PEMPAL BCOP Plenary 2024
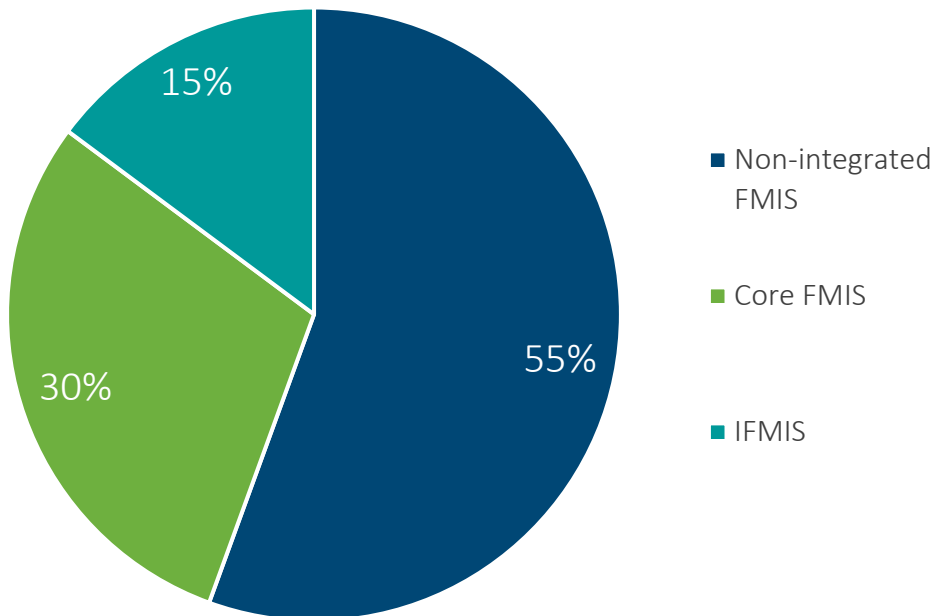
Potential of AI in PFM

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Robotic Process Automation and AI are increasingly common in the public sector

- **Robotic Process Automation: applied to some part of the expenditure cycle in many OECD countries. Usually for repetitive tasks with low judgement requirements but may involve analysis by AI**

- **Risk Analysis: AI (Machine Learning) is used to help decide which payment or tax return to check. Claims that it approximately doubles the efficiency of risk analysis – i.e. that twice as many of items selected for in depth checking will be found to contain errors**

Pie chart legend:
- Non-integrated FMIS — 55%
- Core FMIS — 30%
- IFMIS — 15%

Using digital applications is a *pre-condition* for effective use of AI for budgeting and finance functions

Most recent OECD survey (2022-23) shows OECD Member Countries use an integrated financial management system infrequently.

AI can help quantify potential demand for spending

- Use of AI to estimate health demand during COVID
- UK DFID has used AI to estimate population (some African countries)

- *Improved economic modeling may predict bankruptcies and unemployment ?*

AI has the potential to facilitate better targeted spending

- Some jurisdictions are already using AI to assess user demands and for better ex-ante analysis of deadweight risks and factors
- Anticipating healthcare demand
- Estonia – transport spending
- Korea – predicting ex-ante impact of SME supports

- *And to support means testing instead of universal payments?*

AI could speed up evaluation, making it more relevant to budgeting and to spending reviews

- Speeding the progression from monitoring indicators to evaluation
- Natural language processing could unlock further value from existing evaluation reports
- AI can combine geographical and budgetary information to reach conclusions on impact of policies
  - Forestry: Is overseas development aid improving the situation on deforestation?
  - Evaluation of agricultural policy: methane emissions; land use; biodiversity

AI could streamline financial reporting and improve transparency

- **Streamlining: replace numerous overlapping specific reports – sometimes derived from historic requests for specific information – with direct access to budgetary and financial information**

- **Improving: providing chatbots that allow users to structure requests for information in a way that provides the information they need.**

- **Facilitating comparison of costs across programmes**

Will AI replace staff? Will this help countries with declining populations?

AI 'could shrink UK civil service by two-thirds' says former UK government HR chief

By Jack Aldane on 26/06/2023 | Updated on 26/06/2023

Or will AI essentially empower staff to work more effectively?

Levels and types of decision automation in public processes

Decision Automation Type	Decision Automation Level	Description	Illustration
	Manual	The human decides and acts without computer assistance.	
Automated decision-support	Advice	The human decides and acts based on the advice of the computer.	
	Consent	The computer decides and acts after approval of the human.	
Automated decision-making	Veto	The computer decides and acts automatically but gives the human opportunity for a veto.	
	Autonomous	The computer decides and acts automatically without informing the human	

Some problems and challenges

> Generative AI prone to hallucinations and reflects the biases in the material it learns from

> Skills, knowledge, training, infrastructure

> Algorithms may get the wrong answer – sometimes over an extended period

> AI difficult to check – and thus difficult to challenge. So a lot of literature on AI in the public sector concerns the ethical framework…..

Ethics and AI

- European Parliament 13 March 2024 – AI Regulation
- OECD AI Policy Observatory allows user to browse and compare hundreds of AI Policy Initiatives in over 60 countries
- OECD Council Recommendation on Artificial Intelligence 2019
- https://www.oecd.org/digital/artificial-intelligence/

Country examples

- **Finland**
  - Palkeet (Shared Services Centre for Finance and HR) is part of MoF
  - Develops services and processes in cooperation with its customers and MoF and State Treasury

- **France**
  - Public Finances Directorate General – Foncier Innovative, TAAP & LLaMandement project
  - Large Language Model processed many parliamentary amendments to the budget bill in 10 minutes

Conclusions

- **Not core to work of budget departments yet; seems to be more about tax and accounting & reporting so far**

- **From monitoring to evaluating?**

- **Human judgement and accountability**

Thank you!