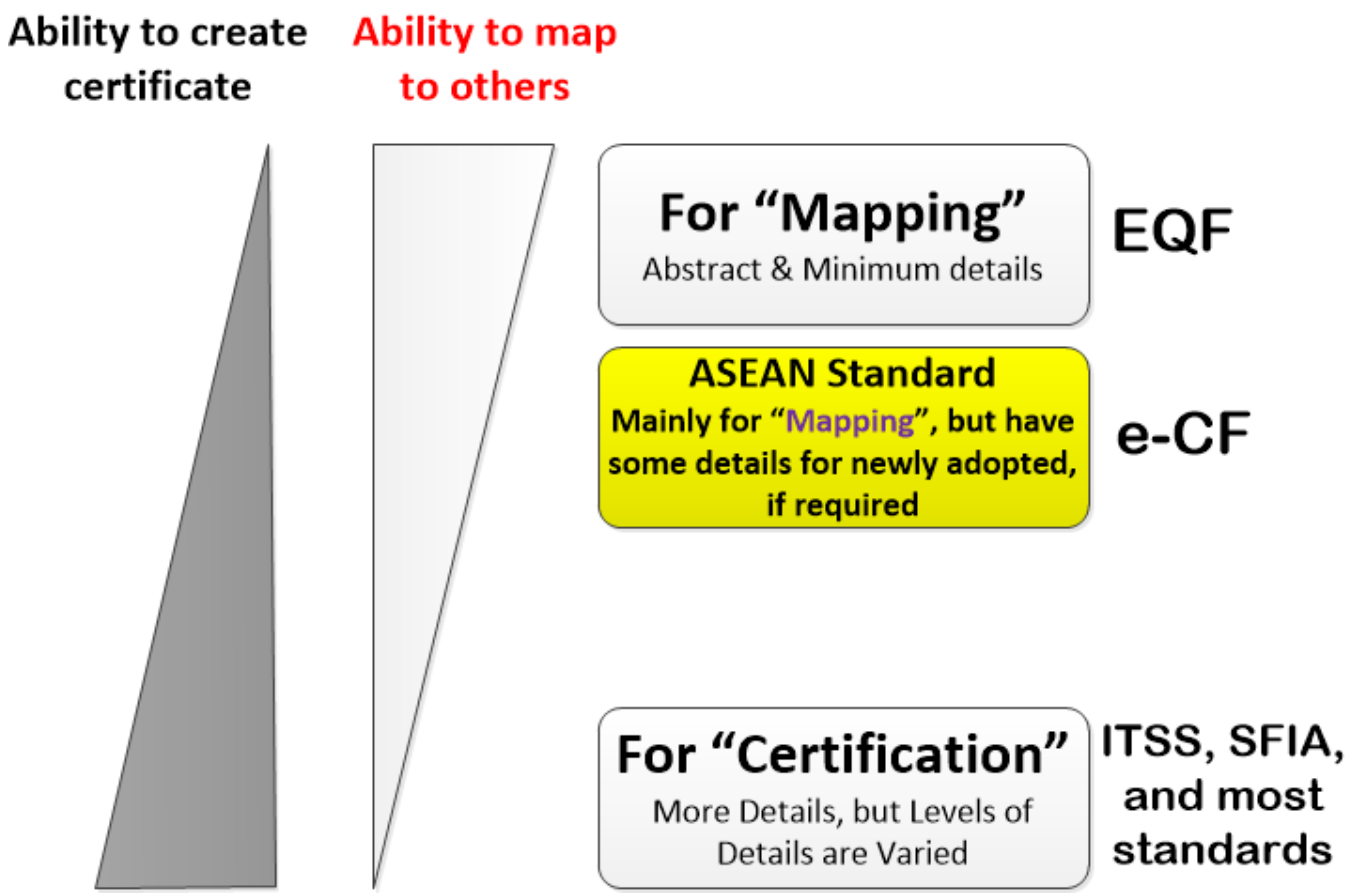
Develop

Approach to promote the developed ASEAN skills standard within the region

Levels of "Standards"

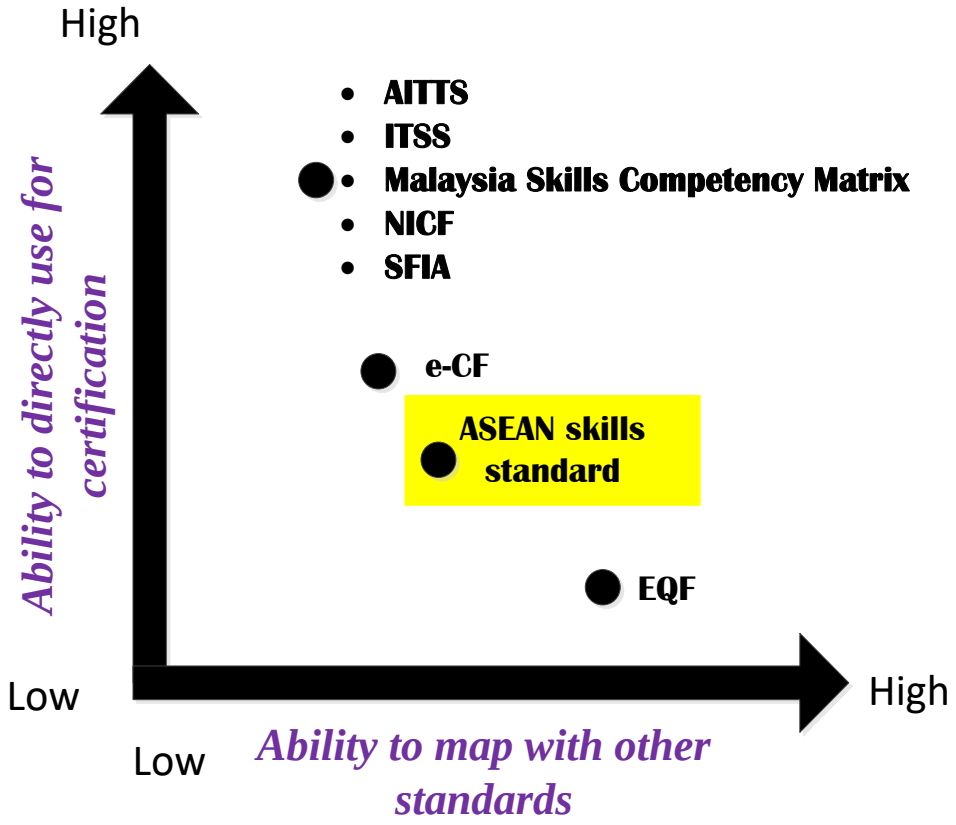


Standard and Certifications

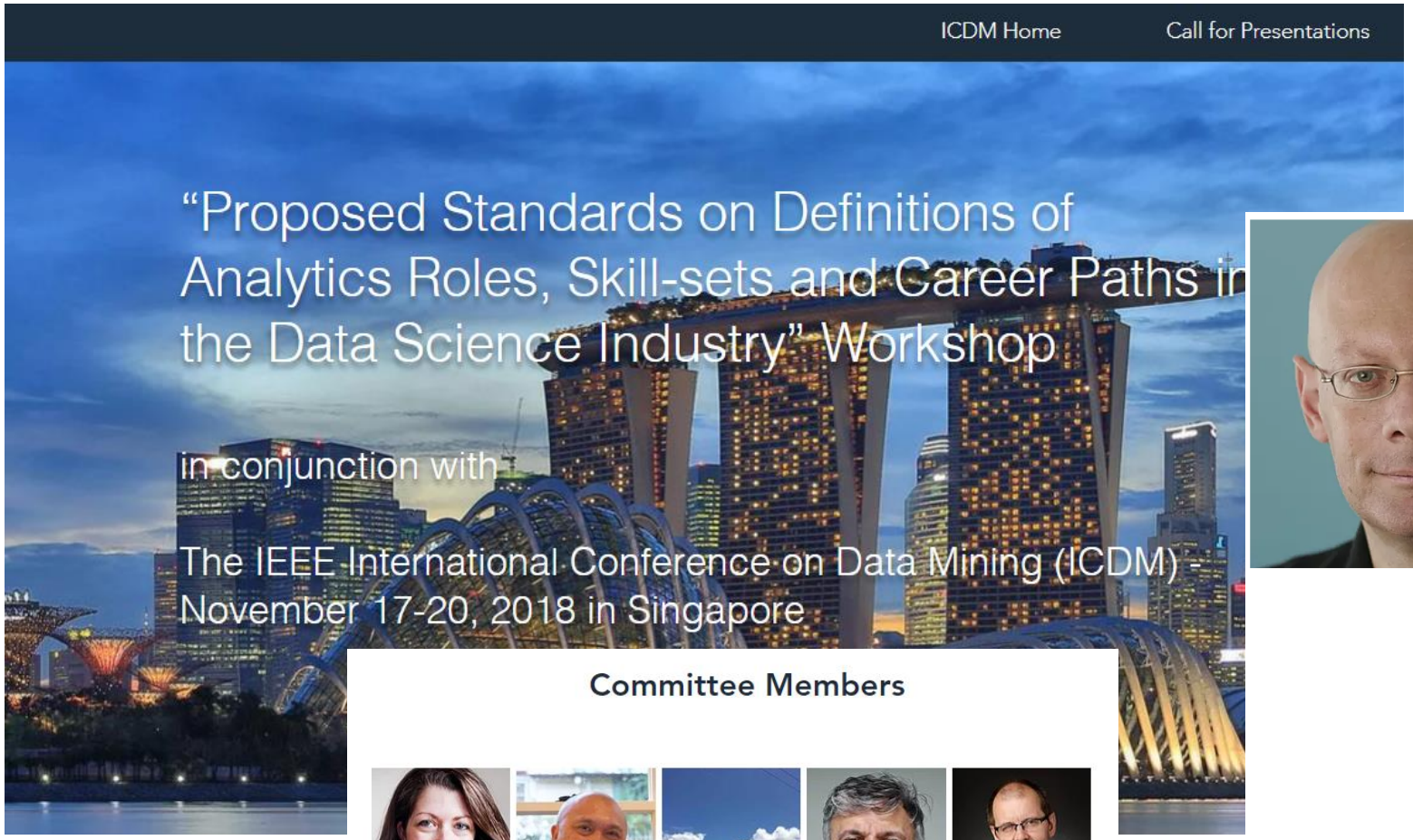
Standard	A	B	C
ITSS	-	Y	-
e-CF	Y	-	-
SFIA	-	Y	Y
AITTS	-	Y	-

A: No certification provided
B: Standard owner (or related agencies) conducts certification by themselves
C: Standard owner (or related agencies) certifies **training providers** who then run certified courses

ASEAN Standard vs. The Rest



ตัวอย่างของ “ASEAN ICT Skills Standard ปี 2561”



Usama M. Fayyad, Ph.D. (Workshop Chair)

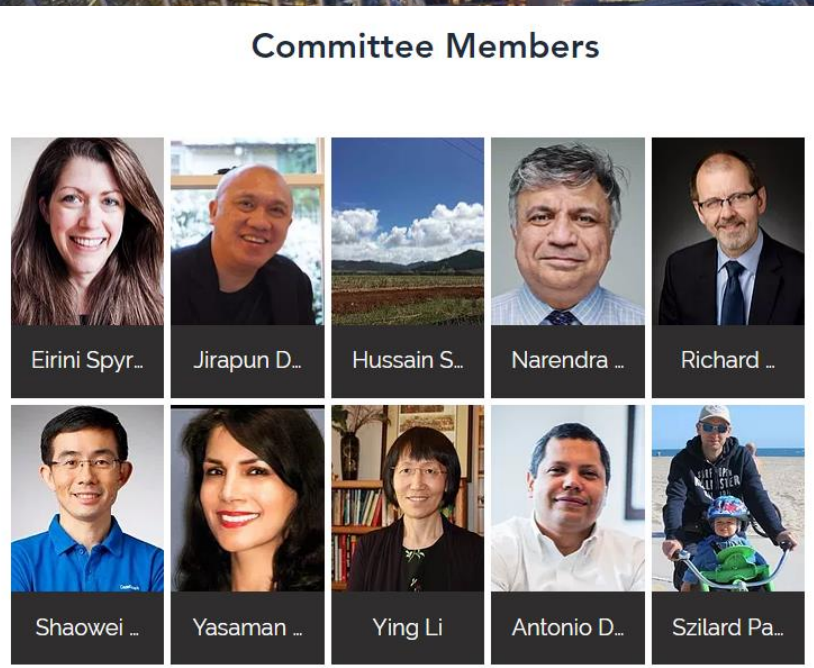
Usama serves as founder/CEO of Open Insights (founded in 2008) where he worl enterprises on AI/Machine Learning, BigData strategy, and launching new business Assets: Most recently serving as Interim CTO for Stella.AI, a VC-funded startup in A Interim COTO of MTN2.0 – helping develop new revenue streams in mobile payme Service businesses at MTN, Africa's largest mobile operator.

Usama was the first Global Chief Data Officer & Group Managing Director at Barclay where he also took on additional role as CIO of Risk, Finance & Treasury Technology Usama was co-founder of OASIS-500, a tech startup investment fund, following his ap Executive Chairman in 2010 by King Abdullah II of Jordan. Up until joining Barcla Chairman, Co-Founder and Chief Technology Officer of Blue Kangaroo Corp building service for offers personalization and activation based in Silicon Valley. His background roles at several startups, including DMX Group (acquired by Yahoo!) and digiMine (A was founded in 2000 in Seattle to build hosted data warehousing and data mining s companies.

He was the first person ever to hold the Chief Data Officer (CDO) title when Yahoo! acc in 2004. In addition to CDO he was also Executive VP of Research and Strategic Data Yahoo!'s global data strategy, architecting its data policies and systems, and managi data processing infrastructure. The data teams he built at Yahoo! collected, managed terabytes of data per day, and drove a major part of ad targeting revenue and data insi He also founded Yahoo! Research Labs where much of the early work on BigData mac established the early collaborations that launched Hadoop and other open source cont

Usama held leadership roles at Microsoft (1996-2000) and founded the machine lea NASA's Jet Propulsion Laboratory (1989-1995) where his work on machine learn Excellence in Research award from Caltech, and a U.S. Government medal from NASA

Usama earned his Ph.D. in engineering in AI/Machine Learning from the University of BSE's in Engineering, MSE Computer Engineering and M.Sc. in Mathematics. He h technical articles on data mining, data science, AI/ML, and databases; and holds ove of the Association for Advancement of Artificial Intelligence (AAAI) and a Fellow Computing Machinery (ACM). He is active in the academic community with several and is the only person to receive both the ACM's SIGKDD Innovation Award (2007) an He has edited two influential books on data mining and served as editor-in-chief on t He is an active angel investor and advisor in many early-stage tech startups across t Middle East. He served on the boards or advisory boards of several private and publ Criteo, Invensense, RapidMiner, Stella.AI, Martini Media, Virsec, Silniva, Ab Choicestream, and others. On the academic front his is on advisory boards of the D Imperial College, AAI at UTS, and The University of Michigan College of Engineering.



"Proposed Standards on Definitions of Analytics Roles, Skill-sets and Career Paths in the Data Science Industry"

Best Practices in Defining Definitions

Big Data

"Big data is high-volume, high-velocity and/or high-variety information assets that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision making, and process automation. "

Doug Laney of Gartner

“Datasets whose size is beyond the ability of typical database software tools to capture, store, manage, and analyze,”

McKinsey

“The ability of society to harness information in novel ways to produce useful insights or goods and services of significant value”

and

“…things one can do at a large scale that cannot be done at a smaller one, to extract new insights or create new forms of value.”

Viktor Mayer-Schönberger and Kenneth Cukier authors of the book "Big Data"

“The broad range of new and massive data types that have appeared over the last decade or so.”

Tom Davenport, author of a book called "Big Data@Work"

"Big data is high-volume, high-velocity and/or high-variety information assets that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision making, and process automation. "

Standard Definition: Big Data

"Big data is high-volume, high-velocity and/or high-variety information assets that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision making, and process automation. "

1. **Data Hygienists** ensure that data coming into the system is clean and accurate.
2. **Data Explorers** go through all of data to select relevant data to the question at hand.
3. **Business Solution Architects** prepare the selected data, so they are ready for analysis.
4. **Data Scientists** based on the organized data, create analytics models that answer the question.
5. **Campaign Experts** turn the models into results. For example, which customer should get what message when.

Best Practices in Defining Definitions

Social Business

“In a social business, the investors/owners can gradually recoup the money invested, but cannot take any dividend beyond that point. The purpose of the investment is purely to achieve one or more social objectives through the operation of the company. No personal gain is desired by the investors. The company must cover all costs and be financially sustainable, while achieving the social objective in sectors such as healthcare, education, poverty, environment, housing, climate urgency etc. Once the original investment has been recouped by the investors, profit stays within the company to expand its outreach and increase the social impact.

Social Business Earth (ref. Prof. Muhammad Yunus)

“A business model that does not strive to maximize profits but rather to serve humanity’s most pressing needs. Although the social business is pioneering in its aims, it is traditional in its management.

Its workforce is professional and paid according to market wages. In every sense the social business is sustainable: in its direct environmental impact, its impact down the value chain, and critically, in its financial independence. This is a key difference between social business and charity. Once its initial investment is repaid, the social business aims to be financially self-sustaining, giving it the independence and security to focus its efforts on the long-term improvement of the lives of the disadvantaged

Social Business Creation (ref. Prof. Muhammad Yunus)

"New forms of collaboration and communication that companies are developing with social media

David Kiron, author of the article "On the Evolution of “Social Business”", published in MIT Sloan Management Review

"New forms of collaboration and communication that companies are developing with social media”

Standard Definition: Social Business

"New forms of collaboration and communication that companies are developing with social media"

1. **Content Creator** responsible for creating content for social media posts. This includes blog posts, images, and videos.
2. **Community Manager** responsible for engaging and connecting with customers on social media. This includes listening to conversations on social media, replying to comments, and organizing social media events.
3. **Advertiser** responsible for experimenting with different ad types, creatives, analyzing the results of the social media ads, and refining ad campaigns for maximum revenue for companies.
4. **Analyst** responsible for analyzing data such as engagement rates, traffic, click-through rates, conversions, and maybe even revenue.

Best Practices in Defining Definitions

IoT

"An IoT is a network that connects uniquely identifiable "Things" to the Internet. The "Things" have sensing/actuation and potential programmability capabilities. Through the exploitation of unique identification and sensing, information about the "Thing" can be collected and the state of the 'Thing' can be changed from anywhere, anytime, by anything."

IEEE

"This is the concept of basically connecting any device with an on and off switch to the Internet (and/or to each other). This includes everything from cellphones, coffee makers, washing machines, headphones, lamps, wearable devices and almost anything else you can think of."

Forbes

"The Internet of Things (IoT) is the network of physical objects that contain embedded technology to communicate and sense or interact with their internal states or the external environment."

Gartner

"An IoT is a network that connects uniquely identifiable "Things" to the Internet. The "Things" have sensing/actuation and potential programmability capabilities. Through the exploitation of unique identification and sensing, information about the "Thing" can be collected and the state of the 'Thing' can be changed from anywhere, anytime, by anything."

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1. **IoT System Analyst**
2. **IoT System Designer**
3. **IoT Prototyping Engineer**
4. **IoT System Tester**
5. **IoT System Engineer**

Competency Level	Level 1: Basic Level	Level 2: Intermediate Level	Level 3: Advanced Level
ASEAN	Has basic knowledge and skills which is adequate to perform a given task(s) under supervision of management.	Has professional knowledge and skills to perform a given task(s) independently, and, if required, can supervise others; understand a number of comparative approaches to problems in their fields; and be able to apply them efficiently	Has professional knowledge and skills in both technical and management to lead a team in inexperienced environment
Indonesia	Level 1-3	Level 4-6	Level 7-9
Malaysia	Level 2: Intermediate	Level 3: Senior	Level 4: Advanced
Myanmar	Level 2: Perform assigned duties under the supervision	Level 3: Perform all assigned duties independently	Level 4: IT professionals
Philippines	Level 1: Basic	Level 2: Advance	Level 3: Specialist
Singapore	Level 1: Entrant	Level 2: Specialist	Level 3: Expert /Management
Thailand	Level 3: Skilled Worker	Level 4: Supervisor	Level 5: Middle management
Vietnam	Level 3-4	Level 2	Level 1


Q & A