Russia Treasury Development Project Implementation Experience

Head of Treasury of Russia

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Казначейство России

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- General description of Federal Treasury (FT)
- Project as part of budget reforms in Russia
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- Next steps of FT systems development on FTAS basis

GENERAL DESCRIPTION OF

FEDERAL TREASURY (FT)

Overall Project Results

1998 -2000
(start of project preparation)

- No treasury single account
- Spending units accounts opened in commercial banks
- No commitment control system
- Insufficient budget classification with no ability to control expenditures
- Budget revenues and expenditures are accounted by independent agencies
- Many diverse custom developed information systems in FT offices
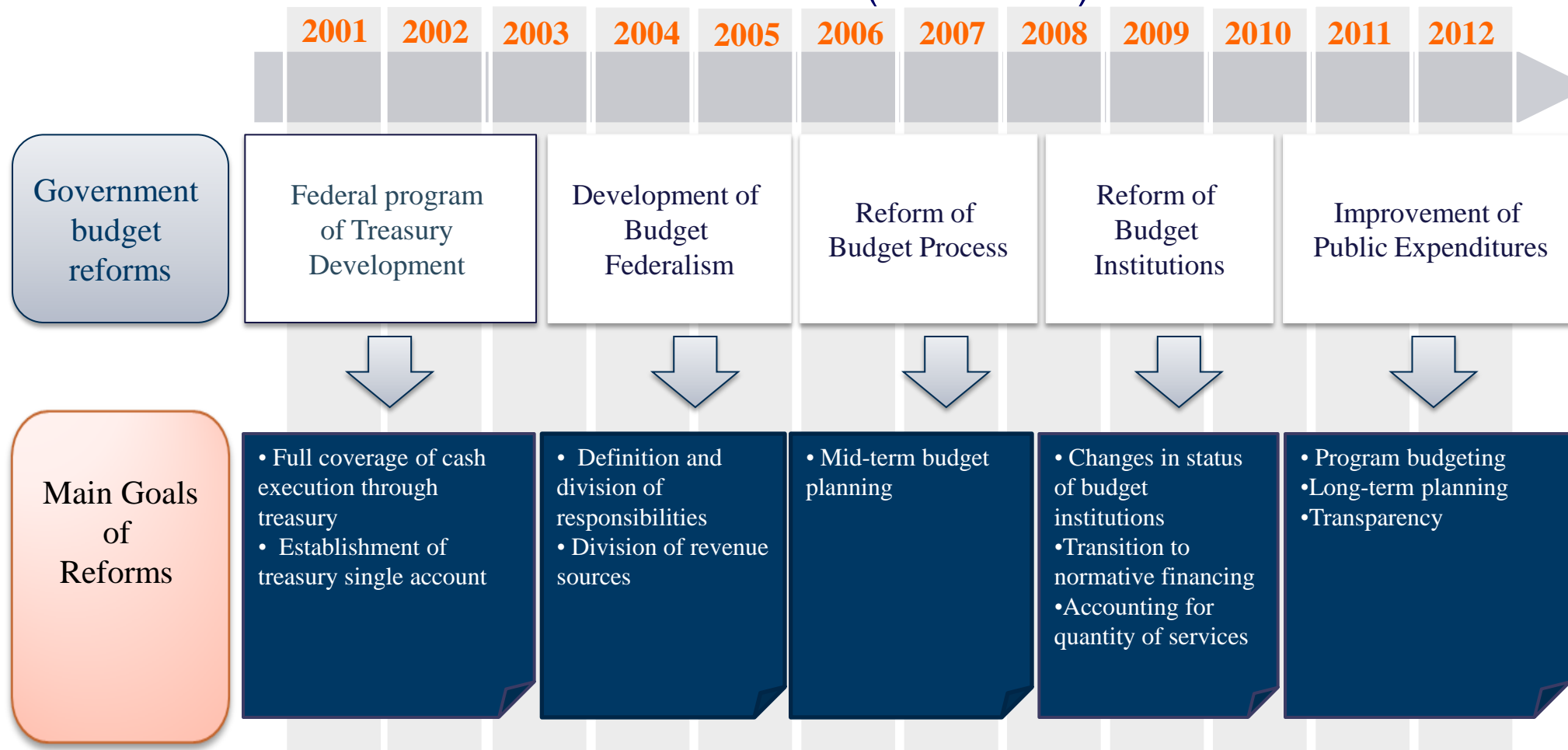- Large balances on budget accounts not used

2011 год

- **Federal Treasury – one of the main agencies of financial management in the country**
- **Operational STA**
- **Unified IT system introduces, transition to the new FT Automation system nearly completed**
- **23 895** budgets being serviced in FT
- **More than 62 000** spending units accounts opened in the Central Bank
- **More than 201 000** FT clients
- **More than 500 000** certificates for electronic signature issued by FT (free)
- **More than 40 000 000** monthly payment transactions (on average)
- **Around $1 trln. (PPP)** of budget revenues accounted by FT
- **Around $233 mln.** of budget revenue from interest on balance of budget funds at STA

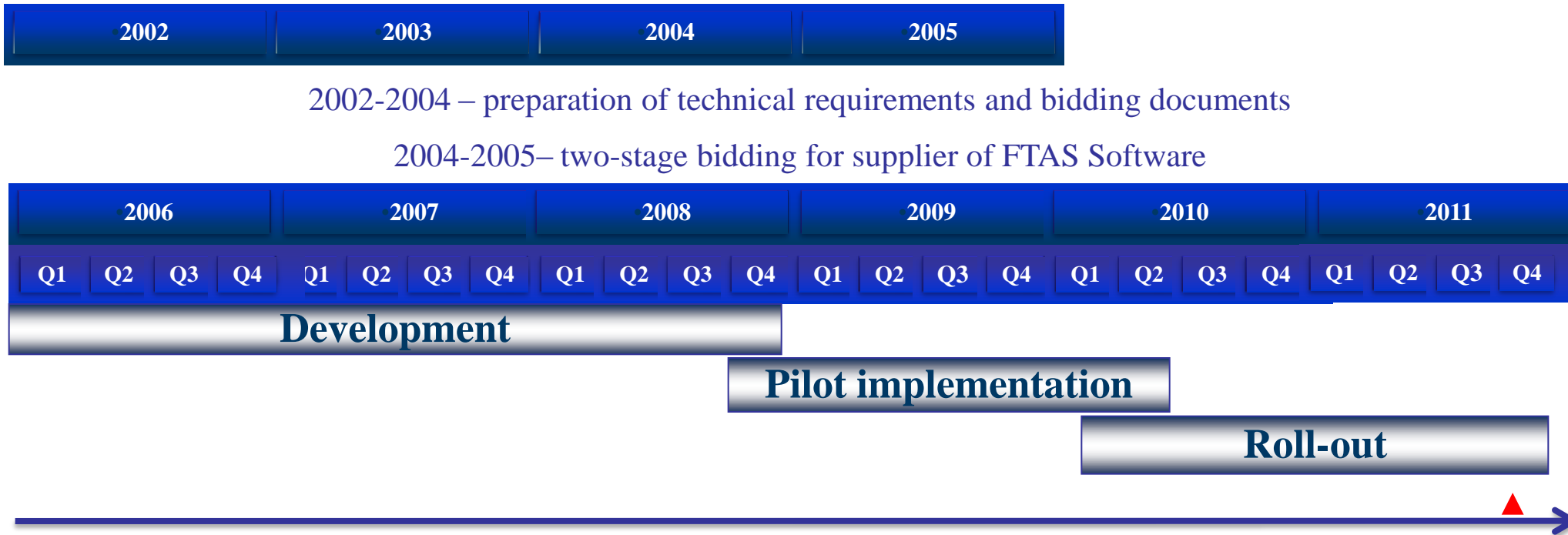# Project as Part of Budget Reforms in Russia

BUDGET REFORMS (2001-2011)

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012

Government budget reforms

Federal program of Treasury Development	Development of Budget Federalism	Reform of Budget Process	Reform of Budget Institutions	Improvement of Public Expenditures

Main Goals of Reforms

• Full coverage of cash execution through treasury • Establishment of treasury single account	• Definition and division of responsibilities • Division of revenue sources	• Mid-term budget planning	• Changes in status of budget institutions •Transition to normative financing •Accounting for quantity of services	• Program budgeting •Long-term planning •Transparency

Creation of new information flows in the public finance management system

Main Stages of FTAS Development

2002	2003	2004	2005

2002-2004 – preparation of technical requirements and bidding documents

2004-2005– two-stage bidding for supplier of FTAS Software

2006				2007				2008				2009				2010				2011			
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4

Development

Pilot implementation

Roll-out

Preparation phase – difficult process of internal comprehension of the system requirements

Development – delays and debates on the design and functionality of the system, changes in legislation

BUT : time spent for preparation of requirements, two-stage bidding, design and development paid off by relatively painless and straight-forward implementation

Main functions and architecture of FT automated system (FTAS)

Key system functions and their interconnection
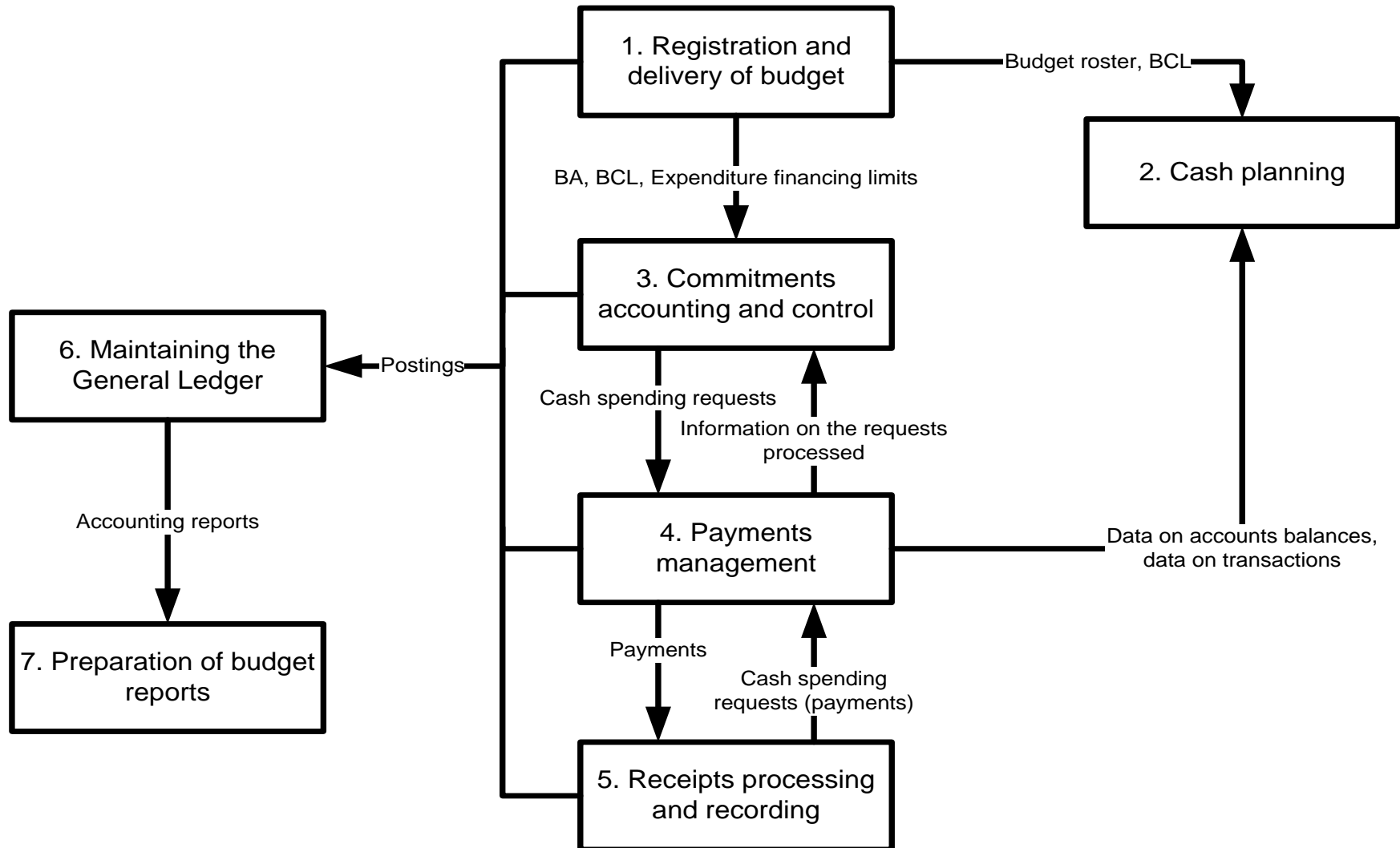
Key FTAS Modules

Planning and forecasting Preparation of reports

- **Oracle Hyperion**
- **Oracle BI Publisher**
- **Oracle Discoverer**

Registration and delivery of budget
Commitments accounting and control
Receipts accounting
Payments management
Maintaining General Ledger
Maintaining reference data

Oracle E-Business Suite в составе:

Oracle Financials

Oracle Purchasing

Oracle Inventory

Electronic workflow, remote workplaces, LTO offline, security server

Remote financial document management system – SUFD

Oracle technological platform

RBMS Oracle 10g EE,

Oracle Developer Suite,

Oracle AS 10g,

Oracle Identity Mgt,
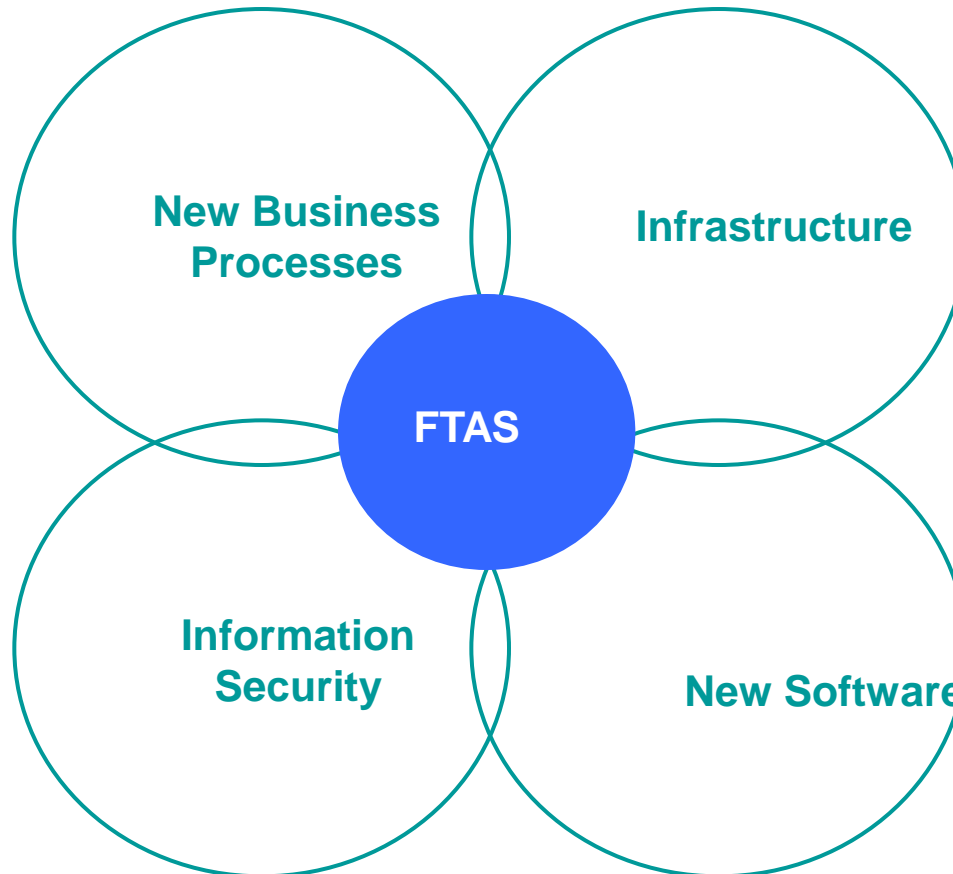
Oracle Essbase

FTAS organizational components
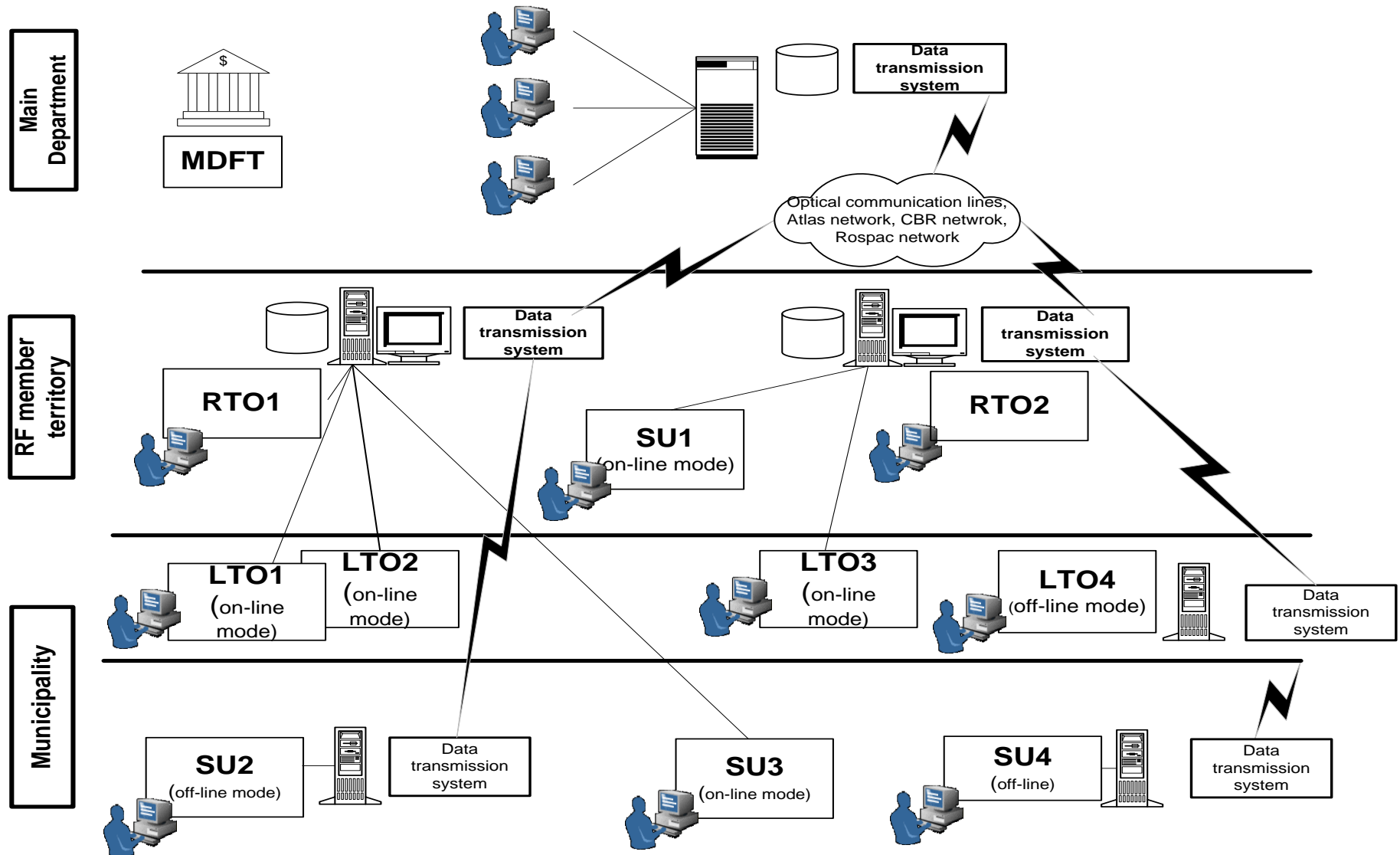
PROJECT INTEGRITY

Comprehensive Design

- Set of measures to improve the methodological base and legal and regulatory framework, training (!)

- Improvement of IT infrastructure (communication system, engineering supports systems, operations monitoring system, server equipment), training (!)

New Business Processes

Infrastructure

FTAS

Information Security

New Software

- Implementation of information protection facilities (hardware and software, organizational and technical measures), training (!)

- Development and implementation of the new unified software, training (!)

KEY PROJECT SYSTEMS
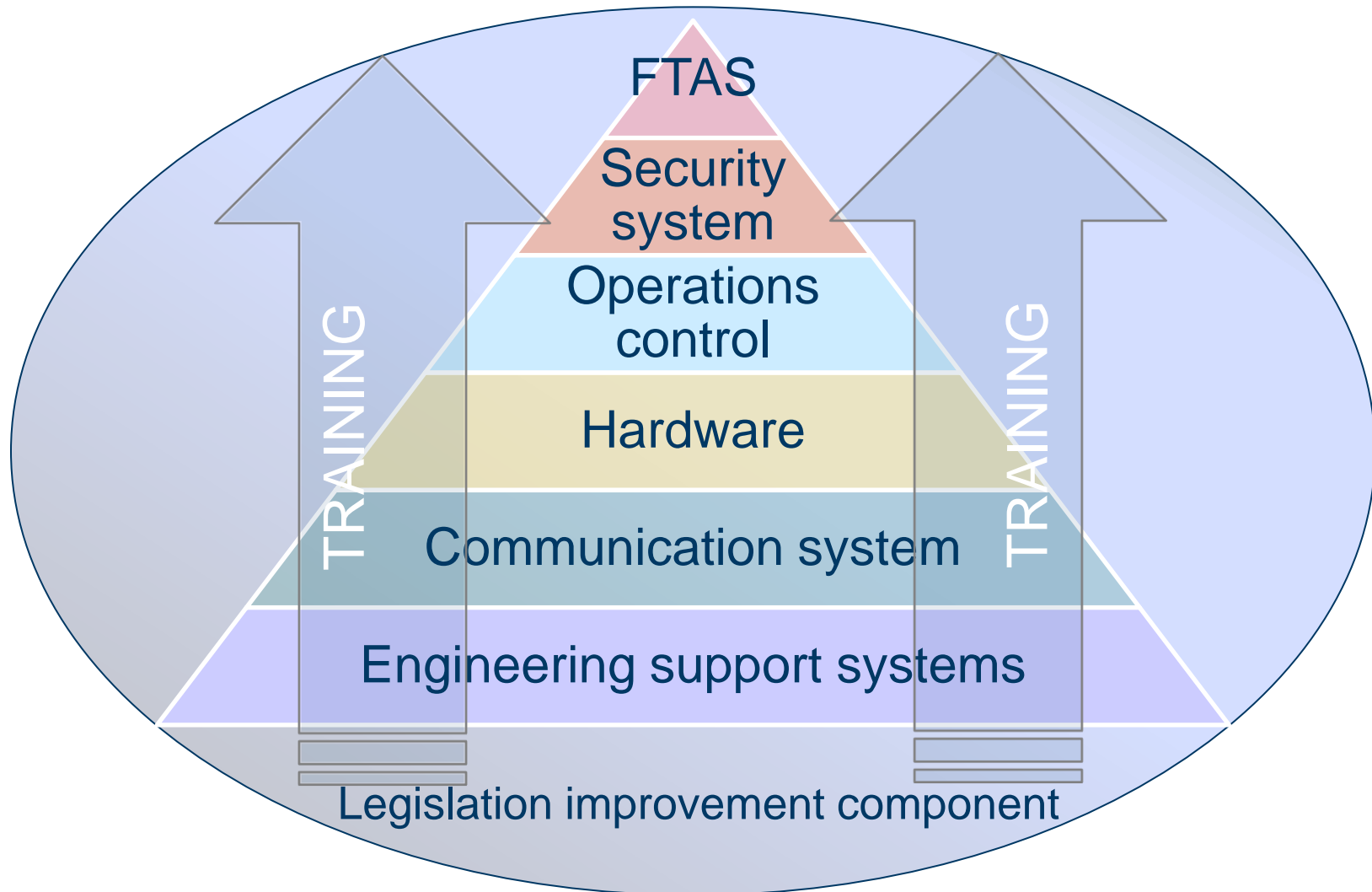
RESULTS OF IFRASTRUCTURE DEVELOPMENT

- FT Communication system fully deployed;

- Engineering support systems implemented in all FT offices;

- Servers and other hardware supplied

- Operations control system practically implemented – monitoring of all hardware performance

FT Engineering Support Systems

Engineering support system fully implemented (completed in 2010)

- **2250 sites (regional and local offices)**
- **From 7 to 12 systems at each site**
- **Power supply (UPS and diesel generators), air conditioning, fire protection, alarm, access control, LAN, telephone, etc.**
- **Implemented with budget financing during 8 years (2003 - 2010)**

FT Communication Network

Development of FT Communication network completed in 2010

- **2272 sites (FT offices across the country)**

- **Channel bandwidth from 256 Kbit/sec to 2 Mbit/sec**

- **Land-based and satellite connections (196 satellite connection with 128 Kbit/sec bandwidth)**

- **Online data transmission and VoIP with controlled quality**

- **Standard address system with the single control center in Moscow**

- **Back-up channels**

- **Data protection mechanisms including separation of data from other network operator clients**

FTAS Hardware

- **Procurement following World Bank rules financed from the loan**

- **High-end server equipment, disk arrays and data storage**

- **Purchased in phases following the roll-out plans for FTAS software**

- **Open international bidding, specifications strictly based on benchmarks parameters**

- **Competition, equipment from different manufacturers used in FT**

Operations Control System

- **Ensure monitoring of all FTAS hardware units**
- **Monitoring of the software state**
- **Allows to outsource IT maintenance services**
- **Allows to control the performance of IT services including outsourced functions**
- **IT service delivery formalized**

83 regional management centers operational
- **22 107 system users registered**
- **Data on 68 817 units of equipment entered into the system (work continues)**
- **More then 450 000 user requests registered in the system since start of operations**
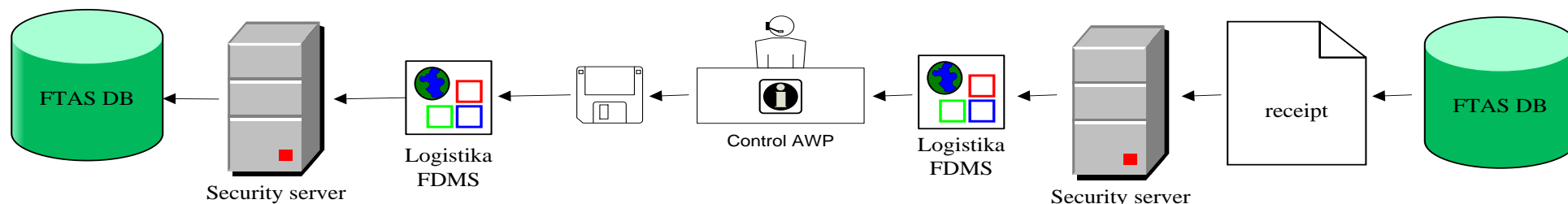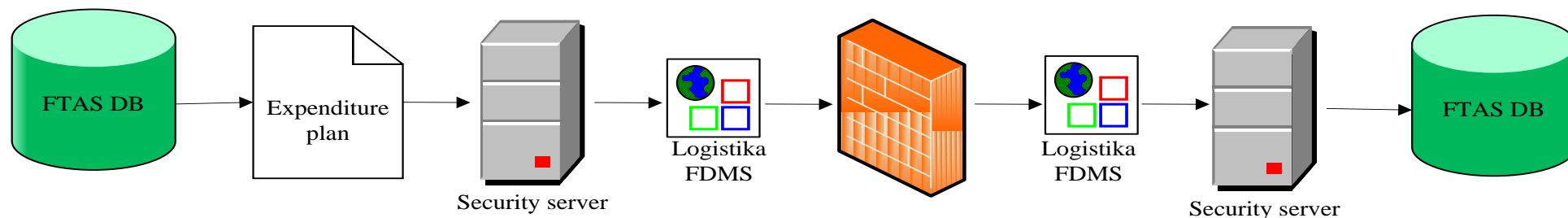
Data Protection in FTAS

- **FTAS security server**
  - **Protection at application level**
  - **Protection of functions and documents of end users**
  - **One center of user authentication, requests authentication and operations audit**
  - **Special working place for security administrator**
- **Digital signature operations**
  - **Establishment of digital signature**
  - **Improvement of digital signature to advanced digital signature**
  - **Confirmation of advanced digital signature**
  - **Deletion of advanced digital signature**
- **Control work place**
  - **Verification of documents and data sent from protected segment to open segment**
  - **Document export to other media**
  - **Register of operations**
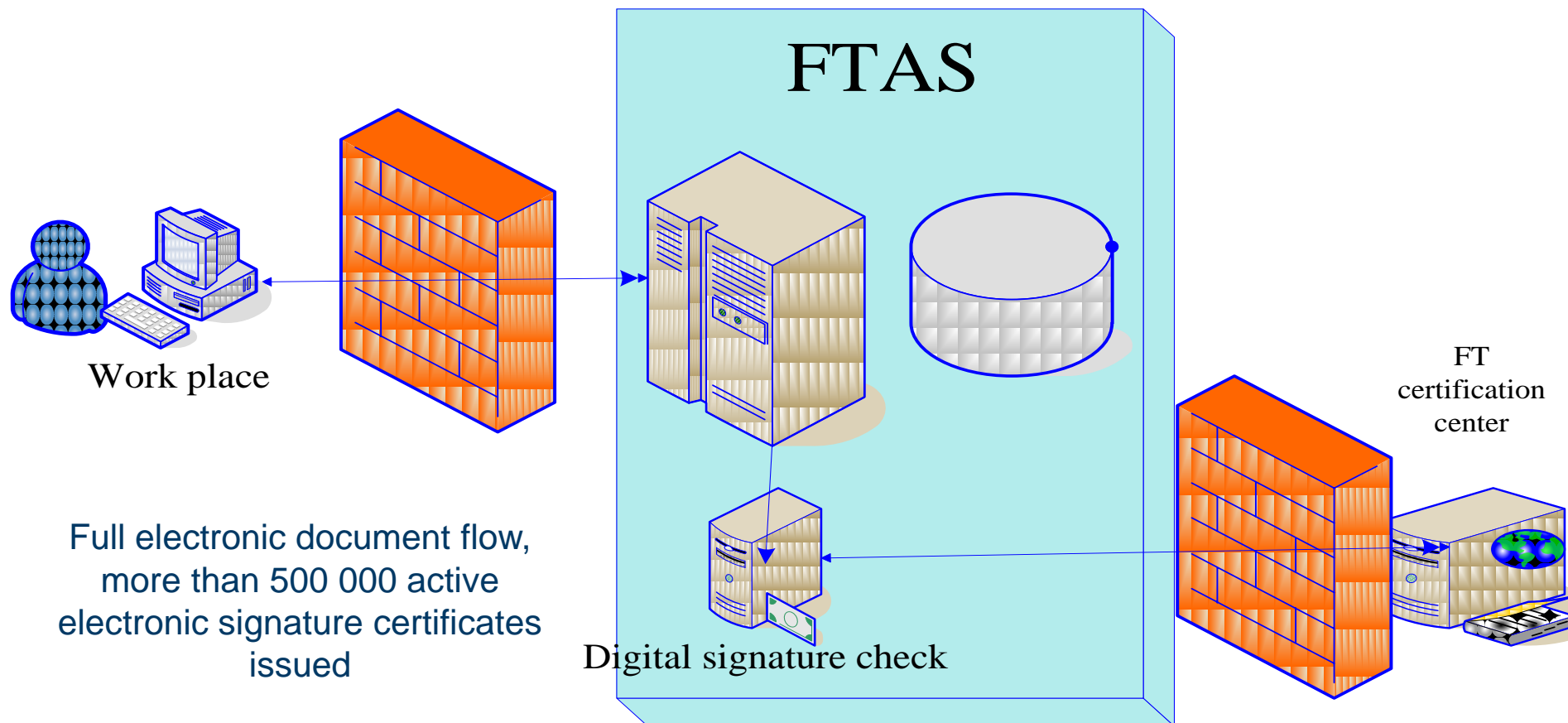
Special architecture for information protection

Open segment   Protected segment
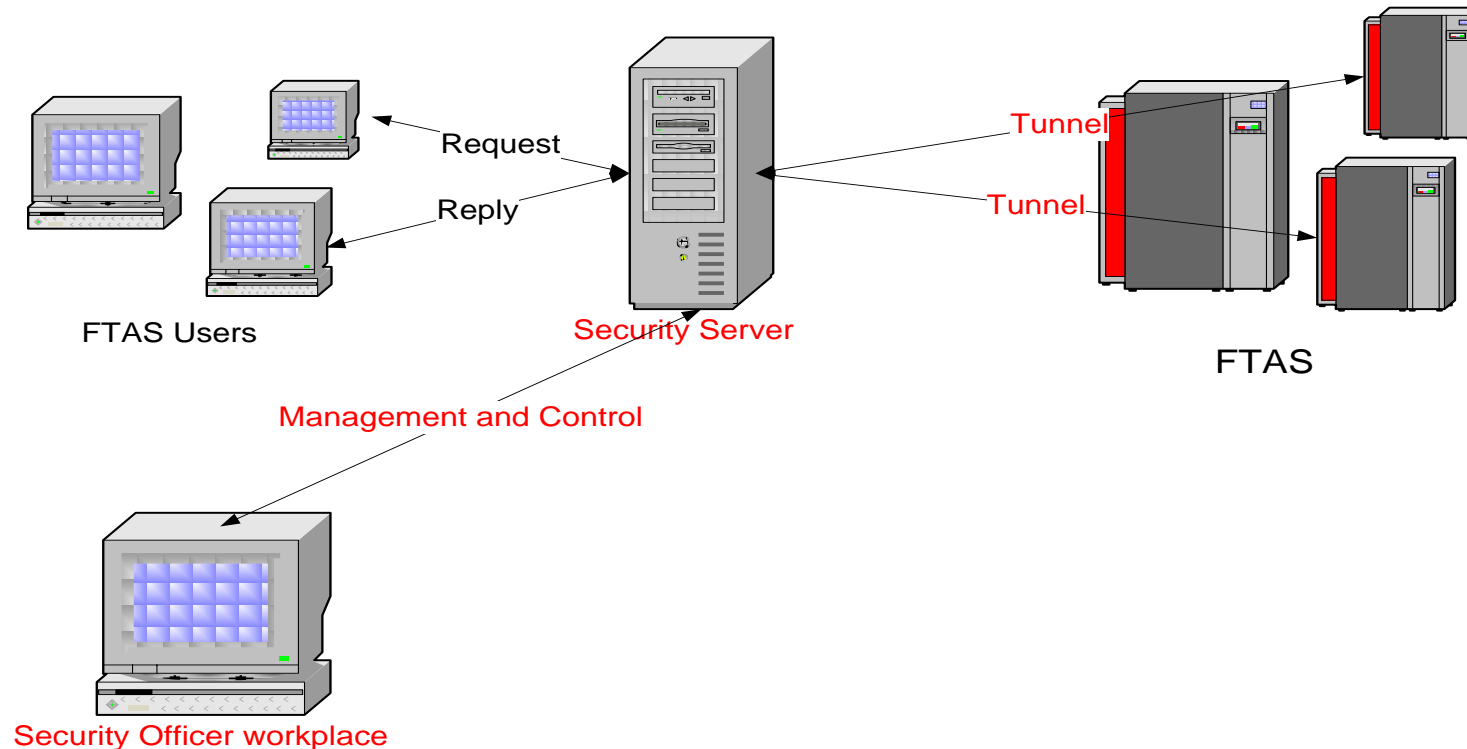

FTAS DB → Expenditure plan → Security server → Logistika FDMS → [firewall] → Logistika FDMS → Security server → FTAS DB

FTAS DB ← Security server ← Logistika FDMS ← [disk] ← Control AWP ← Logistika FDMS ← Security server ← receipt ← FTAS DB

Digital signature implementation

FTAS

Work place

FT
certification
center

Full electronic document flow,
more than 500 000 active
electronic signature certificates
issued

Digital signature check

FTAS architecture for data protection

- **Security server**
- **Digital signature**
- **Control work place**

FTAS Users

Request

Reply

Security Server

Tunnel

Tunnel

FTAS

Management and Control

Security Officer workplace

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Development lessons

Lessons Learned at Development Phase

- Need for thorough development of requirements at the bidding stage

- Regardless of how detailed are requirements, there would be misunderstandings with the supplier at the development phase – need to have conflict resolution mechanisms, need for flexibility

- Need for technical expertise during preparation of bidding documents and for control over supplier (Integrator)

- Need for comprehensive approach to system design – all components are important (positive role of the World Bank)

- Need for realistic planning, expectations control at the top level (initial schedule of FTAS development was unrealistic)

- CONCEPTUAL AND VITAL choice – to change the system for available legal base or change the legal base for available (developed) system

- During development importance of documenting all business processes to have common understanding of functionality between supplier and customer

- Planning and deadlines control for all interrelated tasks – system quality will anyway depend on the weakest point

FTAS Implementation Experience

Overall Look at Implementation Stages

Implementation Stages

• Preparation of Infrastructure (communication,
 engineering support systems, server equipment)
(2006-2008)

• Comprehensive software testing
(end of development) (2008) and system
modification

• Pilot implementation (3 regions) - 2009

• Roll-out (5 waves) – 2010-2011 года

Pilot regions
Rollout wave1
Rollout wave2
Rollout wave3
Rollout wave4
Rollout wave5
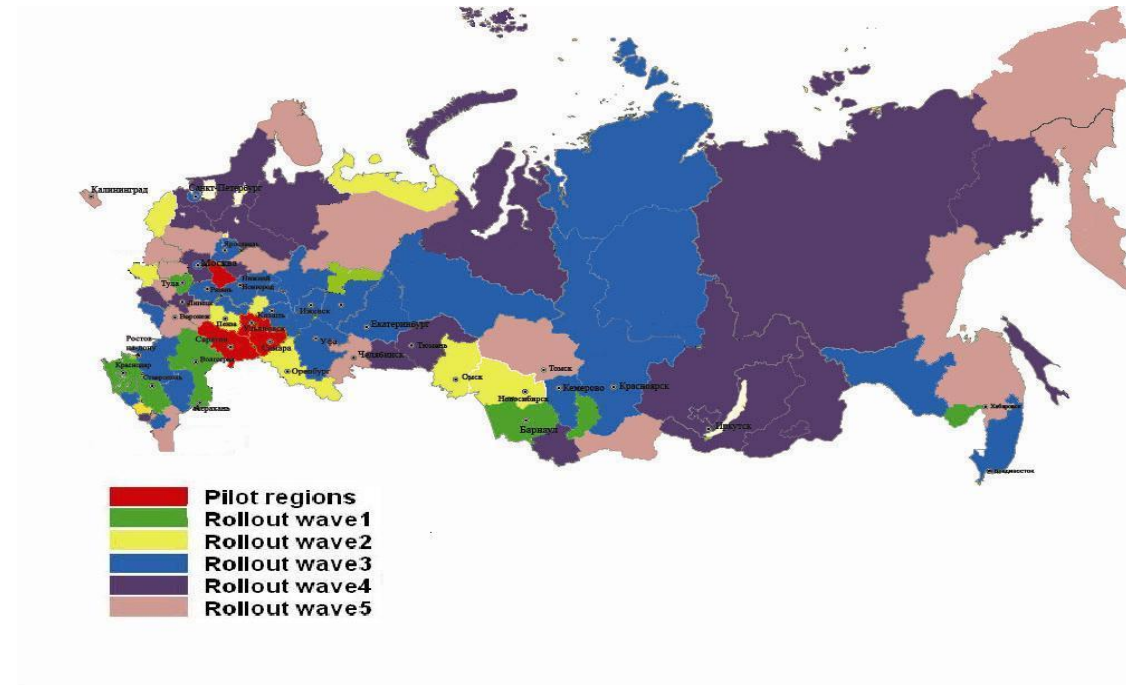
Implementation Challenges

• Need to ensure continuous and high-quality service for FT clients

• Changing legislation (MOF moratorium only for one year)

• Shift from decentralized system (more than 2 500 databases) to centralized (83 regional databases of the same
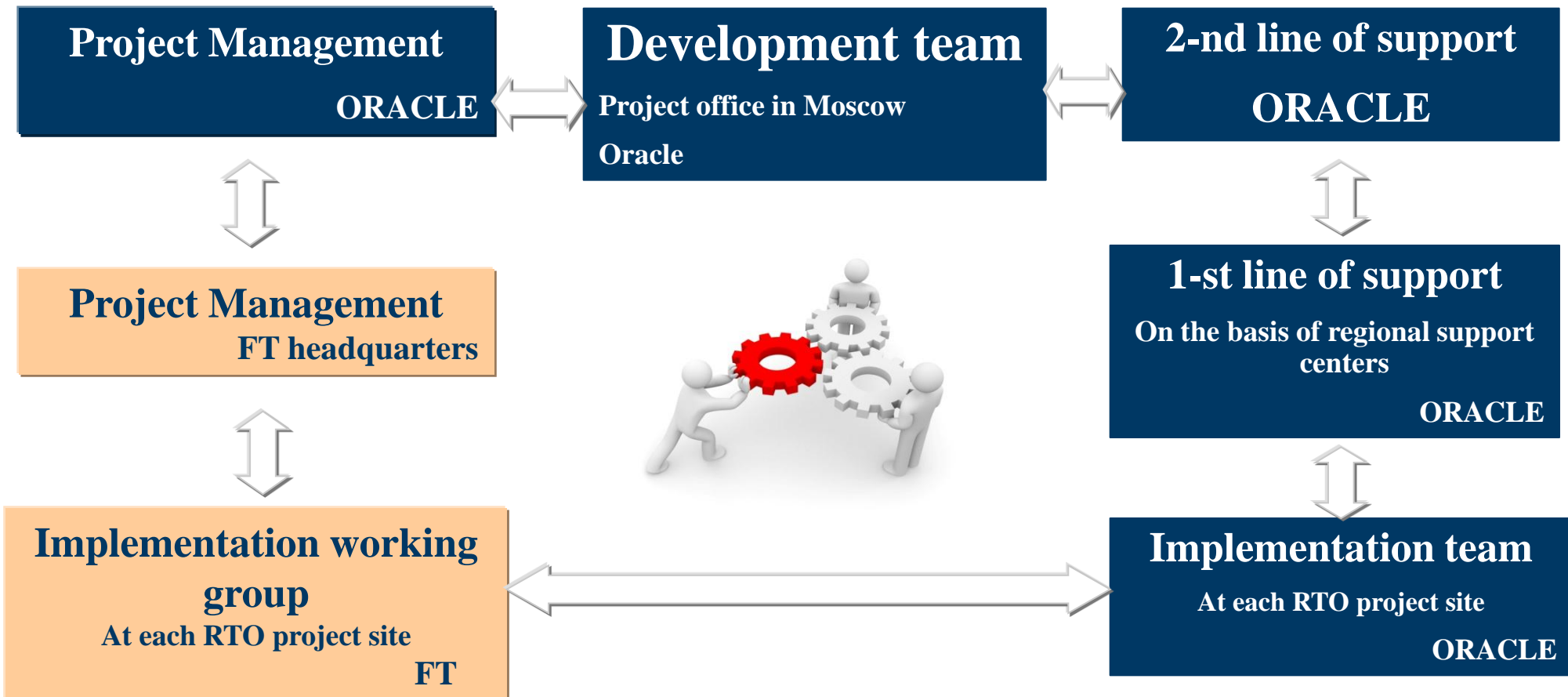structure)

Ensuring Smooth Implementation

2003	Conceptual design of new business processes
2005	Transition to standard software (decentralized databases)
2007-2009	Constant implementation of new business processes related to new legislative base (in parallel in old and new systems)
2009	Pilot testing of new software, issues with data quality, special arrangements on its improvements
2010-2011	Transition to new unified FTAS

Importance of Proper Support from the Supplier and Proper Interaction with the Client

| Project Management **ORACLE** | Development team — Project office in Moscow, Oracle | 2-nd line of support **ORACLE** |

Project Management — FT headquarters

Implementation working group — At each RTO project site — FT

1-st line of support — On the basis of regional support centers — **ORACLE**

**Implementation team** — At each RTO project site — **ORACLE**

Importance of Pilot Implementation

- Difficulty to make a decision to stop development and start testing in the field
- 3 regions, parallel run of the new system (supported by Supplier) and heritage system
- First – test cases, then shift to real data
- Don't be afraid – many errors inevitable (hundreds at the start of pilot testing), need to have correction procedures
- If shifting from decentralized system to centralized system, quality of data is of vital importance
- Need to change many business processes (RTO now operating as really unified organization)
- Need and importance of training
- Pilot operation (two systems work in parallel with real data) to prove adequacy of the new system
- Political will to stop heritage system

Importance of Planning and Integration

- Planning – work plans for each contract, each site, integrated implementation plan for the project

- Procedures, operational documents – key to successful roll-out (industrial approach)

- Coordination of activities of different contractors at each site

- Risk analysis for each site, weak point identification
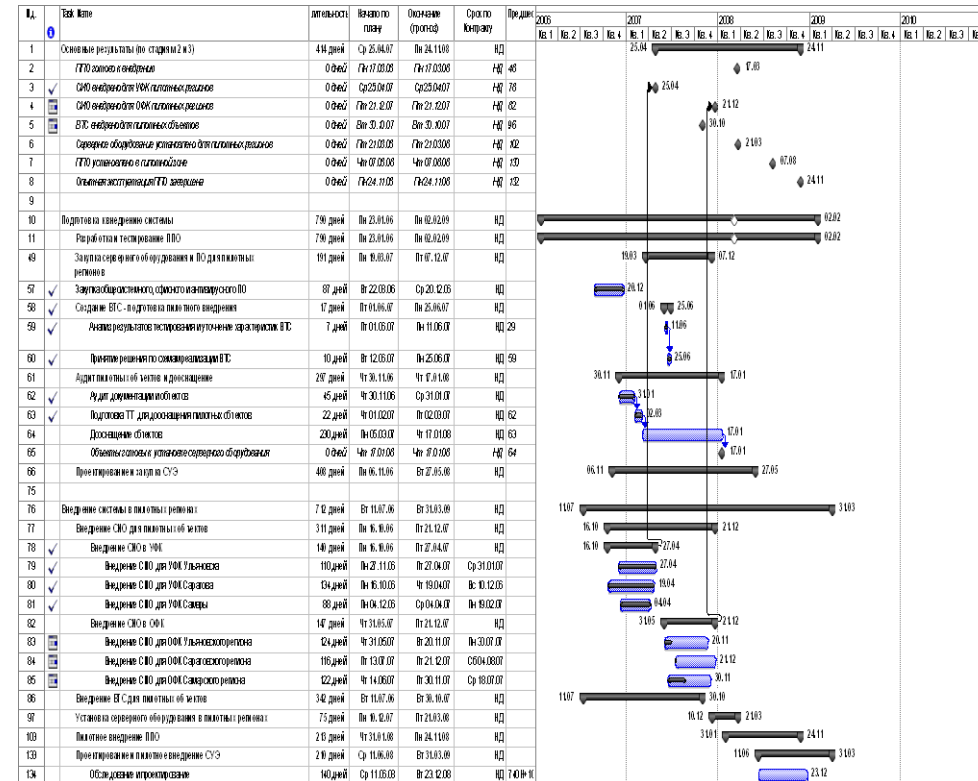
System roll-out

5 waves of roll-out, 10-15 regions in each wave, clear schedule off roll-out with identical set of activities, separate team from supplier at each region working together with the implementation team of RTO

1. Preparatory activities
2. Installation of Application SW and users' automated WPs
3. Data entry/migration
4. Training of key users
5. Comprehensive testing
6. Testing operational days
7. Training of remaining users
8. Testing run (at the pilot sites)
9. System go live

Current Status

5 waves of roll-out completed (83 regions)
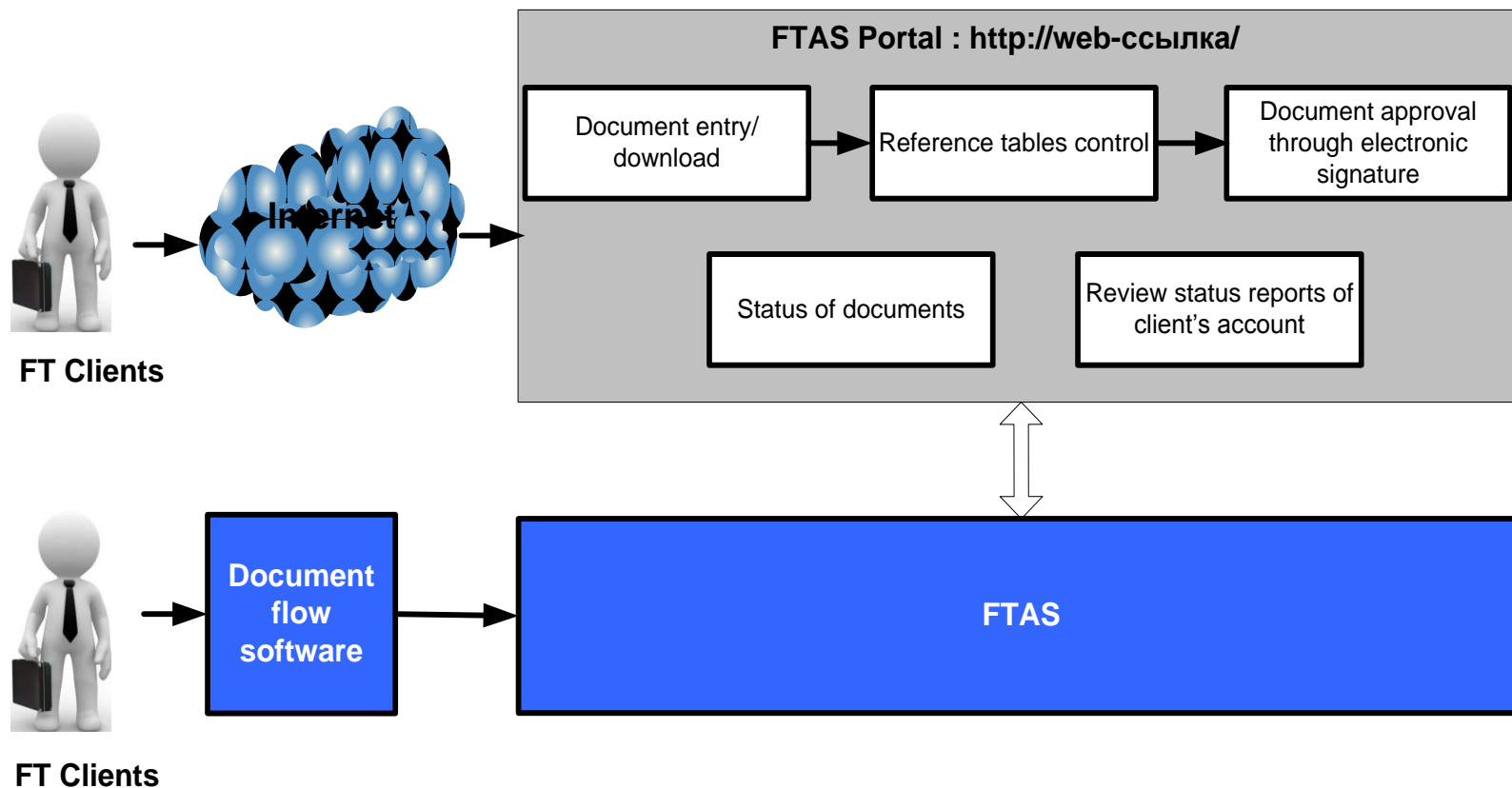
Headquarters system would be completed till November 2011
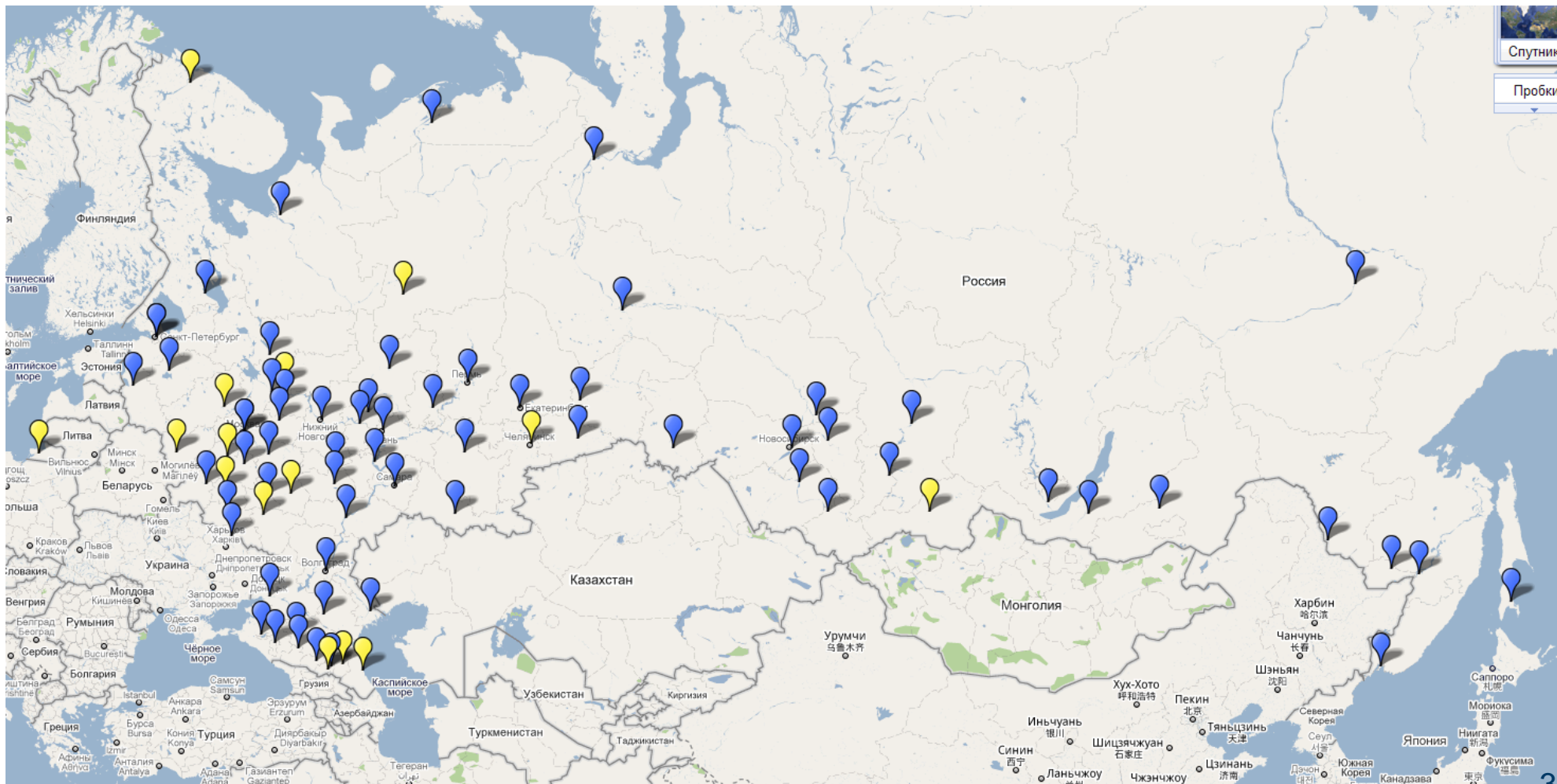
FTAS Portal (SUFD-online) and its implementation experience

Interaction between users and FTAS: portal and document flow system

FTAS Portal : http://web-ссылка/

| Document entry/ download | → | Reference tables control | → | Document approval through electronic signature |

Status of documents

Review status reports of client's account

FT Clients

Internet

Document flow software

FTAS

FT Clients

Implementation of FTAS Portal

FTAS						
	4th wave 21 RTO			5th wave 17 RTO		

	June	July	August	September	October	November

| Portal | 1st wave 22 RTO | 2nd wave 13 RTO | 3rd wave 19 RTO | 4th wave 26 RTO | | |
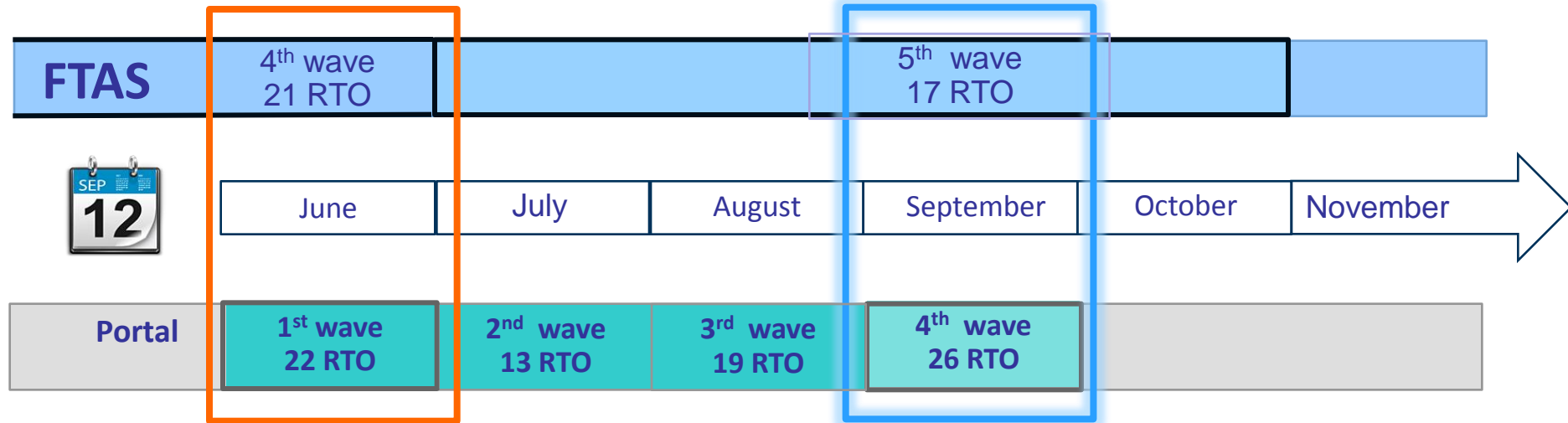
Total: 79 RTO in 4 months.
Implementation period for one wave – 1 month, based on standard implementation schedule.

Portal wave 1 – 22 RTO (including 21 RTO of FTAS wave 4).   **Completed**.
Portal wave 1 – 13 RTO .   **Completed**.
Portal wave 1 – 19 RTO .   **Completed**.
Portal wave 1 – 26 RTO (including 17 RTO of FTAS wave 5).   **Under implementation.**
(2 RTO completed)

FTAS Portal. Major Accomplishments

Pilot regions are successful increase of end users for portal operations.

Pilot RTOs	Number of portal users (SU)		
	During portal implementation	Added by RTO after completion of implementation	Total
Vladimir oblast	100	120	220
Tula oblast	34	148	182
Krasnodar krai	34	1242	1276

During portal implementaiton, 57 regions are connected, 561 SU operating through portal

Wave 5 under implementation, most regions completed training and starter to connect SU to Portal

Implementation going on in the following regions of FTAS implementation wave 5:			
Dagestand	Chechen republic	Kamchatka	Oryol
North Osethia	Voronezh	Kostroma	Chukotka
Komi	Kaluga	Murmansk	Smolensk
Tyva	Kaliningrad	Tver	Tambov
Chelyabinsk			
Including the following other regions of FTAS portal implementation wave 4:			
Adygeya	Bryansk	Nenetsky okrug	
Bashkortostan	Saratov	Novosibirsk	FT HQ
Kalmykia	Altai	Moscow city	

FTAS Portal Advantages

Speed
Implementation is done quicker and with smaller implementation team

No visit to the client
Client (SU) can install necessary software itself

Precise time
Any region can be completed within a month regardless of number of users

Lower risks
No database at the client's computer – less local mistakes

Lower maintenance costs
Unified setup leads to easier and cheaper system maintenance

Portal Functionality

Availability
User can work with documents from any place (notebook)

Immediate document transfer to OeBS
All registers are updated automatically

Reliable documents storage
All documents are stored on reliable RTO servers, no need for additional back-up

Ease of operation
No need to:
- Install and update additional SW (document flow system)
- manually update registers
- create special workplaces for authorized users

Scalability
No limits on number of users. All users can work simultaneously

Standard setup for all clients.
Low technical requirements for end user equipment

Better system protection with portal solution

Document with digital signature and is stored as is (with clients' digital signature)

Same principals as with any digital signature :
▪1 user – 1 digital signature
▪ Lower opportunities for the same person to use several digital signatures

Documents are not stored at local computers/servers of spending units, less risks for unauthorized access to data.

Work with the RTO system is managed by safe VPN connection. No information interception is possible.

Next steps of FT systems development on FTAS basis

Next steps of FT systems development on FTAS basis

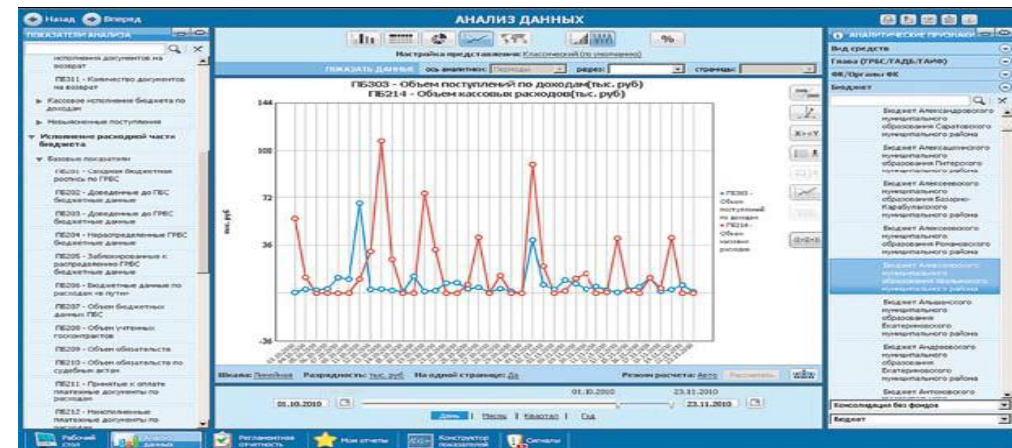| Performance monitoring of the budget system operation	Monitoring system for key indicators on the status of efficiency of budget execution for all levels of budget system
Public procurement portal	Official site for public procurement system
System of FTAS Users Efficiency Analysis	Performance analysis of all FTAS users
Accounting for Individuals Payment	Roll-out of the system allowing to account for each payment of individual
Integrated FMIS	Development and implementation of integrated FMIS «Electronic Budget»

New opportunities, new tasks for FT

• **Introduction of centralized system provide new opportunities**
• **System of performance monitoring of the budget system operation – on FTAS basis together with other sources monitoring of key indicators about the status of budget execution performance**
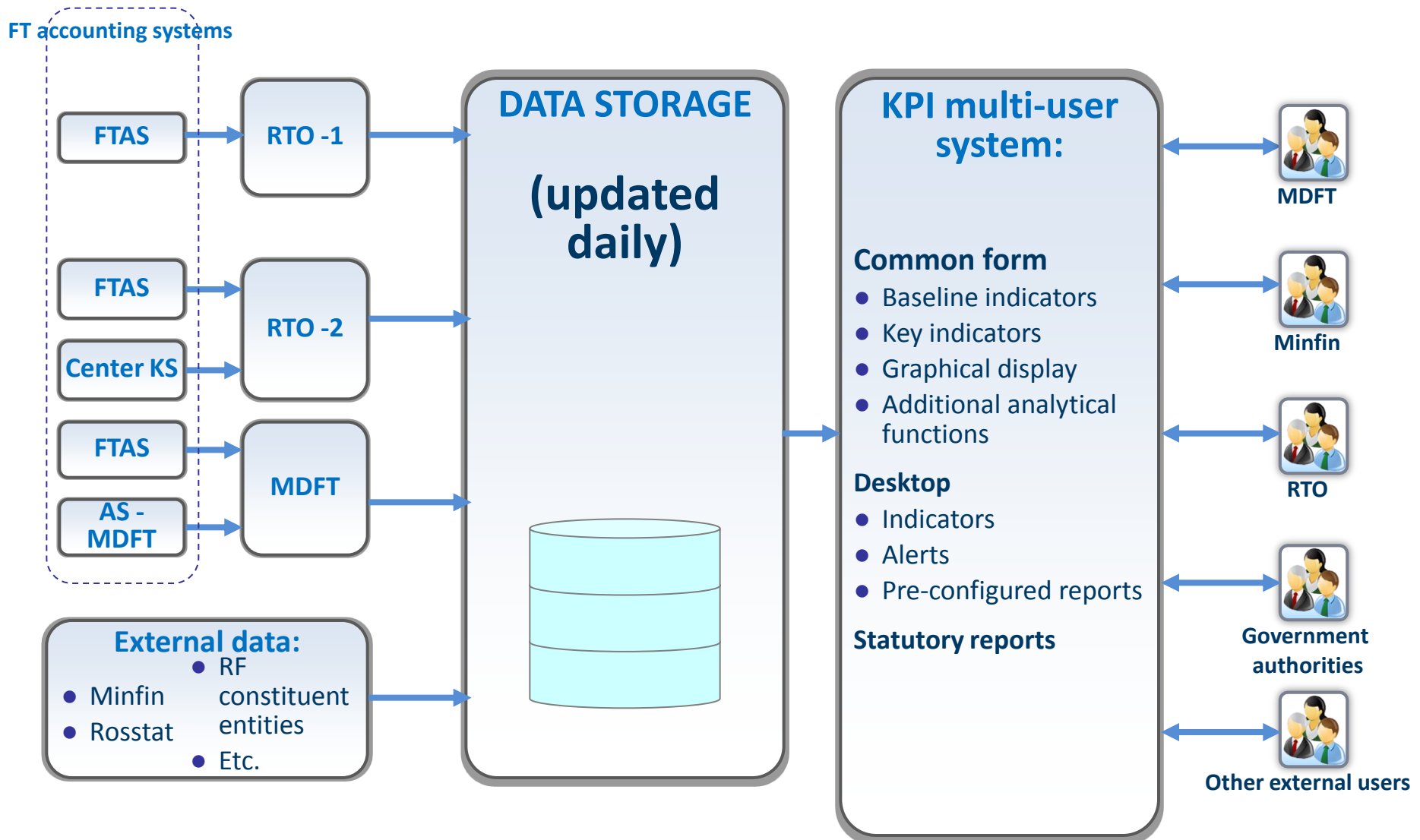
Users:
• Office of the President
• Office of the Government
• Ministry of Finance
• Ministry of regional development
• Other government agencies
• Other external users

FTAS interaction with Budget Performance Monitoring System

FT accounting systems

FTAS → RTO -1

FTAS → RTO -2
Center KS → RTO -2

FTAS → MDFT
AS - MDFT → MDFT

External data:
- Minfin
- Rosstat
- RF constituent entities
- Etc.

DATA STORAGE

(updated daily)

KPI multi-user system:

Common form
- Baseline indicators
- Key indicators
- Graphical display
- Additional analytical functions

Desktop
- Indicators
- Alerts
- Pre-configured reports

Statutory reports

MDFT

Minfin

RTO

Government authorities

Other external users

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Examples of Monitoring Reports

System of FTAS Users Efficiency Analysis

- ## Manager workplace

- Analysis of treasury offices, units, individuals performance based on indicators (quality, time, compliance with standards)

- Staff optimization

- ## System of Analytical Reporting

- Change of roles
- Optimization of workload
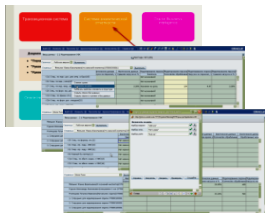
- ## Functional modeling system

- Optimization of business processes
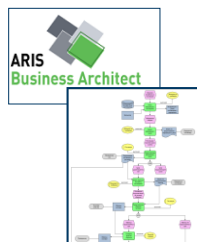
Key advantages of FTAS Users Efficiency Monitoring System

- Comparison of offices, units, individuals based on pre-determined indicators (costs, time, quality, etc.)

- Modeling of business processes:
  - *Cost of new processes*
  - *Quality of performance*

- Calculation :
  - *Optimal staffing*
  - *Optimal workload.*

- Compliance with service standards

Accounting for Individuals Payment – Current Situation

Portal «State Services» (www.gosuslugi.ru)

Special agreements with each banks, Post of Russia, other agents often on a fee basis

Revenues administrators ~40 000

Detailed information on individual payments

No information on payment of specific individuals available to revenue administrators

Payment information without breakdown by individuals

Joint payment order

Banks

Payment
Payment
Payment

Central Bank

Joint payment order

Post of Russia

Payment
Payment
Payment

Joint payment advice

Federal Treasury

Joint payment order

Other agents

Payment
Payment
Payment

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New System for Processing Individuals Payments

3. Information on charges

Unified portal of public services

2. Information on charges

9. Acknowledged payments and charges

5. Information on charges

10. Acknowledged payments and charges

Federal Treasury

Payment systems, credit organizations

Payers

6. Information on payment

4. Payment of services with unique ID

8. Confirmation of paid amounts

1. Debt accrued with unique ID

10. Acknowledged payments and charges

7. Transfer of funds

Revenue administrator

Bank of Russia

Advantages of Processing Payment for State Services through Common Portal

Social implications— better information and easier procedures for clients:

- **Full and timely information about required payments, actual payments and delayed payment in the "Client's office" accessible from any point**
- **On-line payments**
- **On-line information available to client and revenue administrator about payments made**

Higher tax collection— full and timely accounting for payments to all budgets:

- **Less costs for revenue administration**
- **Better information available to revenue administrators about payments due from each client**
- **Less volume of unidentified payments**
- **Less gaps between payment and accounting for payment as budget revenue**

Казначейство России

Completion of FTAS Implementation – start of new projects

Policy development and analysis

Budget preparation

Public investments

Budget execution
FTAS
Treasury system

Audit and control

Public commitments Management

Budget reports and analysis

FTAS

Budget Commitments

Web-portal publications

Procurement

Public debt and aid management

Payments and revenues management

Asset management

Cash management

Payroll HR management

Completion of FTAS Implementation – start of new projects

Budget planning

- Development of programs/ subprograms
- Cost planning
- Budget preparation

Procurement management

Procurement planning → Procurement process → Contract recording → Expenditure management

Accounting and reporting

- **Management accounting**
- **Accounting**

Management of non-material assets

- Cost of service
- Accounting of revenue from Non material assets
- Efficiency monitoring

Cash management

- Cash management
- Liquidity management

Expenditure management

- Delivery of budget data and tasks
- Payments
- Subsidy agreement registration

Efficiency monitoring

Control and audit

Revenue management

Debt and financial assets management

HR risks management

Use of FT Systems in the "Electronic Budget" program

Functional Subsystems of Integrated Information System "Electronic Budget"

Control of Registers	Budget Planning	Management of Non-financial Assets	HR Management	Financial Control and Audit	Joint Portal of the RF Budget System
					Debt and Financial Assets Management
Revenue Management	Expenditure Management	Liquidity Management	Procurement Management	Accounting and Reporting	Information and analytical subsystem

Revenue management and accounting	Control and management of liabilities	Payments management	Control and management of liabilities	General Ledger	Analytical Reports
	Registration of budget data	Liquidity planning		Preparation of Budget Reports	

FTAS technological platform

Federal Treasury Automated System (FTAS)   **"Monitor" information system**

Official all-Russian public procurement site

Official site of municipal and local authorities

Automated system of registration of payments from individuals

Large portion of functional requirements is already implemented in FTAS   Additional development is required

Required functionality could be implemented using FTAS technological platform

Thank you for your attention!