Digital Budget & Accounting System
Korean Integrated Fiscal Information System

For Greater Public Finance Management Integration,
Transparency & Confidence:

Development, Operation and Future of Korea's FMIS

Ministry of Strategy and Finance

Republic of Korea

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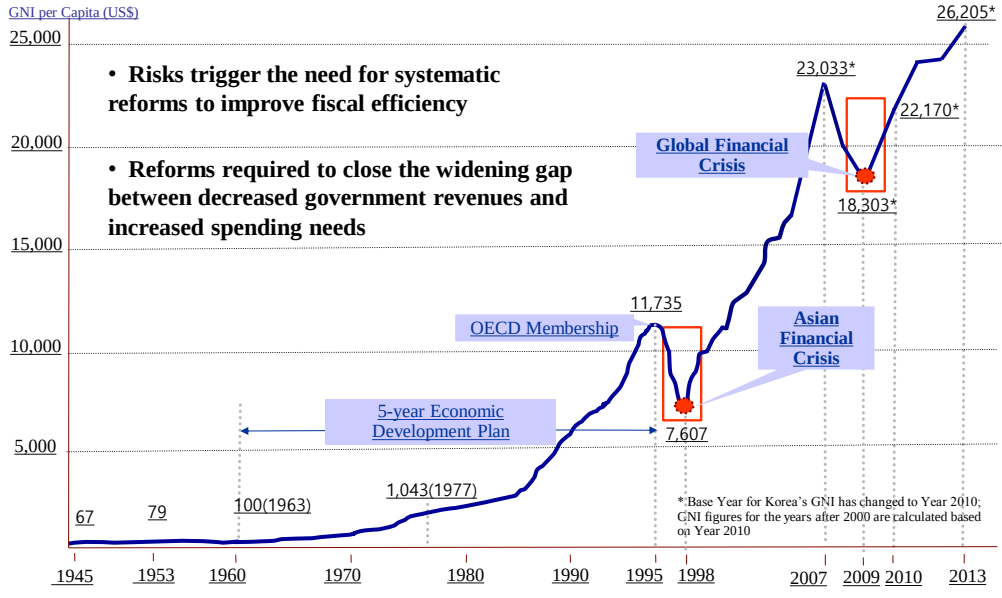
I – 1. Impetus for Reform: 1997 & 2008 Financial Crises



I– 2. Aftermath of Financial Crises and Other Prevailing Trends

1. Increased Demand for Fiscal Efficiency & Transparency

- **Increased need for fiscal spending to buttress and stimulate the slowing economy**
- **Decreased fiscal revenues**
- **Efficiency and transparency required to close the fiscal deficit gap**

2. Socio-Economic Changes

- **Low fertility rate and aging population**
  - *Fertility rate: 6.0 (1961) → 2.1(1982) → 1.18 (2013)*
  - *% of the population over 65:*
    7.2 (2000)→ 10.7 (2009) → 14.4 (2019 estimate)
  - ⇒ **Possible slowdown in economic growth engine**
  - ⇒ **Growing demand for public spending (social pension, education, welfare)**

3. Following the Global Trends in the Fiscal Management Environment

- **Changes in budgeting**
  - From control to coaching
  - Budgeting process more transparent and less tightly controlled by central government
- **Adoption of accrual accounting**

I – 3. Four Key Fiscal Reform Initiatives in Korea

Strong Demand for Fiscal Efficiency & Transparency

- **Fiscal spending ↑, Fiscal revenues ↓ ⇒ Fiscal deficit ↑**
- **Efficiency and transparency required to close the fiscal deficit gap**

① Yearly Budgeting	● National Fiscal Management Plan (5yrs)
② Central Fiscal Authority-led	● Top-down Budgeting (Sectorial Ceiling)
③ Input-oriented	● Performance-based Budgeting System
④ Dispersed Fiscal Information	● ***dBrain System*** ***(Integrated Financial Management Information system)*** ➢A key technological opportunity in the strengthening of public finance management integration and increasing fiscal accountability & transparency

I – 4. What is FMIS (Financial Management Information System)?

• *A set of automation solutions that enable governments to plan, execute, and monitor the budget by assisting in the prioritization, execution, and reporting of expenditures, as well as the custodianship and reporting of revenues.*

Korea's Integrated FMIS

- Integration of FMIS and other public finance management systems
  - That share the same central database to record and report financial transactions
  - That offers reliable consolidated results for decision support, performance monitoring, and web publishing

I – 4.1 What constitutes a good system?

- Ability to
  - Collect accurate, timely, complete, reliable, and consistent information
  - Provide adequate management reporting
  - Support government-wide and agency policy decisions
  - Support budget preparation and execution
  - Facilitate financial statement preparation
  - Provide information for central agency budgeting, analysis and government-wide reporting
  - Provide complete audit trail to facilitate audits

<Reference A> Brief History of Korea's e-Government

	1980s	1990s	2001-2002	2003-2012	2013
Stage	Inception	Foundation	Launch & Diffusion		Smart Gov't.
	Government 1.0	Government 2.0			Government 3.0
Event	Computerization of Administrative System	Information Promotion	11 Initiatives for e-Government	31 Roadmap PJ for e-Government	Expansion of Integration & Connection
Achieve-ments	Building5 National Basic Information Systems (NBIS) Act on Computer Network Expansion and Usage Promotion (1987)	Building foundation for ICT Framework Act on Informatization Promotion (1995)	Act on e-Government (2001)	**Laying the groundwork for linking & integrating multiple government department and agencies** **Master Plan for National Informatization(2008)**	**Principles of Openness, Sharing and Cooperation** **Initiating the future e-Government blueprint** **Official Information Disclosure Act (enforced in March, 2013)**

I – 5. Development of FMIS

Brief History of FMIS Development

2004~2005
- Establishment of integrated Financial Management Information System (IFMIS) was set in the National Agenda Meeting
- Launched a joint study project named "Path toward Successful Introduction of Program Budgeting in Korea" with the World Bank
- To establish IFMIS, consecutively drew up **BSP, BPR/ISP**

2006
- System development (Cost: $60M)
- Open test

2007
- System launch

2009
- Adopted accrual accounting, double-entry book keeping

2014. 11
- Implemented National Property Management GIS (Geographic Information System)

	Details
BSP (Business Strategy Planning)	• With analysis of policy environments, demonstrates the objective and major strategy of fiscal innovation
BPR (Business Process Reengineering)	• Optimize and streamline the existing procedure in accordance with the information system to maximize the adoption effect
ISP (Information Strategy Planning)	• Computerization of given work process

I – 6. Resistance & Solutions of FMIS

Three Major Obstacles

Opposition
- Local governments and the Ministry of Education were against the idea of disclosing and integrating their financial information
  - Concerns over possible undermining of their autonomy

Competition
- Two ministries competed fiercely to have control of the FMIS
  - Competition [1] between Ministry of Finance and Economy (MOFE) and Ministry of Planning and Budget (MPB) as these two ministries were formerly in charge of existing FMIS; each ministry controlled National Fiscal Information System (NaFIS) and Fiscal Information Management System (FIMSys), respectively

Resistance
- Users of newly adopted FMIS were reluctant to adapt themselves to the new system
  - In the early 2000's, users already went through the process when the Korean government first introduced NaFIS and FIMSys
- Strict internal control process built in the new FMIS made it even harder for users to become familiarized with the system

Solutions

① Allowed to maintain own systems but required to submit financial information to be consolidated

② Placed FMIS under control of MPB while letting MOFE to be in charge of certain parts[1)]

③ Provided effective user education throughout the years

1) The competition eventually waned when those two ministries merged into one in 2008

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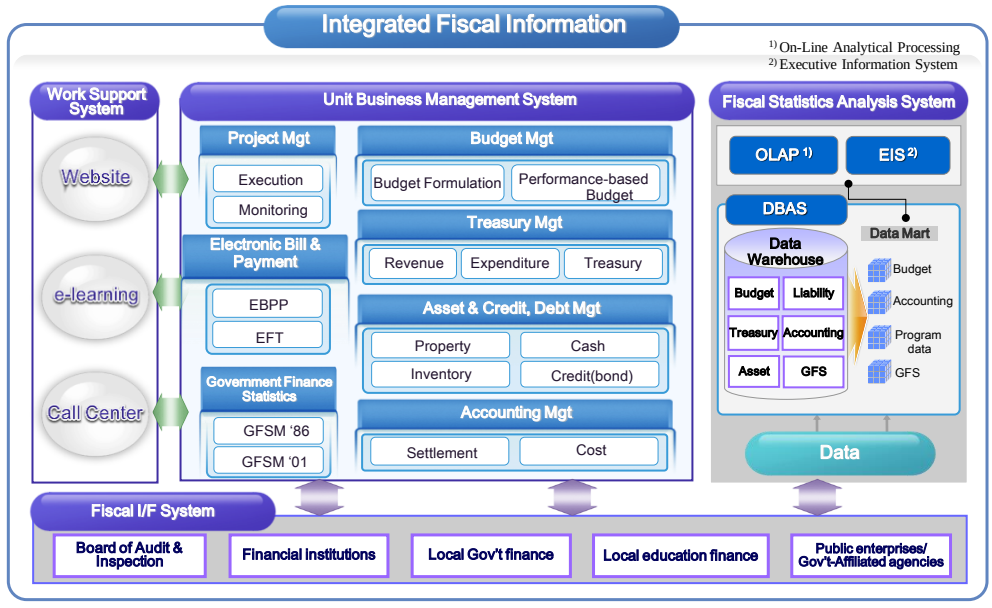
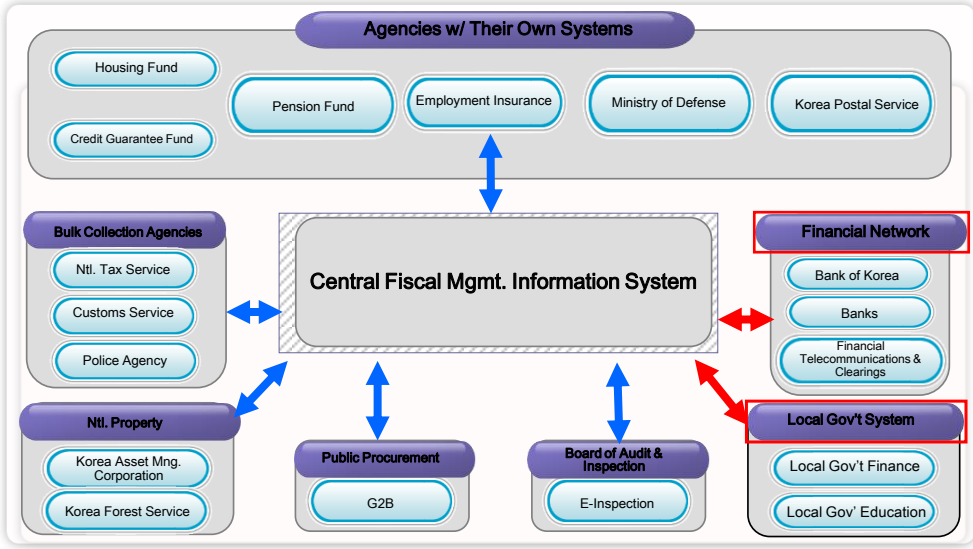
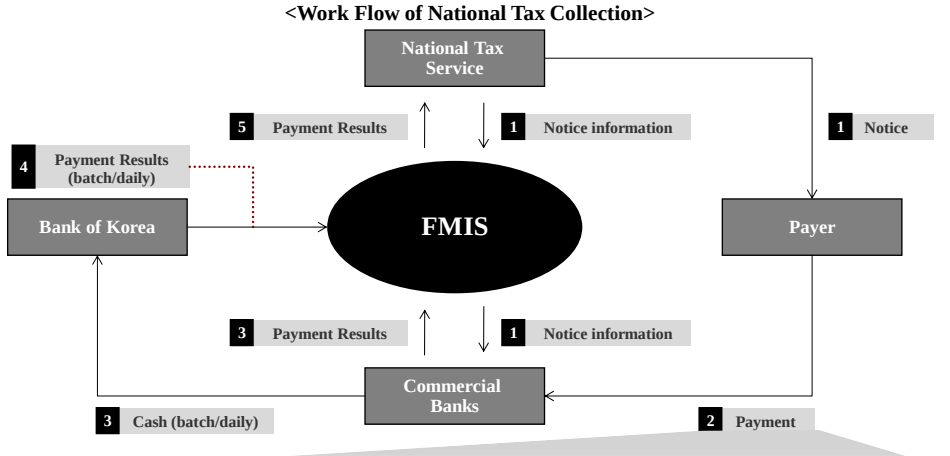
II – 1. Brief Overview of FMIS Mechanism



Ⅱ – 2. FMIS's Interface with External Fiscal Systems



< Reference B > EBPP system enhances convenience and transparency of payments



- EBPP(Electronic Bill Presentment and Payment) allows payers to choose among various means of payment including:
  - E-banking, ATM(Automated Teller Machine)
  - Money is automatically transferred from commercial banks to the treasury account, eliminating potential threat of fraud

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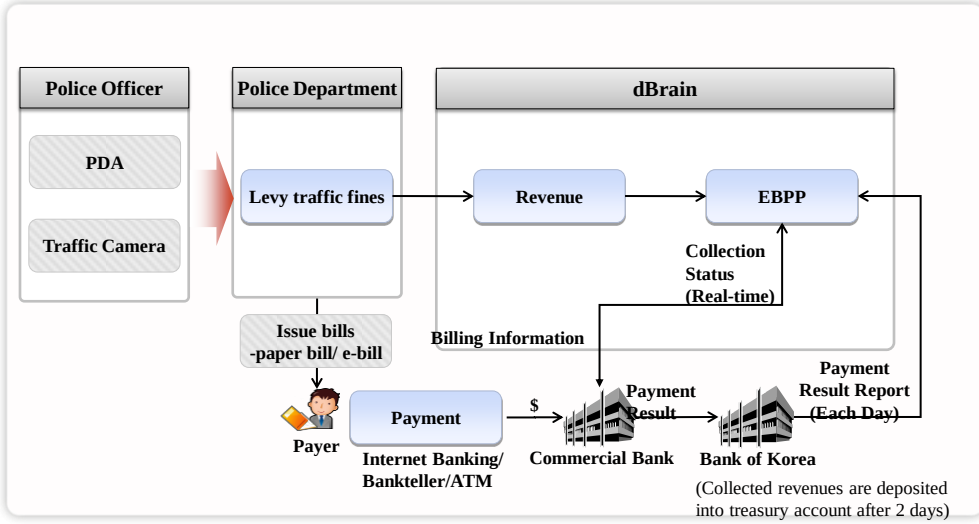
<Reference B: Example >Even small fines are collected electronically and reflected in dBrain as revenue in real-time



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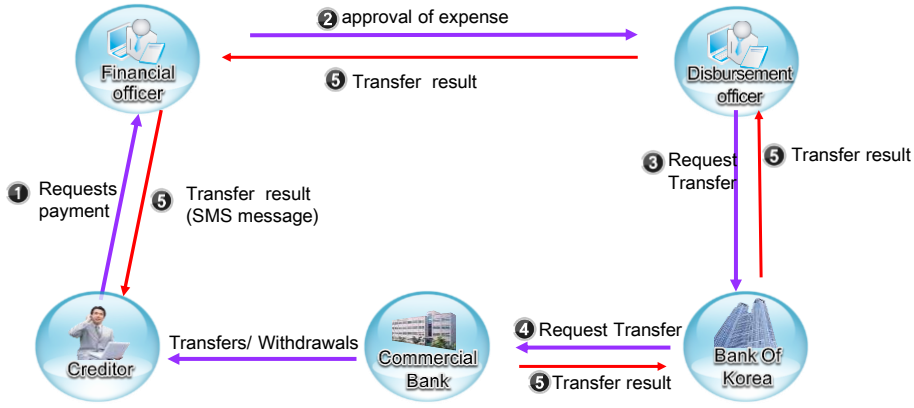
< Reference C >EFTsystem enables users to transfer government funds to private company's account electronically.

Work flow of national tax collection

- **EFT : Electronic Funds Transfer**



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II– 3. Current Operational Status Details

- Daily user-traffic: ≈ 15,000 users,
- Daily transaction volume : ≈ 6.3 trillion won

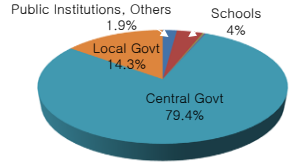
User Status

(Daily Average)	2014	Jan. 2015	Feb. 2015
# of users	15,364	14,939	16,054

- Total # of registered users : 64,684 users
- Daily transaction volume: 6.3 trillion won (≈ $5.6 billion)
- # of documents processed daily: 530,000 cases

User Institutions (as of Aug. 2014)

Institution	# users	%
Central Government	41,745	79.4%
Local Government	7,523	14.3%
Education (Administration)	116	0.2%
Schools (and other education facilities)	2,077	4.0%
Special Committees	87	0.2%
Public Institutions, Others	1,017	1.9%



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III – 1.0 Overview

- **Accrual Accounting**
- **National Accounting Act**
- **Performance-Based System**

➢ IT System Based

- **Consolidate Management**
- **Transparency ↑**
- **Efficiency ↑**
- **User Satisfaction ↑**

III – 1.1 Accrual Accounting

Adoption of Accrual-based System

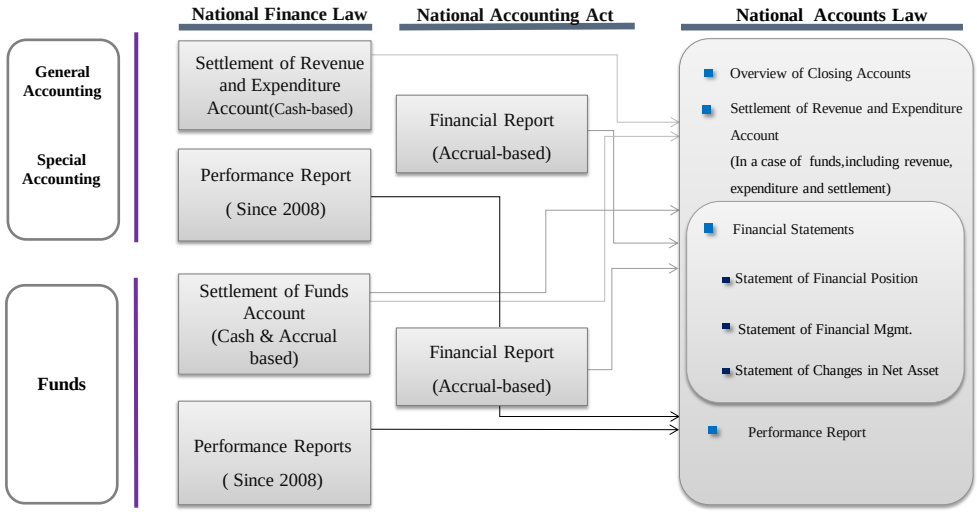
Before	After
▪**Cash-based Accounting** ▪ **Single-entry Bookkeeping** ➢Difficult to see a holistic picture of national finance	▪**Accrual-based Accounting System** ▪ **Double-entry Bookkeeping** ➢Allows policy makers to : ➢identify areas of problem or status quo in fiscal expenditure ➢see the current status of local governments and other pubic sector entities more comprehensively

Ⅲ – 1.2 Accrual Accounting Adoption Details

Central Gov.	✓ Introduced accrual-basis accounting since FY09 (Trial Period FY09-10) ✓ National Financial Report: Submitted to National Assembly since FY11 ✓ Revenue &Expenditure Reports (cash-basis) ✓ Consolidated Financial Statements (accrual-basis) ✓ Performance Reports	National Accounting Act	Ministry of Strategy and Finance
Local Gov.	✓ Implemented accrual accounting since FY07 (Trial period FY03-06) ✓ Submits F/S to local councils with CPA review opinions attached	Local Finance Act	Ministry of Security and Public Administration
Public Institutions	✓ Introduced IFRS (FY11 for public corporations, and FY13 for quasi-governmental institutions) ✓ Submits F/S to the MOSF with CPA audit opinions attached ✓ MOSF submits CFS to National Assembly	Act on the Management of Public Institutions	Ministry of Strategy and Finance

III – 1.3 Flow Charts of National Closing Statement

(as enforced under National Accounting Act since Jan.`09)



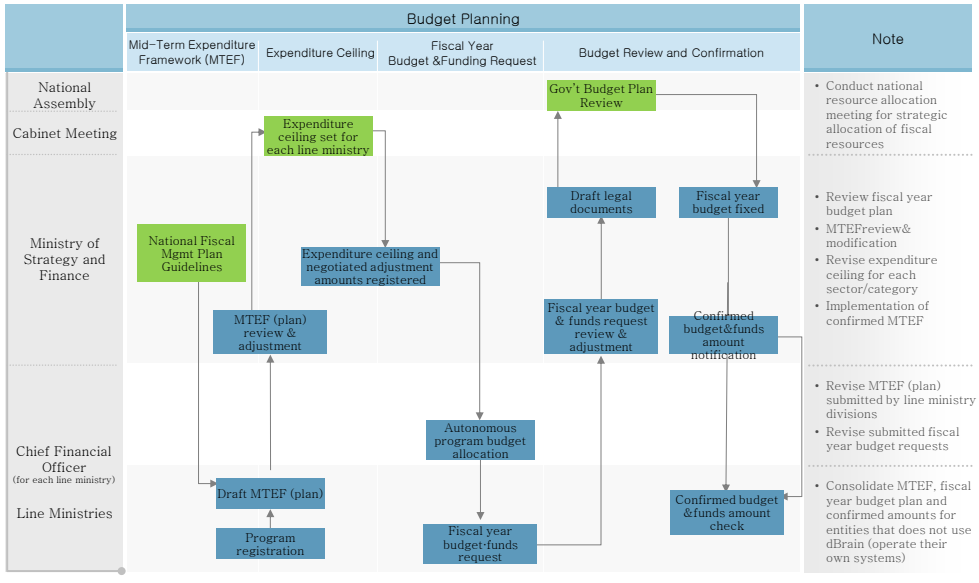
III – 1.4 Result of National Closing Accounts in FY 2013

Ending Balances for National assets and Liabilities were 1,666and 1,118 trillion won, respectively. Net assets amounted to548 trillion won in total.

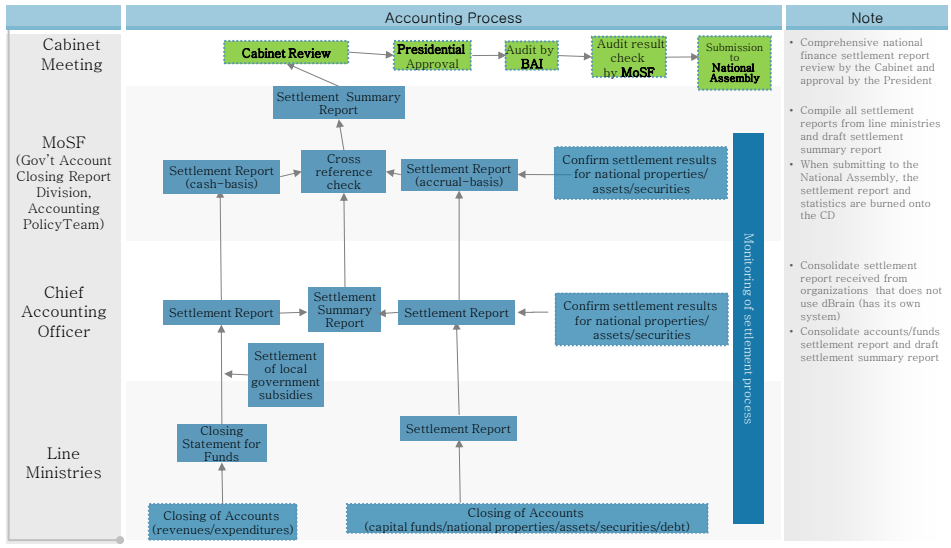
(Unit: trillion won)

Item	'2013 (A)	'2012 (B)	Difference (C=A-B)	% (C/B)
Total Assets(a)	**1,666.3**	**1,580.3**	**86.0**	**5.4**
Ⅰ. Current Assets	291.1	267.7	23.4	8.7
Ⅱ. Investment Assets	563.1	516.7	46.4	9.0
Ⅲ. General Tangible Assets	508.6	500.1	8.6	1.7
Ⅳ. Infrastructure	294.4	288.1	6.3	2.2
Ⅴ. Intangible Assets	1.2	1.2	-	-
Ⅵ. Other Non-current Assets	7.9	6.6	1.3	19.7
Total Liabilities(b)	**1,117.9**	**902.1**	**215.8**	**23.9**
Ⅰ. Current Liabilities	108.6	86.8	21.8	25.1
Ⅱ. Long-term Borrowing Debt	347.8	318.7	29.1	9.1
Ⅲ. Long-term Allowance Debt	633.8	472.1	161.7	34.3
-Pension Allowance Debt	596.3	436.9	159.4	36.5
-SeveranceAllowanceDebt	31.5	30.5	1.0	3.3
-Others	6.0	4.7	1.3	27.7
Ⅳ. Other Non-current Liabilities	27.7	24.5	3.2	13.1
Net Assets (a-b)	**548.4**	**678.3**	**△129.8**	**△19.1**

<Reference D > Budget Planning Process



<Reference E> Accounting and Settlement of Accounts Workflow



III – 2. Implementation of Performance-Based System

Improved Budget Execution & Performance Monitoring

Before

▪Limited evaluation of budget execution outcomes

➢Only central government offices monitored and evaluated for performance

➢Fiscal execution monitoring results only reviewed at year-end and applied to next year's budget planning

▪Yearly Budget Execution Plan

➢Prone to inefficient project management practices, wasteful spending and poor project results

After

▪Project-level performance-based budgeting

➢Local governments, quasi-government organizations, and public funds all linked to dBrain

➢Scope (# projects): 23 (2013)→ 2196 (2014)

➢Convenient, easy budget execution monitoring in real-time through Performance Information (PI) Board

➢necessary corrective adjustments can be made within the fiscal year

▪Budget execution schedule broken down monthly

➢up-to-date execution realization rate (expressed as % of scheduled amount)

➢execution realization rate

+ realization rates for pre-determined performance indicators

= overall performance score for a project

➢prevents inefficient project management (project execution appropriately spaced out throughout the year)

III – 3. Enhanced Transparency

User Convenience with Transparency

Before

- Closed &One-way System
- Unavoidable double input
- Face-to-face submission of Document for Procurement
- Subsidy and payment fraud
- Limited open data with no feedback

After

- Interactive Open System
- Single input
- On-line Bidding and Payment System for Procurement
- Reduced number of accounting fraud
- All-out Open Policy: the system helps boost transparency of national financial management.
  - ➢Providing financial information to the National Assembly & BAI

III – 4. Improved User Experience

User Satisfaction

Before

- Users had appealed inconvenience in using separated systems of each organization.
- Too much time consumed in order to complete work by following work process.

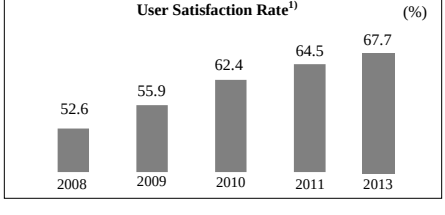
After

- Most users express greater satisfaction in working through FMIS

e.g) Reduction of working time

- FMIS helps secure more work efficiency.
- User satisfaction has been enhanced.

Service Quality Index



1) **User Satisfaction Rate is the result of survey conducted by the Korea Institute of Public Administration (KIPA).**
:This survey includes the items such as Frequency of Access (gaining 3.93 points out of a possible 5 points), Recognition of Work Range via FMIS (3.73 points), Processing Most of Works only via FMIS (3.14 points), Reduction of Work Burden (3.25 points), Systemization of Work Process (3.56 points) and Reduction of Expenditure (3.41 points), etc.

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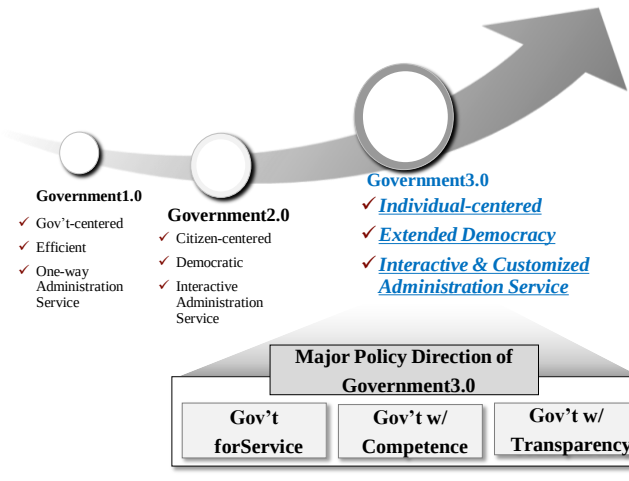
IV – 1. Recent Movements of Information Sharing System

- Major policies of Korean government have shifted to openness, sharing, communication and cooperation-focused policies.



[Service-focused]

- To enhance user convenience
- High-level policy decision-makers utilize integrated FMIS
- To build closer links between budgeting, accounting & revenue info.
- To offer customized information according to to customer demands

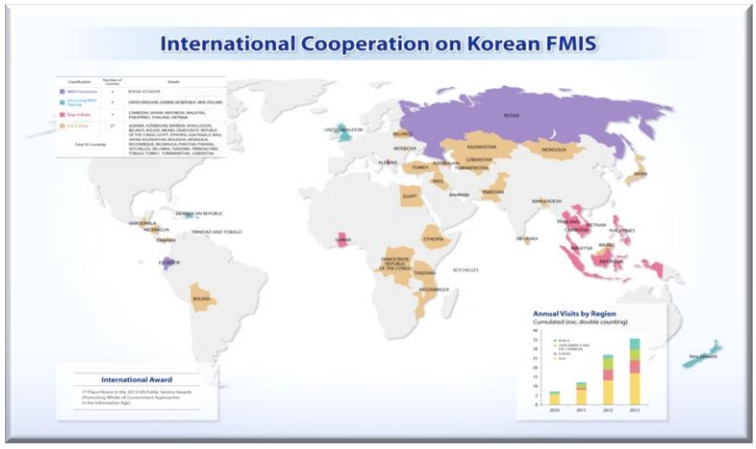
IV – 2. Comparison of Current System and Upcoming System

- FMIS in the future would have more strengthened linkages with other systems and tightened information security system. The system would also be equipped with service which is focused on enhancing information utilization of citizen and work optimization.

	AS-IS	TO-BE
I Info. Utilization	Follow-up management focused on transactions and performance: - Performance information on budgeting and settlement - Year-based settlement	Proactiverisk management focused on forecast and analysis - Scenarios simulation analysis information on financial earnings & expenses - More frequent information calculation cycle(quarterly, semi-annually)
II Aimed Effects	Separate work process-focused efficiency: - budget (project), costs(program), performance (business by unit)	Convergence effect by strengthening linkage of works - Managing detailed business
III Scope of Mgmt.	Gov't-centered Management: - Linkage focused on Central Gov't and Local Gov'ts - 46institutes,61systems	Broader scope of management by extending linkages to the broader public sector - 5295 organizations, including public enterprises
IV Business Model	One-way & Closed System : User input-centered platform	Interactive & Open Model - Open platform: mobile, cloud, etc.

IV – 3. Close International Cooperation on dBrain

- MOU conclusion (3): Ecuador, Russia, Honduras
- Study Visit: 42 countries
- **1st Place honor in the 2013 UN Public Service Awards (Promoting Whole-of-Government Approaches in the Information Age)**



<Reference> 1st place prize at the 2013 UN Public Service Awards

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V. Conclusions

System Reform

❖ Emphasis on long-term perspective rather than short-term

❖Reform is not a one-time process. On-going monitoring and adjustments must be accompanied for successful implementation, and the system need to continuously evolve and expand to offer more contents and services.

Preemptive Measures

❖ Preparing measures to persuade interested ministries and civil servants concerning the introduction of reformed measures and new system

e.g.) -Modification of relevant laws
-Training programs for government officials

Convincing the Public

❖ Pursuing active PR through news agencies to convince relevant parties of the need for a new FMIS

e.g.) To elicit consensus on the need for new reform

dBrain System (FMIS)

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Thank you very much for your attention!

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