kt

A New Bridge
for the Digital Divide

Mobile Education Service

SVP Hee-Kyoung Song | 2013. 06. 25 kt

KT at a Glance

The development process of kt symbolizes the development history of information and communications in Korea.

CEO

Suk-Chae Lee

Established

December 10, 1981

Revenue

USD 23.7 billion(2012)

Stock Exchange Listings

Korea, New York, London

No. of Employees

31,397(kt only, Dec. 2012)

Credit Rating

A3(Moody's), A-(S&P), A(Fitch Ratings)

Market Share in Korea (Mar. 2013)

Telephone		Broadband	
17.5 million	PSTN : 14.1 VoIP : 3.4	**8.0 million**	
68% (1st)		**44% (1st)**	

| Mobile		Pay-TV	
17.1 million	LTE : 5.0 3G : 11.2 WiMax : 0.9	IPTV : 4.2 Satellite TV : 2.0	**6.2 million**
31% (2nd)		**25% (1st)**	

kt has been leading the development of the information and communications industries in Korea since its foundation in 1981.

Business Transformation

Through our "Smart Life" convergence initiatives, kt is making a difference as an ICT convergence leader, not only in South Korea but around the world.

Global ICT Convergence Leader
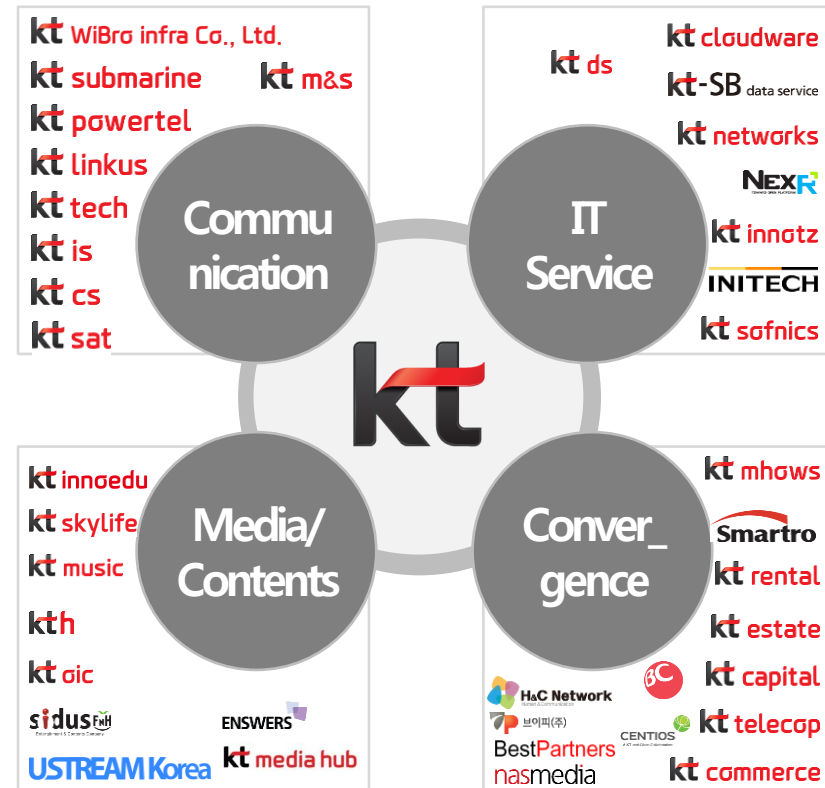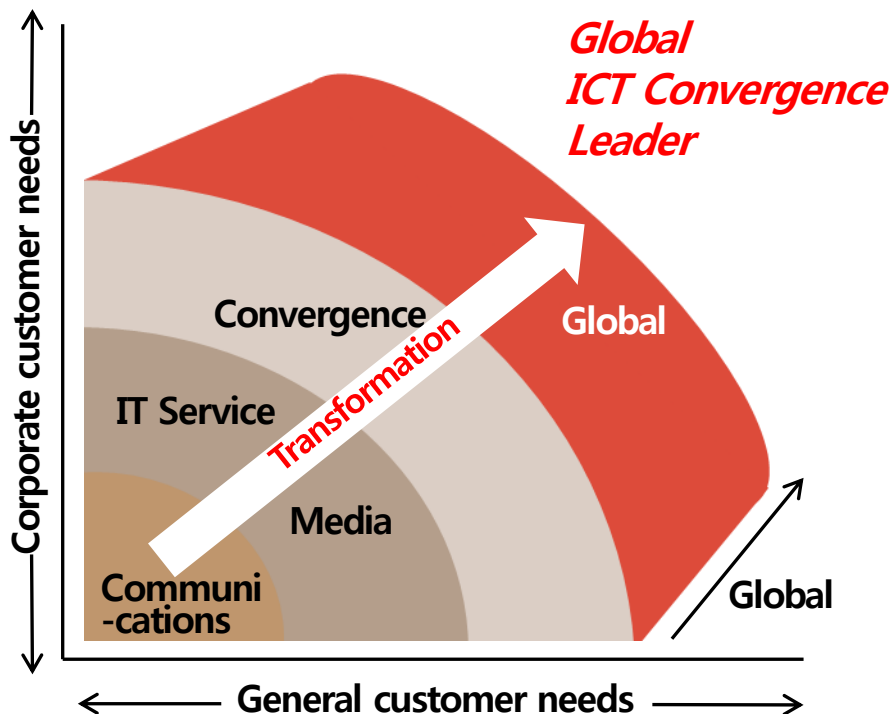
Moving beyond the traditional telecom industry, kt is now expanding its business into non-telecom industries based on its ICT convergence capabilities.
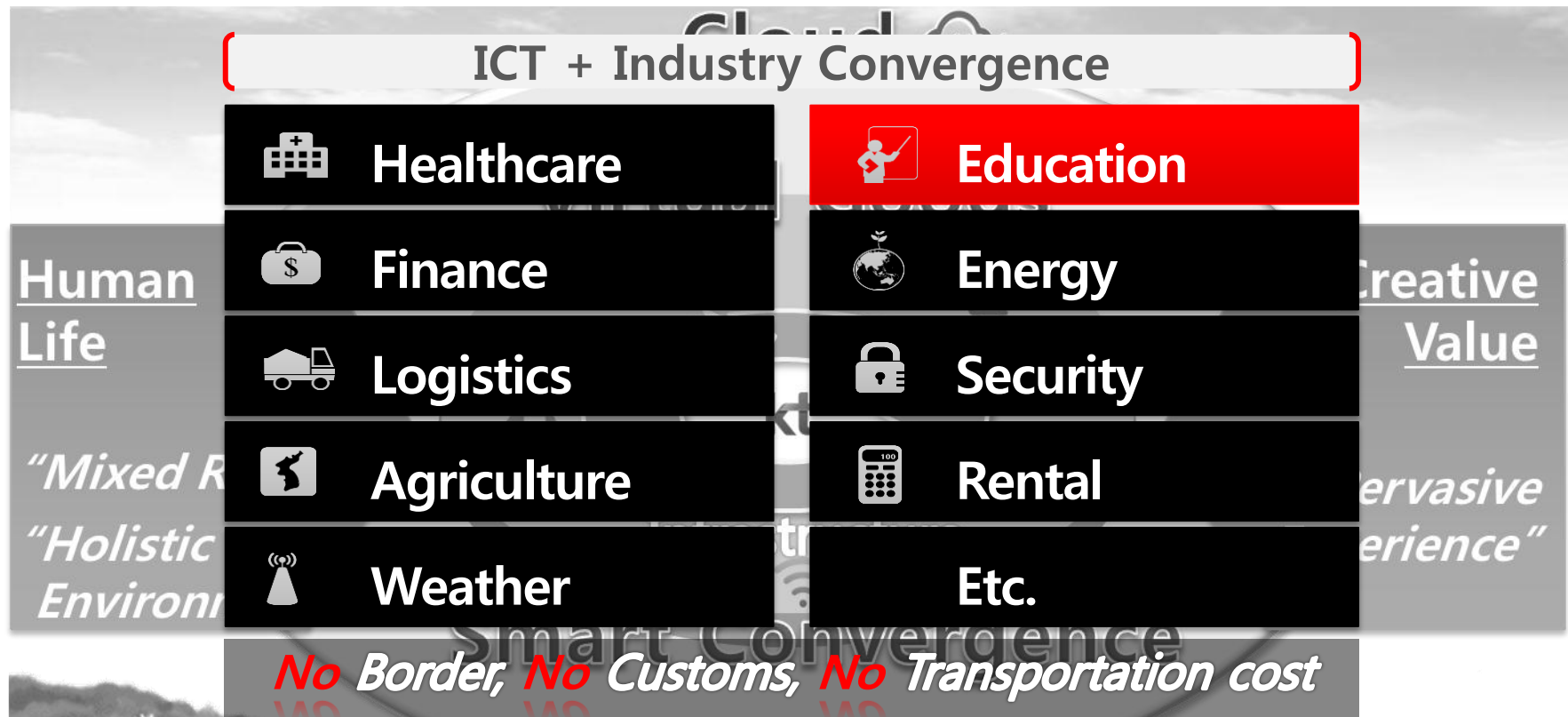
KT's strategy to be Global ICT Leader

Based on its All IP and Cloud Networks, kt presents a framework that distributes virtual goods and provides various services to users around the globe regardless of borders, thereby ultimately seeking users' happiness.
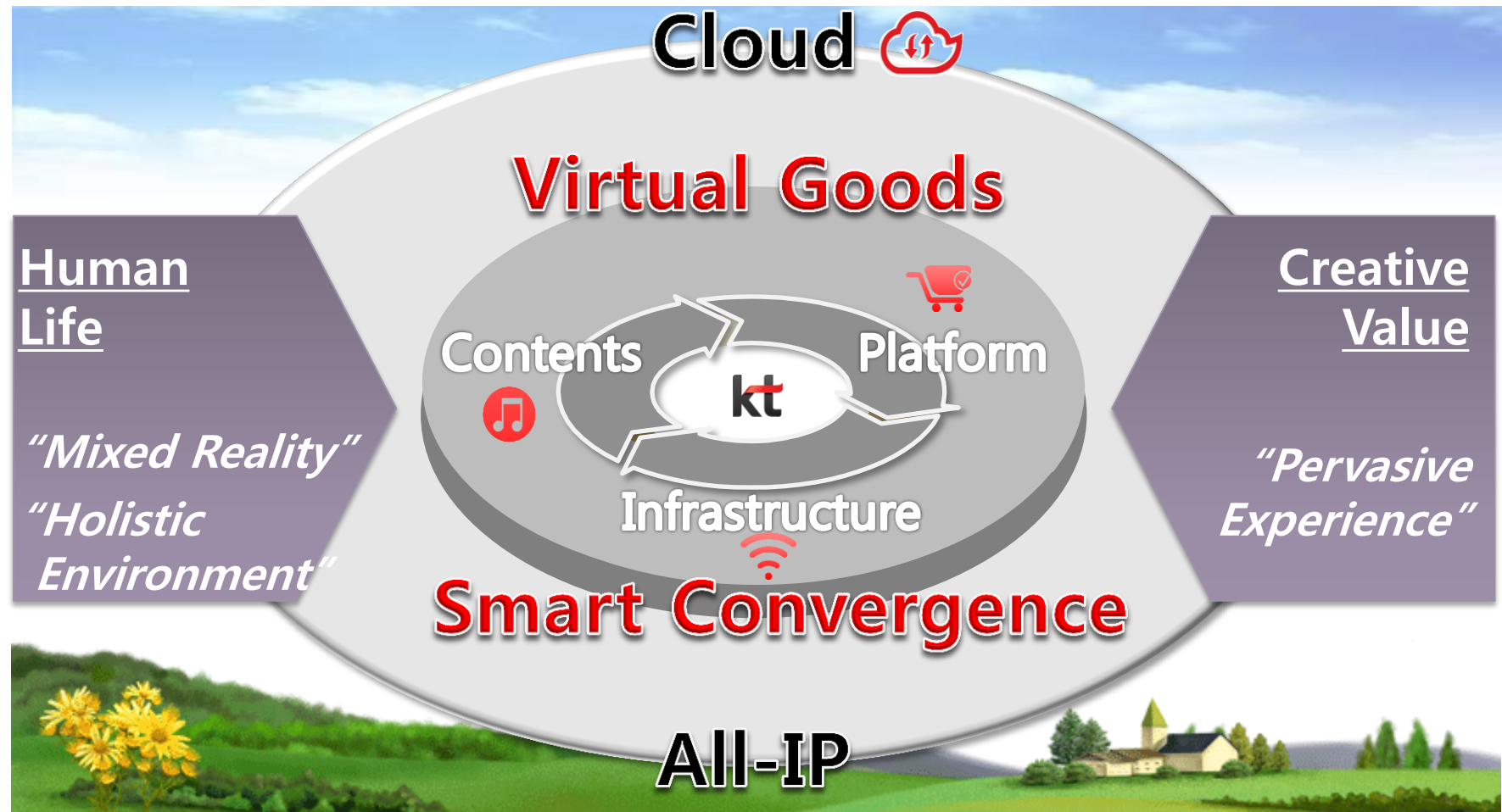
Industry Solutions

kt provides proven ICT convergence solutions in various business and industry sector.

ICT + Industry Convergence

🏥 **Healthcare**	👨‍🏫 **Education**	
💰 **Finance**	🌏 **Energy**	
🚚 **Logistics**	🔒 **Security**	
▣ **Agriculture**	🔢 **Rental**	
📡 **Weather**	**Etc.**	

Human Life

"Mixed R...
"Holistic
Environr...

Creative Value

...ervasive
...erience"

No Border, No Customs, No Transportation cost

Creating solutions based on ICT and ndustry convergence, kt's focusing on platform-based businesses for Virtual Goods distribution in education.

Trend 3.0

Market trends are evolving from previous 1.0 & 2.0 eras to inference-oriented 3.0 era.

	Market	Communication	Web
1.0	Provider, One-way	Active	Sharing, Delivery
2.0	Consumer, Two-way	Interactive	Participation, Intelligence, Reproduction
3.0	*Meaningful Message to Special Customers*	*Meaningful Touch based on "Inference"*	*Minimizing the gap between real worlds "Mixed Reality"*

3.0 trends is not new one but just meaningful optimization.

Education Industry Trends

Along with overall paradigm shift, the Education Market has been reshaped from offline to e-learning & m-learning. Previously passive education system is evolving to a Trend 3.0-based education environment.

Paradigm shift

Paper
Paper-based Learning

Multi Devices
Mobil-Learning

Creativity
(Intelligence)

Reality
Real time –based

Multi National
Mixed Reality

Characteristics
(Optimization)

Passive
One way/
Passive Lecture

Diversity
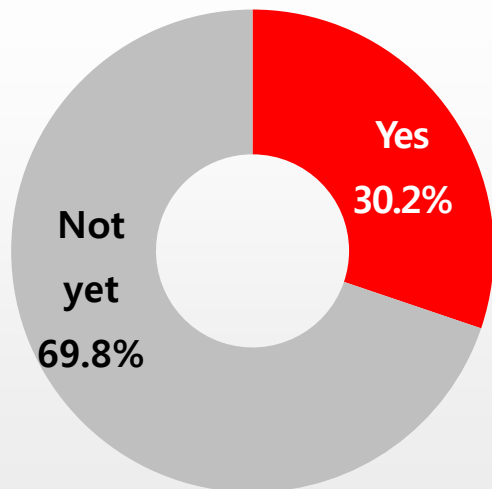Interaction

Coexistence
(Context Awareness)
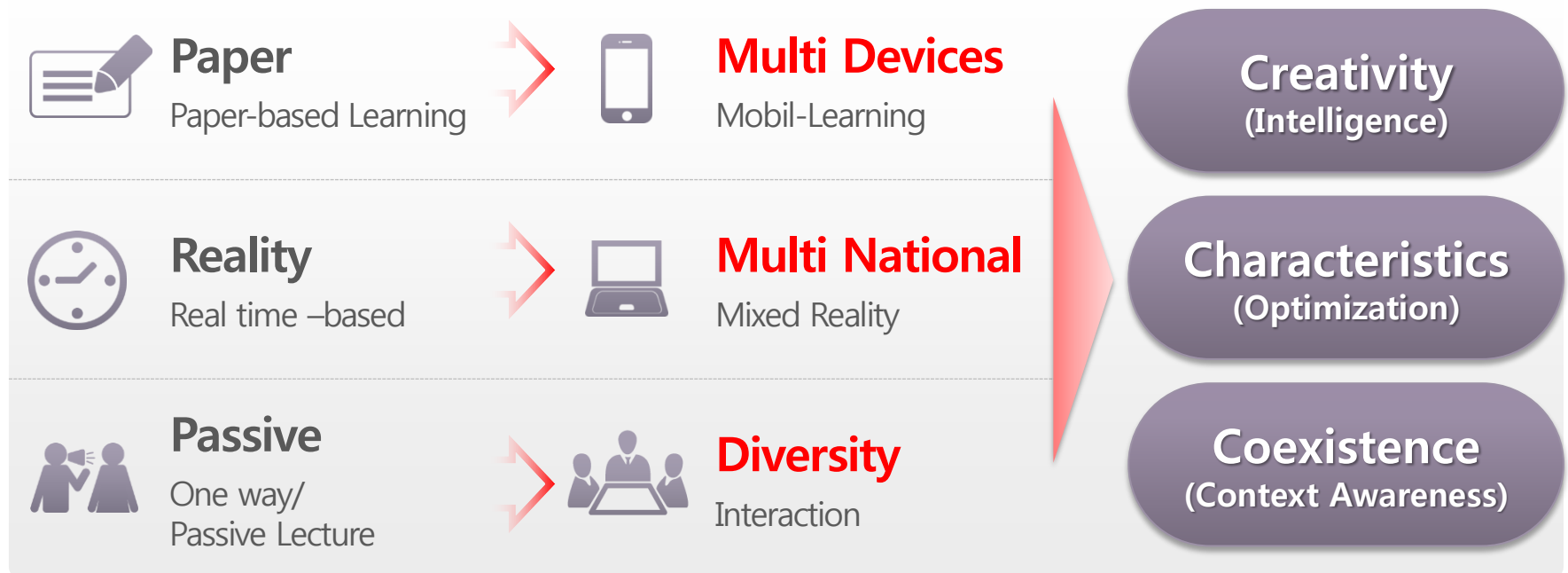
**Just like Trend 3.0, the Education Market is also shifting to
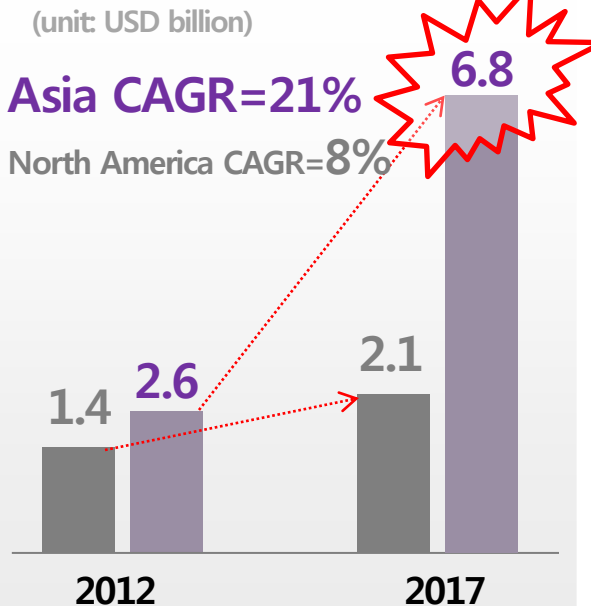a mixed reality and pervasive environment.**

m-Education Market Trends

The mobile Learning revenues in Asia reached $2.6 billion in 2012 and will reach $6.8 billion by 2017. Asia has the third-highest growth rate at 21% after Africa and Latin America.
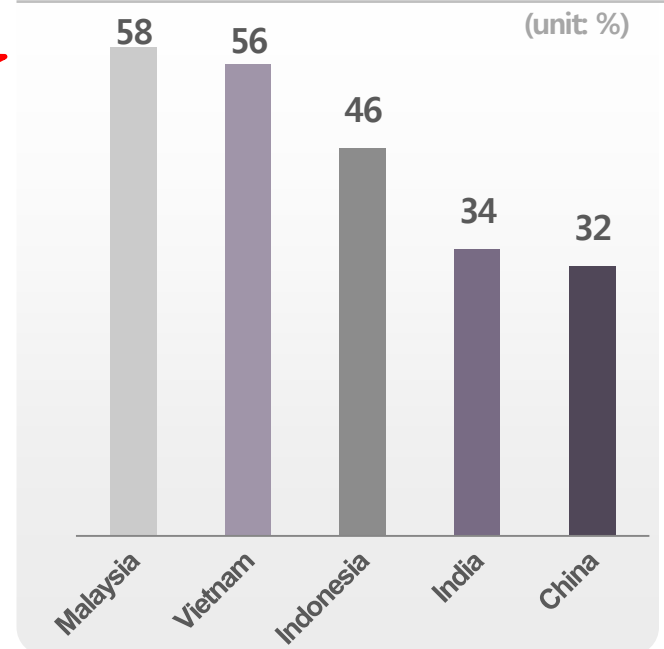
m-Education Experience rate in Korea

Yes 30.2%

Not yet 69.8%

m-Education Revenues forecast

(unit: USD billion)

Asia CAGR=21%

North America CAGR=**8%**

6.8

2.6

2.1

1.4

2012   2017

'12-'17 Asia m-Education 5-year Growth Rates by Country

(unit: %)

58 — Malaysia
56 — Vietnam
46 — Indonesia
34 — India
32 — China

By 2017, China will be the top m-Education market followed by India and Indonesia.

What are the Success Factors in m-Education Market?

A Balance between Contents, Infrastructure and Platform is required to enable the education market development. If not, there is a risk of the Digital Divide.

Contents

Platform
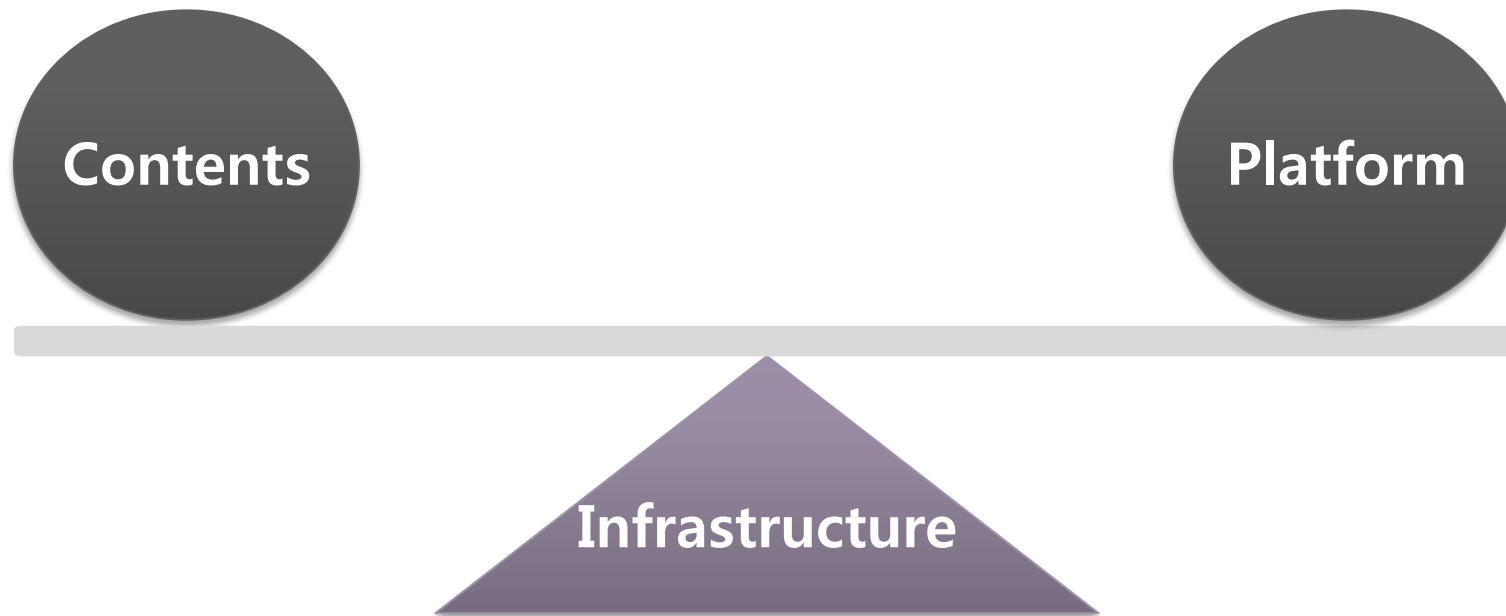
Infrastructure

Poor infrastructure in the region is often related to isolation in m-Education, which will eventually give rise to the Digital Divide.

What is a Digital Divide?

Failing to bridge the digital divide will result in a widening education gap, thereby accelerating the fixation of social and economic pyramids in the society.

Digital Divide
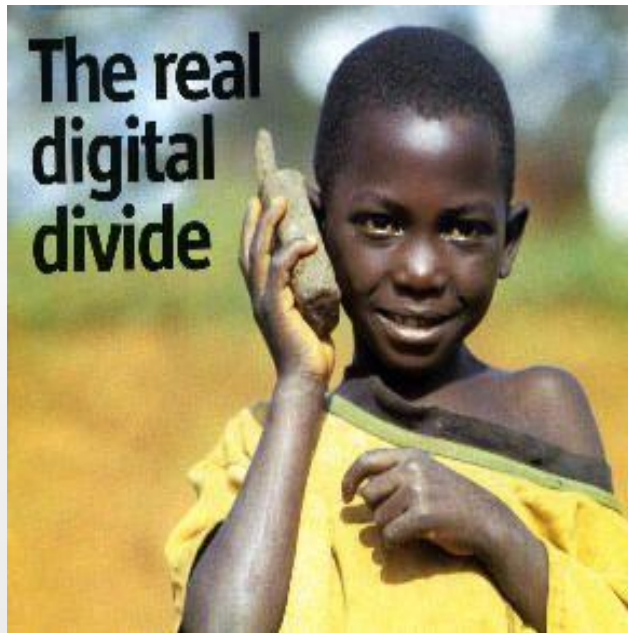
✓ **A digital divide is an economic inequality between groups, broadly construed, in terms of access to, use of, or knowledge of ICT** (Information and Communication technologies)

To Enhance Market Trends,
solutions that can bridge the digital divide are required.

KT's Education Service Framework

kt is the best m-Education solution provider that can offer optimal contents, platform, network. kt provides education solutions via various devices.

Education Solution Framework

Provider

kt oic
Smart learning contents

kt innoedu
Smart Education /HR consulting

kt media hub
IPTV Broadcasting

kt skylife
Satellite TV Broadcasting

gongs!n

Contents
- e-book/s-book
- VOD
- G-learning
- Edutainment

Platform
- Smart Learning
- IPTV
- Media Streaming
- Video Collaboration

Infrastructure
Broadband, 3G/LTE/Wibro

Device

- **Phone**
- **Tablet**
- **IPTV**
- **PC**
- **Kibot**
- **more …**

Solution & Service

- **① Green Class**
- **② Digital Library**
- **Smart Learning**
- **IPTV & Web TV Home School**
- **Collaboration Station**
- **more...**

kt is focusing on spreading Green Class & Digital Library solutions which can reduce the digital divide.

① Green Class

'Green Class' solution enables remote learning opportunities, even in regions with poor network infrastructure. With kt's cloud technology, Green Class allows anyone to produce and distribute educational contents.

Information Sharing
- Sharing lecture files stored in devices with one click without printing

Screen Transmission
- Remote classes using existing facilities, without using expensive cameras and streaming servers

Contents Production
- Quick and easy production of low-size and high-quality contents without editing and encoding process

Contents Play
- Once downloaded, lecture materials on cloud can be played anywhere even when network connection is unavailable
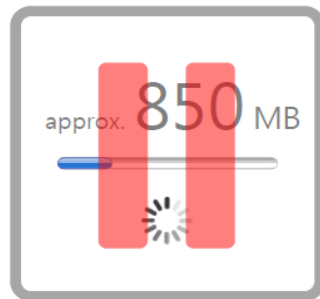
① Green Class : Why Green Class?

Having very small sizes, kt Green Class lecture materials can be easily downloaded by the users instead of having huge data streamed from the server (800MB->25MB).

Innovative File Size

In Case of One-Hour Lecturing

approx. **850** MB

approx. **25** MB

Immediate review start with the pre-downloaded data, no additional data use

+

Cost Reduction

No expenses on streaming servers and extra contents production, lecture halls are the only requirement for automatic production of lecture materials

**Green Class is very efficient solution that
reduces time and efforts for existing remote classes.**

① Green Class : Sookmyung Women's University in Korea Case

Sookmyung Women's University in Korea improved lecture environment by reorganizing lecture systems and abolishing paper documents and desktops in lecture halls by adopting kt's Green Class solution.

Sookmyung Women's University

- 12,300 students
- Representative Women's University seeking for Smart Campus solutions

Needs

- Anywhere Class Solution
- Easy m-Contents making
- Lecture Environment Change

Usage

- 300 staffs and students are using for conference & classes
- Wide spread to all students after the 2nd half of 2013

Smart Campus

① Green Class : Indonesia's e-Learning Center Case

Gong-sin, one of Korea's social enterprises, built social network based on intangible infrastructure to provide study environment. In collaboration with its office in Indonesia, the company has established an e-learning center.

Indonesia

- Consists of many islands
- A lack of educational services in most areas
- Low broadband bandwidth
- Online education system difficulties

Needs

- e-Learning Center
- m-Education solutions which needs low bandwidth

Usage

- Opened e-Learning center in Jogjakarta in Jul. 2013
- Use Green Class + Smart Pad solution
- Will Expand green class solution when other centers are built in the future

e-Learning Center

E-LEARNING CENTER
kt gongs!n
maha mentor gongsin

① Green Class : Indonesia's e-Learning Center Case

kt's effort to overcome space and time limitations and to reduce the educational gap through innovation in the way people learn.

kt CSV Program

- ✓ **IT education complex**

- ✓ **IT education outpost**
  'Maha Mentor' program + kt CSV program for those from marginalized classes

One for Two

- ✓ **Free education to 2 students from poor families per every new regular student.**

- ✓ **Utilizing various IT facilities in promoting education programs, thereby contributing to the development of the local community**
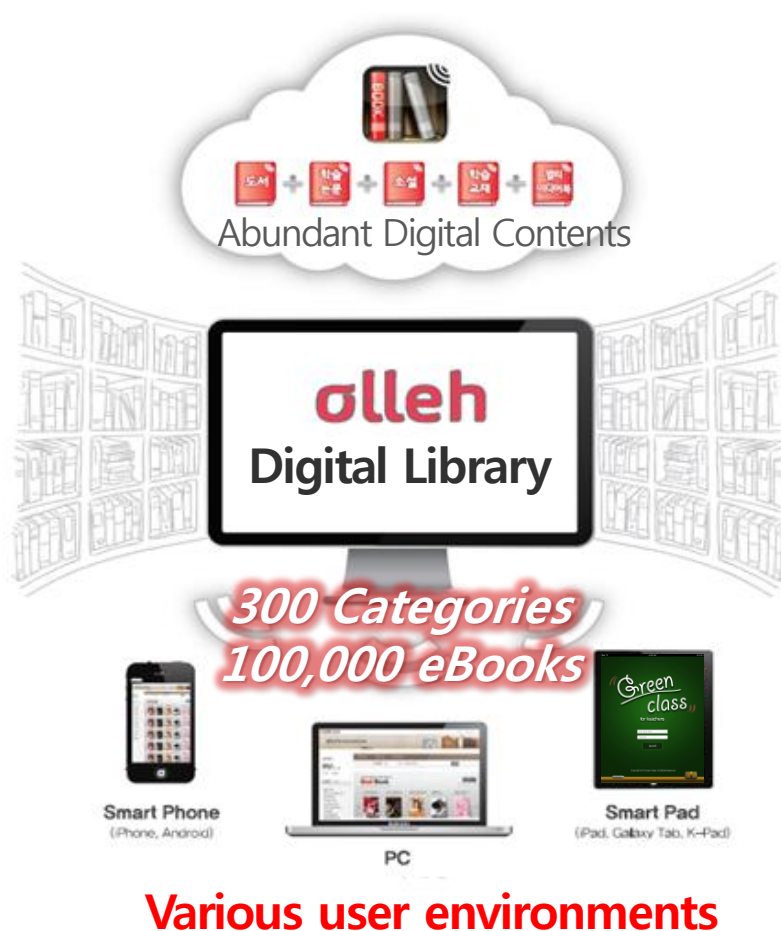
Benefits

- ✓ **Innovative way of studying which overcomes space and time limitations**

- ✓ **Helping to remove an educational gap**

- ✓ **Promoting the m-Education market in Indonesia and Asia**

Lessons learned : The good solution enabling to overcome the limitations of network infrastructure, students can receive information materials and study remotely regardless their locations.

② Digital Library

'Digital Library' is called Cloud-based ASP type e-book & Library Service which students, faculty or other members can use anytime, anywhere, any devices based on any infrastructure.

Abundant Digital Contents

olleh
Digital Library

300 Categories
100,000 eBooks

Smart Phone
(Phone, Android)

PC

Smart Pad
(iPad, Galaxy Tab, K-Pad)

Various user environments

| Mighty	Offers best in class eBook viewer
Variety	**Various education contents** (e.g. foreign language, summaries, children's books, test materials, etc.)
Stability	**kt Cloud-based stable platform**

② Digital Library : Why Digital Library?

Digital Library solution is fully based on cloud system, and easy to make one's own library by downloading eBooks.

The Advantage of Cloud based system

✓ **No need for servers or preparations for system establishment, Just use!**

✓ **Make your own library with your PC, Smart Pad or Phone from Digital Library**

Digital Library

DRM CMS

System ucloud

User
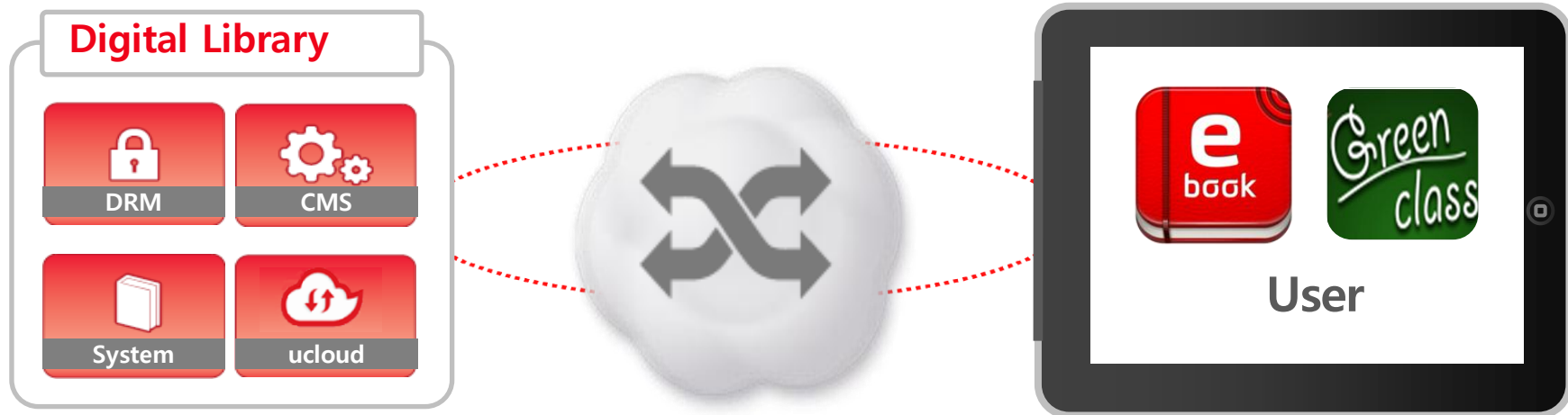
**kt's ultimate goal is to remove the digital divide
by enhancing education infrastructure through its cloud technology .**

CSV(Creative Social Value) Leading Company

kt is trying to create business opportunities in virtual goods distribution to bridge the digital divide and deliver values to customers in Asia and around the globe.

Know-how
➡ Education programs at home/abroad

Learning Anywhere

Valuable framework
➡ m-Education framework

Connecting Anywhere

Virtual Goods
➡ Service & Contents

Using Anywhere

- **Expansion partnerships with countries around the world including Asia**
- **Making efforts to bridge the digital divide by utilizing kt's experiences in education business**
- **Contributing an education environment for the students horizon from less developed countries**

To be the Number One Virtual Goods Provider

kt aims to open up an era of equal digital education through its various virtual goods which can be used regardless of national borders.

Educational Virtual Goods
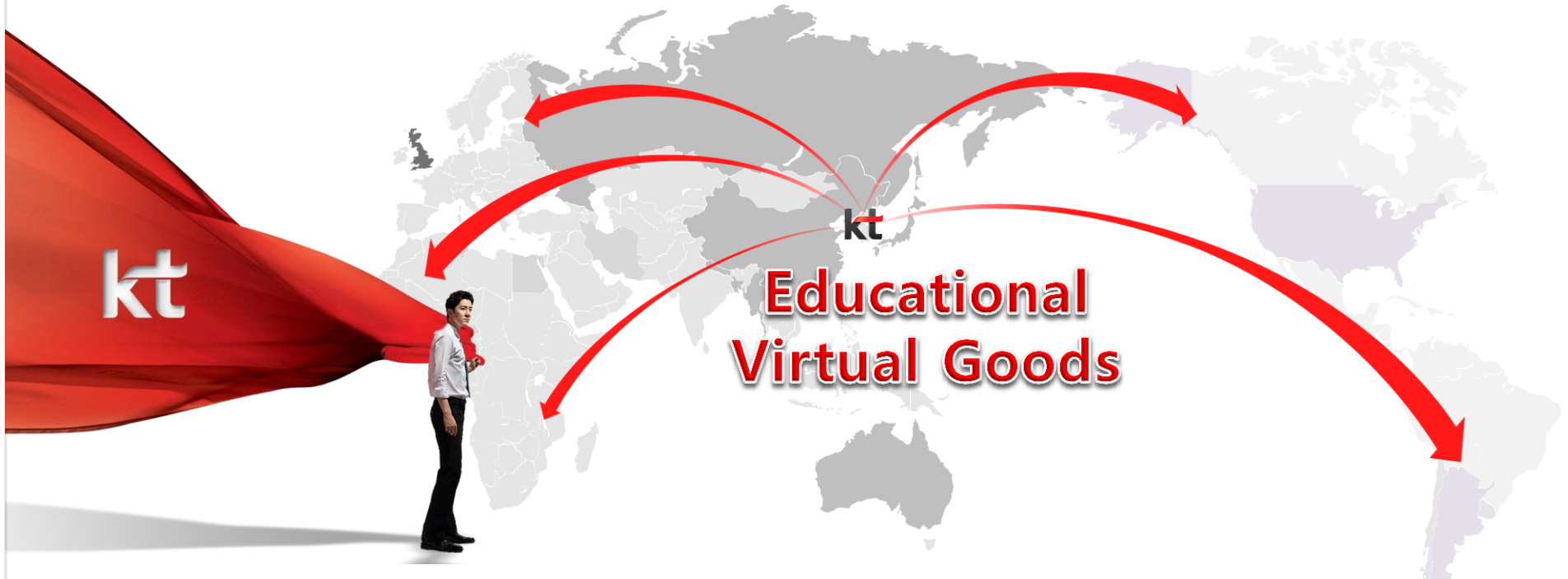
- **With the kt's Education Solution framework and Virtual Goods, kt keeps providing services which enable mixed reality, holistic environment and pervasive experience for worldwide customers**

Thank you | **kt**