

TAX ADMINISTRATION INFORMATION SYSTEMS

Increasing revenue, improving governance and integrity

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Manila, 1 December 2017

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OVERVIEW OF SESSION:

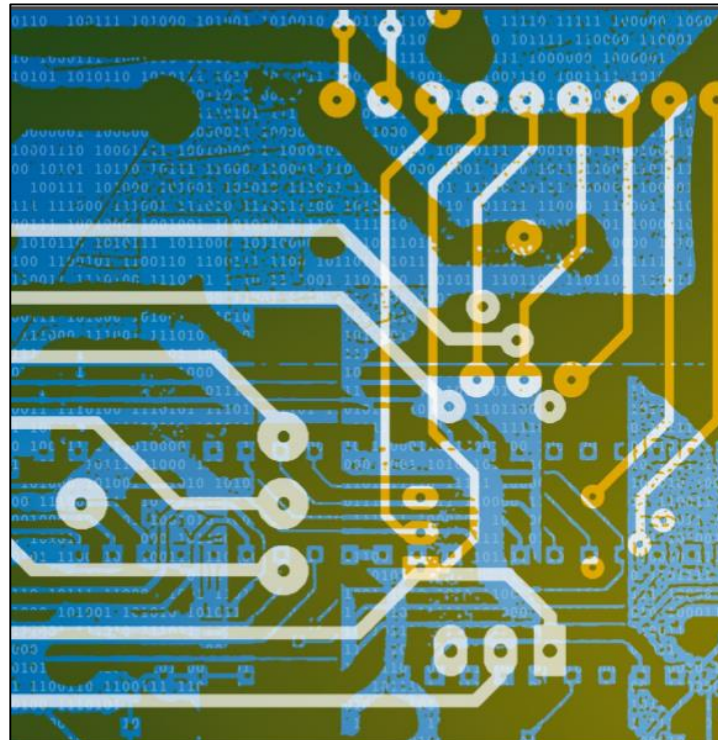
- Introduction – literature review and terminology
- Benefits of ICT in tax administrations
- Decision-making on ICT systems change
- Design of tax ICT systems
- Procurement
- Case Study: Finland
- Implementation of ICT systems
- Pros and cons of COTS vs bespoke systems
- Case Study: Romania

Introduction – literature review



TOOL KIT FOR TAX ADMINISTRATION MANAGEMENT INFORMATION SYSTEM

ASIAN DEVELOPMENT BANK



Information Technology in Tax Administration in Developing Countries



USAID'S LEADERSHIP IN PUBLIC FINANCIAL MANAGEMENT Information Technology for Tax Administration

Prepared by: Guillermo Jimenez, Niall Mac an tSionnaigh, and Anton Kamenov

February 2013

Contract Number : EEM-I-00-07-00005-00

This publication was produced for review by the United States Agency for International Development. It was prepared by Deloitte Consulting LLP.

Introduction – literature review

TECHNICAL NOTES AND MANUALS

Use of Technology in Tax Administrations 1: Developing an Information Technology Strategic Plan (ITSP)

Prepared by Margaret Cotton and Gregory Dark
With contributions from Peter Menhard and John Ryan
Authorized for distribution by Sanjeev Gupta

Fiscal Affairs Department

INTERNATIONAL MONETARY FUND

TECHNICAL NOTES AND MANUALS

Use of Technology in Tax Administrations 2: Core Information Technology Systems In Tax Administrations

Prepared by Margaret Cotton and Gregory Dark
With contributions from Peter Menhard and John Ryan
Authorized for distribution by Sanjeev Gupta

Fiscal Affairs Department

INTERNATIONAL MONETARY FUND

TECHNICAL NOTES AND MANUALS

Use of Technology in Tax Administrations 3: Implementing a Commercial-off-the-Shelf (COTS) Tax System

Prepared by Margaret Cotton and Gregory Dark
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Fiscal Affairs Department

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POLICY RESEARCH WORKING PAPER

7657

BACKGROUND PAPER TO THE 2016 WORLD DEVELOPMENT REPORT

Does E-Government Improve Government Capacity?

Evidence from Tax Administration and Public Procurement

*Anna Kochanova
Zahid Hasnain
Bradley Larson*



WORLD BANK GROUP

Development Economics
2016 World Development Report Team
April 2016

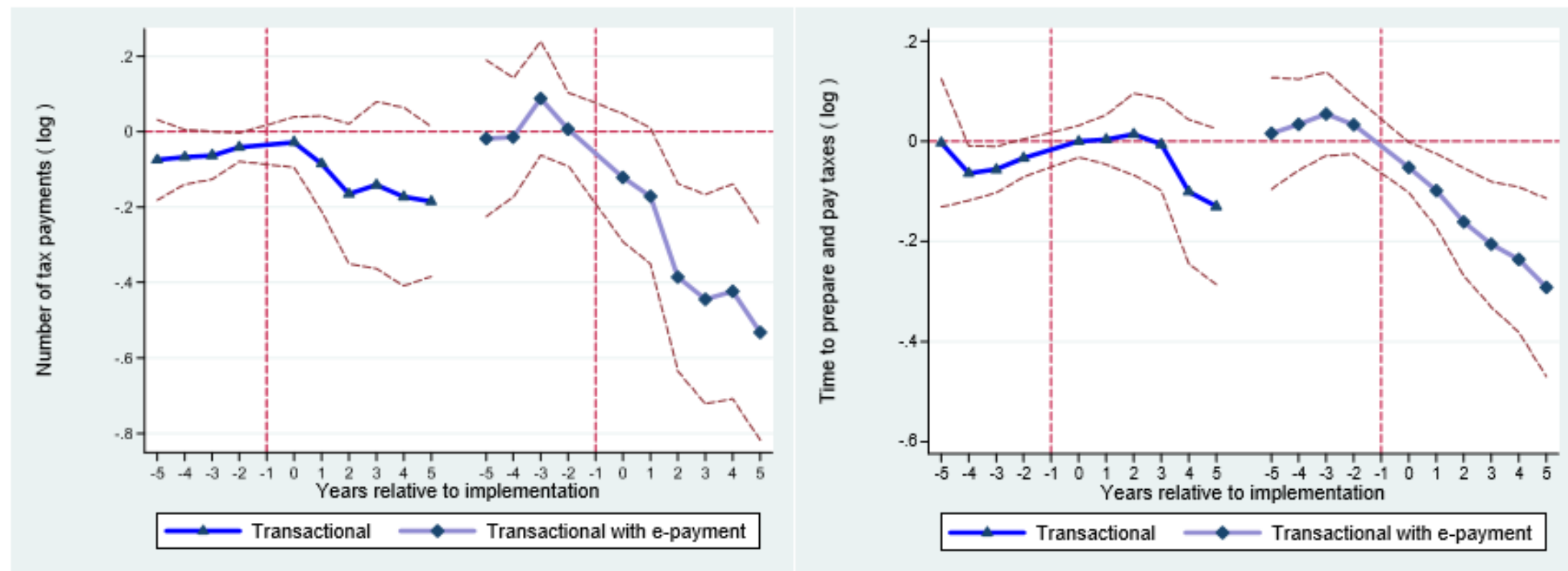
POLICY RESEARCH WORKING PAPER 7657

Abstract

Using a cross-country data set on e-government systems, this paper analyzes whether e-filing of taxes and e-procurement adoption improves the capacity of governments to raise and spend resources through the lowering of tax compliance costs, improvement of public procurement competitiveness, and reduction of corruption. The paper finds that information and communications technology can help improve government capacity, but the impact of e-government varies by type of government activity and is stronger in more developed countries. Implementation of e-filing systems reduces tax compliance costs as

measured by the number of tax payments, time required to prepare and pay taxes, likelihood and frequency of firms being visited by a tax official, perception of tax administration as an obstacle, and incidence of bribery. The effects of e-procurement are weaker, with the number of firms securing or attempting to secure a government contract increasing with e-procurement implementation only in countries with higher levels of development and better quality institutions. The paper finds no systematic relationship between e-procurement and bureaucratic corruption.

Figure 2: The impact of e-filing on tax compliance costs



Note: These figures plot the coefficients on indicator variables for the years before and after the adoption of the e-filing system, estimated from specification (1). The reference group is year -1, one year before the adoption. Left parts of the graphs show the effects of transactional e-filing system implementation, while right parts show the effects of transactional with e-payment system implementation. Dashed lines indicate 95% confidence intervals.

Introduction – terminology

Term	Meaning
Commercial off-the-shelf software (COTS)	Standard software sold by vendors to support the functionality of any tax administration
Bespoke (custom-built) software	Software made to order, to support the functionality of an individual tax administration
Configuration	Modifying software e.g. for tax rates countries
Customization	Modifying COTS to support specialized functionality
Out-of-the-box functionality	Immediately operable functionality of a COTS

Benefits of ICT in tax administrations

Benefit	Impact
Greater potential for revenue mobilization	<ul style="list-style-type: none">• Return on investment in additional tax revenue should be several times the cost of the new system in the first year.• Sustainable revenue from systems-supported administrative systems and revenue growth over decades.
Efficiency	<ul style="list-style-type: none">• Greater efficiency across all functions, including those with direct relevance to increasing DRM:• Enhanced risk management for better audit case selection.• Better detection of fraudulent tax refunds.• Ability for the tax authority to view the taxpayer in an integrated way across all tax types.• Reduction in taxpayer compliance costs and agency costs.

Benefits of ICT in tax administrations

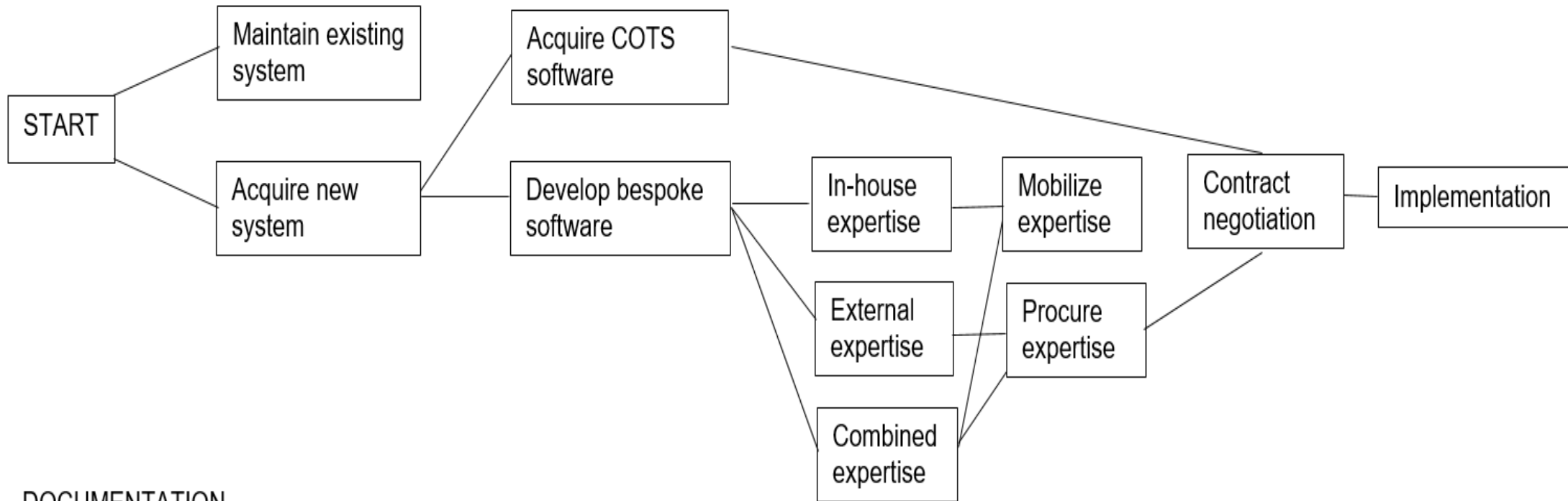
Transparency

- Unique user ID with attached audit log of transactions ensures accountability.
- Use of discretionary powers must be within parameters that the system can monitor.
- Documents are stored on system electronically and provide an evidentiary record.
- Internal control systems contain alerts when unusual behaviour by staff is detected.
- Systems access allows only required users to access certain functions.

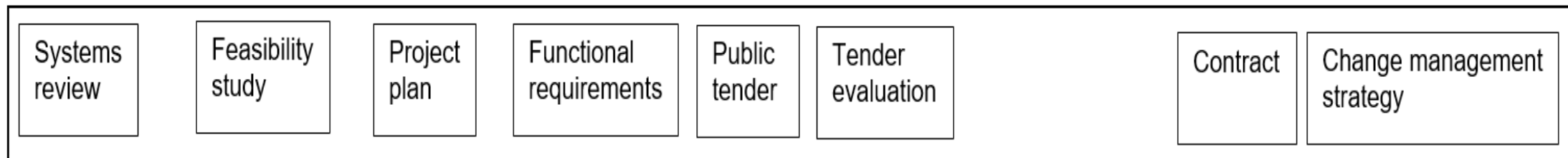
Governance

- Improved management information reporting assists management decision-making.

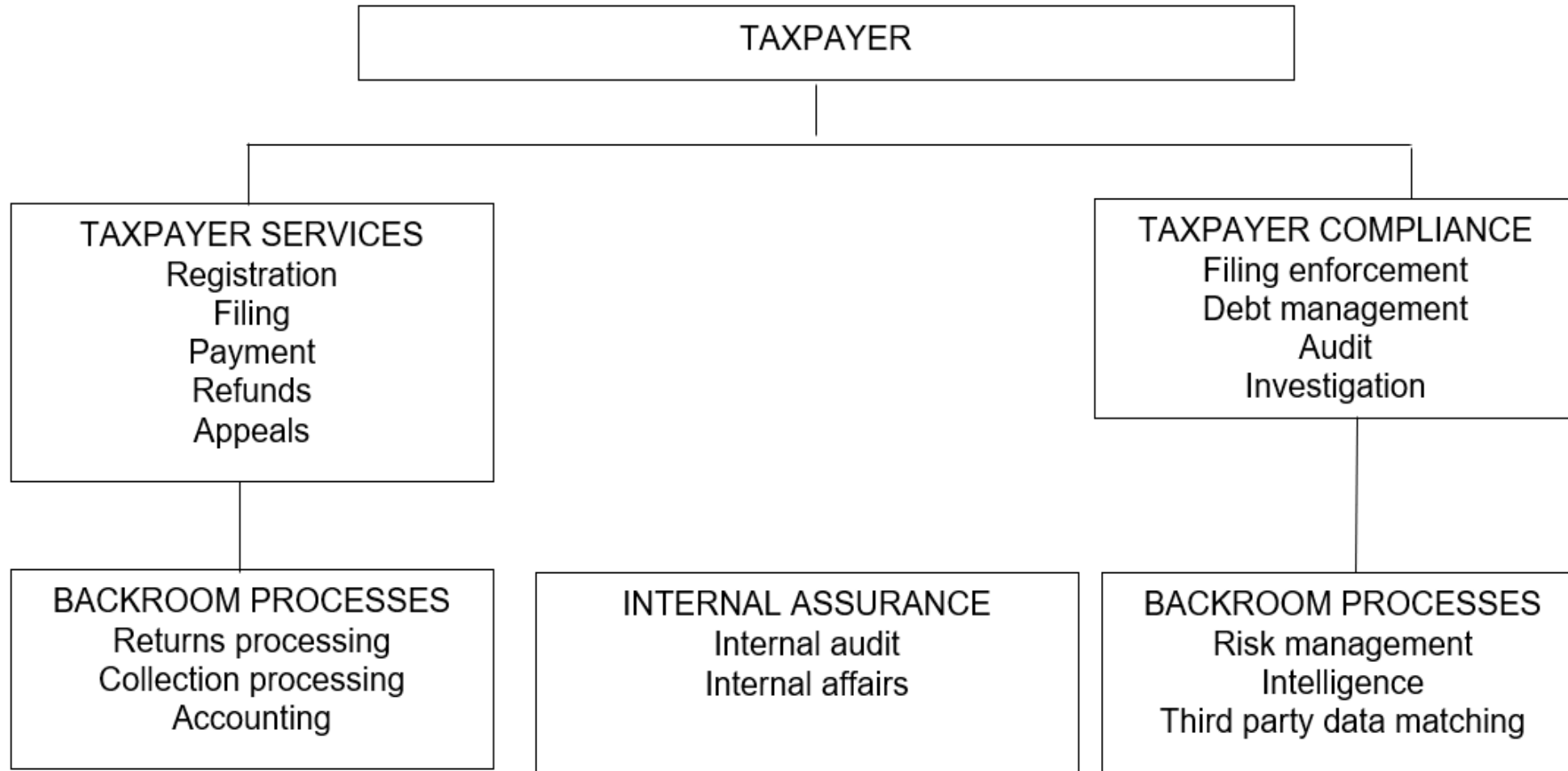
Decision-making on ICT systems change



DOCUMENTATION



Design of tax ICT systems



Phases in the implementation of an ICT system

Pre-project	Project initiation	Procurement	Implementation	Post-project
<ul style="list-style-type: none"> Investigation into ICT needs of DMC Decision by donor to fund ICT renewal Tax authority to undertake ground work/ appoint project champion 	<ul style="list-style-type: none"> Appoint project manager Establish project office Develop project plan/ strategies/ risks Review business processes and document requirements Review ICT requirements 	<ul style="list-style-type: none"> Establish tender board Establish selection criteria Issue 2-stage tender document Review Stage 1 tenders and respond Review Stage 2 tenders Decide on tender Contractual process 	<ul style="list-style-type: none"> Change management strategy in place Vendors' staff to co-locate with tax authority staff Delivery of out of the box functionality Customization of other functionality Systems testing "Cut-over" from old to new system 	<ul style="list-style-type: none"> Transfer of ownership from vendor to tax authority ICT staff Post-implementation review Fine tuning of ICT within warranty period Ongoing maintenance and systems change process in place
Year	1-2	2-3	3-4	4-5

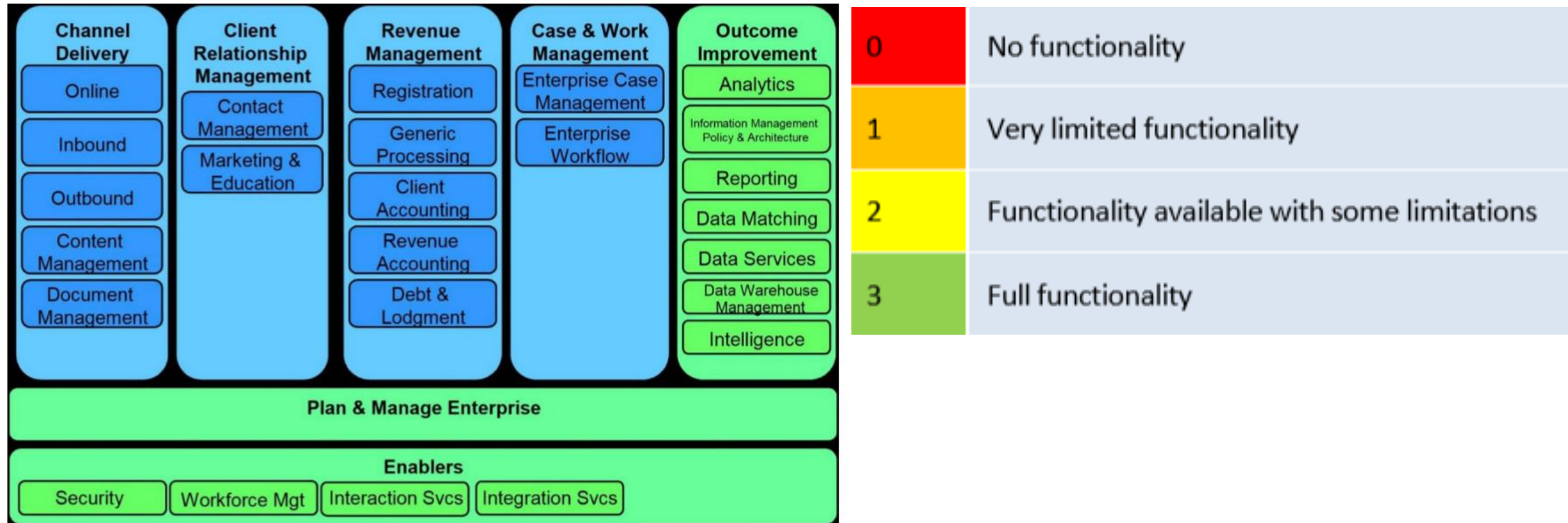
Procurement

- Procurement should be conducted according to the rules of the donor organization, based on a documented set of business requirements and ICT requirements.
- The business requirements should be based on a review of business processes, which will highlight gaps between current practice and required practice.
- The requirements need to be frozen at a particular point – the longer the tender runs the more out of date the requirements are.
- Study tours of other countries where tenderer's software has been successfully implemented can help.

Procurement

- The KfW report suggests that the capability framework of the tax authority should be mapped, then each system on offer assessed against this and rated using a scoring system

Figure 1: The ATO Capability Model*



Case Study: Finland

- In 2013 the Finnish Tax Administration reformed their information systems, replacing seventy tax systems with one.
- The tender selected was the US Fast Enterprises' Gentax taxation software, along with Finnish-Estonian Nortal, with implementation cost for €62 million with the overall price of procurement running around €226 million over 15 years.
- Also competing in the bid was IBM, whose bid of €38 million with a total value of €143 million over 15 years was rejected as being “abnormally low”.
- IBM appealed the decision to the Market Court. IBM lost the appeal, but delayed implementation of the new system by a year.

Implementation

- Establishment of project office – planning, procurement, financial control, recruitment
- Appointment of project team – ICT and business representatives, super users
- Change management strategy in place
- Risk management strategy in place
- Resources (office space, PCs etc) provided for staff of vendor
- Establish a working relationship and lines of communication between the tax authority staff and the vendor's staff.

Quick wins program

- Review of business processes to identify:
 - improvements which require both law and systems changes;
 - improvements which require either a law or systems change;
and
 - improvements which require neither a law or systems change.
- The latter category should be used for a “Quick Wins” program of change, to put “runs on the board”, or early victories which can get the organization and the public to support the overall change program.

Summary of the pros and cons of each option

	COTS solution	Bespoke system
Advantages	<ul style="list-style-type: none"> • High quality, fully integrated • Built in best practice for business functionality • Shorter implementation time 	<ul style="list-style-type: none"> • A tailored solution for the organization's needs • Lower initial cost • Leverages internal expertise
Disadvantages	<ul style="list-style-type: none"> • Customization leads to complexity and cost for upgrades • Higher initial costs • Dependence for maintenance on an external provider 	<ul style="list-style-type: none"> • Level of change management and project management expertise may not exist in-house • Difficult to retain key IT staff • Longer implementation time

Link between integrity and tax effort

- The link between integrity and tax effort was described in an IMF paper presented at an ADB/ ADBI conference in Sydney in April 2017 themed “Tax and Corruption”.
- The paper mapped the Tax: GDP ratio of all countries against the Transparency International survey on perceived corruption.
- The study found that: “The effect of corruption is statistically significant: it shows that, all else equal, an improvement in a country’s corruption perception indicator by one standard deviation (22 points) is associated with a tax revenue increase of 0.88 percentage point of GDP.

Source: *Corruption: Costs and Mitigating Strategies*, IMF, April 2017, paper presented by Sanjeev Gupta, at the “Tax and Corruption: An Asia-Pacific Perspective” conference, Sydney.

Case study: Romania

- The World Bank's Revenue Administration Modernisation project (RAMP) in Romania will provide improvement to the tax authority across 8 components, with a value of €70 million. The project was approved in April 2013.
- A central feature of the project is the acquisition of a new revenue management system, through a tender process conducted under the Bank's procurement rules.
- Six vendors of COTS software have tendered to provide the new system, and they have been identified publicly as part of a transparent procurement.

Case study: Romania

- The expected increase in tax revenue using the productivity rate of VAT and Corporate Income Tax (CIT) calculated by: $[(\text{total tax/GDP}) * \text{tax rate}]$, is to increase baseline VAT from 35.8% to 46%, and baseline CIT from 11.9% to 21%.
- A review of the project in June 2017 found that the project's timeline had slipped. The original closing date of the project in 2019 has now been extended to 2021. The review found that this was due to:

Case study: Romania

“The bidding process for the revenue management system has been delayed. There are more than 50 [tax agency] staff involved in the evaluation. The criteria for evaluation are far too complex and detailed. They appear to be driven by a desire to protect the individuals involved from potential questions from the Court of Accounts rather than focusing on procuring a high performing revenue management system.”

The good news: The review found that: “A "quick wins" team has been set up under the leadership of the [Project Implementation Unit] head. The program was fully supported by NAFA management and has seen several important early results.”

Case study: Romania - conclusions

- The ten-year time frame for the project, from concept in 2011 to finalization in 2021, is much too long, and should be in the vicinity of three to five years;
- Selection criteria need to be simple and clear, focussing on evaluating the proposed functionality of each vendor's tender;
- No project champion was appointed – it is not even clear which senior executive is responsible for the project;
- The “quick wins” approach appears to be successful; and
- The transparency of the tender process, including publication of many relevant documents (but not the tenders themselves) assists in improving integrity.

Questions?

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Enhancement of ADB DMCs***

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