

“Telkom IT for The Higher Education”

Firmansyah
GM Witel DI Yogyakarta



Sharing Session

SANATA DHARMA 10 Maret 2018



CV Summary

Name: Firmansyah

Birth, Date : Lubuk Linggau, 1967

Education : Gadjah Mada, Electrical Engineering

Job Position : GM Telkom Jogja

Experience :

OSM Billing : 2007 - 2008

DGM Medan : 2008 - 2010

DGM UCS Sumatra : 2010 - 2011

GM UCS KTI : : 2011 - 2014

GM Witel Makasar : 2014 - 2015

GM Witel Solo : 2015

GM Witel Jogja : 2015 - Now

Course :

Leadership (SUSPIM)

International Seminar (Youth Program, Ambassador, How to succeed)

Internal Telkom Course



CONTENT

1

“ICT” IN THE WORLD

2

“IT” AS A BUSINESS ENABLER

3

“IT” IS THE EDUCATION ENABLER

4

“TELKOM IT” FOR THE HIGHER EDUCATION

5

“IT” SKILL FOR SUCCESS

1

CT IN THE WORLD



Nexus of Cloud Computing, Analytics, Mobility and Social.



80 BILLION CONNECTED DEVICES BY 2020

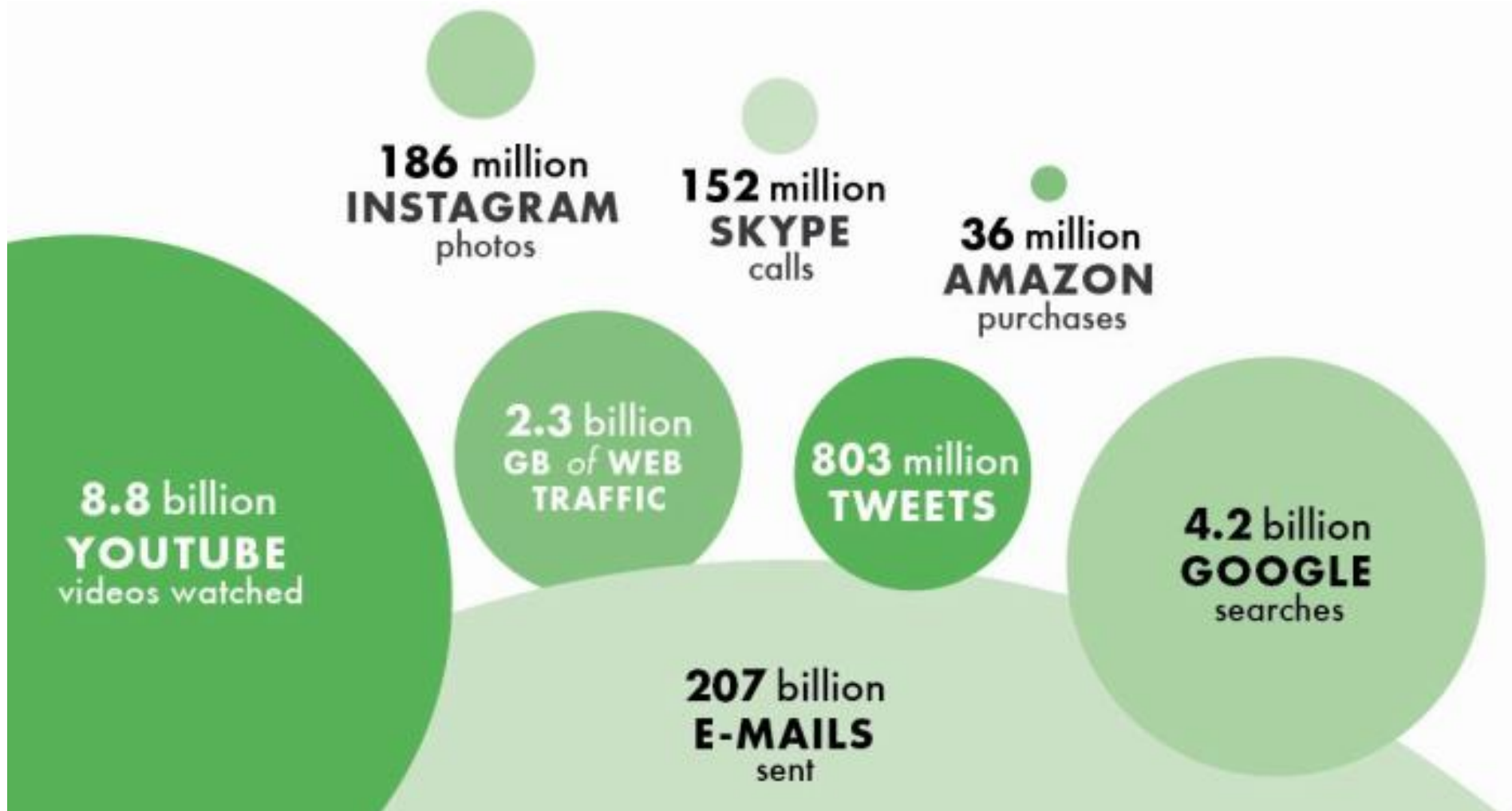
- 10 Connected Devices for Every Household by 2020
- 5 billion internet users by 2020
- 5 connected devices for every user by 2020
- 500 devices with unique digital IDs (Internet of things) per square kilometre by 2020



01

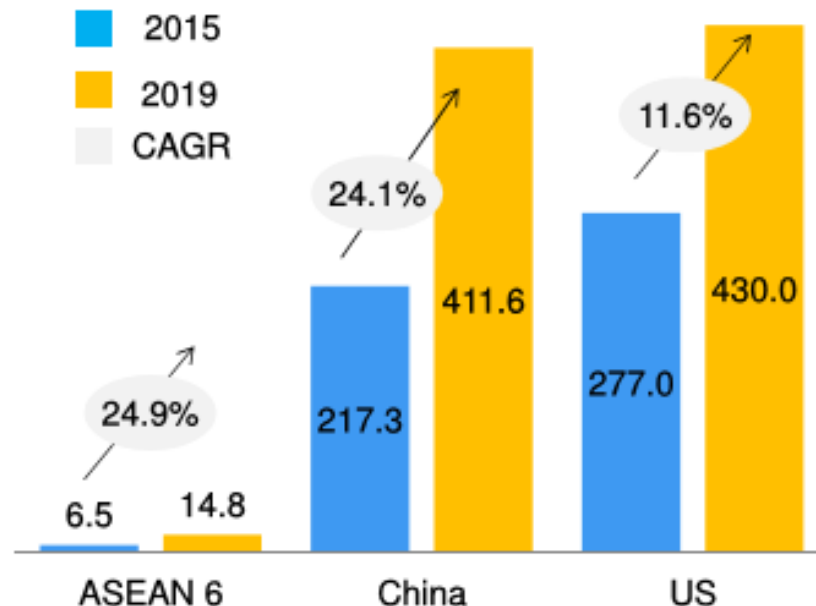
ICT IN THE WORLD

Internet of Things: Activities/ Transactions

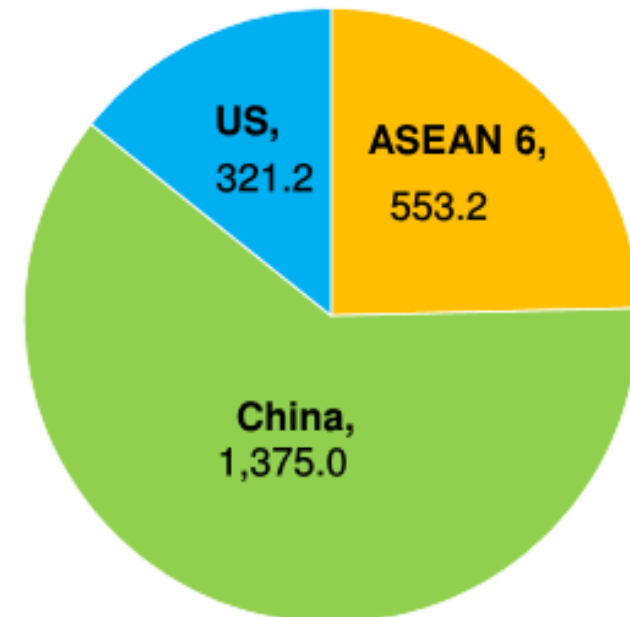


- Robust growth (~25% YoY) but market still small compare to China and US
- Positive factors driving e-Commerce growth in APAC such as sizable and youthful population, robust economic growth from and higher domestic spending

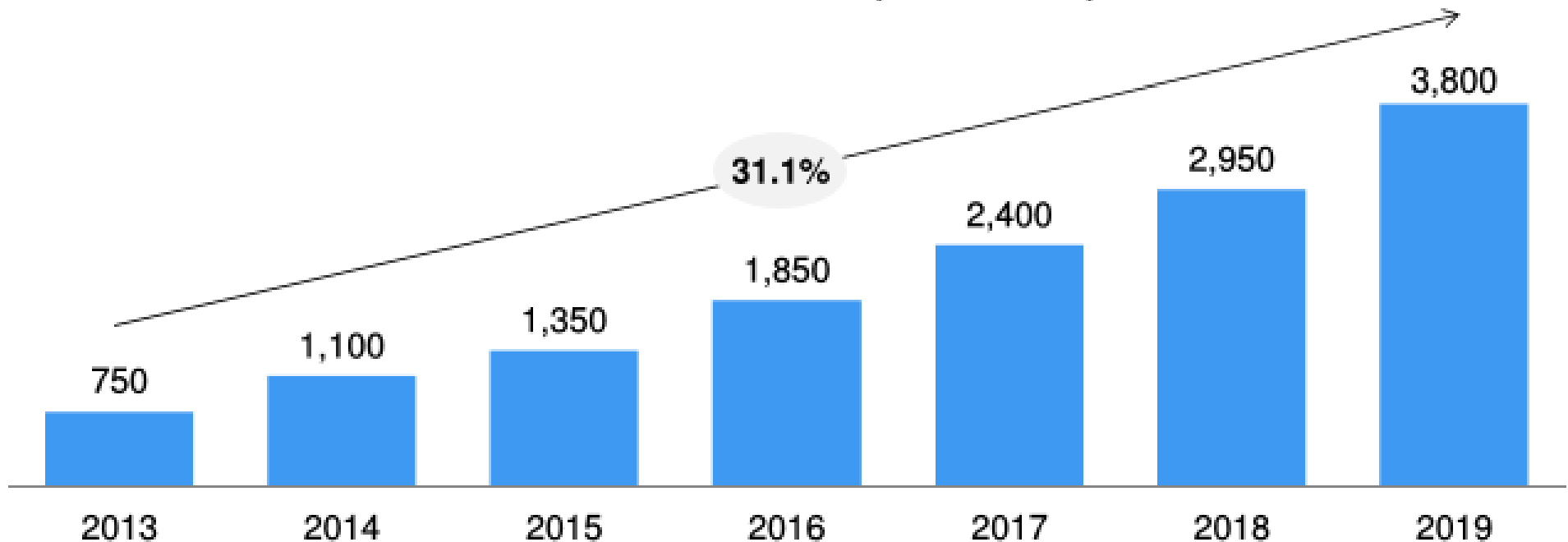
ASEAN 6, China & US e-Commerce Market Size, 2015-2019, USD Billions



ASEAN 6, China & US Population, 2015E, Millions



Indonesia e-Commerce Market Size, 2015-2019, USD Millions



01

ICT IN THE WORLD

Population & penetration in Indonesia

251 Juta

TOTAL POPULATION



51%

URBAN

49%

RURAL

72 Juta

INTERNET USERS



29%

INTERNET PENETRATION

62 Juta

ACTIVE SOCIAL NETWORK USERS



25%

SOCIAL NETWORK INTERNET PENETRATION

282 Juta

ACTIVE MOBILE SUBSCRIPTION



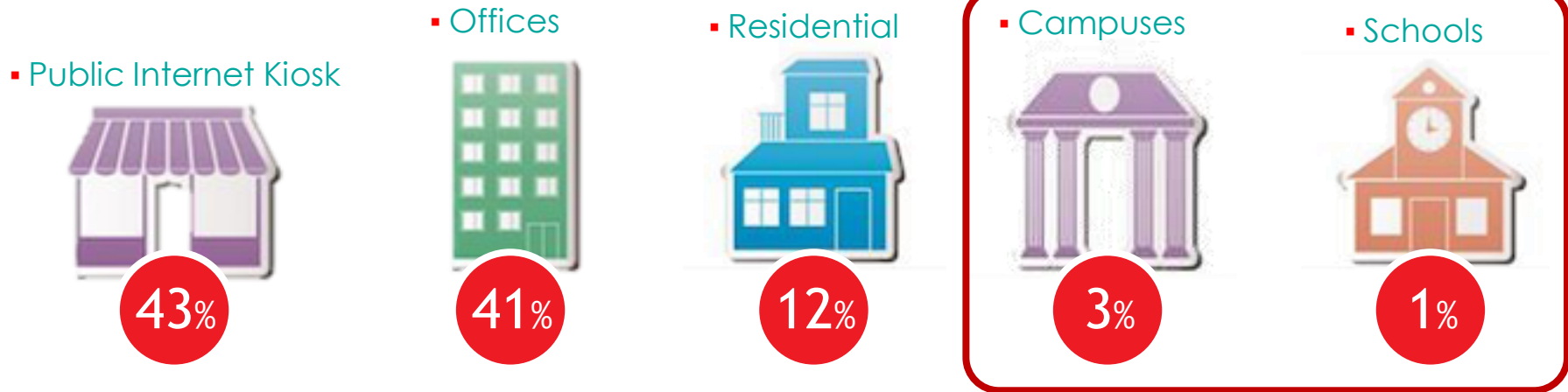
112%

MOBILE SUBSCRIPTION PENETRATION

01

ICT IN THE WORLD

% internet Users in Indonesia



More than **50%** potential internet users is leveraged by Educational sector, but it only gives **4%** contribution to Internet Access

2

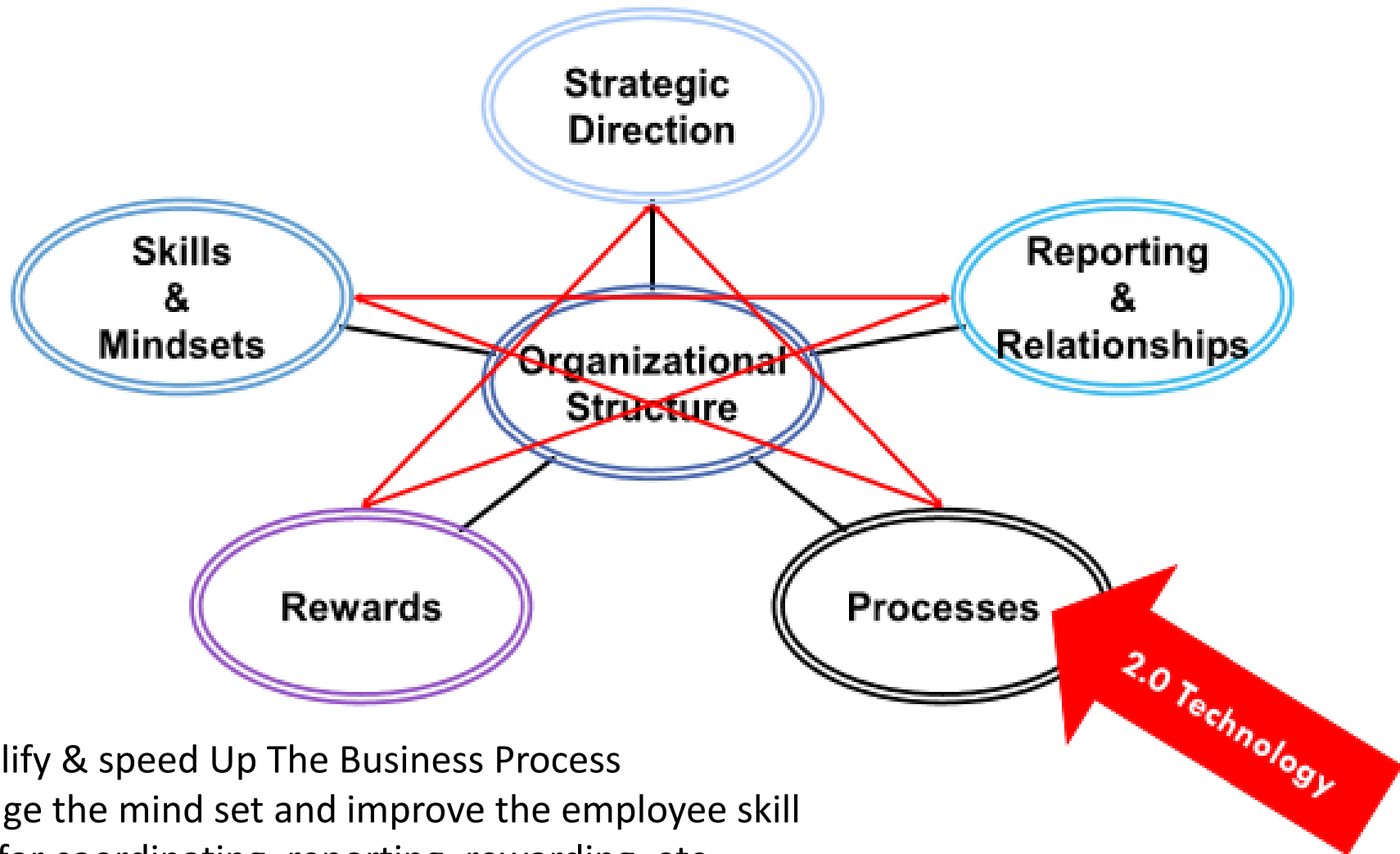
“IT“ AS A BUSINESS ENABLER



02

“IT” AS A BUSINESS ENABLER

Technology in the business



- ✓ Simplify & speed Up The Business Process
- ✓ Change the mind set and improve the employee skill
- ✓ Tool for coordinating, reporting, rewarding, etc

02

“IT” AS A BUSINESS ENABLER

Technology in the business

Technology will Impacts to **Business Process** & Result

- Work processes
- Communication flows with employees & clients
- Service delivery
- Incentives

How it impacts the shape
of the organization
depends on the people

02

“IT” AS A BUSINESS ENABLER

Technology in the business



Top Ten in strategic of technology

1. Computing Everywhere
2. **The Internet of Things**
3. 3D Printing
4. Advanced Pervasive Invisible Analytics
5. Context Rich System
6. Smart Machines
7. Cloud Client Computing
8. SW Defined App & Infrastructure
9. Web Scale IT
10. Rick Based Security & Self Protection

02

“IT” AS A BUSINESS ENABLER

Technology in the business

Total spending

US\$79.3B

2020

Total spending

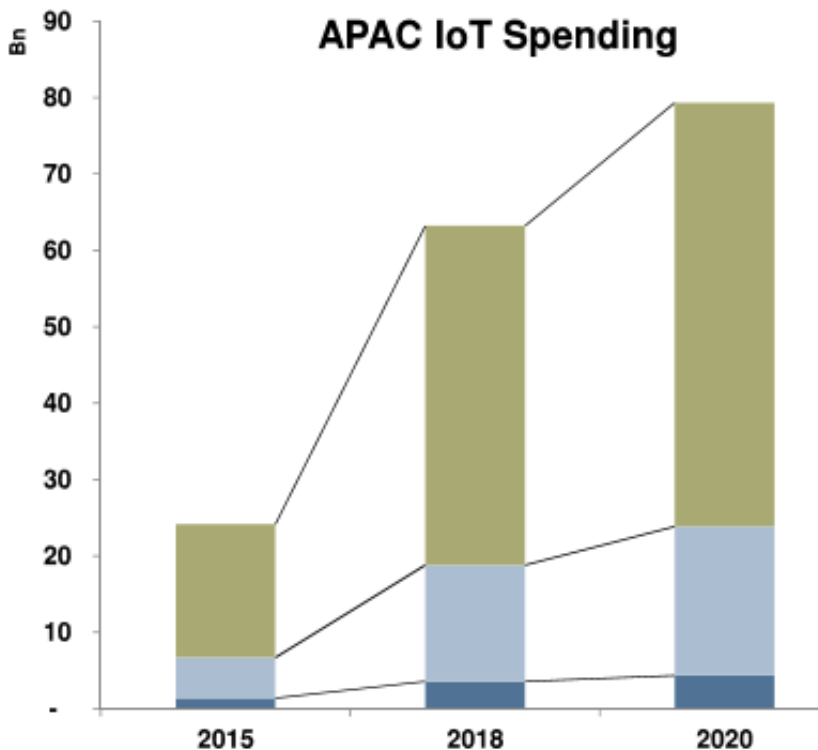
US\$24.2B

2015

Growth rate

26.8%

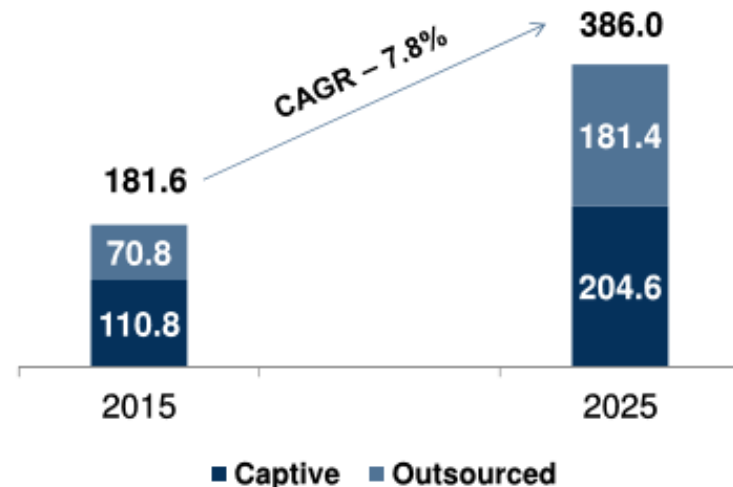
CAGR 2015-2020



- Services
- Hardware
- Software

IoT dan Data Center Budget Spending in the Asia Pacific

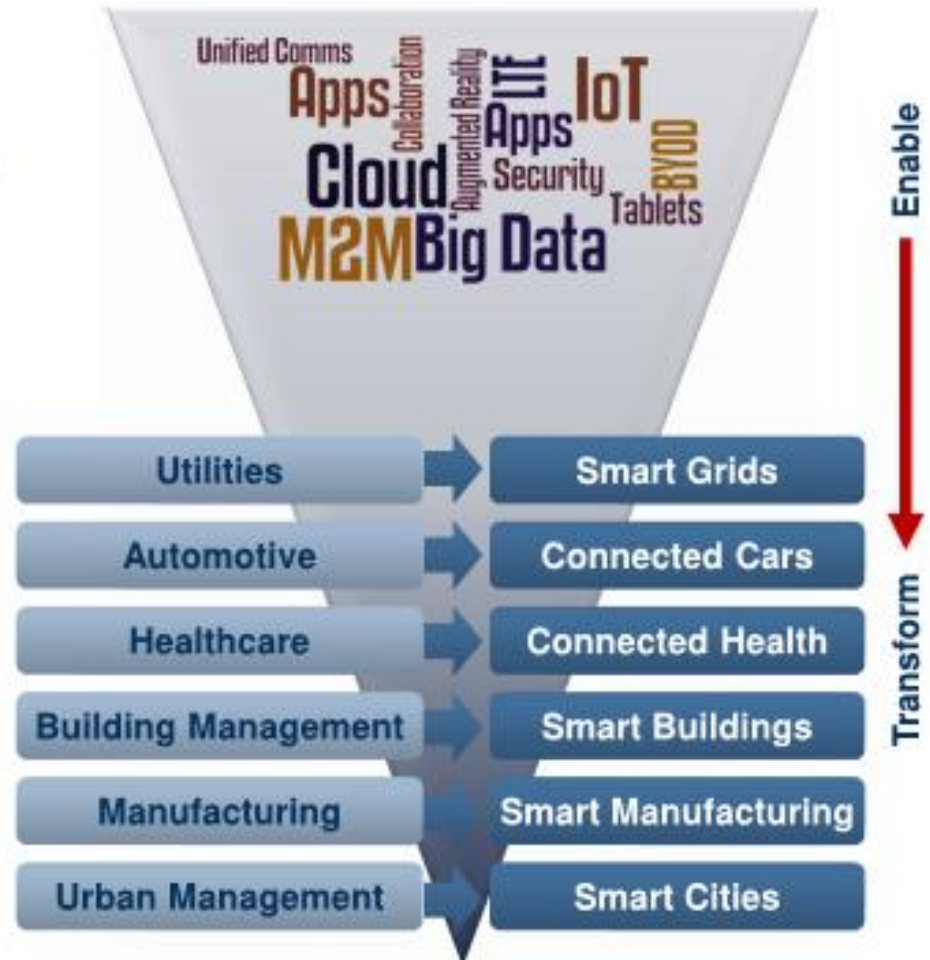
Asia-Pacific Data Center Space Forecasts (mn sq. ft.)



02

“IT” AS A BUSINESS ENABLER

Digital Transformation



02

“IT” AS A BUSINESS ENABLER

Digital Transformation

PASAR DIGITAL



Jumlah usaha kecil dan menengah di Taobao (Alibaba):
5 JUTA
Dan terus bertambah

02

“IT” AS A BUSINESS ENABLER

Digital Transformation

PEMBAYARAN DIGITAL



*Where mobile
money accounts
outnumber
bank accounts*

*Jumlah akun mobile money
di seluruh dunia:*

300 JUTA

Dan terus bertambah

(akhir 2014)

02

“IT” AS A BUSINESS ENABLER

Digital Transformation

IDENTITAS DIGITAL



*Penduduk India
pemiliki identitas digital:
950 JUTA
Dan terus bertambah*

T 3 EDUCATION ENABLER

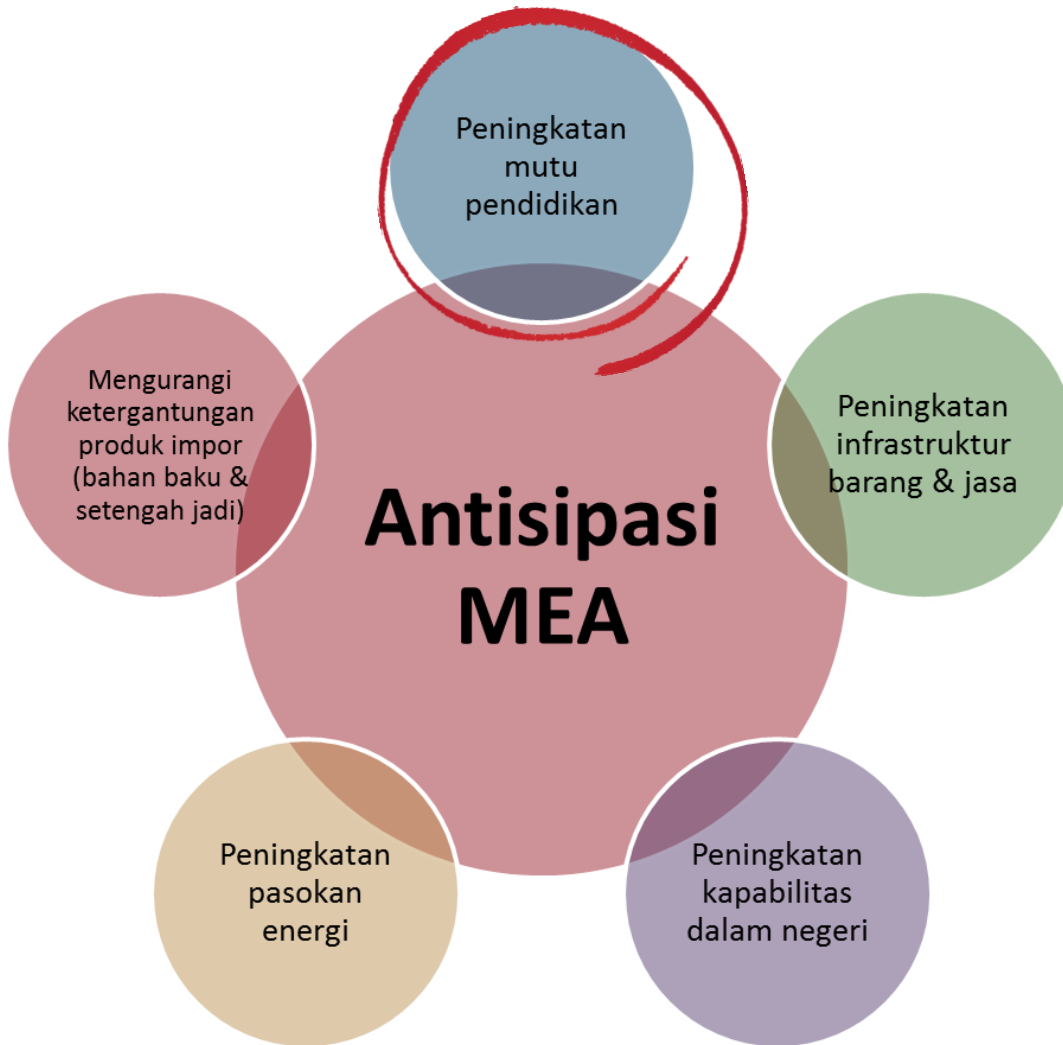
“IT” IS



03

“IT” IS THE EDUCATION ENABLER

MEA Challenge The Education



Tujuan MEA :

“Meningkatkan daya saing ASEAN sehingga dapat menyaingi China dan India untuk menarik investasi asing”

Perlu dilakukan beberapa antisipasi yg salah satunya adalah **Peningkatan Mutu Pendidikan**

03

“IT” IS THE EDUCATION ENABLER *Broadband Needed in Education*



Peraturan Presiden No. 96 Tahun 2014 tentang Rencana Pitalebar Indonesia (RPI) 2014-2019, bertujuan untuk memberikan arah dan panduan strategis dalam percepatan dan perluasan pembangunan pitalebar yang komprehensif dan terintegrasi di wilayah Indonesia untuk periode 2014-2019.

Target RPI (Rencana Pitalebar Indonesia) 2019 :

1. Akses Tetap
 - Perkotaan : 30% populasi, 71% rumah tangga, speed 20 Mbps;
 - Pedesaan : 6% populasi, 49% rumah tangga, speed 10 Mbps.
2. Akses Bergerak
 - Perkotaan : 100% populasi, speed 1 Mbps;
 - Pedesaan : 52% populasi, speed 1 Mbps.
3. Harga layanan maksimal 5% dari rata-rata perkapita per bulan.

5 (Lima) Sektor Prioritas RPI



e-Pemerintahan



e-Kesehatan



e-Pendidikan



e-Logistik



e-Pengadaan

03

“IT” IS THE EDUCATION ENABLER

The Pentaholic of Education



03

“IT” IS THE EDUCATION ENABLER *Education linked to Industry*

“The world economy no longer pays for what people know but for what they can do with what they know”

- Andreas Schleicher, OECD Deputy Director for Education -

The new skills the world is looking for

**21st Century
Skill**



Leadership



Digital literacy



Communication



Emotional intelligence



Entrepreneurship



Global citizenship



Problem solving



Team-working

Source : <http://thelearningcurve.pearson.com/2014-report-summary/>

03

“IT” IS THE EDUCATION ENABLER

Education linked to Industry # Case Tourism

The always-connected traveller:

How mobile will transform the future of air travel

The global study identifies traveller attitudes to airline mobile services whilst also highlighting emerging mobile technologies set to transform each stage of the travel experience.

Importance of each step

"When flying, how important are the following 5 steps for your overall airline travel experience?"



73.4%

of the Earth's population subscribe to wireless services

- 1 Pre-trip**
The most important stage of the process. Passengers are looking for easy ways to plan, book and board the plane
- 2 At the airport**
Mobile is used if things go wrong with the travel experience i.e. lost bags, seating and disruption
- 3 On-board**
A unique opportunity for airlines to provide enhanced services with the increase in connectivity on planes
- 4 At the destination**
Passengers are increasingly using mobile to explore, connect, and share experiences
- 5 Post-trip**
Social media provides an immediate outlet for feedback from customers

Global mobile subscribers

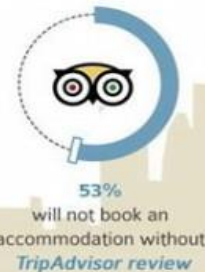
The number of worldwide subscriptions for wireless services reached **5 billion** in September 2010. The worldwide smart-phone market grew **79.7% year on year** in the first quarter of 2011 (1Q11), according to the International Data Corporation (IDC) Worldwide Quarterly Mobile Phone Tracker.



16%

of travellers surveyed currently use smartphones to book trips

People Transform to Hyperconnected Society



4

“TELKOM IT” FOR THE HIGHER EDUCATION



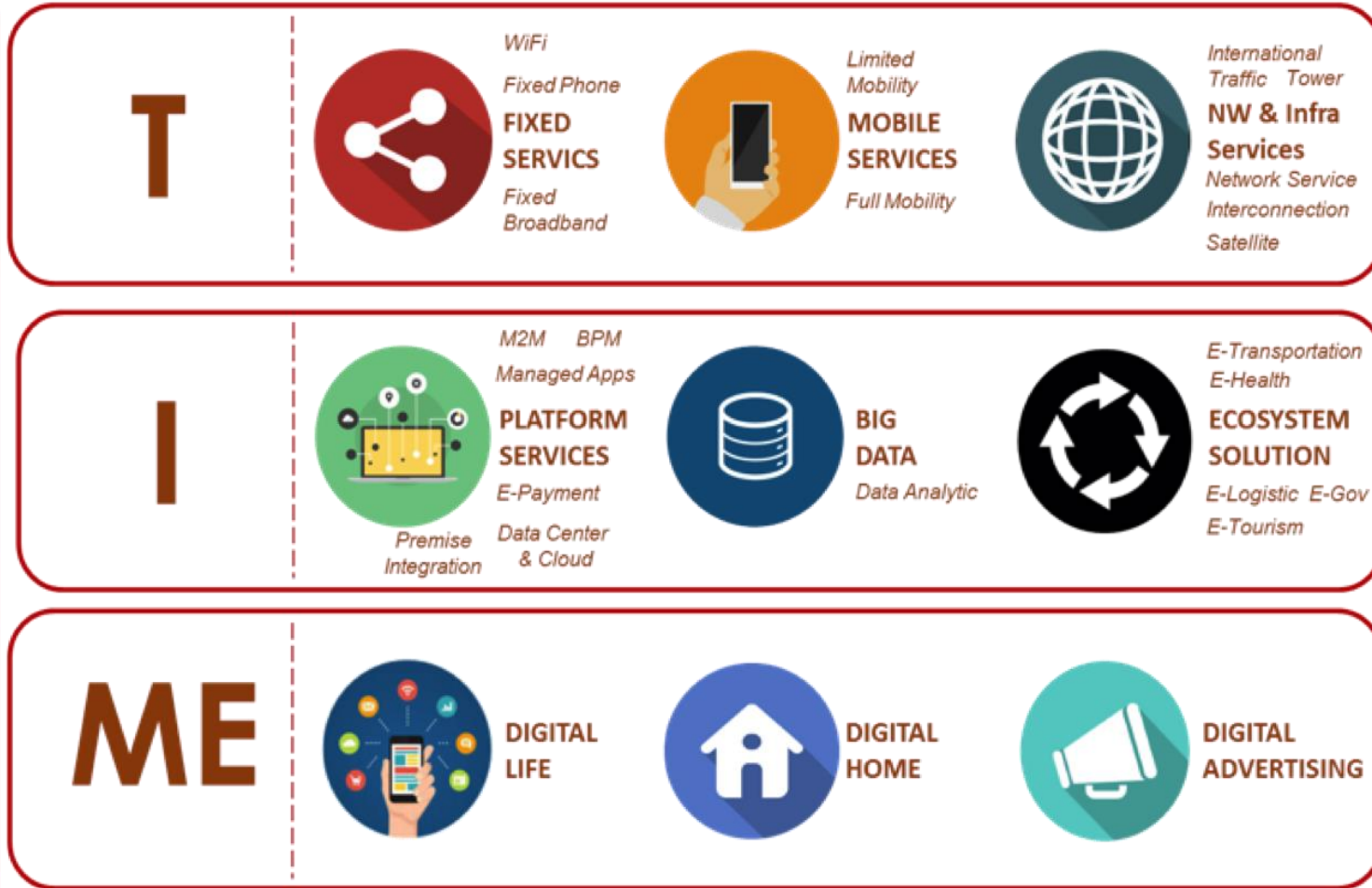
04

“TELKOM IT” FOR THE HIGHER EDUCATION

Telkom Group Portfolio

Telkom Group memiliki 15 business portfolio yang terdiri dari : 9 portofolio produk & 6 portofolio customer

PRODUCT PORTFOLIO



CUSTOMER PORTFOLIO

SERVICES

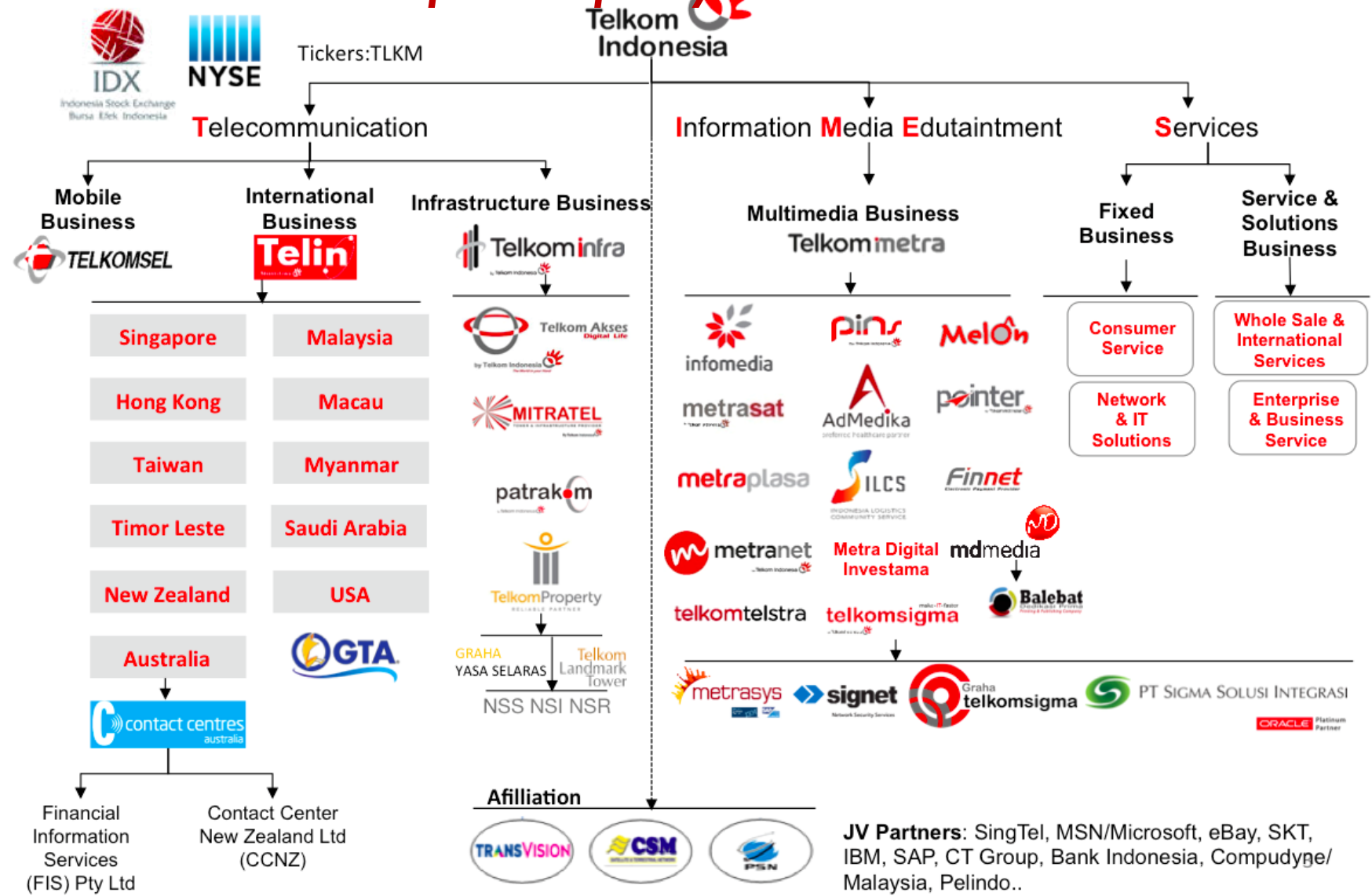
- 10 Personal
- 11 Home Consumer
- 12 Business
- 13 Enterprise
- 14 Government
- 15 Wholesale
- 16 International

T : Telecommunication I : Information ME : Media & Edutainment

04

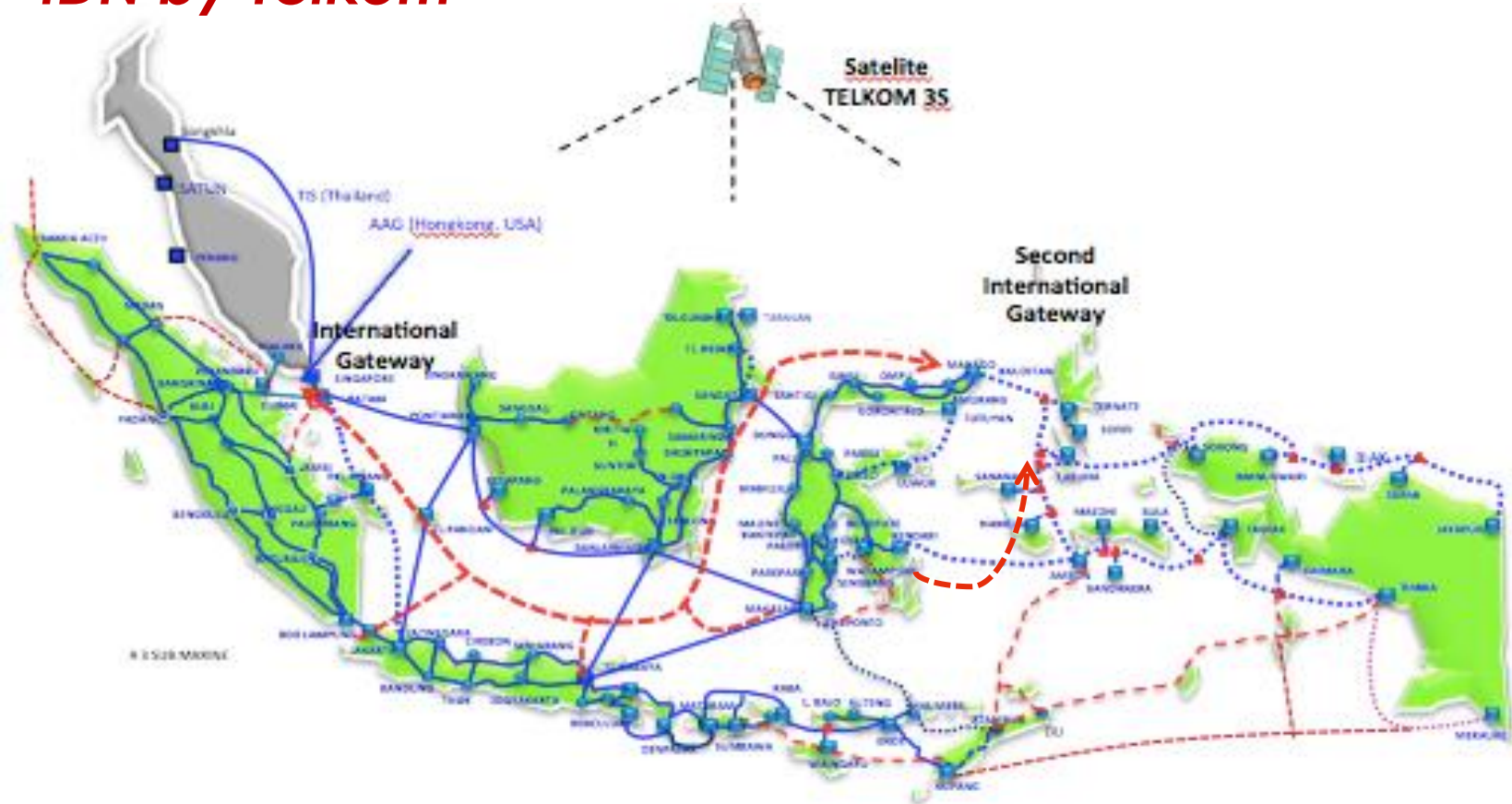
“TELKOM IT” FOR THE HIGHER EDUCATION

A Public Company in Indonesia
Telkom Group Company



04

“TELKOM IT” FOR THE HIGHER EDUCATION IDN by Telkom



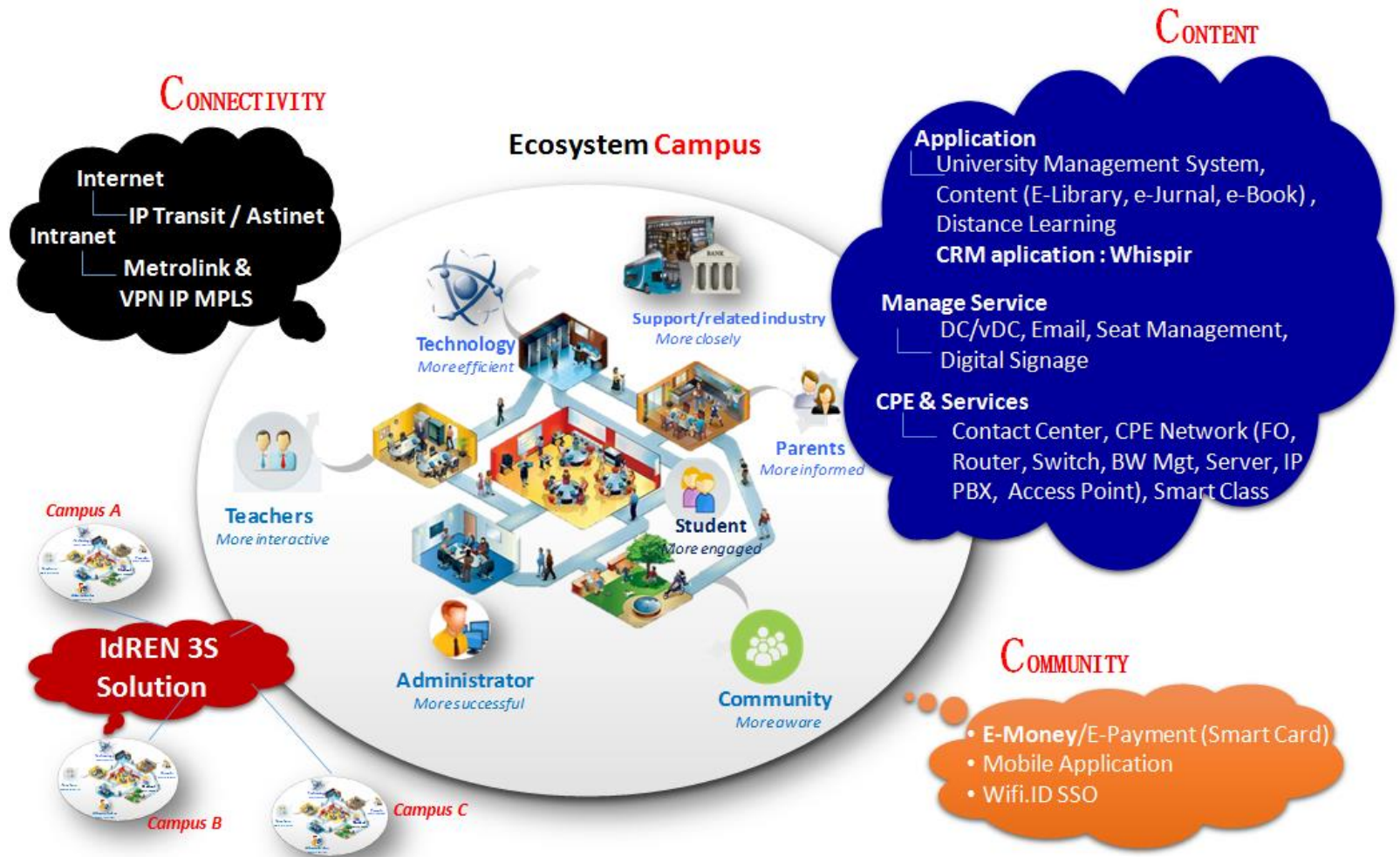
National Coverage :

- Optical Transport sepanjang 100.000 Km tahun 2020 mengcover 100% Kota Kecamatan
- Indonesia Global Network untuk 2nd Gateway Internasional 2016
- Peluncuran Satelit Telkom 3S di tahun 2016, Telkom-4 di tahun 2018

04

“TELKOM IT” FOR THE HIGHER EDUCATION

Digital Education Ecosystem (ACE)



04

“TELKOM IT” FOR THE HIGHER EDUCATION

Digital Education Ecosystem (4C)

CONNECTIVITY

Penggelaran infrastruktur dengan teknologi Fiber Optik, penyediaan layanan Internet, Intranet & Voice berkualitas Prima.

Managed Conn. Broadband (Inet & VPN)

- Wireless Solution : Wifi, Celluler, Satellite
- Wire line Solution : Fiber Optic, xDSL

Payment System

- Bank Channel
- Non Bank Channel

CONTENT

University Management System :

- Schedule Management
- Academic Management

Collaborative Learning Management System : (Distance Learning)

Digital Library & Multimedia Content:

- Online Sertifikasi
- Online Exam, dll

Digital Text Books, Journal, Diktat dan Buku-buku umum

Manage Service: Data Center, Virtual Data Storage, Contact Center, CPE (router, computer/laptop, Handset/Smartphone)

COMMUNITY

Menjalin interaksi antar civitas akademik kampus (mobile voice/data Closed User Group, e-payment, e-wallet/cash dll).



Student



Dosen



Rektorat



Orang Tua



Regulator



Dunia Kerja

04

“TELKOM IT” FOR THE HIGHER EDUCATION

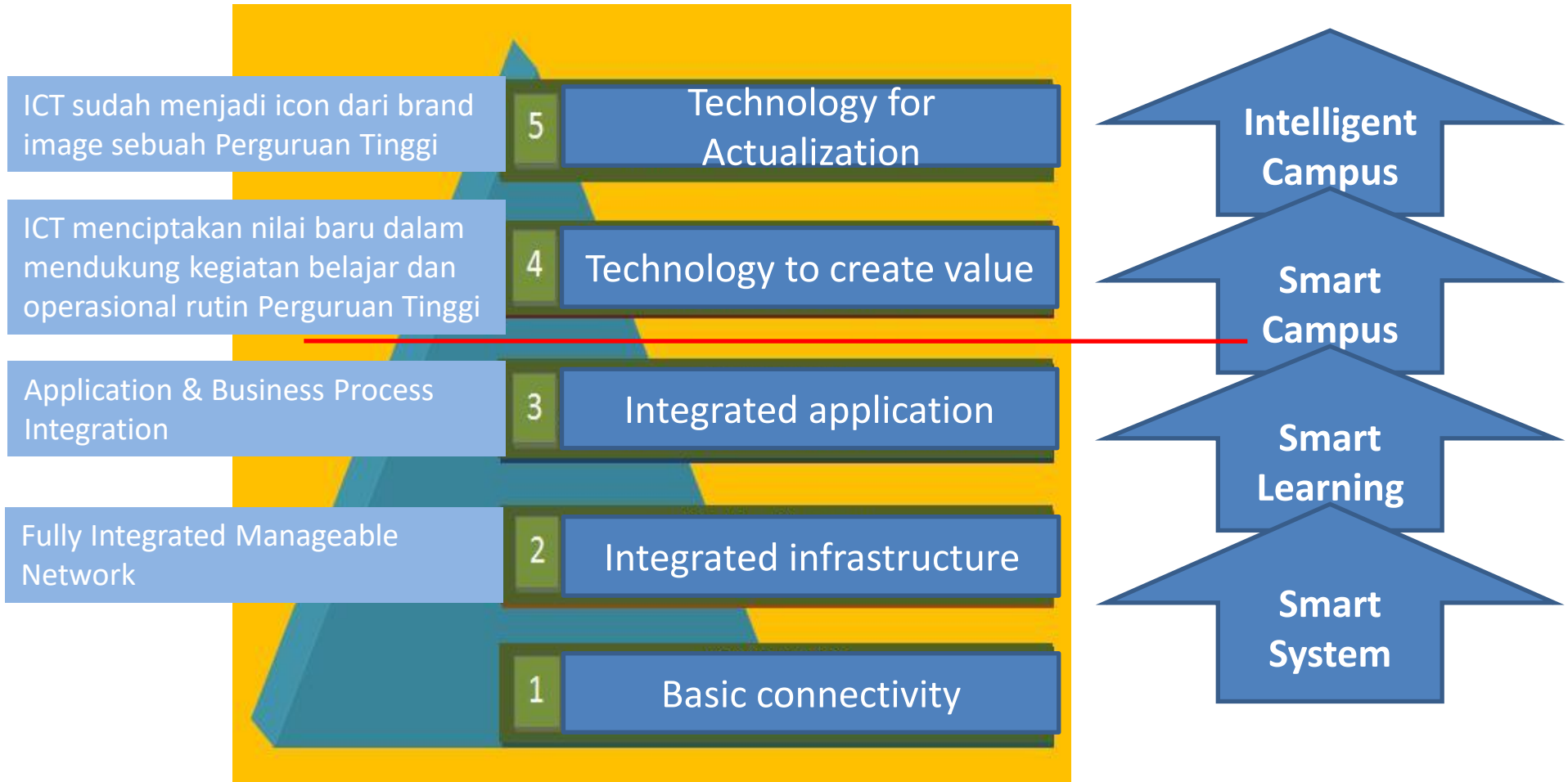
Digital Education Ecosystem (4C)



04

“TELKOM IT” FOR THE HIGHER EDUCATION

Level of ICT Need in the Campus



04

“TELKOM IT” FOR THE HIGHER EDUCATION



5

5 SKILL FOR SUCCESS



05

“IT” SKILL FOR SUCCESS

the new skills the world is looking for



Leadership



Digital literacy



Communication



Emotional intelligence



Entrepreneurship



Global citizenship



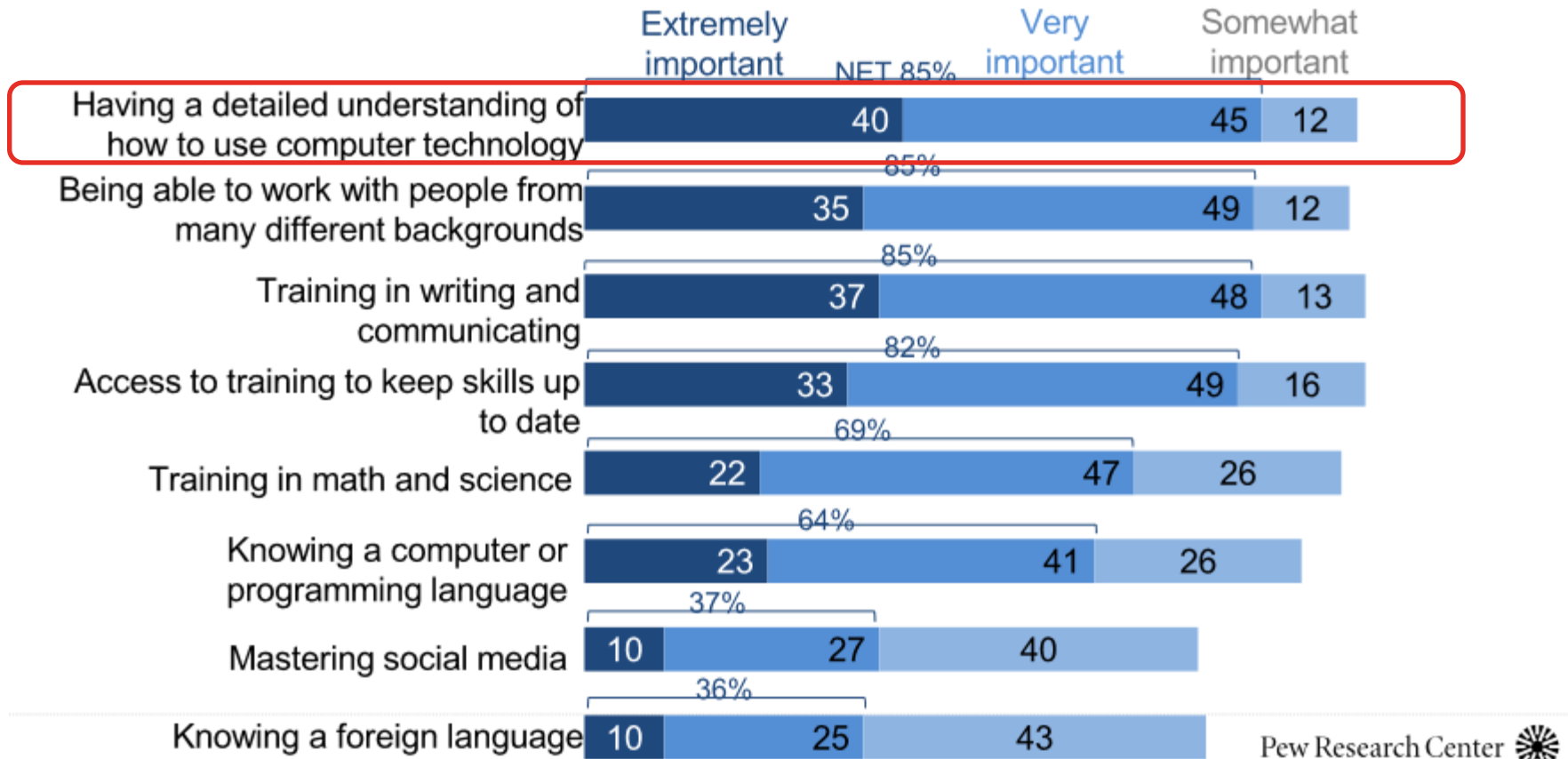
Problem solving



Team-working

05

“IT” SKILL FOR SUCCESS



*Education is the most powerful weapon
which you can use to change the world.*

Nelson Mandela



THANK YOU