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Universal Service Policy for Broadband and Smart Learning Implementation
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ICT in Education - Smart Learning Part II

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Agenda

- **Policy Aspects**

- **ITU Efforts**

- **Case Studies: UAE & Turkey**

Policy Aspects

WHY INVEST ICT IN EDUCATION

- Government are already using billions of US dollars each year for classical education systems. They usually **ineffective, inefficient and inconsistent** if not updated and improved by technology.

- Due to lack of standardization of resources, **the classical system cause more differentiations, inequalities in opportunities**. Rich always learn more and better than Poor; they receive bigger share from the Pie.

- Digital learning can help to **close the gap** in Digital Divide.

- ICT based education system is for the future generations, gives them **new skills and intelligent knowledge**.

- With e-content, they learn as they play and they play as they learn. Whatever learned stays with them since they enjoy the learning process – **Good learning experience**

- Education Transformation is in reality an Education Based ICT Transformation. Students will teach digital skills to their friends – families; **whole society benefit**, not just students.

- Digital Literacy is key to increase the **Broadband Penetration, Internet Usage and e-inclusion**

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Key Factors for Success

- Political Support from President-Prime Minister

- A national plan with time bounded goals

- Coordination between Ministries

- Universal Service Fund and other source mechanisms.

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Political Support

UAE Smart Learning

Turkey Fatih Project

Importance of Pilot Applications: An example

- **Broadband Connection of five schools and one Sugar factory in rural area with wireless broadband (Villages in Yozgat-Turkey) and launch of pilot project: Ministries of ICT & Education at the launch.**

High quality video link established between village school and Hotel in Ankara (distance 250 km).

Common Characteristics of projects in UAE and Turkey

- Political support at top level

- Coordination between different government organizations

- Usage of Universal Service Fund

- Tablets to all students-teachers

- Smart Classrooms

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European Union – League of Arab States

EU Digital Agenda Goals

Pillar I: Digital Single Market

Pillar II: Interoperability & Standards

Pillar III: Trust & Security

Pillar IV: Fast and ultra-fast Internet access

Pillar V: Research and innovation

Pillar VI: Enhancing digital literacy, skills and inclusion

Pillar VII: ICT-enabled benefits for EU society

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Pillar IV: Fast and ultra-fast Internet access

Action 46: Member States to develop national broadband plans

The Member States should develop national broadband plans operational by 2012. These plans should meet the coverage, speed and take-up targets defined in the Digital Agenda for Europe.

Pillar VI: Enhancing digital literacy, skills and inclusion

Action 68: Member States to mainstream e-Learning in national policies

Member States should mainstream eLearning in national policies for the modernisation of education and training, including curricula, assessment of learning outcomes and the professional development of teachers and trainers.

Action 58: Develop a framework to recognise ICT skills

We need skilled ICT practitioners who can take the economy forward.

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African Union - Continental ICT Strategic Plan

Strategic Objective on Capacity Building

- Introduce to and Extend e-Learning in institutions of learning

- Promote development of specialist/expert capacity in Post & ICT

- Promote digital Literacy

- Promote ICT for Education

- Develop and manage knowledge

- Encourage the utilization of Post and ICT across all socio-economic sectors

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ARAB STATES REGIONAL INITIATIVE
ARB4: Smart learning

Objective: To bring about a shift from traditional methods of teaching in schools and universities, using books and paper-based sources, to smart learning with the use of tablet computers, the latest software and modern telecommunication/ICT techniques to provide access to a range of academic information, resources and subject matters.

Expected results

Assistance to the countries in the following:

1) Eradication of digital illiteracy in the Arab region

2) Finding smart and low-cost computing devices, either with the support of Arab governments or by concluding agreements with manufacturers to provide such devices

3) Development of Arab educational e-content for schools and universities in the Arab region.

League of Arab States (www.lasportal.org)

- Arab Telecommunications and Information Council of Ministers

- Arab League Permanent Committee for ICT: The group submits its recommendations and resolutions to the Council of Arab Ministers of ICT.

- ALECSO: the **A**rab **L**eague's **E**ducational, **C**ultural and **S**cientific **O**rganization, was founded in 1975. Its Documentation and Information Department provides information on all aspects of education including adult education, culture and science in and on Arab countries (http://www.projects-alecso.org)

- AICTO: **A**rab **I**nformation and **C**ommunication **T**echnologies **O**rganization: aims at developing ICTs throughout the Arab region and providing the necessary mechanisms to support cooperation and complementarity between AICTO members, promote and enrich common policies and strategies to develop vital technological domains (www.aicto.org)

- AREGNET: Arab Regulators Network of Telecommunications and Information Technologies, member at Arab Council Ministers for Telecoms (www.aregnet.org)

How can we include and prioritize "Smart Learning" in their agendas?

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ITU Efforts

ITU: Connect a School, Connect a Community

- Public-private partnership launched by ITU to promote broadband Internet connectivity for schools in developing countries around the world.

- Why focus on schools? Because connected schools can also serve as community ICT centres for disadvantaged and vulnerable groups, including women and girls.

- Toolkit of Best Practices and Policy Advice and Training Materials. (http://connectaschool.org)

- **Partners:** ITU, Saudi Arabia, France, Portugal, Intel, Microsoft.

- ITU helped countries like Mauritania, Nicaragua and Tanzania to develop their National School Connectivity Plan, as well as assisting with related pilot projects.

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WSIS Targets

WSIS Geneva Plan of Action identified a number of recommendations and 10 targets, to be achieved by 2015.

Target 2: Connect all secondary schools and primary schools with ICTs.

Target 2 reflects the importance of connecting schools with ICT which include use of ICT-based tools for teaching and learning; providing skills needed to participate in the information society; improving attitudes to learning; and provision of community access to ICT.

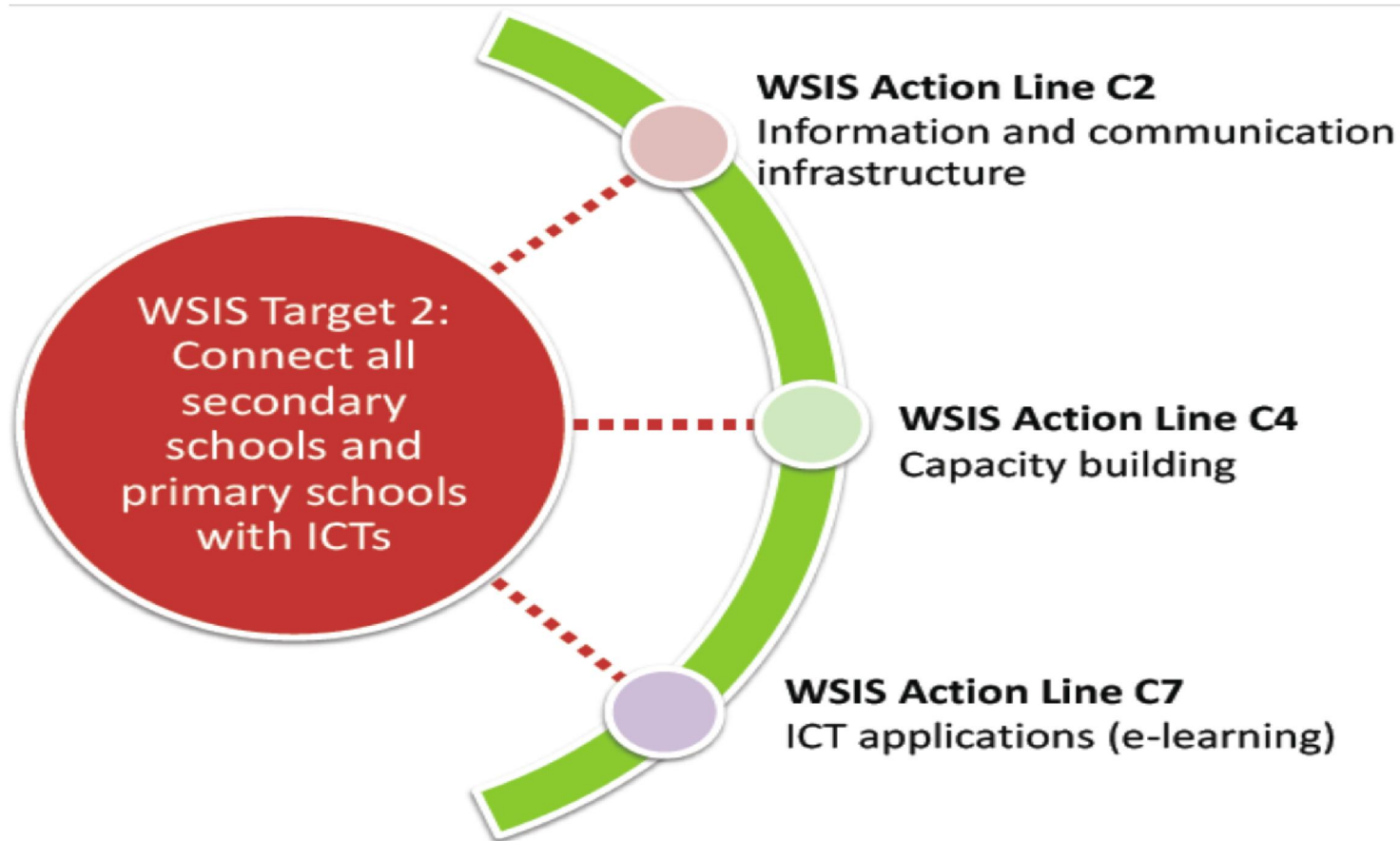**Four indicators were defined in the 2011 WSIS statistical framework;**

-Indicator 2.1: Proportion of schools with a radio used for educational purposes

-Indicator 2.2: Proportion of schools with a television used for educational purposes

-Indicator 2.3: Learners-to-computer ratio

-Indicator 2.4. Proportion of schools with Internet access, by type of access (broadband, narrowband).

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Relevance of Target 2 to WSIS action lines

WSIS Target 2: Connect all secondary schools and primary schools with ICTs

WSIS Action Line C2
Information and communication infrastructure

WSIS Action Line C4
Capacity building

WSIS Action Line C7
ICT applications (e-learning)

ITU WSIS Action Line C4:Capacity Building

- Everyone should have the necessary skills to benefit fully from the Information Society. Therefore capacity building and ICT literacy are essential. ICTs can contribute to achieving universal education worldwide, through delivery of education and training of teachers, and offering improved conditions for lifelong learning, encompassing people that are outside the formal education process, and improving professional skills.

ITU WTDC-2014: RESOLUTION 54

Information and communication technology applications

noting

a) that digital literacy is a requirement for closing the digital divide;

b) that developing countries benefit from integrating ICTs into educational systems, by providing a more effective education experience and ensuring that all students obtain the skills necessary to succeed in a knowledge-based economy and society;

c) that the benefits extend beyond the students:

– to their families, who may benefit from access to ICTs;

– to the local community, by leveraging schools transformed into the digital literacy training centres for all citizens;

– to the broader community, by significantly increasing broadband and ICT penetration;

d) that such a transformation will improve education, assist in connecting all citizens globally, and facilitate the effective use of national resources for the future of children and society;

e) that countries and communities have limited education budgets which have to be apportioned among many different needs, and so studies on the relative benefits of ICTs in educational systems will help countries and communities make informed decisions,

encourages Member States and Sector Members

1   to participate in the study of the role of ICTs in educational systems, by contributing their own experiences regarding the implementation of ICTs for achieving universal education worldwide;

2   to support the collection and analysis of data and statistics on e-applications services, such as ICT applications in industry, e-government and e-health and ICT in education, that will contribute to public policy design and implementation as well as enabling cross-country comparisons.

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Broadband Commission Report: Broadband and Education

-Prepared by Broadband Commission's Working Group on Education.

www.broadbandcommission.org/documents/publications/bd_bbcomm-education_2013.pdf

- This report is the result of a collaborative effort drawing on rich insights and contributions from a range of government education leaders, top-level representatives from relevant industries as well as international agencies and organizations.

The report is divided into four main parts.

- The first section, 'Setting the Stage', provides a brief overview of the rationale for expanding and improving the use of technology, including broadband, in education.

- The second section, 'Where Do We Stand?', describes the current situation in terms of access to technology and technology use in schools, and gives a snapshot of the policy environment for broadband and ICT in education.

- The third section, 'Strategic Directions', presents evidence for the ways in which new technology developments can increase the efficiency and efficacy of teaching and learning and increase equity in education.

- The fourth section, 'The Policy Agenda', advocates for policies and strategies that countries, particularly developing ones, should embrace in order to reap the full benefits of broadband in education.

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UAE Smart Learning Project

UAE Vision 2021

FIRST-RATE EDUCATION SYSTEM

- Education is a fundamental element for the development of a nation and the best investment in its youth.

- For that reason, the UAE Vision 2021 National Agenda emphasizes the development of a first-rate education system, which will require a complete transformation of the current education system and teaching methods. The National Agenda aims for all schools, universities and students to be equipped with Smart systems and devices as a basis for all teaching methods, projects and research. There will also be significant investments to promote and reinforce enrollment in preschools as this plays an important role in shaping children's personalities and their future.

"We want to provide the NEW GENERATIONS with the skills needed for THE FUTURE THIS IS OUR NATIONAL DUTY"
His Highness Shiekh
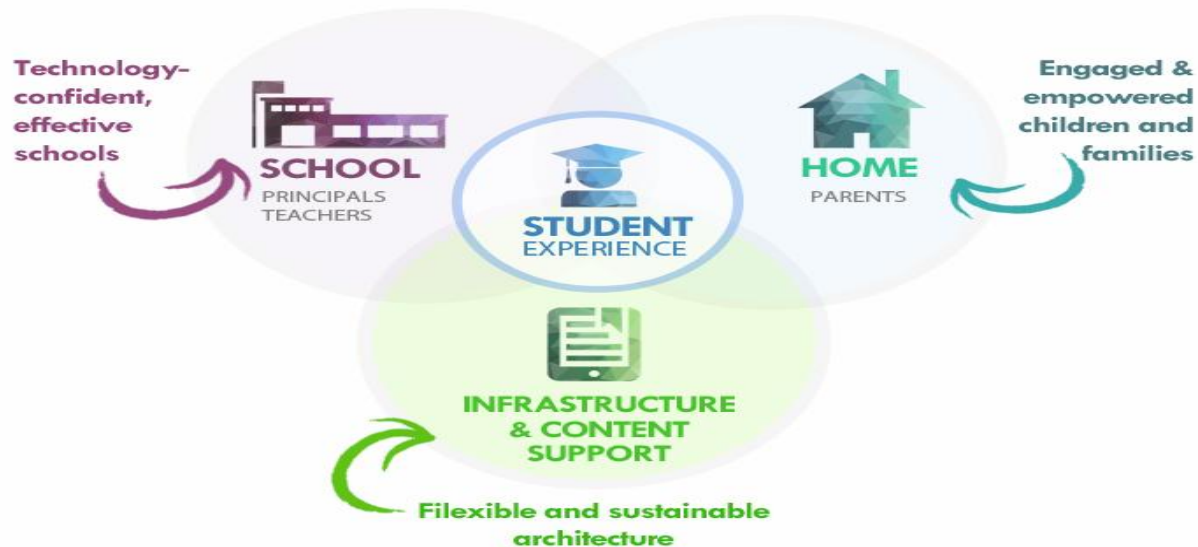Mohammed Bin Rashid Al-Maktoum

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THE BEGINNING

- The Program was launched by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, in April 2012 and is aligned with UAE Vision 2021 to become a knowledge-based economy through the integration of technology in education.

- Through the Program, the UAE is investing heavily to bring the latest technology to the schools, encouraging the development of creativity, analytic thinking and innovation. The MBRSLP aims to shape a new learning environment and culture in federal schools through the launch of "smart classes" that will provide every student with an electronic tablet and access to high-speed 4G networks by 2019.

- The initiative, funded through the Telecommunications Regulatory Authority's Information & Communication Technology (ICT) Fund, is under the guidance of the Ministry of Education as well as the Prime Minister's office. This is a testament to both the promise of the Program and the dedication of the UAE Government to education and ICT.

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What is Smart Learning

Smart learning integrates technology into the classroom in order to help teachers and students learn and create content in a technology rich environment with opportunity to apply critical thinking. Based on this ethos, the MBRSLP aims to shape a new learning environment in government schools through the launch of "smart classes" that will provide every student with an electronic tablet and access to high-speed 4G networks by 2019.

Smart learning allows students to lead their own learning experience and empowers both students and teachers in education. The Program is the first to provide a comprehensive system for evaluating technology used in federal schools and aims to shape a new learning environment for students in the UAE.

Stakeholders

SMART LEARNING PROGRAM IN NUMBERS
(For academic years 2013/14 and 2014/15)

3,543 TEACHERS	24,308 STUDENTS	146 SCHOOLS	1233 CLASSROOM	INFRA-STRUCTURE
Professional Development+ Laptops	World of knowledge+ Tablets	Leadership+ Data+ Analysis+ Access to Internet	Color+Ligtning+ seating+ smart boards+ connectivity	Data center+ networks+ support+ Call center+ adoption

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Teacher Training

The Teacher Training: how to use devices as well as the relevant applications and online platform of the Program.

More than 3,500 teachers trained on smart learning techniques and using in their "smart classrooms.

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Smart Learning Objective

Classrooms

ITU WSIS Award for UAE's Smart Learning

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TURKEY – FATIH PROJECT

Turkey Vision 2023

- 50% of the ICT sector covered by domestic products and services

- 8% of GDP coming from ICT

- One of the top 10 countries in e-transformation

- 80% of population computer literate

- Provision of all public services electronically by 2019

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Fatih Project

- Turkey has initiated FATIH Project with the aim enabling equal opportunities in education and improving technology in schools for the efficient usage of ICT tools.

- Broadband connectivity to 42.000 schools.

- Tablets to 15 million students and 1 million teachers.

- 570.000 computerized smart classes (including interactive boards)

- Educational Content.

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E-Content

EBA, (Education Information Network)

- 6.247 video production

- 5.826 interactive contents

- 1.593 e-books

- 33.20 graphical work and

photography

- 52 mobile applications

- 1.320 e-magazines

- 4.241 audio book

- And other contents

Cooperation with 71 different e-content provider portals (local and International)

Fatih Project Success Factors

- Development of Universal Service and USF policy framework.

- Development of a National ICT/Broadband Action Plan with measurable, time bounded goals.

- Coordination between different Ministries is very important.

- The government established a Committee for the execution of the Education Transformation Project (Fatih) from the following Ministries and government organizations; Ministries of Communication, Education, Development, Finance, Economy and Science-Industry-Technology, Under secretariat of Treasury, Prime Ministry's Investment Support Agency and Scientific & Technological Research Council.

- Political support is at the top level. Directly Turkish Prime Minister (now the President) is leading to Education Transformation Project (Fatih).

- Publicity is very important. When well-publicised, everyone including parents give support and become part of it.

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Project Components
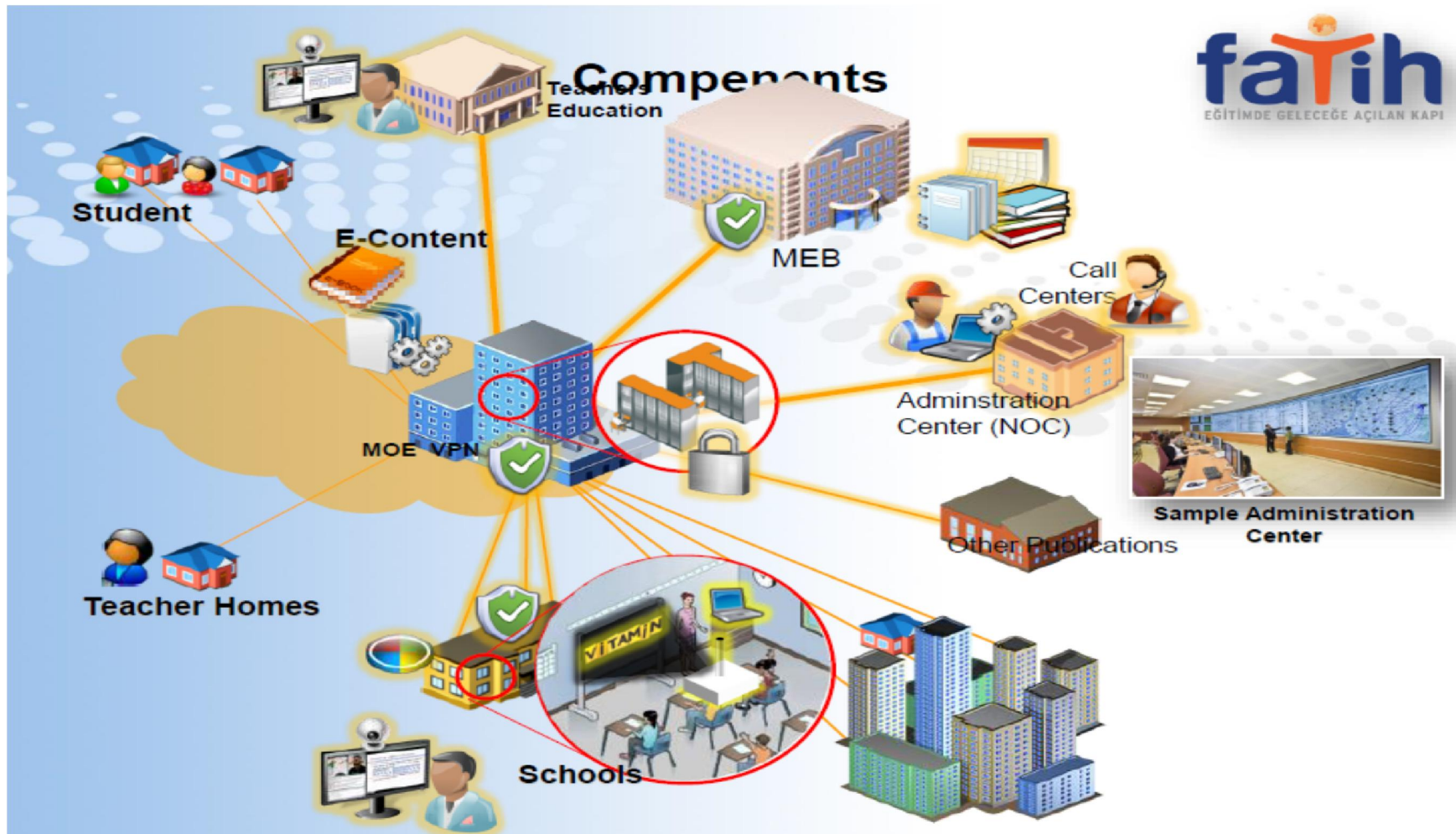
Progress in Turkish Education System

Years of 2000's: Computer Lab

Years of 2010's:Smart Classrooms

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Educational Transformation

With FATİH the students will;

- acquire knowledge using more sensory organs

- participate and take responsibility more due to self-confidence from knowledge acquisition

- shape his/her future based on his/her own purpose

- know what s/he wants and take control of his/her life path

With FATİH the government will;

- identify the talents/skills and match them with the future needs

- determine strategies to invest in people who can create information and think ahead of their time

- be able to provide equal opportunity for its people

- create a generation which will make the right decisions for the future

With FATİH the teachers will;

- have easy access to the updated knowledge and latest teaching techniques which will help in teaching process

- thus help students gain different points of view

- create information and transfer it perennially,

- be innovative,

- be able to measure the quality and quantity of their teaching and complete the shortcomings,

- prepare the future generation from today

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Fatih Project Partners

Thank you!