

PEM-PAL Treasury Community of Practice
Workshop on
Use of Information Technologies in Treasury Operations – II

**Overview of the progress of FMIS implementation in the
Europe and Central Asia Region**

Cem Dener

**Astana, Kazakhstan
27-29 September 2011**



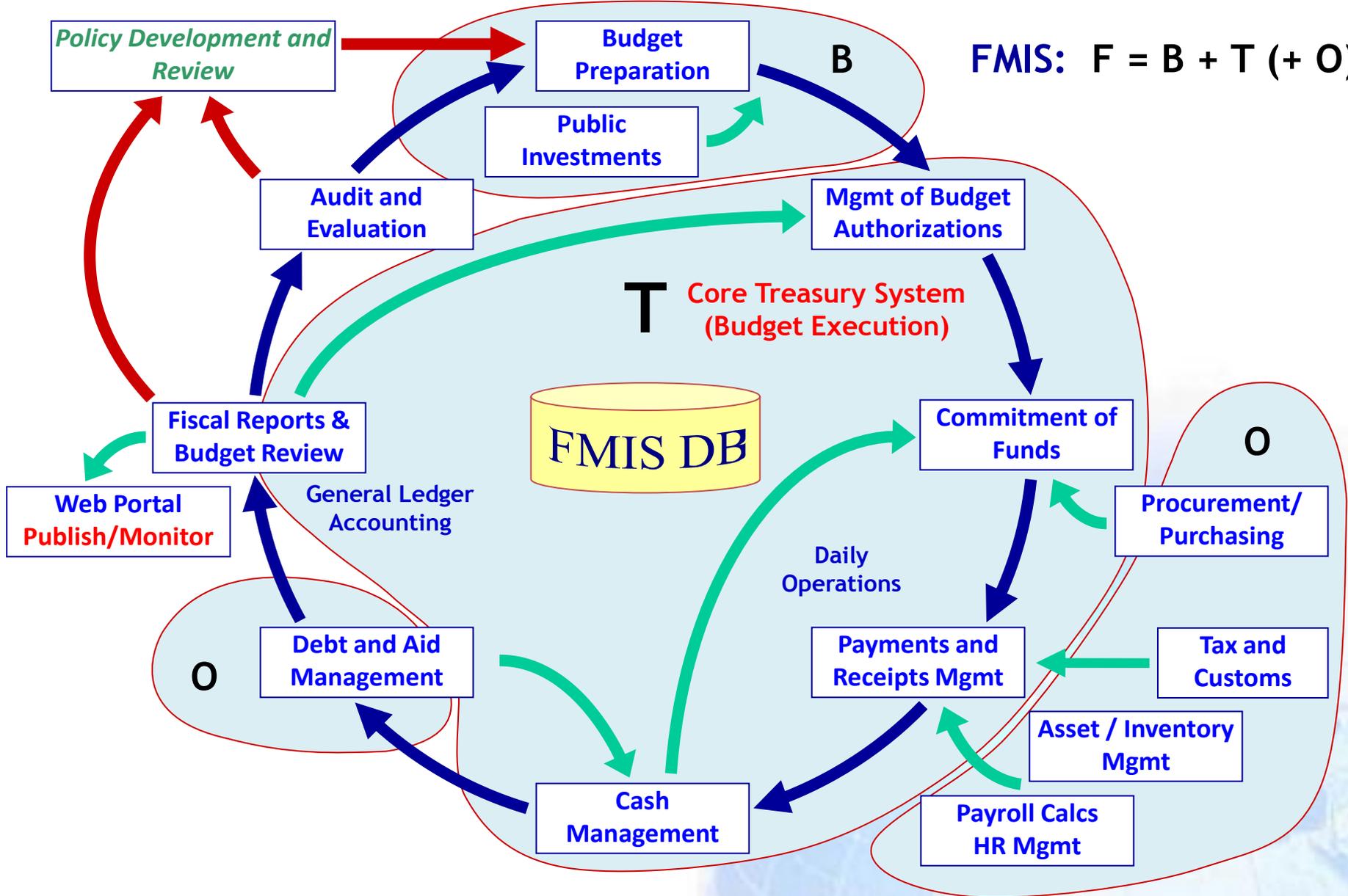
Contents

- **FMIS terminology**
- **FMIS Study: 25 Years of WB Experience on What Works and What Doesn't**
 - Key findings of the study, and FMIS prerequisites
 - Suggested FMIS design & implementation methodology
- **Current status of ECA Treasury/FMIS projects**
- **PEM-PAL Treasury CoP interests**
 - Transition to integrated FMIS solutions
 - Integration of budget and treasury systems
 - Expansion of FMIS capabilities for spending units (web portals)
- **Treasury CoP survey results**



FMIS Modules

$$FMIS: F = B + T (+ O)$$





FMIS Functions

- Macroeconomic Forecasting
- Budget Preparation and Approval
- **Core Treasury System**
 - ▶ Expenditure Management
 - ▶ Revenue Management
 - ▶ Commitments / Purchasing
 - ▶ Cash / Fund Management
 - ▶ Asset / Inventory Management
 - ▶ Accounting (General Ledger)
 - ▶ Financial Reports
- Operational Support for SUs
- Internal Debt Management
- External Debt and Aid Mgmt.
- Personnel Database / Payroll
- Support for Auditing
- Web Publishing (Web Portal)

Common Implementation Options

- LDSW / Existing Models
- LDSW / COTS (including MTBF/MTEF, PBB, PIM)
- COTS (max 10-15% customization)
 - + Interface w banking system (TSA)
 - + Interface w revenue collection
 - + Interface w procurement agency
- LDSW for Spending Units (via Web Portal)
- LDSW / Interface with Debt Mgmt System
- Interface with Debt Mgmt System
- LDSW / COTS
- Custom developed reports
- LDSW

[COTS : “customized” Commercial-off-the-Shelf Software LDSW : Locally Developed Software TSA : Treasury Single Account]



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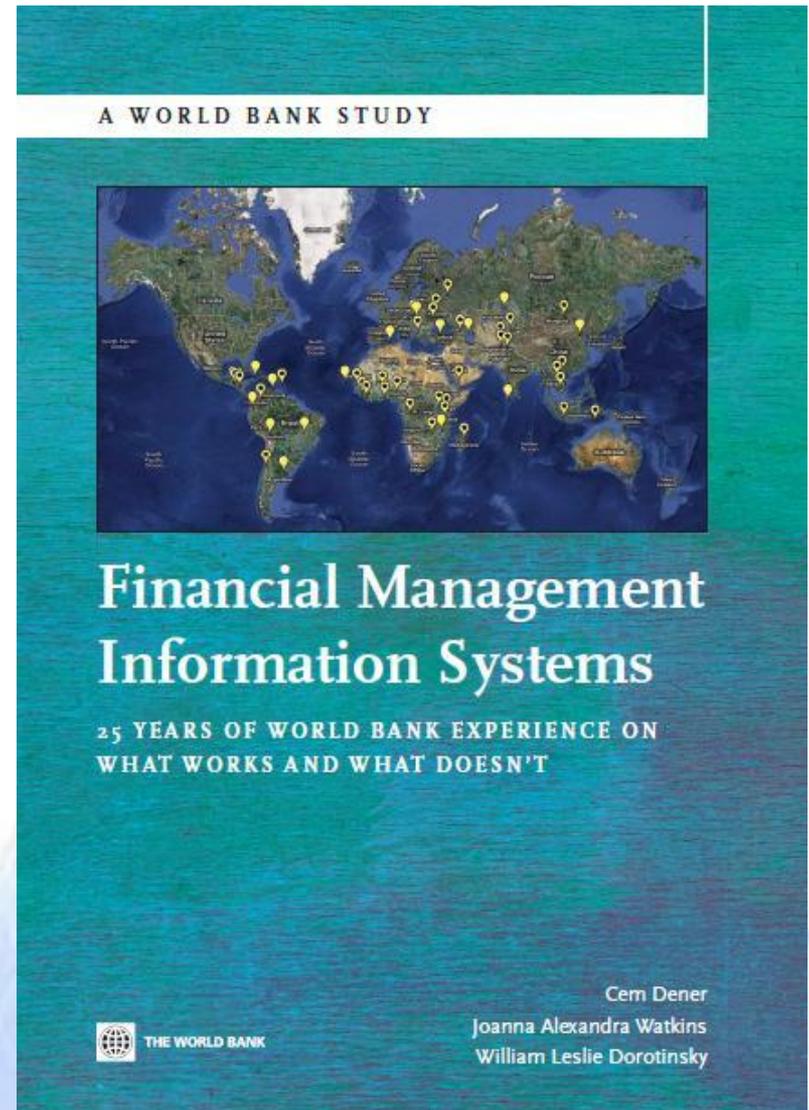
Financial Management Information Systems

25 Years of World Bank Experience on
What Works and What Doesn't

April 2011

Objective

In conjunction with the development of a new World Bank FMIS database in 2010, this World Bank Study seeks to identify trends in the design and implementation of FMIS solutions in World Bank funded projects (1984-2010), and share observed/reported achievements, challenges and lessons learned with interested parties.





WB Funded Treasury/FMIS Projects		Closed	Active	Pipeline	Projects
Africa		13	10	0	23
1	Burkina Faso	1			1
2	Cape Verde	1			1
3	Congo, Democratic Republic of		1		1
4	Gambia, The	1	1		2
5	Ghana	1	1		2
6	Kenya	1	1		2
7	Liberia		1		1
8	Madagascar	1	1		2
9	Malawi	2			2
10	Nigeria	1	1		2
11	Sierra Leone	1	1		2
12	Tanzania		1		1
13	Uganda	2			2
14	Zambia	1	1		2
East Asia and Pacific		4	6	1	11
1	Cambodia		1	1	2
2	China	1			1
3	Indonesia	1	1		2
4	Lao People's Democratic Republic	1			1
5	Mongolia	1	2		3
6	Timor-Leste		1		1
7	Viet Nam		1		1
Europe and Central Asia		7	7	1	15
1	Albania	1	1		2
2	Armenia			1	1
3	Azerbaijan	1			1
4	Georgia		1		1
5	Hungary	1			1
6	Kazakhstan	1			1
7	Kyrgyz Republic		1		1
8	Moldova		1		1
9	Russian Federation		1		1
10	Slovak Republic	1			1
11	Tajikistan		1		1
12	Türkiye	1			1
13	Ukraine	1	1		2

WB Funded Treasury/FMIS Projects (1984-2011)

WB Funded Treasury/FMIS Projects		Closed	Active	Pipeline	Projects
Latin America and Caribbean		26	6	1	33
1	Argentina	2			2
2	Bolivia	3			3
3	Brazil	2			2
4	Chile	2	1		3
5	Colombia	2	1		3
6	Ecuador	3			3
7	El Salvador	1	1		2
8	Guatemala	3			3
9	Honduras	2		1	3
10	Jamaica	2			2
11	Nicaragua	3	1		4
12	OECS countries		1		1
13	Panama		1		1
14	Venezuela, Republica Bolivariana de	1			1
Middle East and North Africa		2	1	0	3
1	Algeria	1			1
2	Yemen, Republic of	1	1		2
South Asia		5	4	0	9
1	Afghanistan	3	2		5
2	Bangladesh		1		1
3	Maldives	1			1
4	Pakistan	1	1		2
54	countries	57	34	3	94



Key Findings of the FMIS Study

- ▶ *The political commitment and ownership of the borrower matter.*
- ▶ *Success depends on adequate preparation.*
- ▶ *FMIS priorities and sequencing should be addressed carefully.*
- ▶ A focus on developing institutional capacity, early in the process, is crucial.
- ▶ FMIS implementation is complex enough to deserve a dedicated project.
- ▶ The type of FMIS solution influences implementation.
- ▶ The presence of an ICT expert in the World Bank Team is important.
- ▶ The total number and complexity of procurement packages influence project duration.
- ▶ FMIS projects disburse late due to large ICT contracts, completed at later stages.
- ▶ ICT related risks need to be clearly identified during project preparation.



Sign FMIS Contracts After These Steps

Functional aspects

- Improvement of budget classification (key segments for funding source, organizational, functional, and economic classifications, program / project / activity codes)
- Development of a unified chart of accounts, integrated with budget (economic) classification
- Improvement of treasury single account operations (moving towards centralized TSA)
- Development of commitment control and monitoring mechanisms
- Establishment of cash management functions

Technical aspects

- Establishment of a secure countrywide communication network
- Preparation of system/data centers

Human resources

- Presence of a core team of ICT specialists within PFM organizations



Using ICT Effectively in FMIS Projects

Some of the instruments that can be used in FMIS projects to improve the reliability, cost effectiveness and accountability of information systems include:

- ▶ Using Electronic Payment Systems (EPS) for all government payments
- ▶ Benefiting from digital / electronic signature for all financial transactions
- ▶ Electronic records management
- ▶ Publishing the budget execution results and performance **monthly** on the web (effective use of web portals)
- ▶ Focus on the interoperability and reusability of information systems
- ▶ FMIS development and project management based on industry standards
- ▶ Using Free/Libre Open Source Software (FLOSS) in PFM applications



Suggested Methodology

FMIS Development Methodology

Years > 0 1 2 3 4 5 6 7 8 9 10

1. Identify the PFM reform needs of the government (What? Why?)



- Assess PFM capacity & practices
- Develop **PFM Reform Strategy**
- Advisory support for PFM reforms
- **Conceptual Design**
- Assistance in PFM capacity building
- Coordination with other donors

2. Develop customized solutions (How? Where? When?)

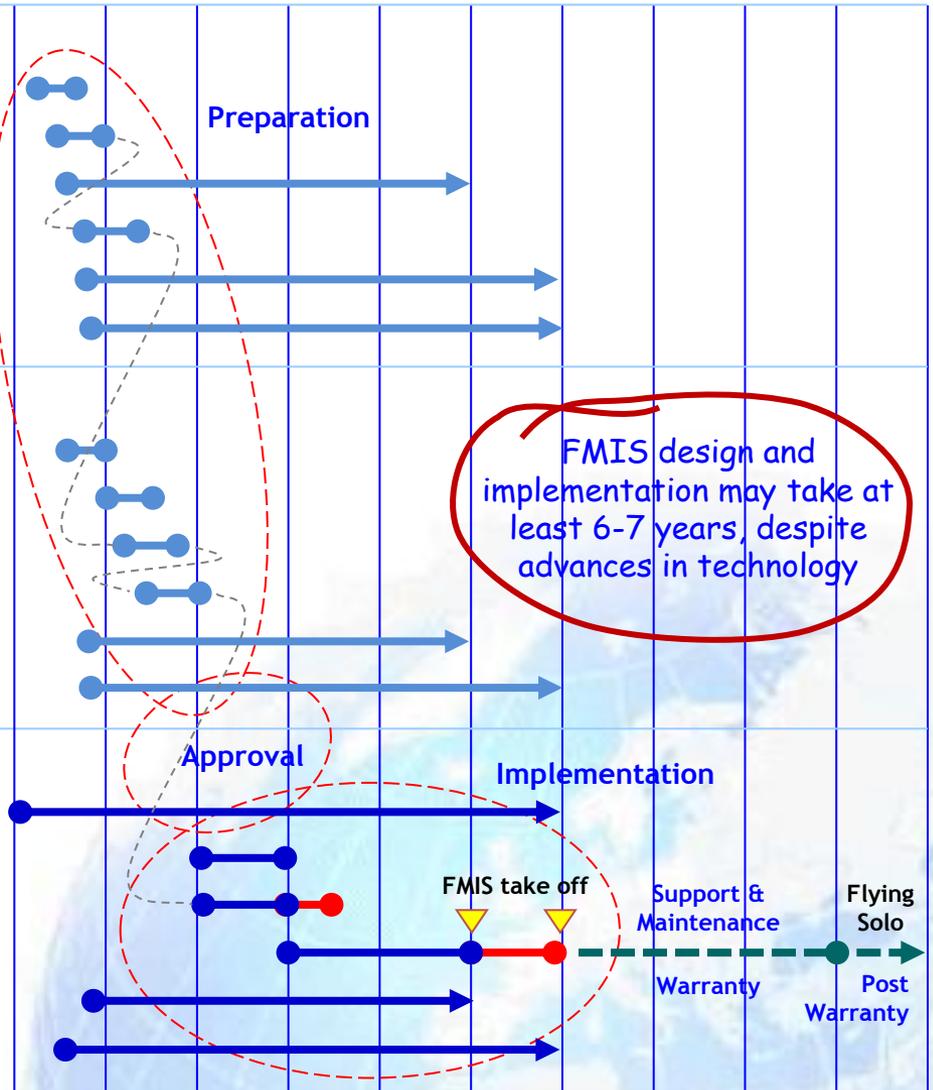


- Assess existing ICT skills & resources
- Develop **ICT/e-Gov Strategy**
- **System Design**
- **Technical Specifications [ICB docs]**
- Assist in technical capacity building
- Coordinate w/ other e-Gov initiatives

3. Strengthen capacity and implement project (Who?)



- Project Mgmt Group (PMG) and PIU
- Establish a countrywide network
- **Procurement of ICT solutions [ICB]**
- FMIS implementation
- Capacity building & change mgmt
- Monitoring & Evaluation





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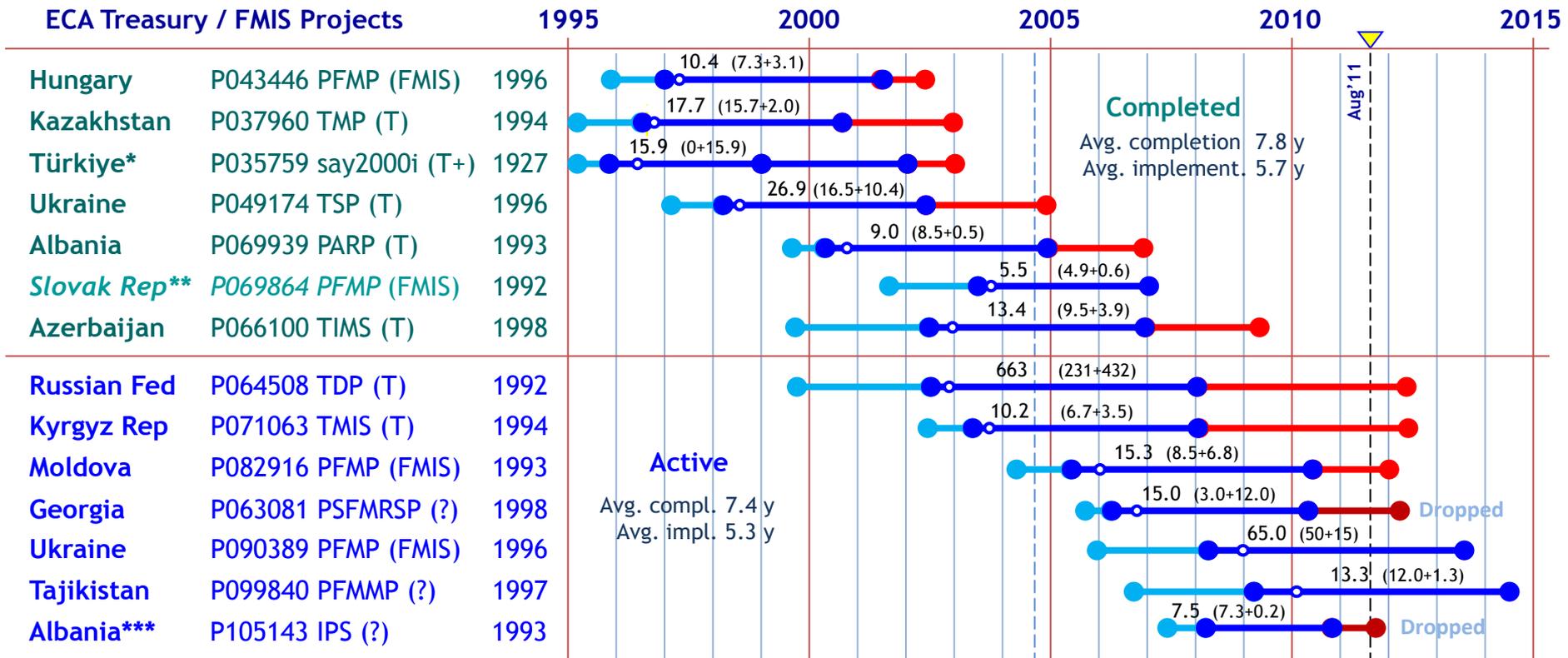
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FMS

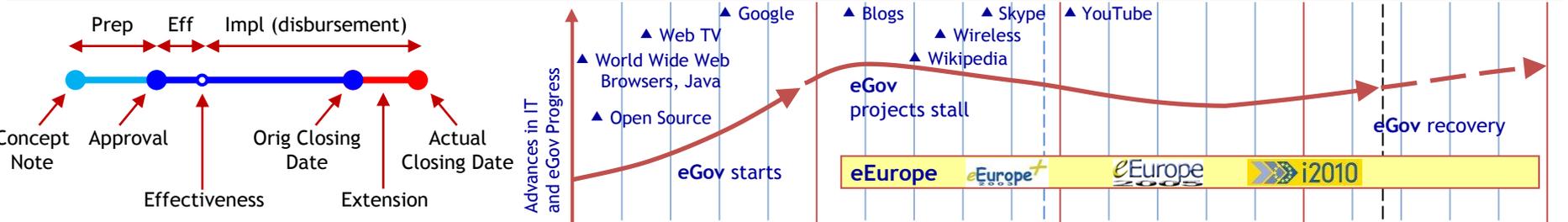
ECA Treasury/FMIS Projects

ECA Treasury / FMIS Projects



Treasury established in ▲

Note: Total project budget (World Bank funding + Gov and other contribution; in USD million) is shown on the bars



* The Bank funded the ICT cons/prj coord of restructured prj

** The Bank funded the TA activities only.

*** Multi-Donor Trust Fund (MDTF)



Summary of Progress in ECA Treasury/FMIS Projects

- ▶ **Albania:** Treasury System operational since Jan 2010. Transition to FMIS postponed (dispute in contract neg). Ongoing EC project for the expansion of Treasury system to selected SUs.
- ▶ **Armenia:** FMIS specs and bidding docs mostly completed. Preparation of a new project is in progress (approval is expected in 2011).
- ▶ **Azerbaijan:** Treasury system pilot tested and is being improved. Delay in the completion of roll-out.
- ▶ **Georgia:** The MoF decided to cancel FMIS procurement after demos. FMIS is expected to be developed based on improved in-house solutions by the MoF.
- ▶ **Kazakhstan:** FMIS design+impl was initiated in 2009.
- ▶ **Kosovo:** Treasury system would be expanded to all districts in 2010.
- ▶ **Kyrgyz:** Delay in FMIS impl (contract signed in 2009). Completion expected in mid 2012.
- ▶ **Moldova:** Delay in FMIS impl (contract signed in 2009). Completion expected in mid 2012.
- ▶ **Russia:** Treasury System roll-out initiated in Jan 2010 (FTAS active in 66 regions) and is expected to be completed in Oct 2011. Transition to integrated FMIS started in 2010.
- ▶ **Tajikistan:** Delay in the improvement of existing information systems, and the decision on FMIS. IT Center established. FMIS is expected to be operational in 2015.
- ▶ **Ukraine:** Delay in FMIS procurement. Contracts are expected to be signed in Nov 2011. Target FMIS go-live date is early 2013.
- ▶ **Uzbekistan:** Delay in FMIS procurement (announced in 2010).



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Transition to Integrated FMIS

► Trends in ECA countries:

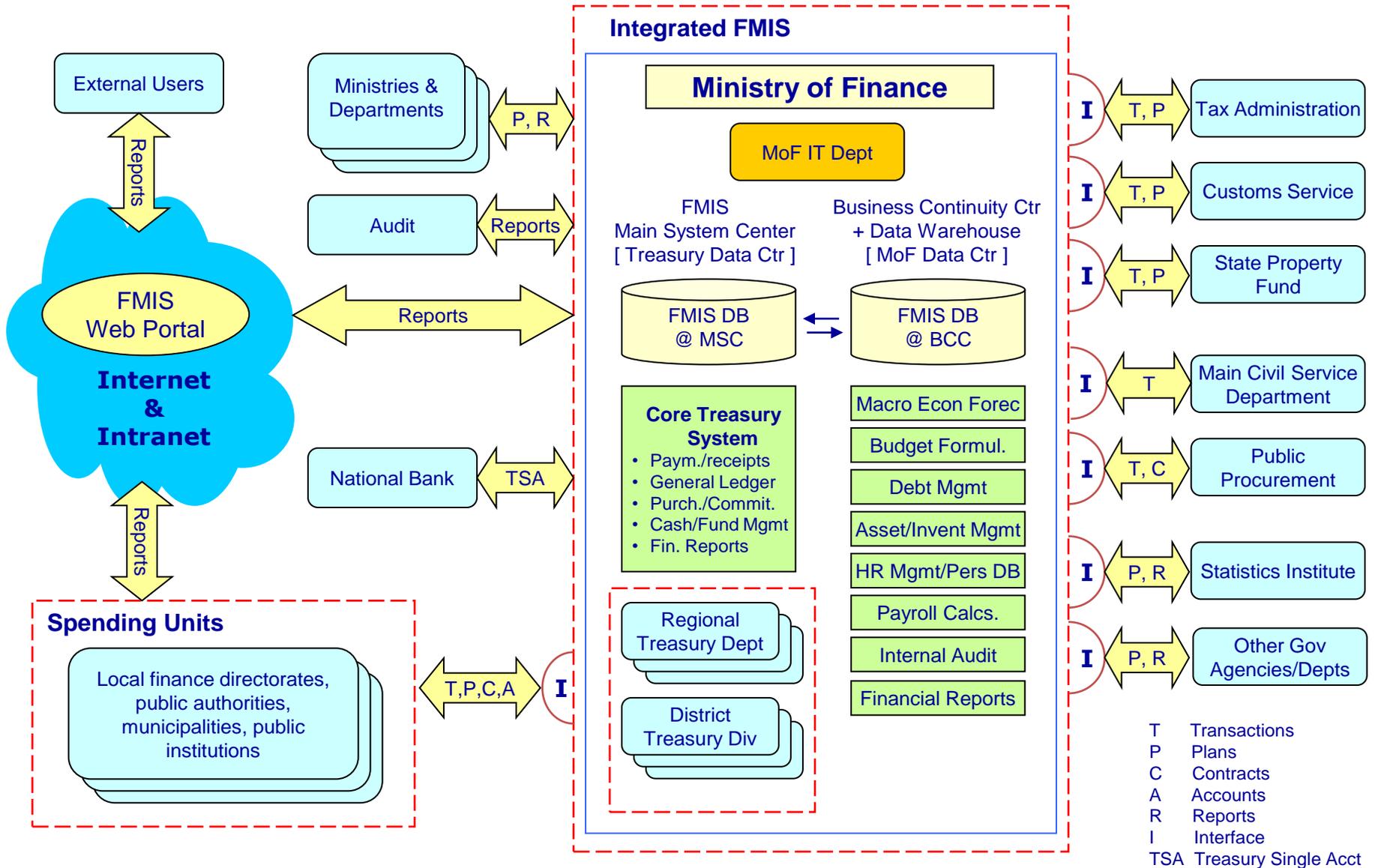
- PFM automation process starts with a core Treasury system, in general
- After successful operation of a countrywide Treasury system for several years, the next natural step is the integration of Budget and Treasury systems
- **B + T** integration includes necessary interfaces for data exchange with external information systems of the line ministries, central bank (and private banks), revenue collection agencies, social security agencies, etc.
- Other (**O**) PFM modules/systems are developed and/or interfaced with these core systems to create an integrated FMIS solution.

► Possible options for the development of integrated FMIS:

1. Gradual expansion of FMIS modules around a core Treasury System
2. Integration of existing in-house developed PFM information systems
3. Introduction of full scale integrated FMIS



An Integrated FMIS Model





Integration of Budget and Treasury Systems

Why?

- ▶ **Budget (preparation) and Treasury (execution) systems are integrated first, to:**
 - ensure effective daily management of budget/treasury operations
 - improve budget performance monitoring and cash/commitment management
 - produce reliable accounting records, and timely, consistent reports
 - improve transparency/accountability (web portals for publishing results)

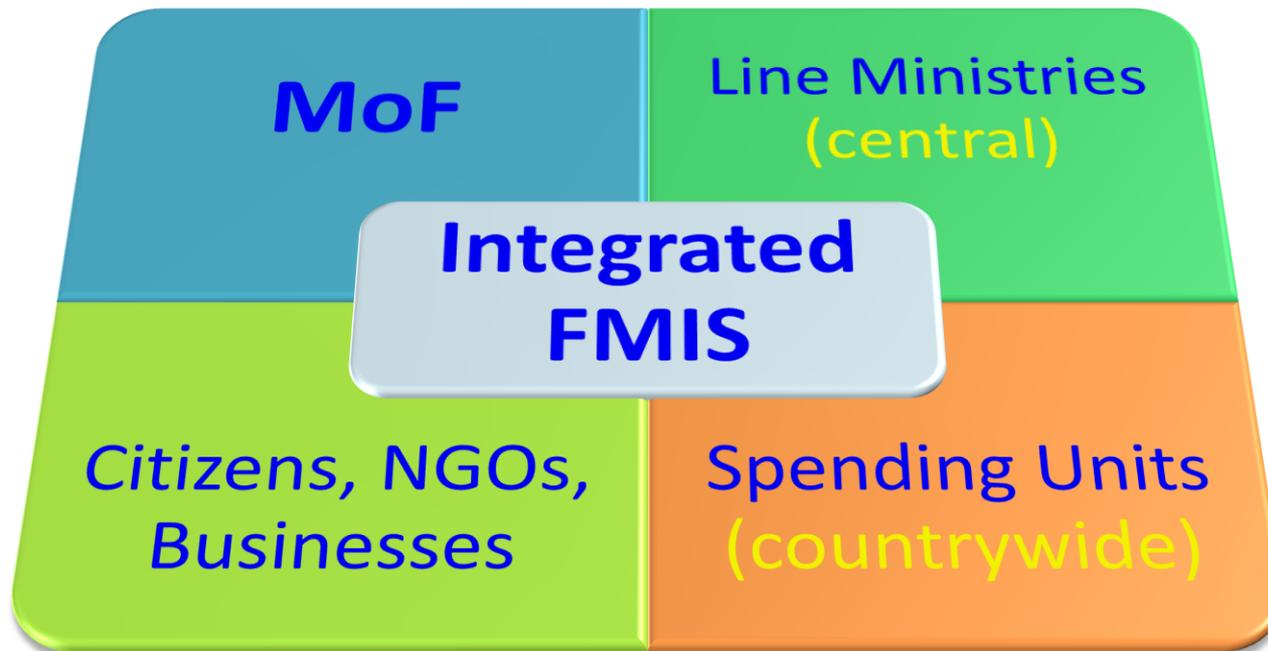
How?

- ▶ **Technical and operational challenges of B+T integration can be reduced by:**
 - properly integrating related application software solutions and databases
 - operating a shared data center and network (servers, network, services etc.)
 - harmonizing budget classification/chart of accounts for all budget levels
 - ensuring adequate secure access to all budget institutions (central and local levels) for planning, execution, monitoring and reporting



Integrated FMIS = Collaboration + Communication

- ▶ Whenever FMIS and other PFM information systems share the same central database to record and report all daily financial transactions, offering reliable consolidated results for decision support, performance monitoring and web publishing, they can be referred to as an ‘integrated’ FMIS (or IFMIS).
- ▶ Integrated FMIS should be accessible to all stakeholders for effective collaboration, coordination and communication.





Support for Spending Unit Operations

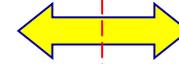
- ▶ Spending Units (SUs) usually perform the following PFM functions, which can be supported through centralized web-based FMIS solutions:
 - Budget preparation
 - Budget execution
 - Accounting and reporting
 - Asset / inventory management
 - HRMIS / payroll
 - Procurement
 - Performance monitoring
 - Other sector specific operations
- ▶ There are two common ways to support SU operations through a centralized web-based FMIS solution:
 - Web portal access (secure connection via Internet or intranet)
 - Direct access (through secure intranet) <<< costly and more difficult
- ▶ Web portals can also be used to facilitate the communication between the SUs and the line ministries/agencies they are subordinated.

Modes of SU operations:

- Manual
- Separate software solutions
- Ministry specific applications
- Connection to centralized FMIS (usually through a web portal)



Web-based FMIS Solution



Database Server

1

Application Servers

2

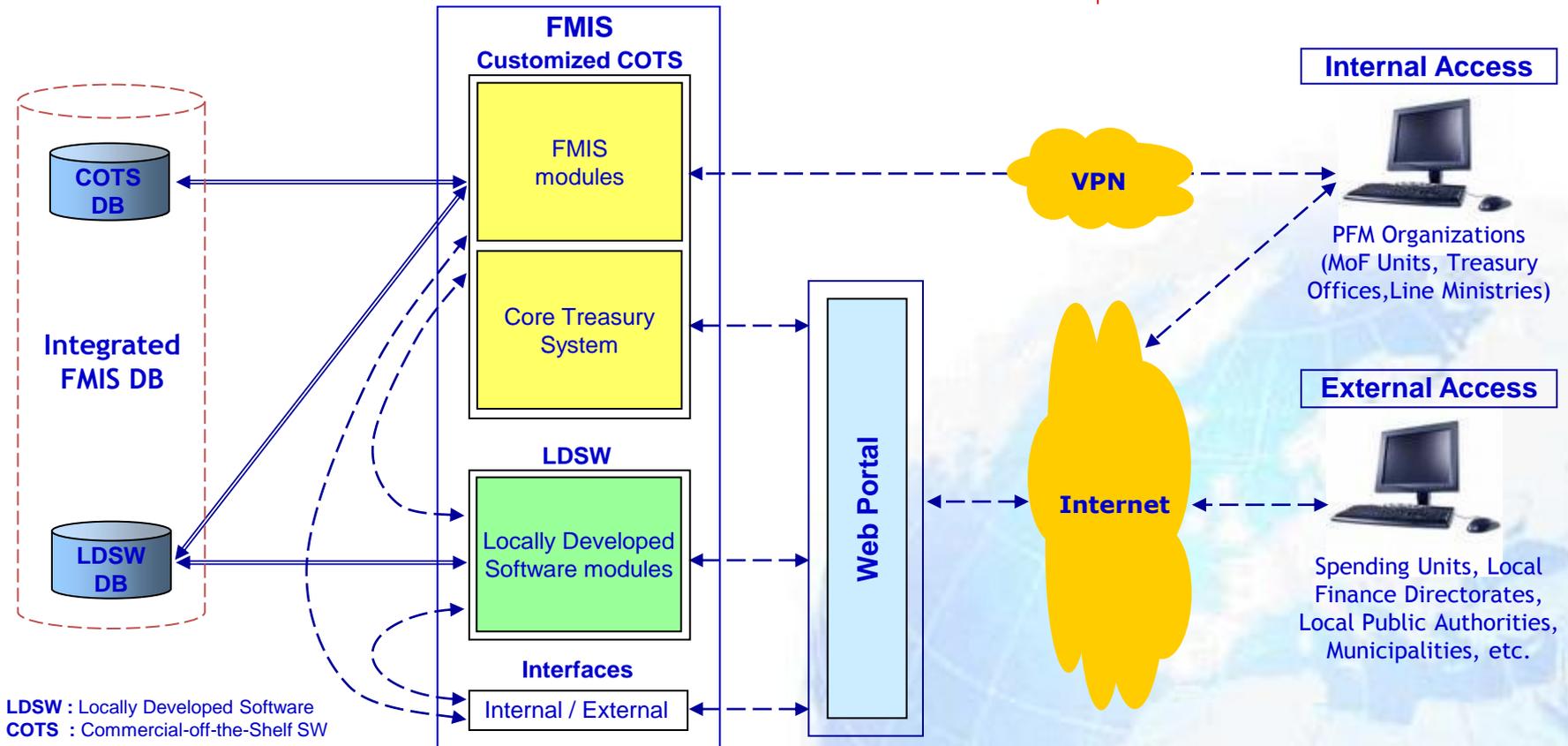
Web Server

3

User Terminals

System Center

Users





How to Provide Secure Access to Spending Units?

- ▶ **Web Portal is the most popular choice to provide cost-effective, secure access to Spending Units with adequate internal controls:**
 - **overall system controls (financial control, accounting control, audit)**
 - **transaction level controls (correct processing, accurate recording, and reliable audit trail)**
 - **user access controls (authentication of all users through user ID/password, token/security key, or other means)**
- ▶ **Web Portal should provide license free access to unlimited number of SU users for PFM operations. Most of the web portals based on open source content management systems provide such opportunities.**
- ▶ **In general, unlimited number of FMIS users with specific roles and responsibilities can be defined. However, only a specific number of system users will have the right for simultaneous (concurrent) access to web based FMIS modules. Such concurrent user licenses are perpetual.**



Security of FMIS Solutions

Secure web-based FMIS solutions should provide the following capabilities:

- creating log files for all transactions (including user and workstation info)
- using digital signature for user identification and authorization
- recording the IDs of all users involved in each transaction
- restricted access to databases and source code
- avoid modification of financial data (except correction transactions of the system)
- detection, reporting, and investigation of unauthorized access to data
- measures to prevent accidental deletion or misuse of data
- a security management system capable of creating user security profiles, and controlling access to data and functions based on these profiles
- single sign-on to provide access to relevant FMIS modules according to authorizations
- limiting the number of unsuccessful/unauthorized attempts for a particular operation
- audit trail (including unsuccessful/unauthorized attempts to access the system)
- establish a secure data center containing all key FMIS components and databases
- establish a business continuity center (for disaster recovery and backup)



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Treasury (Budget Execution)

Systems:

Technology architecture & Current status

Treasury Systems Tech Arch\Status	Operational countrywide	Operational (central level)	Implementation in progress	Designed, not implemented	No Treasury System	Other status	Total
Centralized (web-based)	ALB, ARM, KAZ, RUS, TUR	SRB	KGZ, MDA	UKR		AZE	10
Decentralized (client-server)	BLR, MKD	HRV					3
Not designed yet						TJK	1
Other architecture							0
Totals	7	2	2	1	0	2	14

Budget Preparation

Systems:

Technology architecture & Current status

Budget Systems Tech Arch\Status	Operational countrywide	Operational (central level)	Implementation in progress	Designed, not implemented	No Budget System	Other status	Total
Centralized (web-based)	ALB, MDA, TUR		MDA, KGZ	RUS, UKR			7
Decentralized (client-server)	BLR, KAZ	HRV, SRB					4
Not designed yet					AZE	ARM	2
Other architecture						TJK	1
Totals	5	2	2	2	1	2	14

Treasury and Budget:

Daily data exchange & Sharing a data center

	Daily data exchange	Shared data center
Yes	BLR, HRV, KAZ, MDA, RUS, TJK, TUR, UKR	ALB, BLR, HRV, KAZ, KGZ, MDA, SRB, TJK, UKR
No	ALB, ARM, AZE, KGZ, MDA, SRB	ARM, AZE, MDA, RUS, TUR



Functionality of existing/planned PFM information systems of the MoF/Treasury

FMIS Modules \ System Solutions	Separate Software	A component of FMIS
Macro Economic Forecasting	HRV (P), KAZ (O), KGZ (P), MDA (P), MKD (P), RUS (-), SRB (-), TJK (O)	ALB (O), ARM (P)
Public Investment Planning	KAZ (O), KGZ (P), MKD (P), RUS (-), SRB (-), TJK (O)	ALB (O), ARM (P), BLR (O), HRV (O), MDA (P)
Budget Preparation	KAZ (O), MKD (O), SRB (O), TJK (O)	ALB (O), ARM (P), BLR (O), HRV (O), KGZ (P), MDA (P), RUS (P)
Budget Execution (Treasury) System		
• Management of Revenues	AZE (O), MKD (O), TJK (O)	ALB (O), ARM (P), BLR (-), HRV (O), KAZ (O), KGZ (P), MDA (P), RUS (O), SRB (O)
• Commitments / Purchasing	AZE (O), MKD (O)	ALB (O), ARM (P), BLR (O), HRV (O), KAZ (O), KGZ (P), MDA (P), RUS (P), SRB (O), TJK (P)
• Mgmt of Expenditures / Payments	AZE (O), MKD (O), TJK (O)	ALB (O), ARM (P), BLR (O), HRV (O), KAZ (O), KGZ (P), MDA (P), RUS (O), SRB (O)
• Cash / Fund Management	AZE (O), MKD (O)	ALB (O), ARM (P), BLR (O), KAZ (O), KGZ (P), MDA (P), RUS (O), SRB (O), TJK (P)
• General Ledger	AZE (O), MKD (O)	ALB (O), BLR (O), KAZ (O), KGZ (P), MDA (P), SRB (O), TJK (P)
• Financial Reports	AZE (O), MKD (O), TJK (O)	ALB (O), ARM (P), BLR (O), HRV (O), KAZ (O), KGZ (P), MDA (P), RUS (O), SRB (O)
• Asset / Inventory Management	AZE (O), BLR (O), HRV (O), KGZ (P), MKD (O), SRB (O)	ALB (O), KAZ (O), RUS (P), TJK (P)
Internal Debt Management	ALB (O), AZE (P), HRV (O), KGZ (O), MKD (O), MDA (O), SRB (-), TJK (O)	ARM (P), BLR (O), RUS (P)
External Debt and Aid Mgmt	ALB (O), AZE (P), KGZ (O), MKD (O), MDA (O), SRB (-), TJK (O)	ARM (P), BLR (O), RUS (P)
Personnel Database (HRMIS)	ALB (P), AZE (P), BLR (O), HRV (O), KAZ (O), KGZ (P), MKD (O), SRB (O),	RUS (P), TJK (P)
Payroll Calculations	ALB (P), AZE (P), BLR (O), HRV (O), KAZ (O), KGZ (P), MKD (O), SRB (O),	ARM (P), RUS (P), TJK (P)
Support for Auditing	AZE (P), KAZ (O), KGZ (P)	ALB (O), ARM (P), BLR (P), RUS (P), TJK (P)
Support for Spending Units (web portal)	MKD (P)	ARM (P), BLR (P), KAZ (O), KGZ (P), MDA (P), RUS (O), TJK (P)
Data Warehouse (Mgmt Info System)	AZE (P), MKD (O), SRB (P)	ARM (P), BLR (P), HRV (O), KAZ (O), KGZ (P), MDA (P), RUS (O), TJK (P)

Responses from 11 ECA countries

(O) : Operational/In use

(P) : Planned

(-) : No response



Functionality of existing/planned PFM information systems of the Line Ministries/Agencies

FMIS Modules \ System Solutions	Separate Software	A component of FMIS
Budget Preparation	ALB (O), MKD (O), SRB (O), TJK (O)	ARM (P), BLR (O), HRV (O), KAZ (O), KGZ (P), MDA (P), RUS (P)
Budget Execution (payments/revenues)	AZE (O), MKD (O), TJK (O)	ALB (O), ARM (P), BLR (O), HRV (O), KAZ (O), KGZ (P), MDA (P), RUS (O), SRB (O)
Accounting and Reporting	AZE (O), KAZ (O), MDA (O), MKD (O)	ALB (O), ARM (P), BLR (O), HRV (O), KGZ (P), RUS (O), SRB (O), TJK (P)
Asset / Inventory Management	BLR (O), KAZ (O), KGZ (P), MKD (O), MDA (O), SRB (-)	ALB (P), ARM (P), RUS (P), TJK (P)
Personnel Database (HRMIS)/Payroll	ALB (P), BLR (O), HRV (P), MKD (O), SRB (O)	KAZ (O), KGZ (P), RUS (P), TJK (P)
Purchasing/Procurement	ALB (O), AZE (O), BLR (P), KAZ (O), KGZ (P), MDA (-), SRB (-)	ARM (P), RUS (P), TJK (P)
Performance Monitoring	BLR (P), KAZ (O), KGZ (P)	ARM (O), RUS (P), TJK (P)
Other		BLR (O)

Responses from 11 ECA countries

(O) : Operational/In use (P) : Planned (-) : No response



Mode of Spending Unit information exchange with centralized PFM systems

	Central Level			Regional Level			Local Level		
	Direct	Web Portal	Other	Direct	Web Portal	Other	Direct	Web Portal	Other
ALB Albania	Other: Spending Units do not have access to the Treasury system yet. They execute the budget and take the information regarding their budget execution through treasury districts and GTD.								
ARM Armenia	Information exchange through a Web Portal is in implementation stage.								
AZE Azerbaijan	+								via Local Treasury
BLR Belarus	Other: There are remote work places in budget entities								
HRV Croatia	+					Integrated Solution			
KAZ Kazakhstan		+			+			+	
KGZ Kyrgyz Rep.		+			+			+	
MKD Macedonia	+			+					
MDA Moldova		+			+			+	
RUS Russian Fed.		+			+			+	
SRB Serbia	+								
TUR Turkey		+			+			+	
TJK Tajikistan	Other: All units work in stand alone mode								
UKR Ukraine		+			+			+	

Responses from 14 ECA countries

Direct : Internal access to a centralized system

Web Portal : External access to a centralized system via portal



Survey Results - 5

Spending Unit access (web portal/other) & User authentication options

Responses Countries		Spending Unit Access		Web Portal Functionality	Type of Authentication			
		Web Portal	Other		User ID / Password	Token / Security Key	Other	No Authentication
ALB	Albania		✓		✓			
ARM	Armenia	✓		Budget Execution, Accounts, Procurement		✓		
AZE	Azerbaijan		✓					✓
BLR	Belarus		✓					✓
HRV	Croatia		✓					✓
KAZ	Kazakhstan	✓		Payments, Procurement		✓		
KGZ	Kyrgyz Rep.	✓		Budget Preparation and Execution	✓			
MKD	Macedonia		✓					✓
MDA	Moldova	✓		Budget Preparation and Execution		✓	✓	
RUS	Russian Fed.	✓		Payments, Accounts, Procurement		✓		
SRB	Serbia		✓	Payments, Accounts, HRMIS/Payroll		✓		
TUR	Turkey	✓		Payments, Assets HRMIS/Payroll		✓		
TJK	Tajikistan		✓					✓
UKR	Ukraine	✓		Payments, Assets HRMIS/Payroll		✓		
Totals		7	7		2	7	1	5



Information Security Challenges

Responses Countries	Is there a unit responsible for information security?	Information Security Challenges
ALB Albania	✓	<ul style="list-style-type: none"> ▪ Digital signature ▪ Implementation of separate auditing system ▪ Strengthening secure access in the treasury system during the extension of the TS
ARM Armenia	✓	
AZE Azerbaijan	-	
BLR Belarus	-	<ul style="list-style-type: none"> ▪ Identification of electronic document (удостоверение электронного документа) ▪ Using transmission channels of common use
HRV Croatia	-	<ul style="list-style-type: none"> ▪ Public key infrastructure issues ▪ Data transfer using security certificates ▪ Sharing login data among users
KAZ Kazakhstan	✓	<ul style="list-style-type: none"> ▪ No issues. There are three levels of protection (security) – technical, program, and organizational, which are updated regularly
KGZ Kyrgyz Rep.	-	
MKD Macedonia	-	<ul style="list-style-type: none"> ▪ Defining user roles and program access ▪ Using VPN ▪ Using cryptography for entering the payment orders
MDA Moldova	✓	<ul style="list-style-type: none"> ▪ Delegation of accounts
RUS Russian Fed.	✓	
SRB Serbia	-	
TUR Turkey	✓	
TJK Tajikistan	-	
UKR Ukraine	✓	



User Access Management and Audit Trails

Responses Countries	Is “audit trail” enabled during daily operations?	Is there a unit for managing system user registration?	Are system user roles/access levels defined?
ALB Albania	✓	✓	✓
ARM Armenia	-	✓	✓
AZE Azerbaijan	-	✓	✓
BLR Belarus	✓	✓	✓
HRV Croatia	-	✓	✓
KAZ Kazakhstan	✓	✓	✓
KGZ Kyrgyz Rep.	-	-	-
MKD Macedonia	✓	-	✓
MDA Moldova	✓	✓	✓
RUS Russian Fed.	✓	✓	✓
SRB Serbia	✓	✓	✓
TUR Turkey	✓	✓	✓
TJK Tajikistan	-	-	✓
UKR Ukraine	✓	✓	✓



Monitoring User Access and Segregation of Duties

Responses Countries	Is Segregation of Duties implemented between the development and production environments?	Do you monitor privileged access to information systems?	Is there any periodic role review in place?
ALB Albania	✓	✓	✓
ARM Armenia	✓	✓	✓
AZE Azerbaijan	✓	✓	✓
BLR Belarus	✓	✓	✓
HRV Croatia	✓	✓	✓
KAZ Kazakhstan	✓	✓	✓
KGZ Kyrgyz Rep.	✓	-	-
MKD Macedonia	-	-	-
MDA Moldova	✓	✓	✓
RUS Russian Fed.	✓	✓	✓
SRB Serbia	✓	✓	✓
TUR Turkey	✓	✓	✓
TJK Tajikistan	-	-	-
UKR Ukraine	✓	✓	✓



IT Assessment / Audit

Responses Countries	Has any IT Audit performed (systems & organization)?	Date of the last IT Audit	Framework for planned/completed IT Audit
ALB Albania	Yes	Dec 2009 - Feb 2001	COBIT
ARM Armenia	Planned		
AZE Azerbaijan	-		
BLR Belarus	Planned	2012	ITIL
HRV Croatia	Yes	2005	ITIL
KAZ Kazakhstan	-		
KGZ Kyrgyz Rep.	Yes	May - Jun 2011	IT Security audit
MKD Macedonia	Yes	Mar - May 2011	Internal Control
MDA Moldova	Planned		
RUS Russian Fed.	Planned	2011	COBIT + Other
SRB Serbia	-		
TUR Turkey	Yes	Jun - Aug 2010	COBIT
TJK Tajikistan	-		
UKR Ukraine	Yes	2007	COBIT



Key Information Technology Challenges

Responses Countries	Information Technology Challenges
ALB Albania	<ul style="list-style-type: none"> ▪ Rehabilitation of the Main System Centre (in progress) ▪ Treasury System server capacity increase ▪ Upgrading network and security equipment ▪ IT training
ARM Armenia	
AZE Azerbaijan	
BLR Belarus	<ul style="list-style-type: none"> ▪ Hardware (techniques) existence and backup ▪ Information interoperability (информационное взаимодействие) ▪ Security of information resources ▪ Competence of designers (programmers)
HRV Croatia	<ul style="list-style-type: none"> ▪ Lack of skilled IT staff and inadequate funding for IT systems ▪ Operating different IT systems - exchange of data, more authorization systems ▪ Lack of up to date documentation about existing systems
KAZ Kazakhstan	
KGZ Kyrgyz Rep.	<ul style="list-style-type: none"> ▪ User access , role and password management ▪ Change management
MKD Macedonia	
MDA Moldova	<ul style="list-style-type: none"> ▪ Competence of personnel
RUS Russian Fed.	<ul style="list-style-type: none"> ▪ Integration of fragmented information systems
SRB Serbia	
TUR Turkey	<ul style="list-style-type: none"> ▪ Integration of fragmented information systems
TJK Tajikistan	
UKR Ukraine	<ul style="list-style-type: none"> ▪ Integration of fragmented information systems

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Team Leader: Mr. Cem Dener

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- ▶ FMIS Data Mapper (Aug 2011)



Announcements

@	Title	Modified
	FMIS CoP Meeting #8 in Washington, DC (Sep 12, 2011)	9/8/2011 11:11 AM
	New FMIS CoP external web site	9/8/2011 11:05 AM
	FMIS CoP Meeting #9 (Oct 3, 2011) featuring dBrain from S.Korea	8/21/2011 7:29 PM
	PEM-PAL Treasury CoP meeting in Astana (Sep 27-29, 2011)	8/21/2011 7:24 PM

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Type	Name	Modified	<input type="checkbox"/> Modified By	File Size
Folder	FMIS CoP Meetings	8/20/2011 10:51 PM	Cem Dener	
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Folder	FMIS Knowledge Briefs	8/21/2011 11:13 AM	Cem Dener	
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Subject	<input type="checkbox"/> Created By	Replies	Last Updated
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- ▶ [Software Público Brasileiro](#)
- ▶ [WB Open Data](#)

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FMIS Data Mapper

Colombia ... P106628 [F]
 Last Updated by [Cem Dener](#) 22 minutes ago

Improving Public Management Project
 Status Active
 Team Lead ... Edgardo Mosqueira Medina
 Approval 2009-12-17
 Closing 2012-12-31
 Cost (\$m) 25
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Consolidation of National Public Management Information Systems Colombia

Overview Financial Procurement Implementation & Results News & Related Info

Project ID: P106628 | **Project Status:** Active Abstract* last updated 09-DEC-2009

The objectives of the Consolidation of National Public Management Information Systems Project for Colombia are to solidify and expand the gains achieved by the Borrower under Second Public Financial Management (PFM II) and further improve the transparency, coverage, operation, and interoperability of the Borrower's national public management information systems to allow the Borrower's decision-makers to link performance measures with planning, budgeting, and other managerial actions.. There are ...[More>](#)

Project-At-A-Glance

Approval Date	17-DEC-2009
Closing Date	31-DEC-2012
Total Project Cost**	25
Region	Latin America And Caribbean
Major Sector (Sector) (%)	Public Administration, Law, and Justice (Central government administration) (97%)
	Public Administration, Law, and Justice (Public administration- Information and communications) (3%)
Themes (%)	Macroeconomic management (3%)
	Tax policy and administration (30%)
	Administrative and civil service reform (3%)
	Public expenditure, financial management and procurement (64%)
Environmental Category	C
Bank Team Lead	Mosqueira Medina, Edgardo

Project Goals

To view the project outcomes and goals click [here](#).

Available Project Documents

Procurement Plan (PROP), Vol.1	01-JAN-2010
Project Appraisal Document (PAD), Vol.1	18-NOV-2009
Integrated Safeguards Data Sheet (ISDS), Vol.1	05-OCT-2009

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Related Country Information

To view information on the country where the project is implemented click [here](#).

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