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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 1

Feedback from Group 1

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

Current use of AI in tax administrations for risk analysis

Support functions first

Ireland: not yet using AI for risk analysis, but already using AI for call routing, internal assistance and call summaries.

Risk analysis is cautious

Denmark: uses risk-related models in complex fraud work, but machine learning is limited because training data are incomplete and fraud patterns evolve quickly.

Common direction of travel

Other administrations described pilots or early-stage projects, including machine-learning models based on historical audit data and AI-supported information searching.

Big picture

Italy was described as having a strong data-science capacity, while Latvia and others are still building experience in practical risk-analysis use cases.

Feedback from Group 1

What standards should apply to data quality and reliability?

Standards for Data Quality When Using AI

- Predefined thresholds for matching accuracy and consistency
- Documented provenance and validation of external data sources
- Checks that data granularity and timing fit the analytical purpose
- A rule that uncertain or unfit sources should not enter the model

Feedback from Group 1

How should auditors validate AI-generated risk signals?

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

Validation & Human Review

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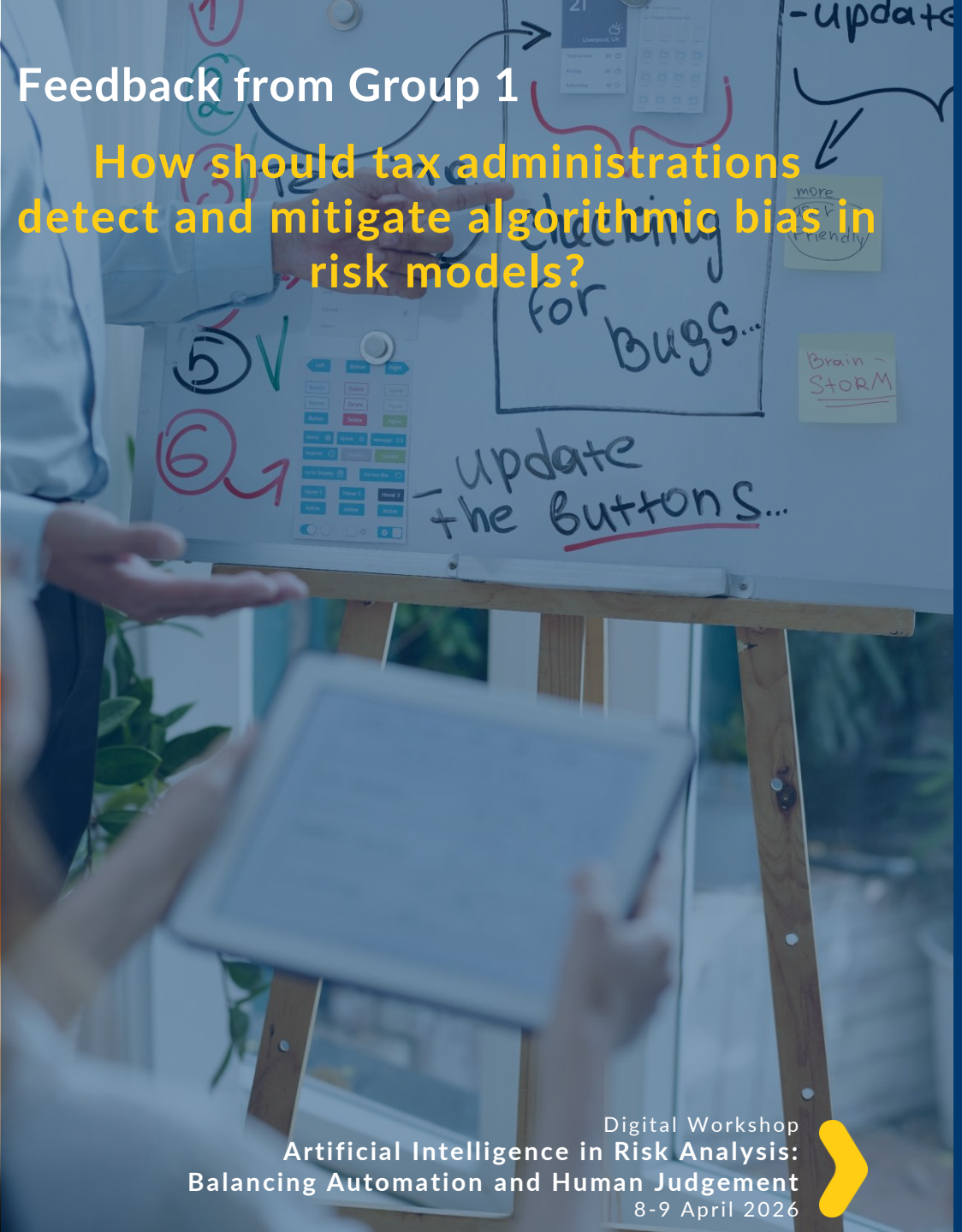
Practical rule

Validation should be continuous, expert-led and closely tied to real operational cases.

Recommended review flow

- ✓ Model produces a signal
- ✓ Auditor receives context or explanation
- ✓ Signal is checked against real case evidence
- ✓ Action follows only after human assessment



Detecting and Mitigating Bias in Risk Models

Beyond Historical Data

Training only on known historical cases can reproduce existing detection patterns and miss new fraud types.

Bias Mitigation Approach

Bias mitigation, therefore, requires careful review of training data, ongoing monitoring and strong expert challenge.

Keep an eye on divergences

Looking closely at cases where AI and human judgment diverge, and building models that provide some explanation of why a case was flagged.

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

Skills auditors need

- Strong tax and fraud expertise, plus the ability to interpret risk signals critically
- Understanding of data limitations and enough analytical literacy to ask the right questions
- Capacity to work with analysts and technical teams in multidisciplinary settings
- Use of tools such as crime scripts to translate real fraud patterns into model logic

Feedback from Group 1

How much transparency is appropriate without compromising fraud detection methods?

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Human Oversight, Taxpayer Rights & Transparency

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Human in the loop
AI may prioritise or triage, but major compliance action should remain human-led.

Explain actual cases
Formal case decisions need proper human explanation and documentation.

Do not reveal the playbook
Avoid exposing detailed model logic that could become a manual for fraudsters.

Feedback from Group 1

What governance structure should exist?

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Governance Structures for Responsible AI Use

Legal Basis
AI use should rest on a clear legal framework, with the law updated where necessary.

Privacy Safeguards
Use anonymised data where possible and protect sensitive information throughout development and evaluation.

Independent Oversight
Parliamentary auditors or equivalent public bodies should provide external assurance.

Human Accountability
Consequential action must remain attributable to human officials.

Model Validation Function
A dedicated validation team or peer-review mechanism should challenge technical robustness before and after deployment.

Real-World Evaluation
Meaningful evaluation should be based on real operational data, where lawful and possible, ideally anonymised.

Cross-Functional Dialogue
Leadership, legal teams and analysts need a shared understanding of model-building choices.

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The Path Forward

Start with reliable data
Set entry standards for sources and exclude what is unfit.

Build explainable signals
Use modular, expert-informed models that can be validated.

Keep humans accountable
Reserve consequential decisions for trained officials.

Scale under governance
Protect privacy, monitor bias and embed independent scrutiny.

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