



## Digital Workshop

# Artificial Intelligence in Risk Analysis: Balancing Automation and Human Judgement

## Group Discussion

# Challenges and Lessons Learned for Efficient Deployment of AI Solutions in Risk Analysis



## Feedback from Group 2

Is AI currently used in your tax administration for risk analysis?

# Current use of AI in tax administrations for risk analysis

## › Advanced AI Practices

The Netherlands uses statistical models and generative AI to support tax risk analysis without replacing human judgment.

## › Long-standing Machine Learning Use

Sweden employs machine learning for audit selection, though generative AI is not yet central to risk processes.

## › Holistic Data Integration

Austria and Hungary combine domestic and international data, using expert systems and statistical models for tax planning.

## › Early-Stage AI Adoption

Portugal and Georgia are experimenting with AI in tax, with limited operational use and ongoing developments.



## Feedback from Group 2

What standards should apply to data quality and reliability?

# Standards for Data Quality When Using AI

## › Data Integration Challenges

Combining domestic and international data creates matching and consistency challenges for AI risk analysis.

## › Tiered Trust Approach

Classifying data sources by reliability guides automation versus manual verification decisions.

## › Balancing Data Access and Privacy

Access to external data enhances models but must be balanced with privacy and protection obligations.

## › Documentation and Legal Defensibility

Clear documentation of data provenance and matching logic ensures technical robustness and legal trust.

## Feedback from Group 2

How should auditors validate AI-generated risk signals?

Should AI-generated alerts always be reviewed by a human before action is taken?

# Validation and Human Oversight

## › Integration in Audit Processes

AI-generated risk signals should be embedded within existing audit workflows, not treated as standalone decisions.

## › Essential Human Judgment

Human review is critical due to data imperfections and legal requirements, ensuring responsible decision-making.

## › Transparency and Trust

Understanding why AI signals are generated builds trust and guides appropriate auditor follow-up actions.

## › AI as Decision-Support

AI enhances prioritisation and insight, but ultimate accountability and decisions remain with humans.



## Feedback from Group 2

How should tax administrations detect and mitigate algorithmic bias in risk models?

CRITICAL  
ERROR

# Detecting and Mitigating Bias in Risk Models

## ▶ Two-Step Bias Mitigation

Strictly scrutinise input variables and systematically test outputs to identify unfair bias in risk models.

## ▶ Feedback Loops for Auditing

Auditors use feedback loops to report bias patterns, triggering further analysis and remediation.

## ▶ Ongoing Monitoring Importance

Continuous monitoring is necessary as bias impacts individuals and corporations differently and evolves over time.

## ▶ Iterative Mitigation Process

Bias mitigation combines technical controls, human judgment, and organisational learning for fairness and accuracy.



## Feedback from Group 2

What skills are needed for auditors to interpret data-driven risk signals?

# Capabilities Needed to Interpret Data-Driven Signals

## › Hybrid Auditor Skill Sets

Auditors need both strong tax-law knowledge and data literacy to effectively interpret AI-generated insights within legal frameworks.

## › Professional Scepticism

Auditors must critically evaluate AI outputs and not assume accuracy simply because they are machine-generated.

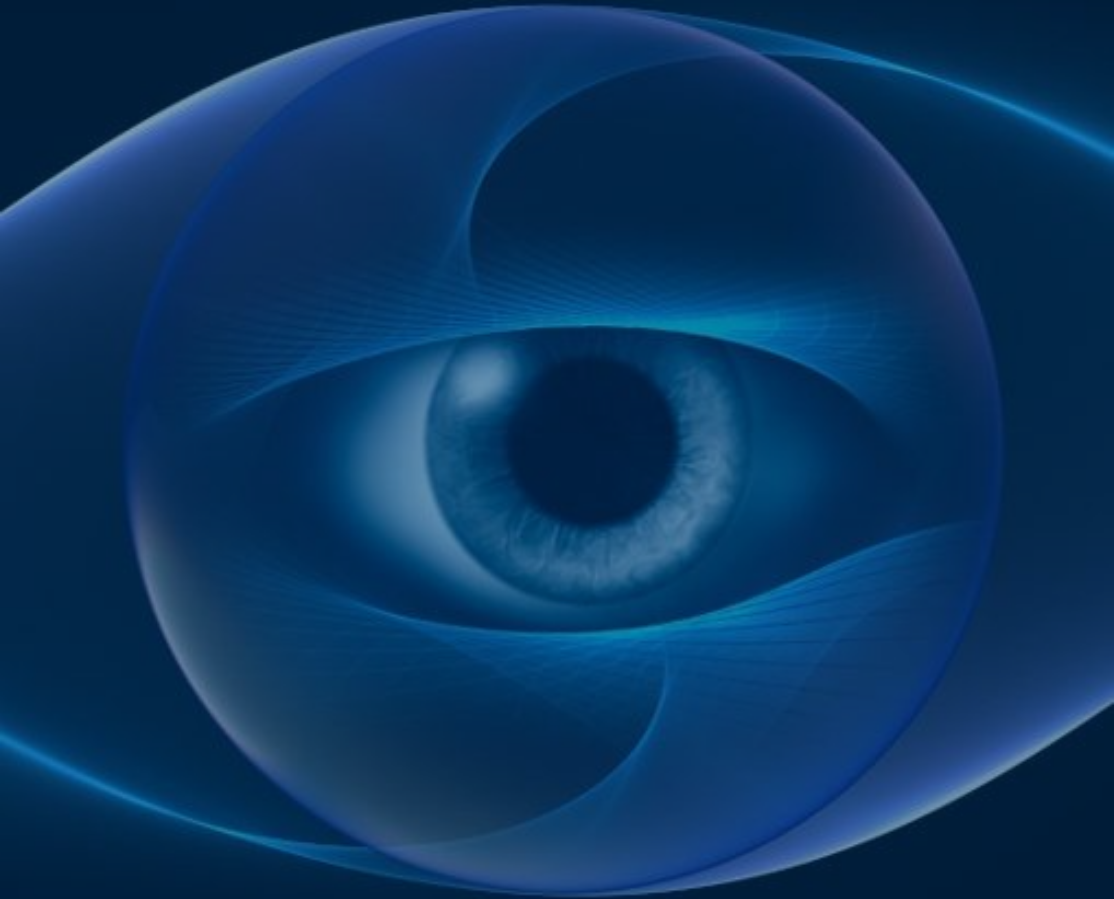
## › Holistic Taxpayer View

Maintaining a comprehensive understanding of the taxpayer's situation helps integrate AI signals meaningfully into decision-making.



## Feedback from Group 2

How much transparency is appropriate without compromising fraud detection methods?



## How Transparent Should AI Use Be?

### › Transparency and Trust

Informing taxpayers about AI use fosters trust and aligns with data protection principles.

### › Risks of Over-Disclosure

Excessive transparency may allow taxpayers to game the system and avoid detection.

### › Algorithmic Risk vs Decision-Making

Transparency is more critical when AI directly affects legal decisions than for risk analysis alone.

### › Human Review and Challenge Rights

Human review remains essential if taxpayers challenge the outcome.



## Feedback from Group 2

### What governance structure should exist?

## Governance Structures for Responsible AI Use

### › Internal AI Regulations

Specific internal regulations guiding responsible use of generative AI and protecting sensitive data.

### › Training and Technical Controls

A governance approach of combining staff training with technical limits on AI tool versions and usage.

### › Secure Infrastructure

Secure cloud platforms and strong information security frameworks are essential for trustworthy AI adoption.

### › AI Literacy Importance

AI literacy is vital; staff must understand AI's workings, risks, and limitations for effective governance.



## Key Takeaways and Way Forward

### › Foundation Preparation

Secure data quality, clarify rules, and increase staff awareness to build strong AI foundations in tax administration.

### › AI as a Support Tool

Use AI mainly as a signal generator and analytical aid to enhance prioritisation without replacing human judgment.

### › Human-Centred Accountability

Maintain human accountability with auditors reviewing AI outputs and making final decisions in tax processes.

### › Governance and Ethics

Evolve governance frameworks to monitor bias, protect privacy, and strengthen trust as AI use scales.

