

e-Learning in Primary & Secondary Education

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I. Overview

1. Vision

Lifelong Learning Society



Improve Quality of Public Education Through e-Learning

- Integrate centralized e-Learning projects
- Customize programs for teachers

Develop Key Human Resources through e-Cluster

- Build e-cluster
- Improve university competitiveness

Develop Vocational Education

- Diversify specialized e-Learning institutes
- Provide customized e-Learning service

Regional Integration Through e-Community

- Improve information accessibility for the disadvantaged
- Establish regional e-Community

Collaborative Network

- Collaborative system Between ministries And organizations

Revise Laws & Regulations

- Enactment for e-Learning
- Establish the Education Resources Sharing System

Increase Public Awareness

- Reduce gap between technology & practical use
- Globalization of e-Learning

2. Directions

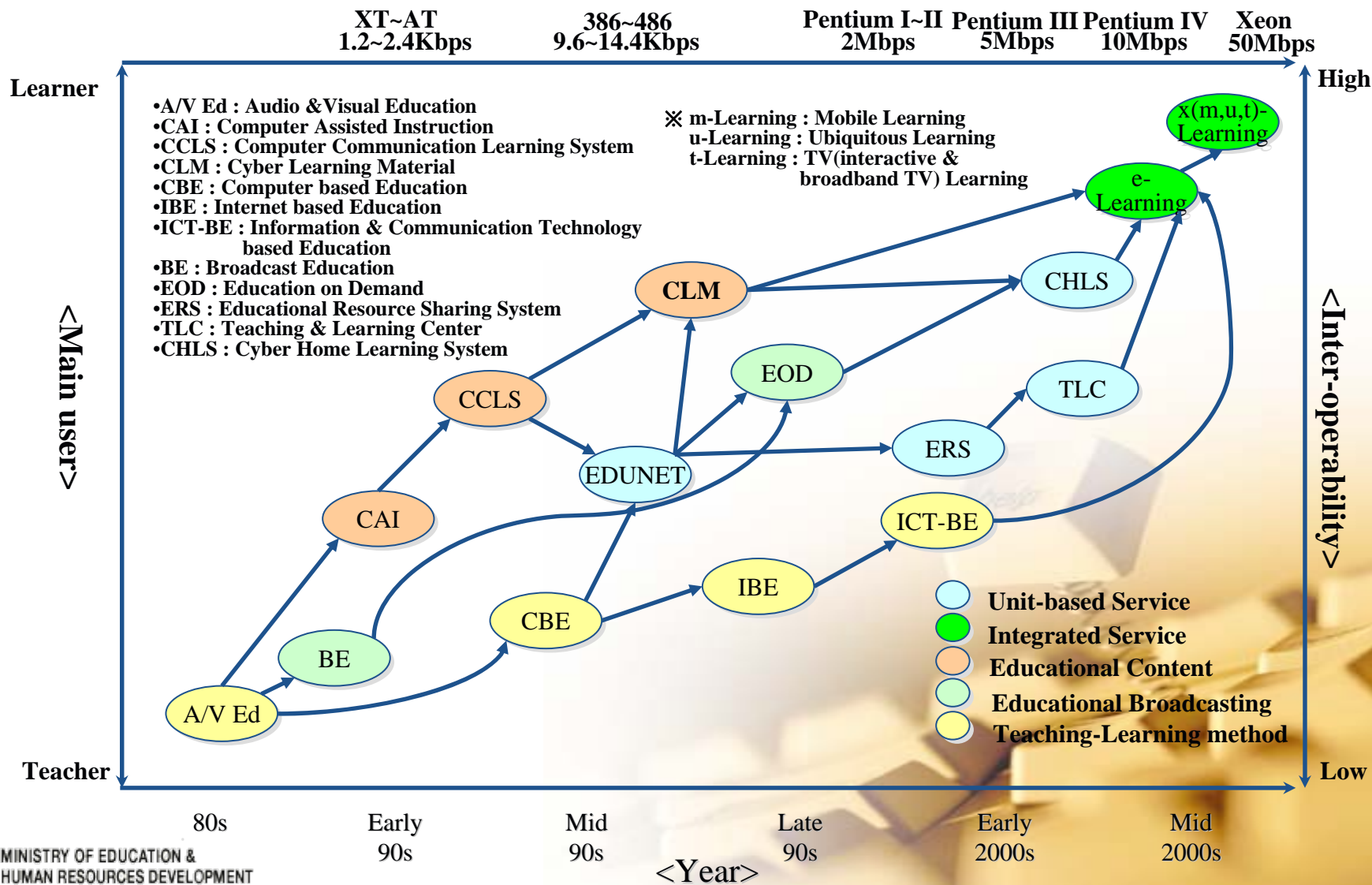
- 
- **Globalization of e-Learning**
 - **Building Competitiveness of e-Learning industry**
 - **Regional and social integration by resolving information divide through e-Learning**
 - **Systematic integration of between education & economy through e-Learning**

3. History

Period	Key words	Teaching-Learning Model	Feature
'87~'95	Computer education, PC, DOS, Network	Use of application programs as educational tools, CAI	<ul style="list-style-type: none"> ▪Computer literacy training ▪Use CAI to support lecture ▪Spread computer and network in schools
'96~'00	Education Informatization, IT, Internet, Windows	Internet as edu. tool, Cyber learning programs, National guidelines of using ICT in every subject	<ul style="list-style-type: none"> ▪Integrated ICT literacy training ▪Individualized learning using cyber learning materials ▪Education infrastructure completed
'01~'03	ICT in Education, ICT, e-Service	Searching, Analysis, Guidance, Web discussion Collaborative study, Expert relations, Web pen pal, Knowledge creation	<ul style="list-style-type: none"> ▪8 models of using ICT ▪How to use of information ▪Diversified methods using internet ▪Infrastructure (broadband) ▪Wide use of ICT materials
'04~ Present	e-Learning, Ubiquitous	Self-directed Learning	<ul style="list-style-type: none"> ▪Learning in School→Learning in Anywhere (home, society) ▪[Just for me] Education ▪Change of Educational Paradigm ▪Streaming video through internet

4. e-Learning Progress in Korea

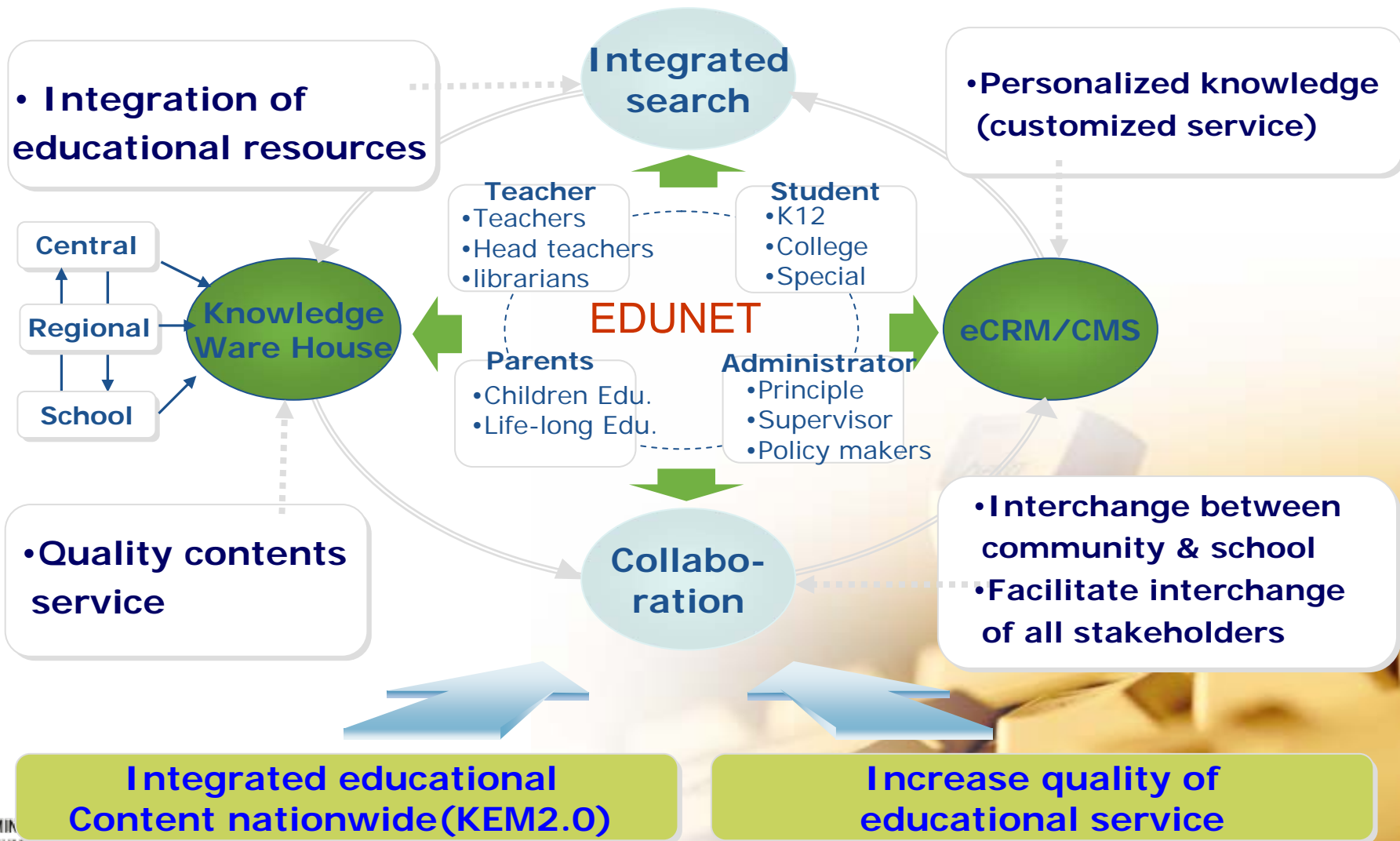
<Infrastructure>





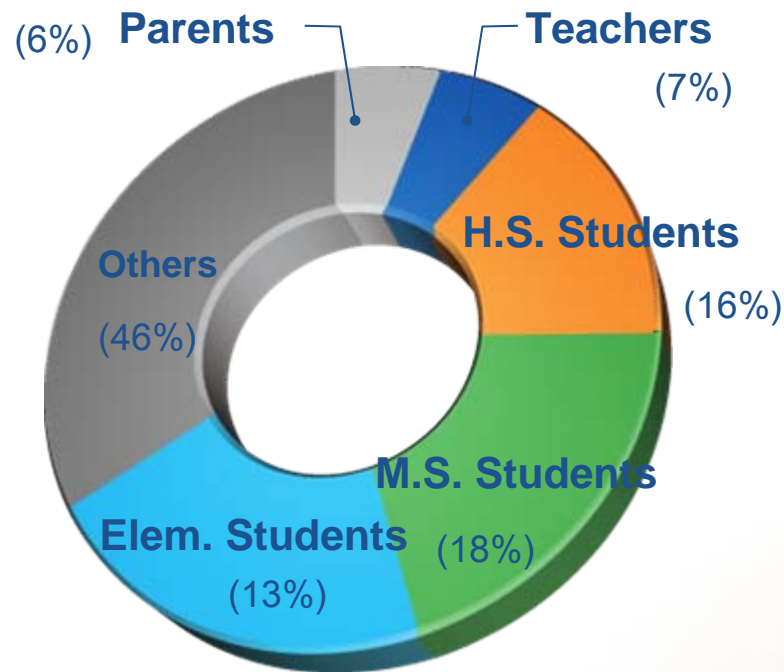
II. e-Learning Services for K12

1. National Teaching-Learning Center-EDUNET (www.edunet.net)



1. National Teaching-Learning Center-EDUNET (Continue)

EDUNET Subscribers (Dec. 2005)



Subscribers

Teachers	412,000
Elem. Students	753,000
Middle School St.	1,090,000
High School St.	963,000
Parents	367,000
Others	2,304,000

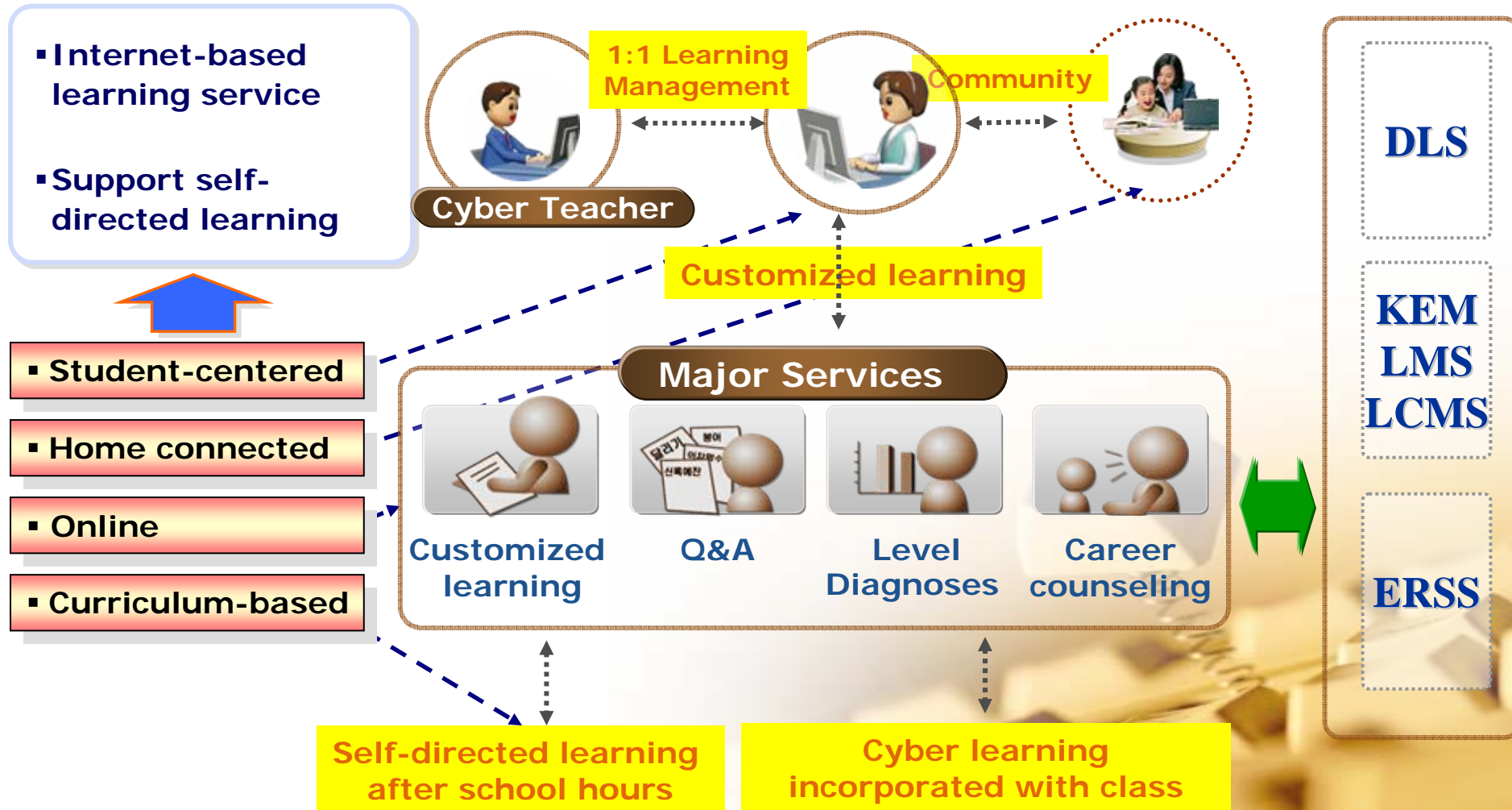
❖ Total Subscribers : 5,910,000

- 100% of all teachers

- 35% of all students

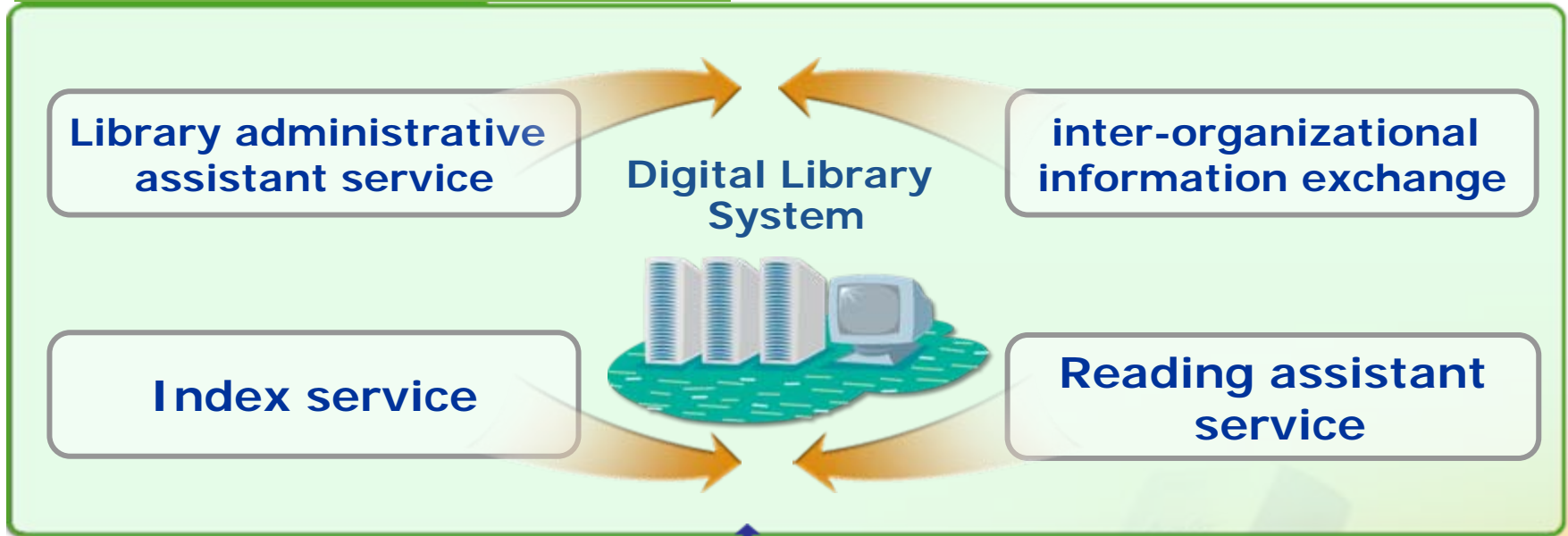
❖ Total Population of Korea : 49,000,000

2. Cyber Home Learning System



3. Digital Library System (dls.edunet.net)

Regional Offices of Education



Internet-based One-Stop Library Service

Library

Index development & operation



▪ Librarian



▪ Student

Search, problem solving

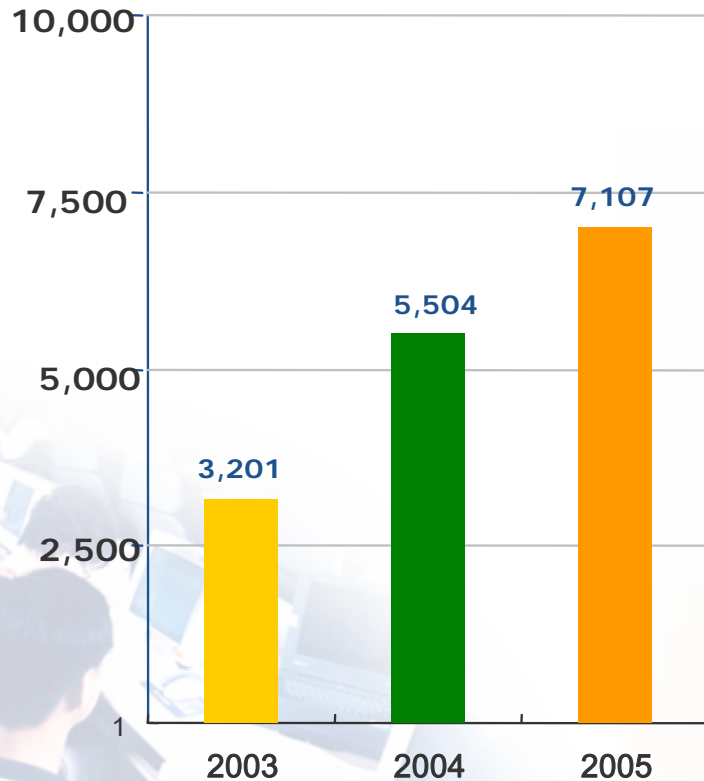


▪ Teacher

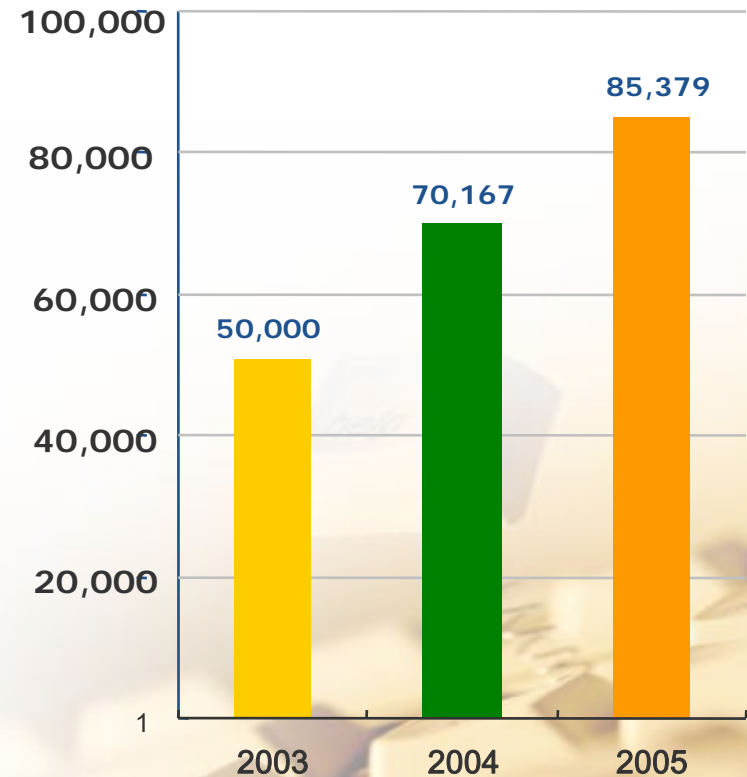
Support class materials, Reading assistance

3. Digital Library System (Continue)

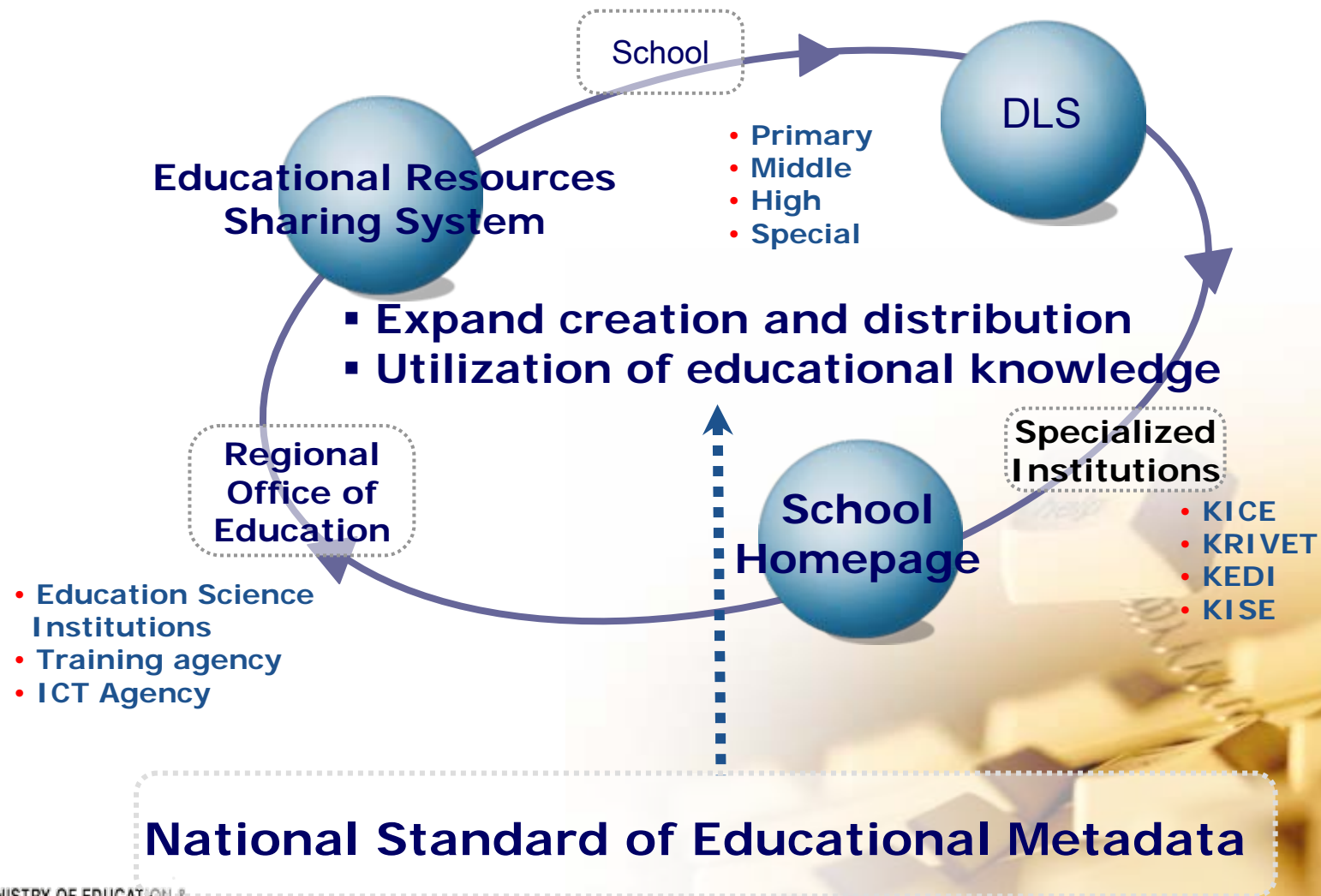
No of Schools using DLS



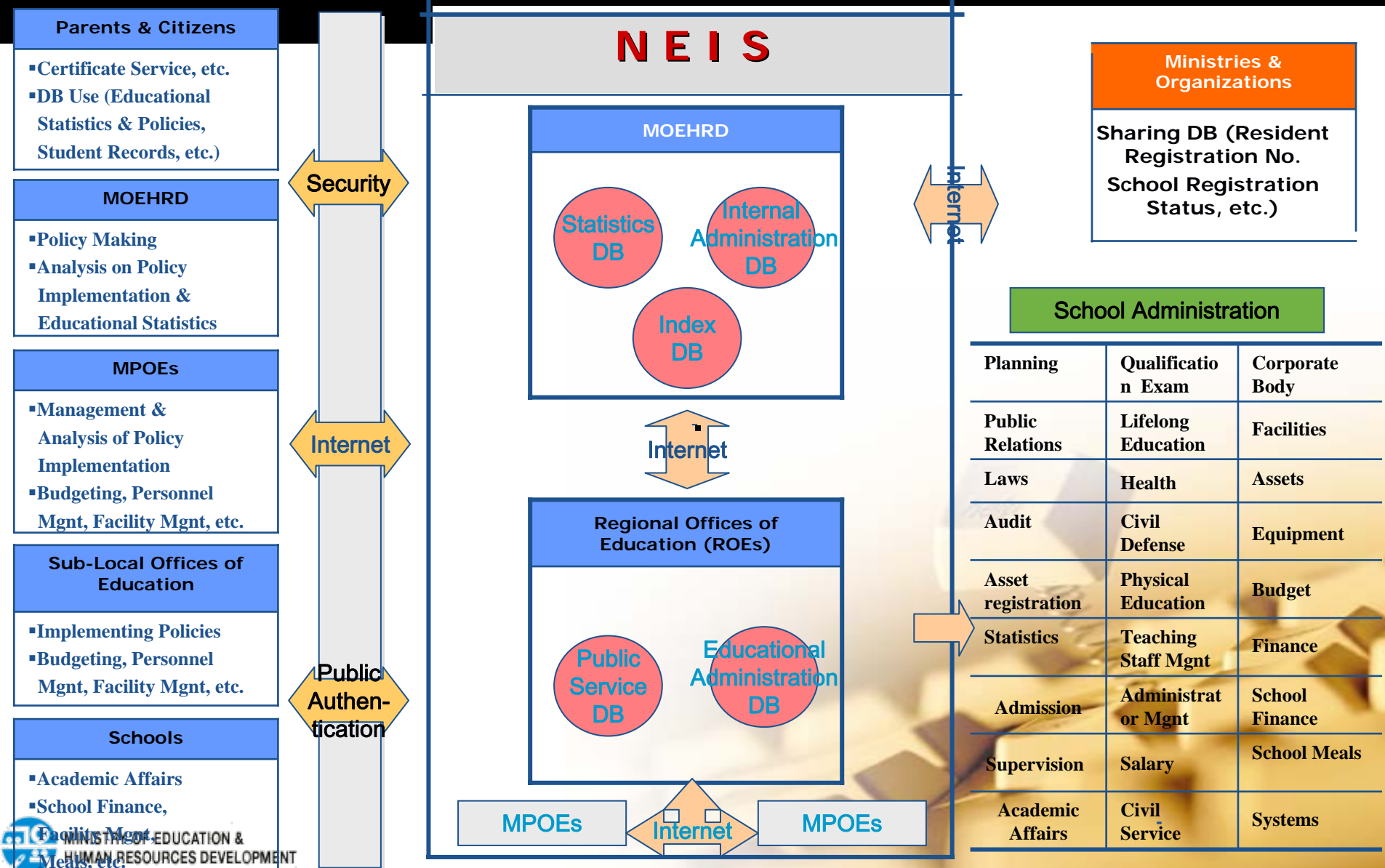
No of Bibliographies



4. Educational Resources Sharing System



5. e-Administration System : NEIS (www.neis.go.kr)





III. e-Learning Initiatives

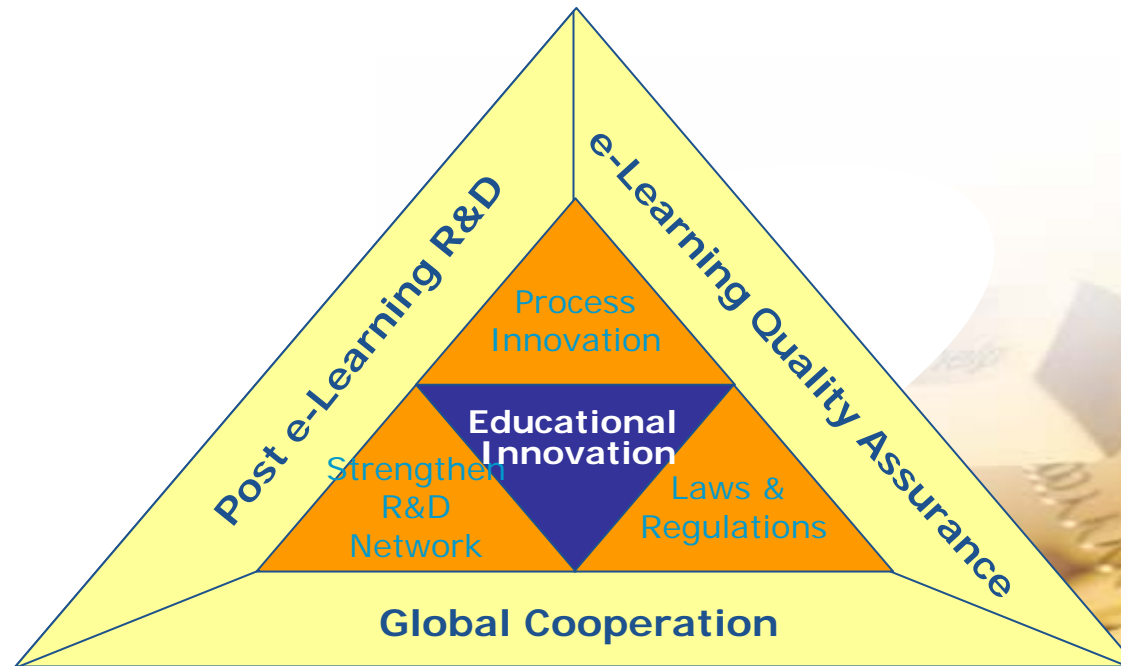
1. e-Learning R&D

**Global Leader
of Innovative Future Education**

**Lead Education
Innovation**

**e-Learning Quality
Assurance**

**Global
Cooperation**



**N-HRD
Plan**

**ICT Master
Plan III**

**Globalization
Policy**

**e-Campus
Vision 2007**



2. e-Learning Standardization

- **Educational Metadata Standardization (KEM)**
- **Research on Ontology-based Semantic Web thru Advanced KEM**
 - ※ Intelligent Agent-based Search Environment
- **Question & Test Interoperability Standardization Research**
- **Research on Collaborative Learning Management Standardization Linking with SCROM-based Content**
 - ※ Link Collaborative Learning Activity with Sequencing & Packaging
 - ※ Research on Sequencing Rule, Utilizing External Evaluation System
- **Development of e-Learning Standardization R&D Web Site**
 - ※ Link with ADL Academic Co-Lab Link and Information Sharing



3. Teaching-Learning Model

- **Research on e-Learning Model and Prototype Development for Excellence in Education**
 - ✘ Enhancing Problem-Solving Abilities for Excellent Science Learners
 - ✘ Developing Learning Tools (ex, Online Thinking Tool by Intel)
- **Research on Ubiquitous-based Learning Model and Prototype Development**
 - ✘ Learning Scenario Development thru Media Convergence
 - ✘ Fostering Ubiquitous Learning Environment for Convergence Learning Model Application
- **Research on e-Learning Effectiveness Analysis Model Development**
 - ✘ Developing Effectiveness Measurement Model thru e-Learning Application by Education Field
 - ✘ Research on Ultimate Goals of e-Learning by Education Field

4. Contents Development

- Teaching-learning model
- Teacher training programs
- Contents for e-Learning-based teacher training

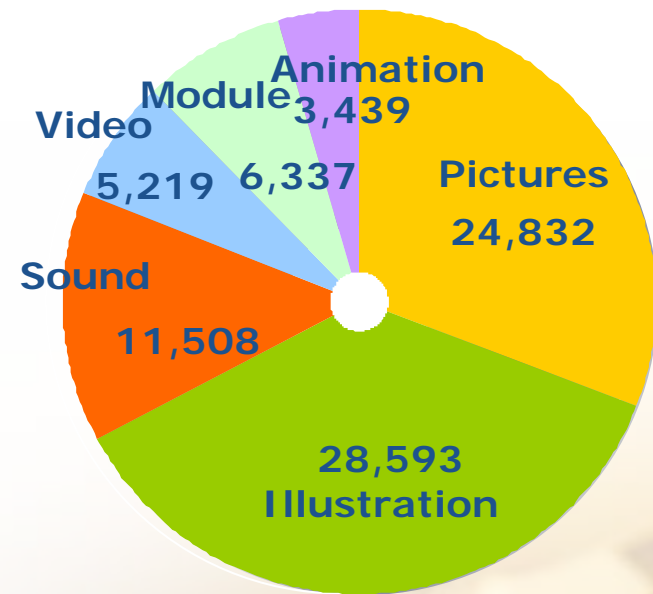
- Develop multimedia contents
- Teaching-learning module using ICT
- Develop instructional software

- Develop contents for special & vocational education
- Nationwide educational software contest

- Operate ICT model school project
- Software quality assurance
- e-Learning Expo(8 round)

Multimedia Educational Resources

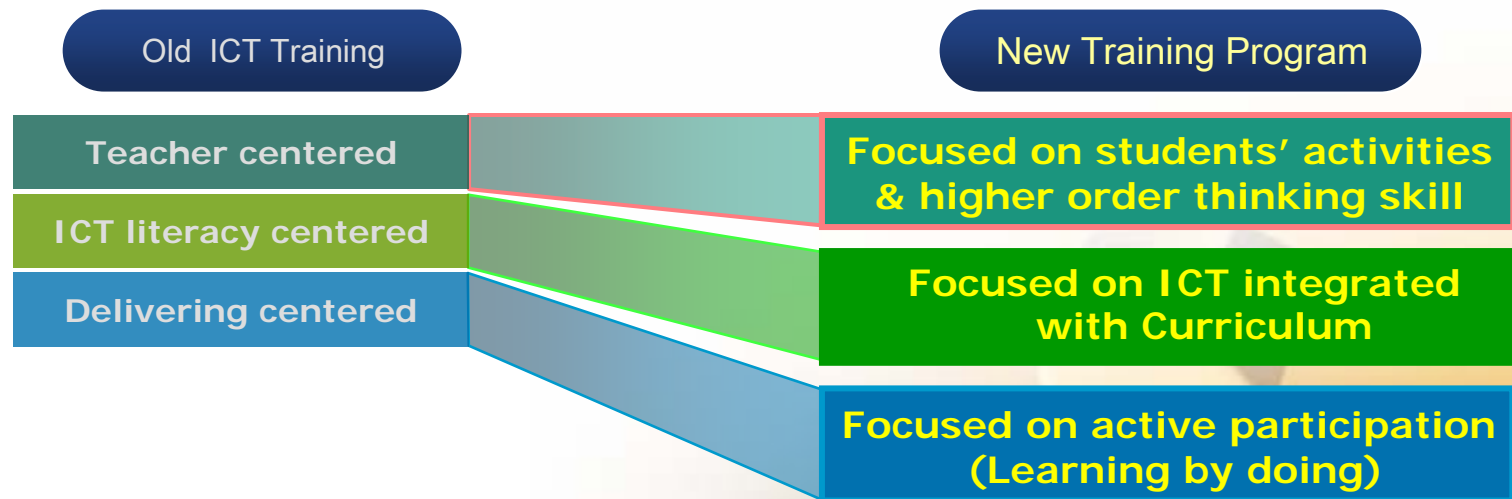
Total 81,819



Completion of developing educational contents for 10 compulsory subjects(2003. 12)

5. Teacher Training

- Develop ICT teaching-learning model and strategy
- Plan integrated training program for teachers
- Expand nationwide subject study society network
- Nationwide contest on how to adapt ICT in teaching



2000 - 2005

- off-line ICT training program : 34 unit
- on-line ICT training program : 17unit
- Nurture innovative teachers : 3,679



IV. Introduction to KERIS



1. Vision & Goals

Leading Innovator

in educational and technological changes thru quality future forecast

Specialized Institution

in resolving educational pending issues thru effective use of innovative technologies

Top Benchmarking Model

to globally recognized institutions in applying ICT in education

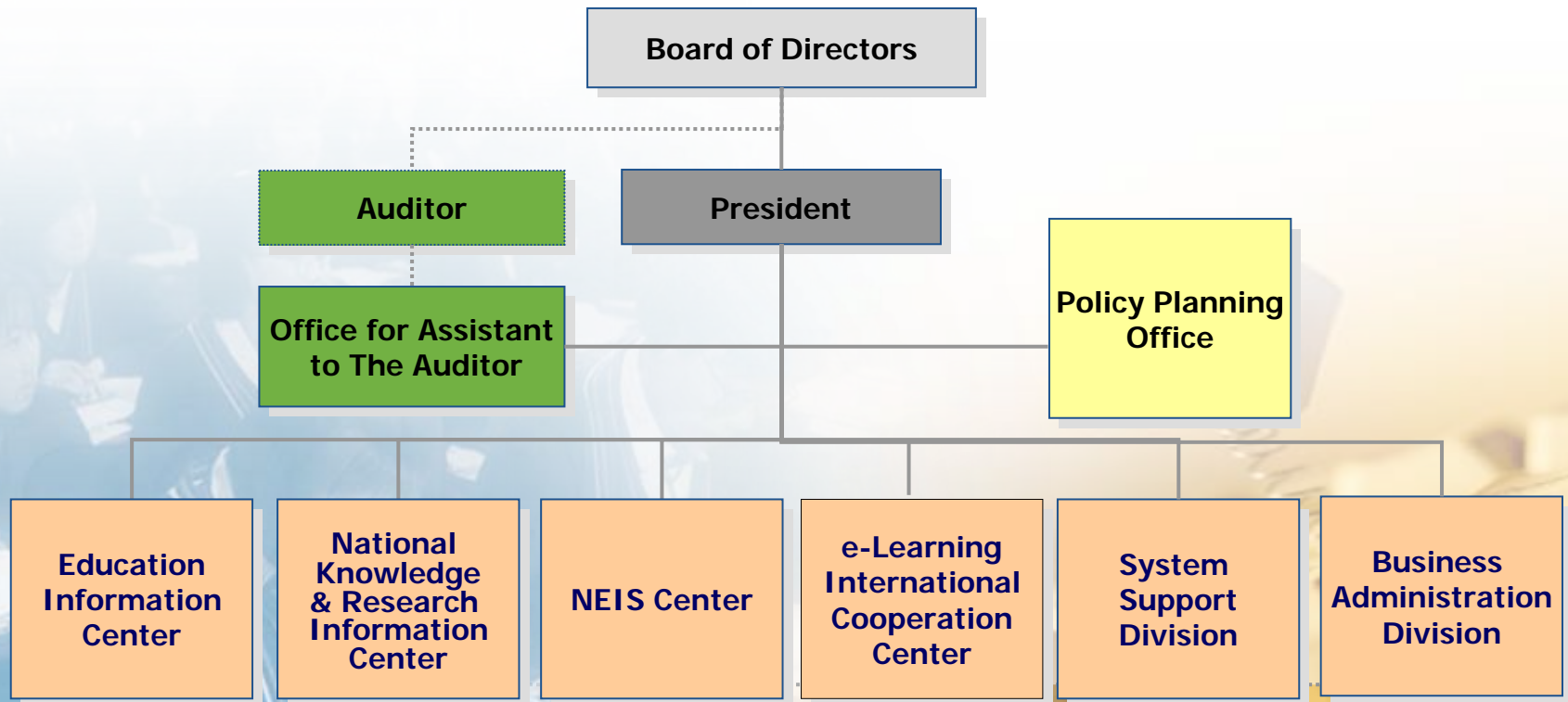
Global Leader of Education Informatization

Global Leader

with best human resources and outstanding achievements

2. Organizational Structure

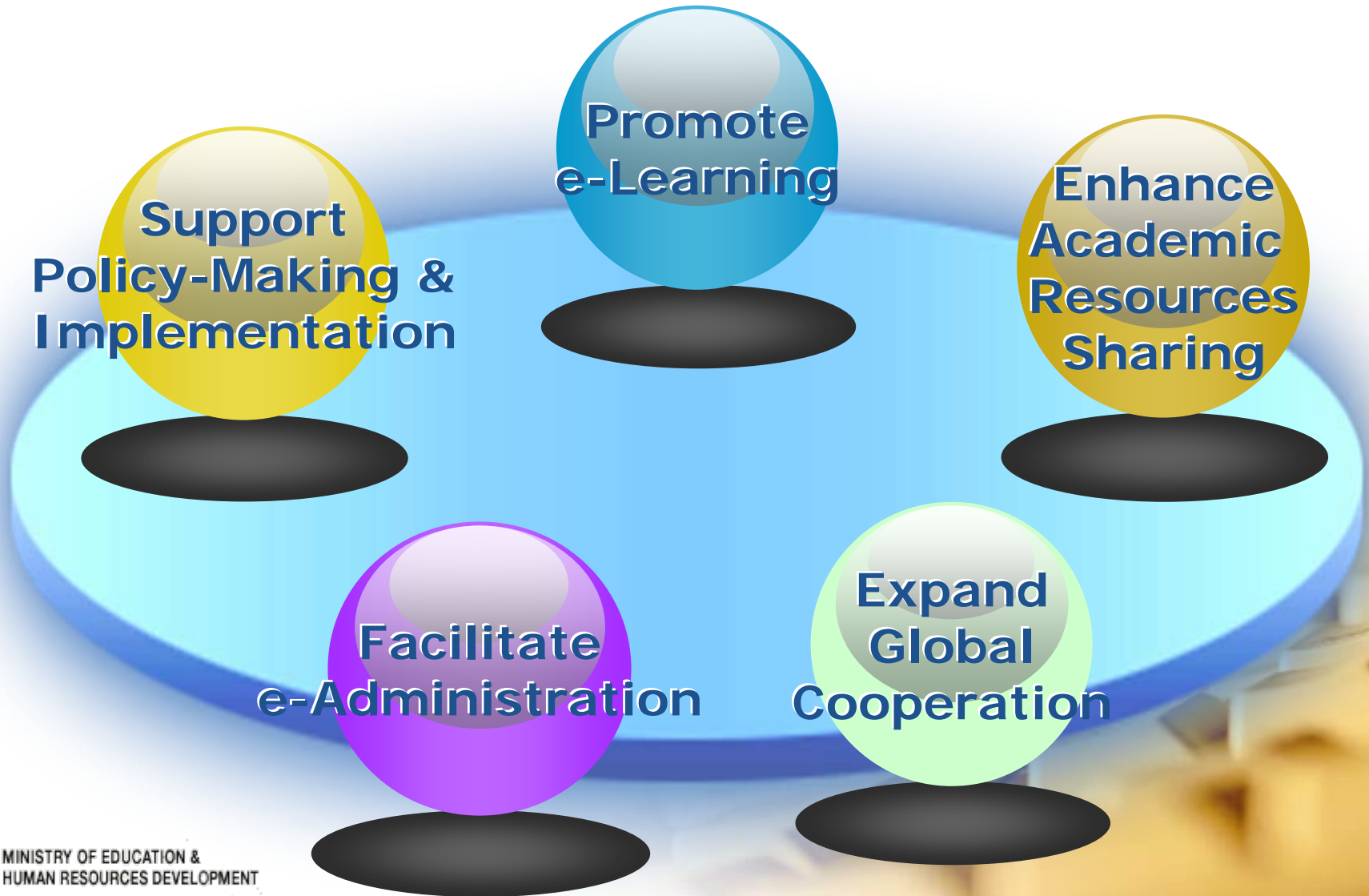
- **Legislative basis : The Act of KERIS (Apr. 21, 1999)**
- **Budget : Total US\$ 42Mil. (2005)**
- **Organization : 1 Offices, 4 Centers, 2 Divisions(138 Staff)**



3. History

- Sept. 1996 : EDUNET began its operation
- May. 1998 : RISS began to operate
- Mar. 2001 : Assigned as “NEIS Center” by the MOE & HRD
- May. 2002 : Nation-wide Educational Resources Sharing System(ERSS) was completed
- Dec. 2004 : KEM(Korea Educational Metadata) was certified as Korean Standards(☞)
- July. 2005 : Certified with an ISO 9001: QMS(Quality Management System) standard

4. Major Roles





5. Tasks(1) Support Policy-making

- Study national ICT master plan
- Issue white paper and periodic journals
- Analysis of ICT policy
- Conduct international collaborative studies
- Develop and distribute educational contents
- Operate u-Learning model school pilot project
- Quality assurance



5. Tasks(2)

Educational Information Service

EDUNET Operation www.edunet.net

- Extensive system used by all stakeholders of education
- User specific customized content for teachers and students

Major implementing bodies

- 16 Metropolitan and provincial offices of education and KERIS
- Current number of subscribers exceeds 5.5 million people



5. Tasks(3) RISS Operation

- Establish research information exchange system among all universities and related institutions in Korea
- Provide technical consulting and training for university libraries /research information organizations
- Four major services
 - Union Catalog Service
 - ILL (Inter-Library Loan) Service
 - Full Text Service
 - Database Overseas Content Service



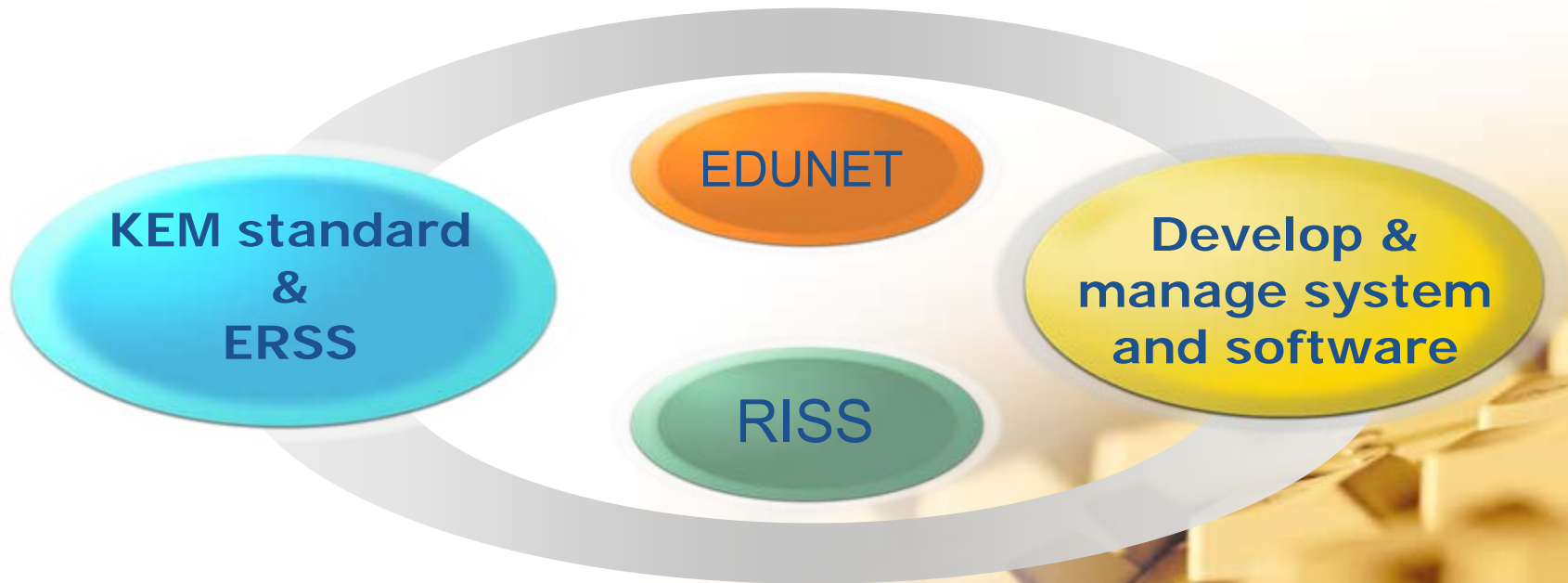
5. Tasks(4) NEIS Development & Operation

- **Manage NEIS infrastructure and analyze operational statistics**
 - Provide technical support and consulting for central center and regional office of education
- **Integrated management of NEIS**
 - Organize steering committee
 - Develop and diffuse best practices
- **Build and operate NEIS user support system**
 - Operate call centers to respond users' needs
- **Enhance security system**
 - Protect from hacking and viruses
 - Develop training program for administrators

5. Tasks(5)

Build & Operate Information Systems

- Standardization of educational information
- Facilitate knowledge creation and sharing
- Contribute national competitiveness



5. Tasks(6) Global Cooperation

Strengthening Partnerships
with Int'l Orgs

- **OECD, UNESCO, World Bank**
- **APEC, ASEM, SEAMEO**

Globalization

Cooperation with
e-Learning partners

- **MOU and joint seminars**
- **e-Learning Expo**

e-Learning Consulting

- **Infrastructure support**
- **Training programs**
(with 16 MPOEs)

Thank You !

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