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Contribution of technology to successful IPSAS implementations

Thomas Müller-Marqués Berger

Global Leader of International Public Sector Accounting

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Contribution of technology to successful IPSAS implementations

Introduction

Contribution of technology to successful IPSAS implementations

- Data analytics
- Robotics Process Automation (RPA)
- Blockchain for Public Finance Management

Challenges derived from practical experience

Recommendations based on international good practices

Final remarks

Introduction (1/2)

"Three forces of disruption ..."

Demographic changes

Technology and citizen engagement

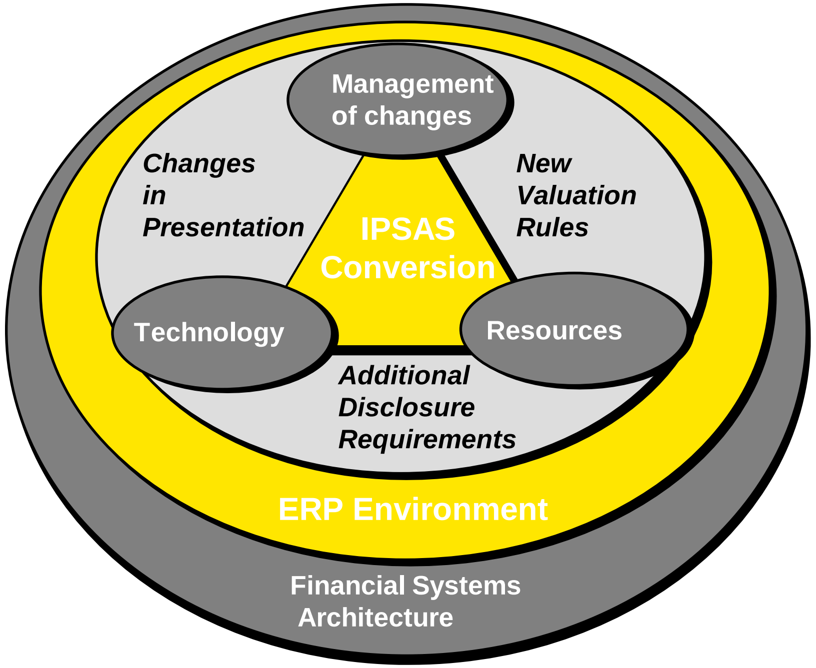
Generating value

… are pushing governments to embrace the following trends

- **Better performance management systems** to build public trust and improve citizen engagement
- **Data analytics** to drive value across the future business of tax authorities
- Use of **digital technologies (such as robotics process automation (RPA) and blockchain)** to improve government productivity and simplification)*
- **Data-driven decision-making processes** to enhance resource allocation and development of targeted policies
- **Leveraging internal control frameworks** to enhance risk management**
- **Innovative public service delivery mechanisms** to drive government efficiency
- **Adopting International Public Sector Accounting Standards (IPSAS)** to promote greater accountability

Introduction (2/2)

- There is probably no successful accrual accounting implementation where technology has not been a key enabler.
- Technology has been identified as one of the key challenges in converting to IPSAS framework.
- It is difficult to imagine how to implement new accounting rules and procedures without a strong financial information management system that supports it.

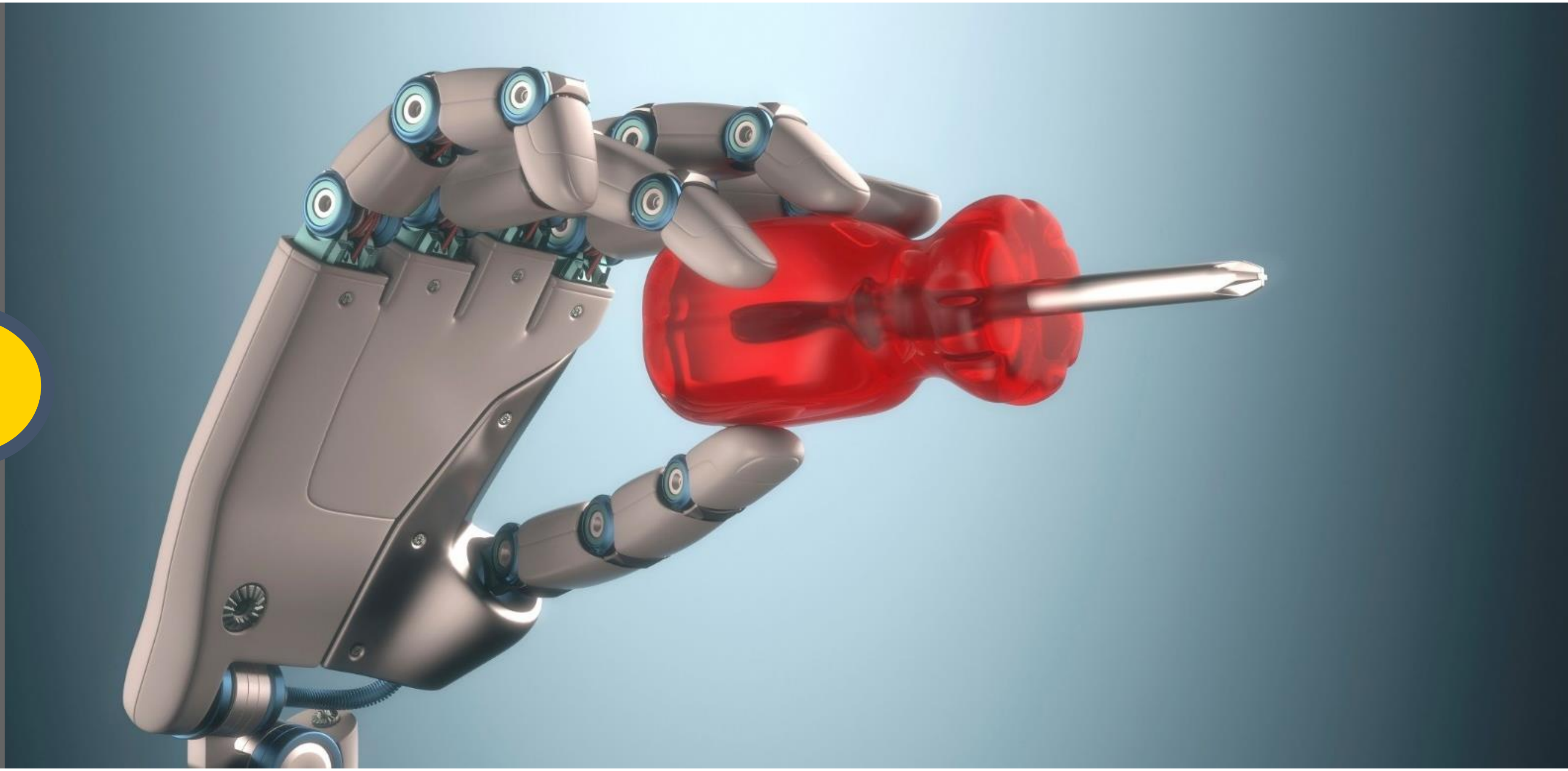


Contribution of technology to successful IPSAS implementations

Contribution of technology to successful IPSAS implementations

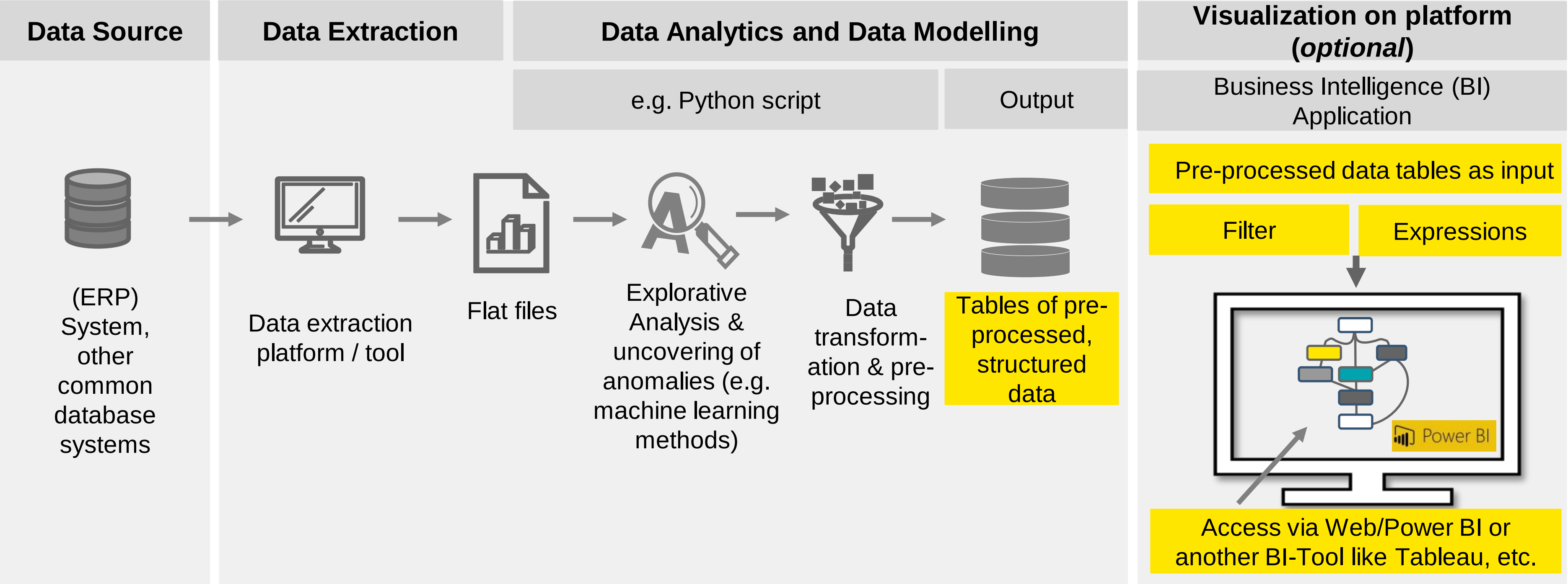
- Increases reliability of data because it reduces mistakes and inconsistencies through automation.
- Increases comparability of information between institutions.
- Reduces workload of accountants so they can focus on analytical tasks, which generates value for decision making.
- Technology can be an important enabler to overcome capacity shortage.
  - Avoidance of boring repetitive tasks that nobody wants to do.
  - Use of robots which analyze contracts, such as leasing contracts, for relevant data and qualify these for a specific accounting treatment.
- Supports generating newly required information and dealing with mass data.
  - Within their PFM reform approach, Portugal has embedded a strong technology component into their implementation roadmap using Robotics Process Automation for mass transactions such as Accounts Payables or Accounts Receivables, but also Blockchain technology in the area of consolidation for transactions reconciliation in order to avoid inter-company differences.

Data Analytics, RPA and Blockchain



Financial data analytics

Financial data analytics is the collection, combination and exploration of accounting data to create insights that support the decision-making process



Financial data analytics contributes to:

- Determination of the right data sets and variables to look into
- Identification of patterns, creation of hypotheses, prove and communication of findings

Financial data tell powerful stories. There may be stories in your data that could be the key to hidden opportunities and the answer to some of your organization's issues.

Robotics Process Automation (1/3)

RPA is an innovative solution for a fully automatic handling of business processes with high volume repetition

What is

RPA?

RPA is integrated in an existing IT infrastructure.

As a renewal of the existing IT landscape is not required, a high level of automation can be reached without major effort. RPA uses established control mechanisms and can communicate with all systems. Therefore, no interface has to be created.

Robots deliver repetitive, deterministic, high-volume tasks efficiently, quickly, and consistently. People build relationships, provide subjective judgement, deliver low-frequency tasks, and manage change and improvement.

RPA simulates an employee.

The software robot has access to diverse applications with an ID or a password. The robot can gather information or change data. Consequently, business and administrative processes can be fully automated.

RPA is software.

RPA is a computer software that runs repetitive, rule-based processes. The software is trained based on functional specifications and can be adjusted at any time.

Robotics Process Automation (2/3)

There are many ways to put robotics to work inside the typical finance operations

Robots provide flexibility and connectivity between applications, increase the effectiveness of applications, and complete routine activities that previously required manual effort, but they do not replace existing computing capabilities, and they do not generally replace entire roles.

Identify where teams are manually…

- **accessing and gathering** data from multiple systems
- **moving data** from one system to another
- **checking data consistency** in multiple systems
- **updating the same info** in multiple systems
- **remediating data** across several accounts

Select processes that are…

- **well-defined**, relying on rules rather than judgment
- **time consuming**, while being time-critical
- **executed very often** (i.e. daily or weekly)
- **using multiple systems** that are not fully integrated
- **needing improvements** in quality and control

Preliminary ideas for consideration

- Intercompany transfers
- Reconciliations
- Accruals
- Bad Debt write-offs
- Month-end close heavy lifting
- Journal entry processing
- Entity updates and master accounts
- Allocations and adjustments
- Vendor and client on-boarding

Robotics Process Automation (3/3)

Bank reconciliation example

Legacy systems and processing

- Employee downloads the pdf bank statement received from the bank and then manually cross refers it with the GL of relevant bank account
- Then the employee manually prepares the bank reconciliation specifying the reconciling items
- Since the work is performed manually it is highly subjective to errors and inaccuracy
- Cross referring the amounts from bank statement to GL, and preparation of bank reconciliation manually takes a great deal of time

Pain points — Traditional system

- Time consuming process
- Excessive need of human resources
- Additional time and effort for sending supporting details
- Inaccuracy and errors

Proposed system with RPA

- BOT logs in to the system and downloads the pdf bank statement file
- The bank statement is then converted to readable file format by the BOT
- BOT logs in to the ERP of the company and exports the GL of the relevant bank account
- BOT then automatically cross refer the balances from both the documents
- BOT prepares the bank reconciliation on the pre defined format and structure
- BOT sends the bank reconciliation to the relevant user for review/approval
- Automatically sends the compiled supporting details of all the reconciling items

Blockchain for Public Finance Management (1/2)

… creating a single source of truth to support more effective day-to-day decisions and lead to better citizen results

Central budget authority

ERP and other enterprise systems

Ministries/departments

ERP and other enterprise systems

Delivery agents

ERP and other enterprise systems

Outputs

- Output KPIs
- Management accounts
- Organization
- People
- Technology
- Business processes

Derived outcomes

- Citizen satisfaction
- Government and economy performance
- Government accountability

Synchronized and near-real time transaction data available across entities with decentralized/disparate systems

Effective decision-making

- Timely and accurate availability of reporting measures for allocative and administrative decision-making
- Ability to integrate strategic budget-level program performance objectives with consumption-level management objectives

Efficient and near-real-time exchange of information

- Transactional and reporting data is synchronized across participants through the blockchain layer
- Reduces direct administrative costs and re-allocation to high-value-add activities

Integrated view of performance along the chain

- Decision-making authority has aggregated view of funds allocated to outputs and outcomes across programs, departments and ministries in a single place and in near real-time

- Reconciliation and consolidation at various interface nodes (e.g., between program authorities and delivery agents)
- Integration of financial and nonfinancial reporting information
- Improved internal controls including potential use of "smart contracts"
- Opportunity to improve PFM architecture and performance without expensive and risky FMIS transformation

Blockchain for Public Finance Management (2/2)

Significant benefits of applying blockchain technology:

- Enables timely and accurate reporting of outputs and outcomes
- Enables timely reconciliation of reporting information
- Connects public reporting and the management of program performance
- Provides a complete view of financial and nonfinancial information
- Allows the viewing and reconciliation of appropriation and management frameworks in near to real-time
- Can be applied across the policy spectrum, from health and education to defense and infrastructure
- Can be used alongside existing ERP systems – there is no need to replace existing infrastructure
- Is applicable at all levels of government in all parts of the world
- Will bring significant direct cost savings by eliminating manual information exchange
- Brings a new level of transparency to public financial management, which helps to build trust

The solution enables evidence-based decision making and more efficient and effective allocation of taxpayer resources.

Better public finances lead to better government, better outcomes for society and a better working world.

Challenges derived from practical experience

Challenges derived from practical experience

- Lack of resources and its impact on decisions such as:
  - Develop or buy the ERP system
  - Whether ERP systems are run and financed CENTRALLY or DECENTRALLY, and if run decentral whether entities are free to select the system.
- Underuse of the system and the consequent use of spreadsheets to prepare the financial reports in spite of the available technology.
- Capacity building around applying new technology is a major challenge but also an opportunity (make profession attractive for young generation and fit for future).
- Uncertainty of people being impacted by PFM reforms leads to a massive lack of buy in into the objectives of the project - and can therefore be seen as one of the key project risks.
- Inadequate support might cause major frustrations which hinders not only operations but also the use of accrual information.

Recommendations based on international good practices

Recommendations based on international good practices (1/2)

- Conduct an INTEGRATED GAP ANALYSIS covering four aspects and their relationship to each other:
  - The accounting gap
  - The technology gap
  - The data gap
  - The knowledge gap

- Technology in this context is not limited to the ERP system itself. It also involves sub-systems which might not have suitable interfaces to a modern accrual ERP and it involves new technology such as robotics or blockchain.

- The reform roadmap and the action plans need to be derived by a MULTI-DISCIPLINARY TEAM including accountants, IT experts but also end users and stakeholders. Avoid that the accounting workstream and the technology workstream are managed in silos and works are done in isolation.

Recommendations based on international good practices (2/2)

General capacity building (training) and knowledge transfer is of major importance in order to avoid any sort of „consultant dependency".

Content of training:

- Not everybody needs the same - success of training mainly depends on a proper analysis of user specific knowledge needs.

Timing of training:

- Three phases to be distinguished in capacity building
    - Training needed BEFORE the implementation phase esp. for the core project team
    - Knowledge transfer DURING the implementation for key users
    - Handholding and regular refresher courses for end users AFTER go live

Final remarks

Final remarks

- Establish an integrated project organization without silos - ONE team
- Set common goals (what means success of this project?) and clearly identify the respective contributions - but:
- Clearly communicate that success is defined as reaching ALL common goals - which means that one discipline is only successful if it supports the other discipline in also reaching its objectives - it is a commonly shared responsibility!
- Do not allow use of „techi language“ to hide behind - plain language is precondition for shared understanding of tasks and potential solutions
- Involvement of final end users (preparers) in the IT system design and configuration —> but: implement as much standard ERP template as possible and avoid „special user requirements“ in order to stick to time and budget frames!

EY Contacts

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Thomas Müller-Marqués Berger
Auditor | Partner
Global Leader International Public Sector Accounting
Phone: +49 711 9881 15844
Mobile: +49 160 939 15844
Fax: +49 181 3943 15844
thomas.mueller-marques.berger
@de.ey.com

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft
Flughafenstraße 61
70629 Stuttgart

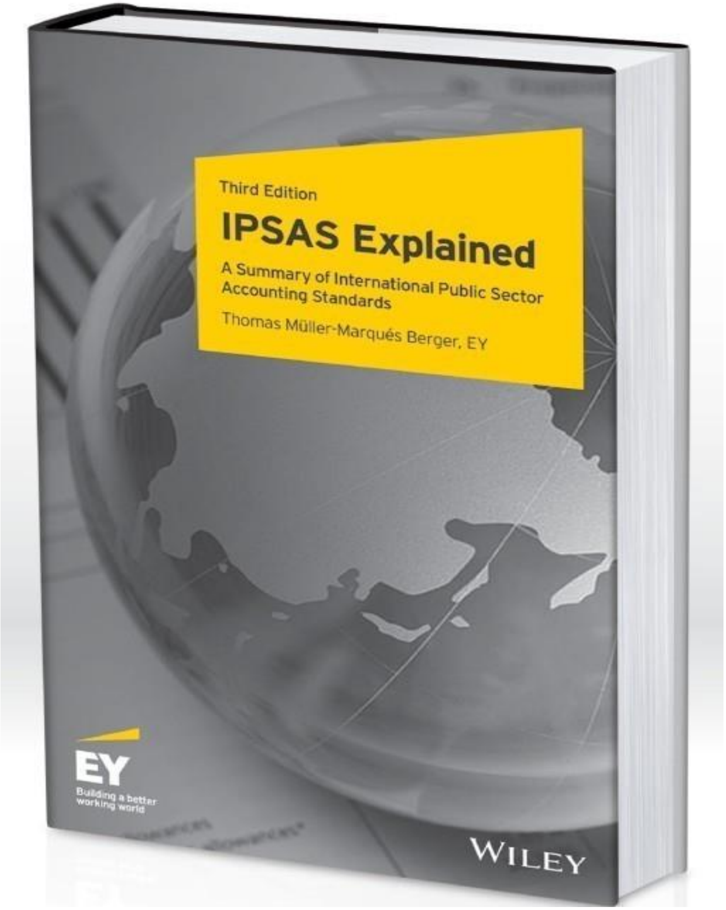
ey.com

Thomas Müller-Marqués Berger is auditor, partner and Global Leader of International Public Sector Accounting for Ernst & Young, as well as Chairman of the Consultative Advisory Group (CAG) to the IPSASB. In his capacity as Chair of the Public Sector Group of Accountancy Europe (previously known as the Federation of European Accountants) he also serves on the European Commission (EC) and EUROSTAT European Public Sector Accounting Standards Task Forces, and is a member of the EU Advisory Group on Accounting Standards and a member of the German Public Sector Committee of the IDW.

Previous to these roles, Mr. Müller-Marqués Berger was a member of the International Public Sector Accounting Standards Board, and has served as an expert for the “DAS Think Tank” of the European Court of Auditors. He has intensively published on the subject of Public Sector Accounting, and he has spoken globally on adoption and implementation of IPSASs.

IPSAS Explained

A Summary of International
Public Sector Accounting Standards
3rd Edition



The third edition of the book IPSAS Explained provides an updated summary of IPSAS aligned with the new initiatives of the IPSASB and new standards in key areas such as first time adoption and consolidation of financial statements.

This book provides context, background and practical guidance to help practitioners that are interested in implementing and ensuring full IPSAS compliance.

The book will be available in Spanish soon.

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