IOTA

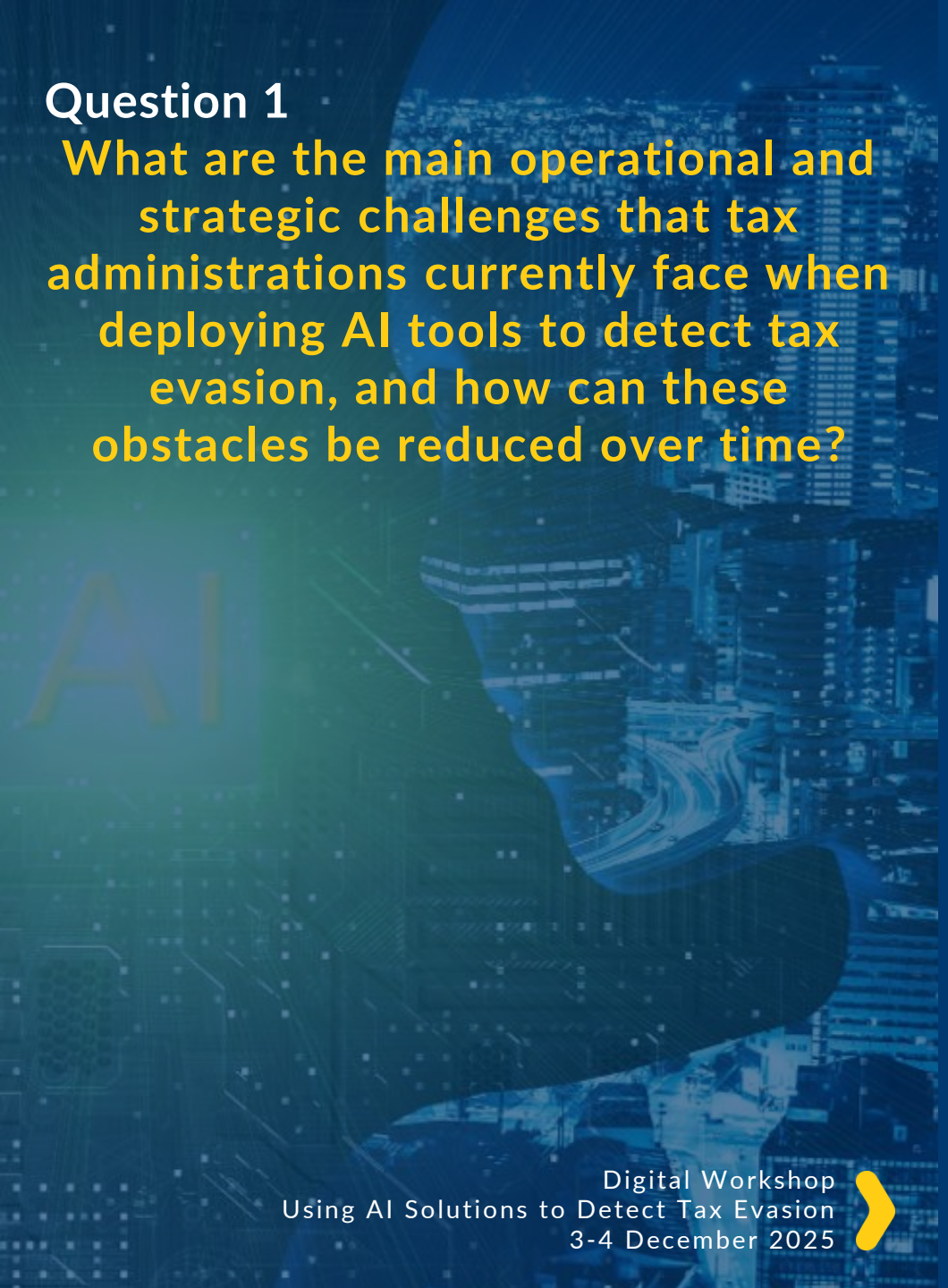
Digital Workshop

Using AI Solutions to Detect Tax Evasion

Group Discussion 2

Challenges and future developments in using AI solutions to detect tax evasion

FEEDBACK FROM GROUP 1



Question 1

What are the main operational and strategic challenges that tax administrations currently face when deploying AI tools to detect tax evasion, and how can these obstacles be reduced over time?

Key Challenges in Deploying AI

Talent Shortage and Skills Gap

Public sector struggles to attract AI experts due to salary differences with private companies.

Data Quality and Fragmentation

Legacy systems cause siloed, poorly documented data, limiting AI effectiveness in tax analysis.

Integration and Workflow Issues

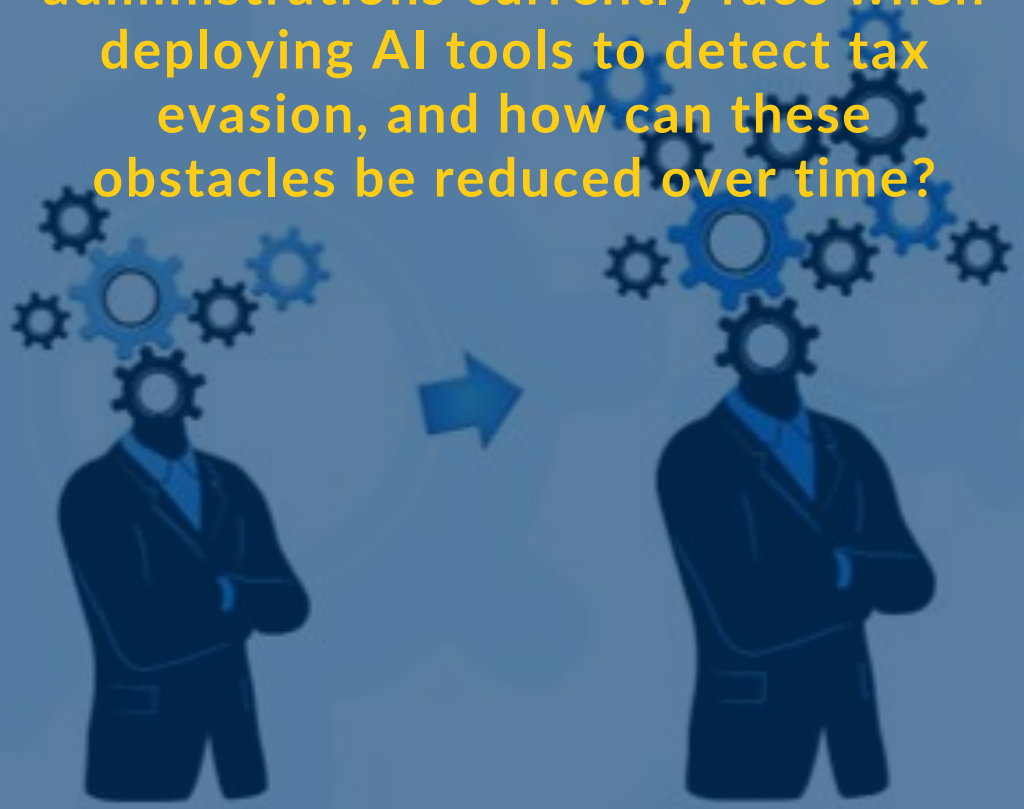
AI outputs often fail to integrate into existing tax workflows, reducing practical utility.

Ethical Risks and Bias

AI models' lack of transparency and explainability raises ethical concerns and trust issues.

Question 1

What are the main operational and strategic challenges that tax administrations currently face when deploying AI tools to detect tax evasion, and how can these obstacles be reduced over time?



Suggested Solutions to Overcome Challenges

Leadership and Governance

Prioritise leadership commitment to data governance, ethics, and competitive recruitment strategies to strengthen tax administrations.

Robust Data Platforms

Invest in data standardisation, documentation, and interoperability to build strong, scalable data platforms.

Capacity Building and AI Tools

Enhance skills through staff training and use AI tools for documentation and system development to bridge skill gaps.

Monitoring and Human Oversight

Implement monitoring mechanisms and maintain human oversight to ensure AI reliability and accountability in decision-making.

Question 2

How might emerging technologies, such as generative AI and advanced analytics, transform the way tax administrations identify and address tax evasion in the coming years?

Digital Workshop
Using AI Solutions to Detect Tax Evasion
3-4 December 2025

Generative AI and Advanced Analytics

Generative AI for Auditing

Generative AI aids auditors by summarizing documents, structuring data, and delivering real-time insights.

Advanced Risk Analysis

Combining predictive models with traditional scoring improves the accuracy of tax evasion risk detection.

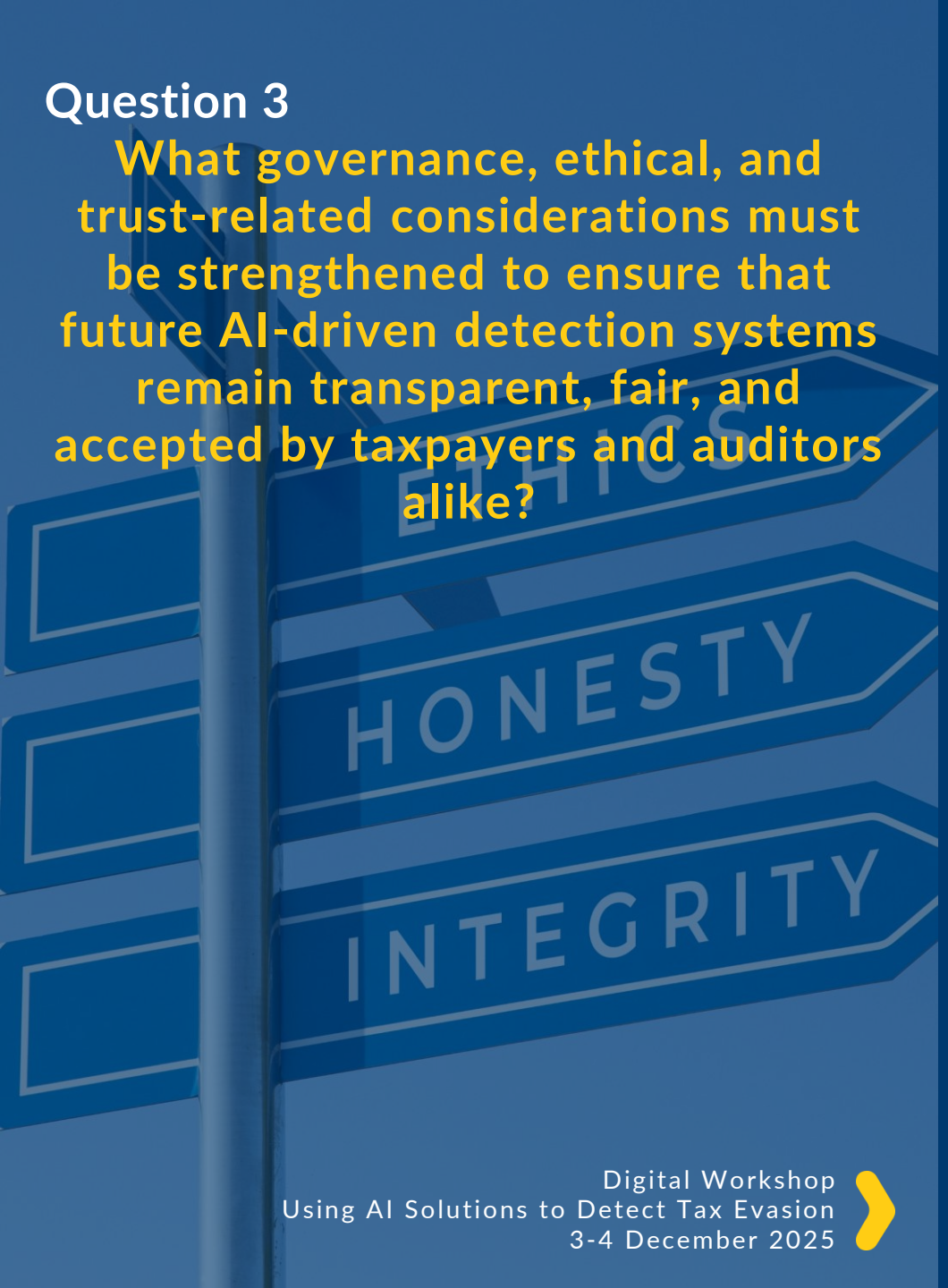
Data Fusion and Network Analysis

Linking multiple data sources uncovers hidden fraud networks and complex evasion patterns.

Automation and AI Tools

Automation reduces manual work and AI-driven tools speed up model deployment and coding.

IOTA



Question 3

What governance, ethical, and trust-related considerations must be strengthened to ensure that future AI-driven detection systems remain transparent, fair, and accepted by taxpayers and auditors alike?

Ensuring Transparency and Fairness

Transparency and Explainability

AI models must be interpretable, legally defensible, and provide clear reasons for actions with appeal channels.

Bias Mitigation and Fairness

Implement strategies to mitigate data biases, ensuring fairness across different taxpayer groups and demographics.

Human Accountability

Humans must retain final enforcement decisions to prevent over-reliance on automated AI systems.

Ethical Governance and Regulation

Adopt comprehensive ethical checklists and regulatory frameworks to ensure privacy and prevent AI misuse.

IOTA

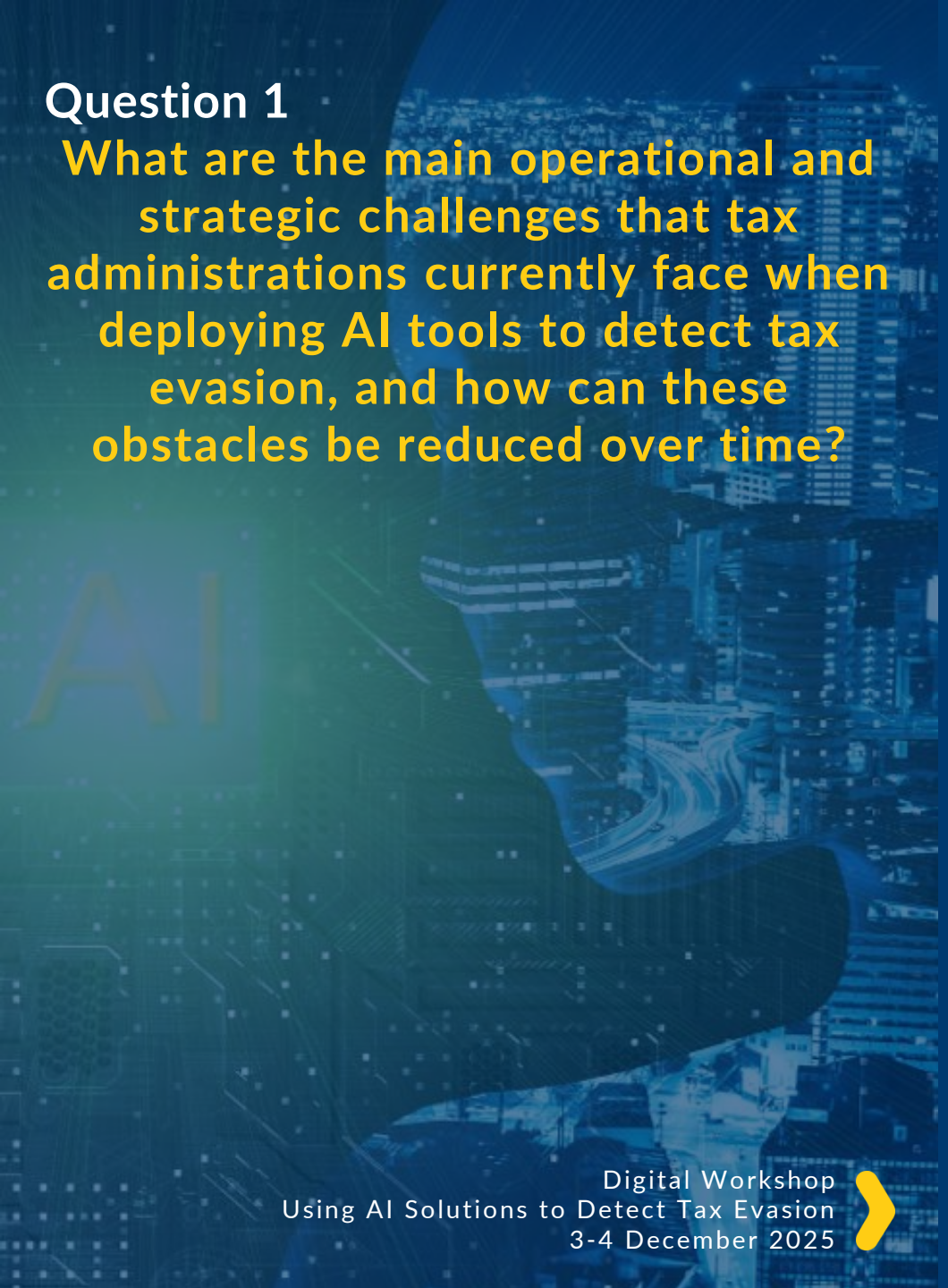
Digital Workshop

Using AI Solutions to Detect Tax Evasion

Group Discussion 2

Challenges and future developments in using AI solutions to detect tax evasion

FEEDBACK FROM GROUP 2



Question 1

What are the main operational and strategic challenges that tax administrations currently face when deploying AI tools to detect tax evasion, and how can these obstacles be reduced over time?

Key Challenges in AI Adoption

Skills Gap and Recruitment

Finding experts skilled in tax law and data science is challenging due to limited talent and private sector competition.

Data Quality and Integration

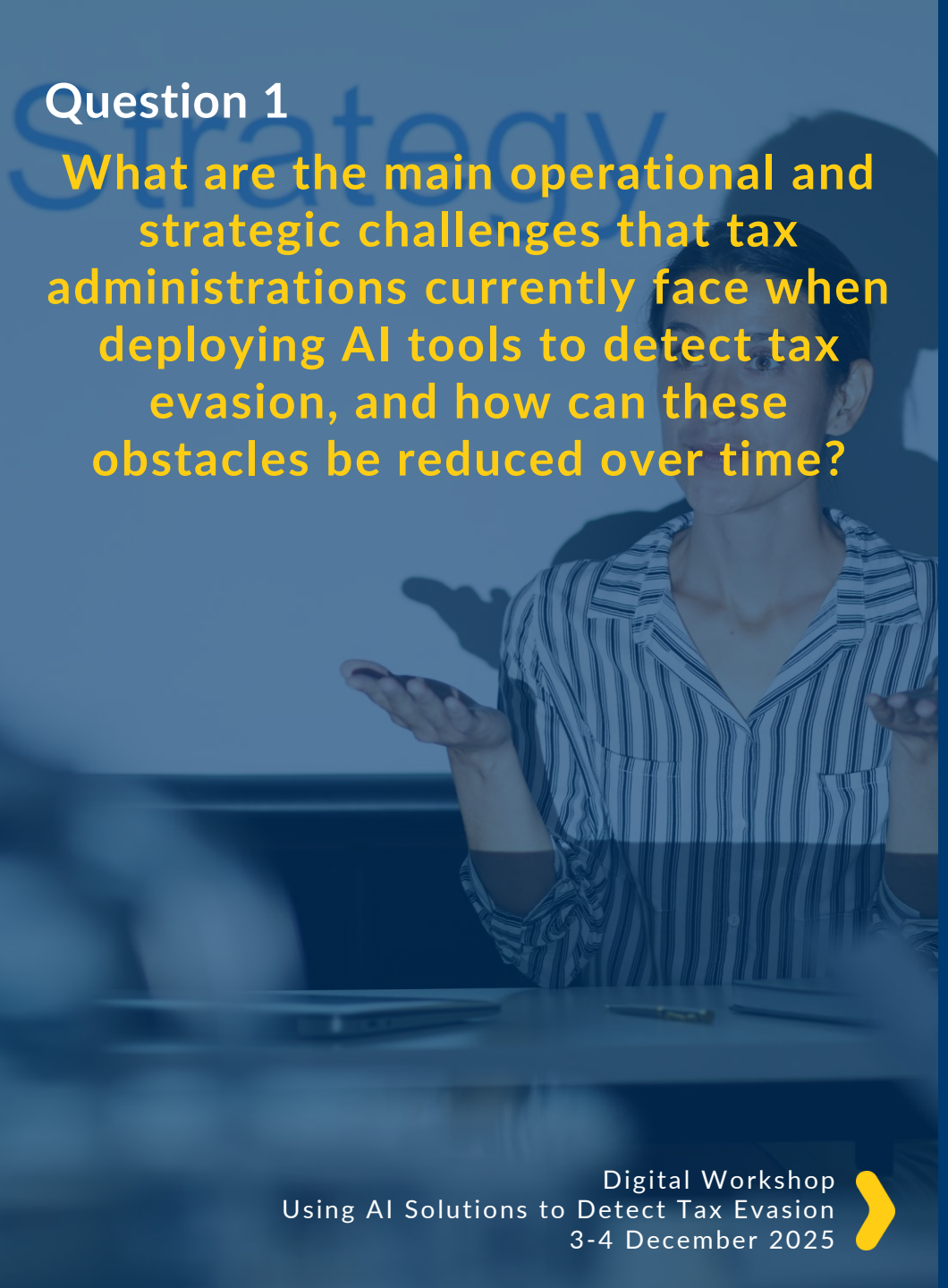
Fragmented and poorly structured data impedes AI adoption, with issues in harmonizing datasets across systems.

Confidentiality and Compliance

Ensuring GDPR compliance and data confidentiality is critical to protect sensitive taxpayer information during AI use.

Infrastructure and Costs

High costs for software, hardware, and training, along with infrastructure limits, challenge AI implementation efforts.



Question 1

What are the main operational and strategic challenges that tax administrations currently face when deploying AI tools to detect tax evasion, and how can these obstacles be reduced over time?

Strategies to Overcome Challenges

Confidential AI Development

Develop in-house AI tools and secure platforms to ensure data confidentiality and regulatory compliance.

Data Governance and Quality

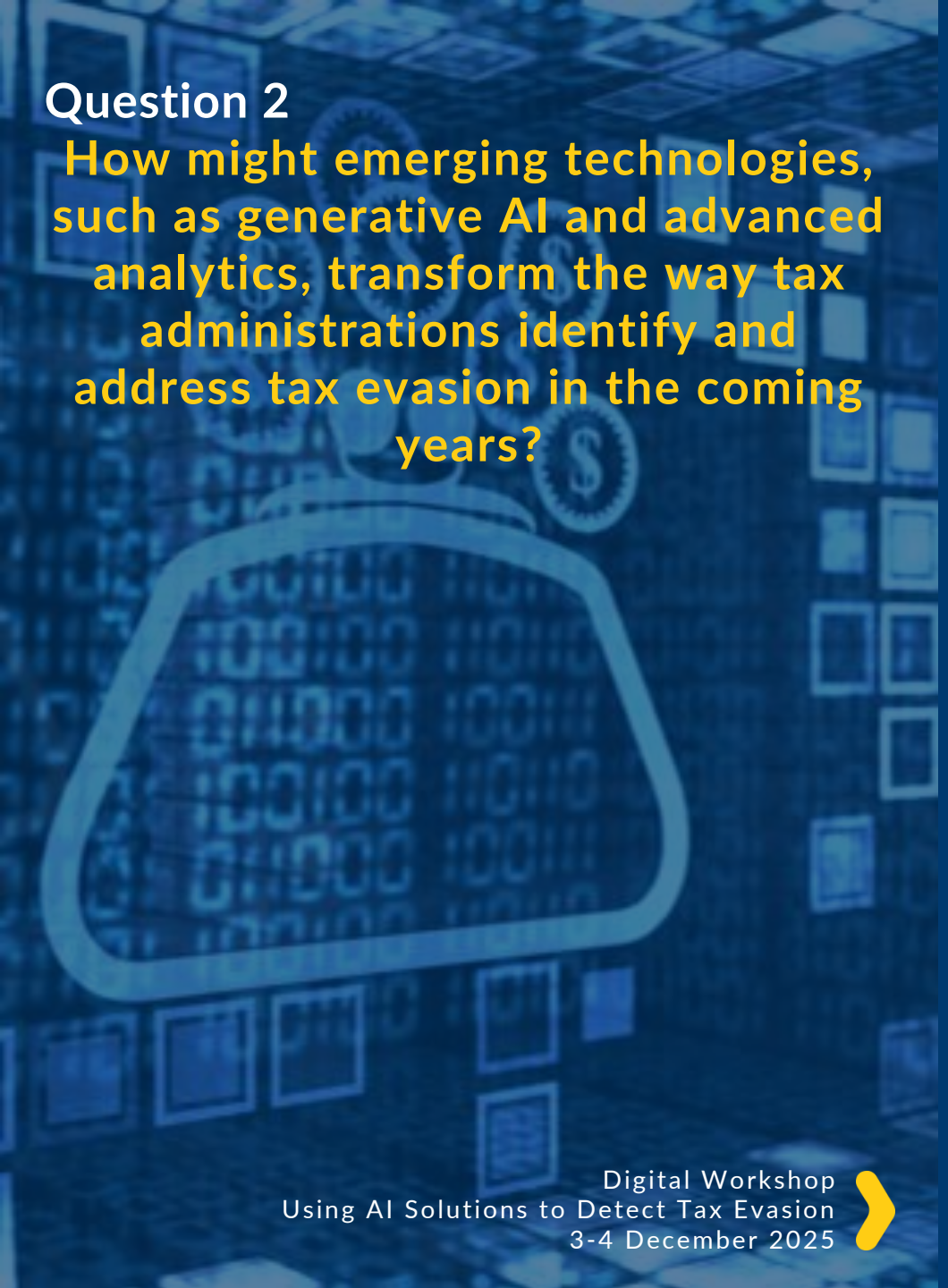
Invest in robust data governance and cleansing to enhance data quality and interoperability.

Compliance and Security

Establish GDPR-compliant procedures and security measures to protect sensitive information.

Training and Teamwork

Create cross-disciplinary teams and targeted training programs to bridge skill gaps.



Question 2

How might emerging technologies, such as generative AI and advanced analytics, transform the way tax administrations identify and address tax evasion in the coming years?

Innovations Driving Change

AI-Powered Proactive Detection

AI shifts tax evasion detection from reactive audits to real-time predictive risk identification and proactive fraud prevention.

Advanced Analytics and Network Analysis

Analytics uncover complex corporate structures and fund flows, aiding cross-border fraud investigations using extensive EU data.

Automation Enhancing Efficiency

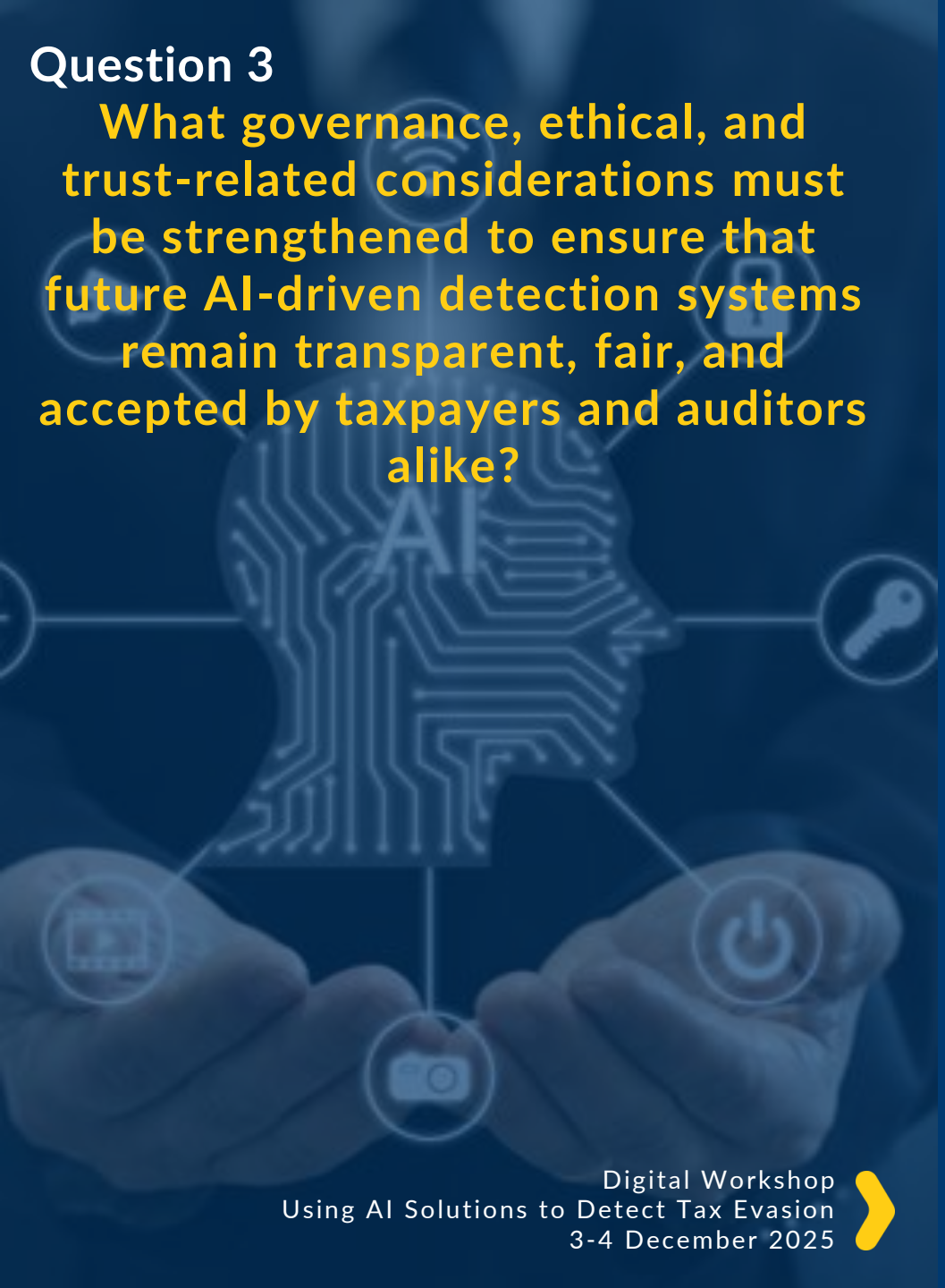
Automation enables faster anomaly detection, case prioritisation, and support for investigative processes in tax evasion cases.

Cloud and High-Performance Computing

Cloud computing supports large-scale data processing, enabling analysis of complex fraud patterns efficiently and effectively.

Question 3

What governance, ethical, and trust-related considerations must be strengthened to ensure that future AI-driven detection systems remain transparent, fair, and accepted by taxpayers and auditors alike?



Principles for Responsible AI Use

Transparency and Explainability

AI models must be interpretable and legally defensible to ensure clear understanding by taxpayers and auditors.

Human Oversight and Accountability

Human involvement remains crucial in decision-making to prevent full automation and maintain responsibility.

Fairness and Bias Control

Regular validation is necessary to prevent biased targeting of specific groups within AI outputs.

Security and Data Protection

Protecting sensitive data and preventing AI misuse by criminals is essential for secure AI deployment.

IOTA

Digital Workshop

Using AI Solutions to Detect Tax Evasion

Group Discussion 2

Challenges and future developments in using AI solutions to detect tax evasion

FEEDBACK FROM GROUP 3

Question 1

What are the main operational and strategic challenges that tax administrations currently face when deploying AI tools to detect tax evasion, and how can these obstacles be reduced over time?

Main Operational and Strategic Challenges

IOTA

Trust and Explainability

Lack of trust in AI outputs requires strong validation and explainability to gain auditor confidence.

Data Quality Issues

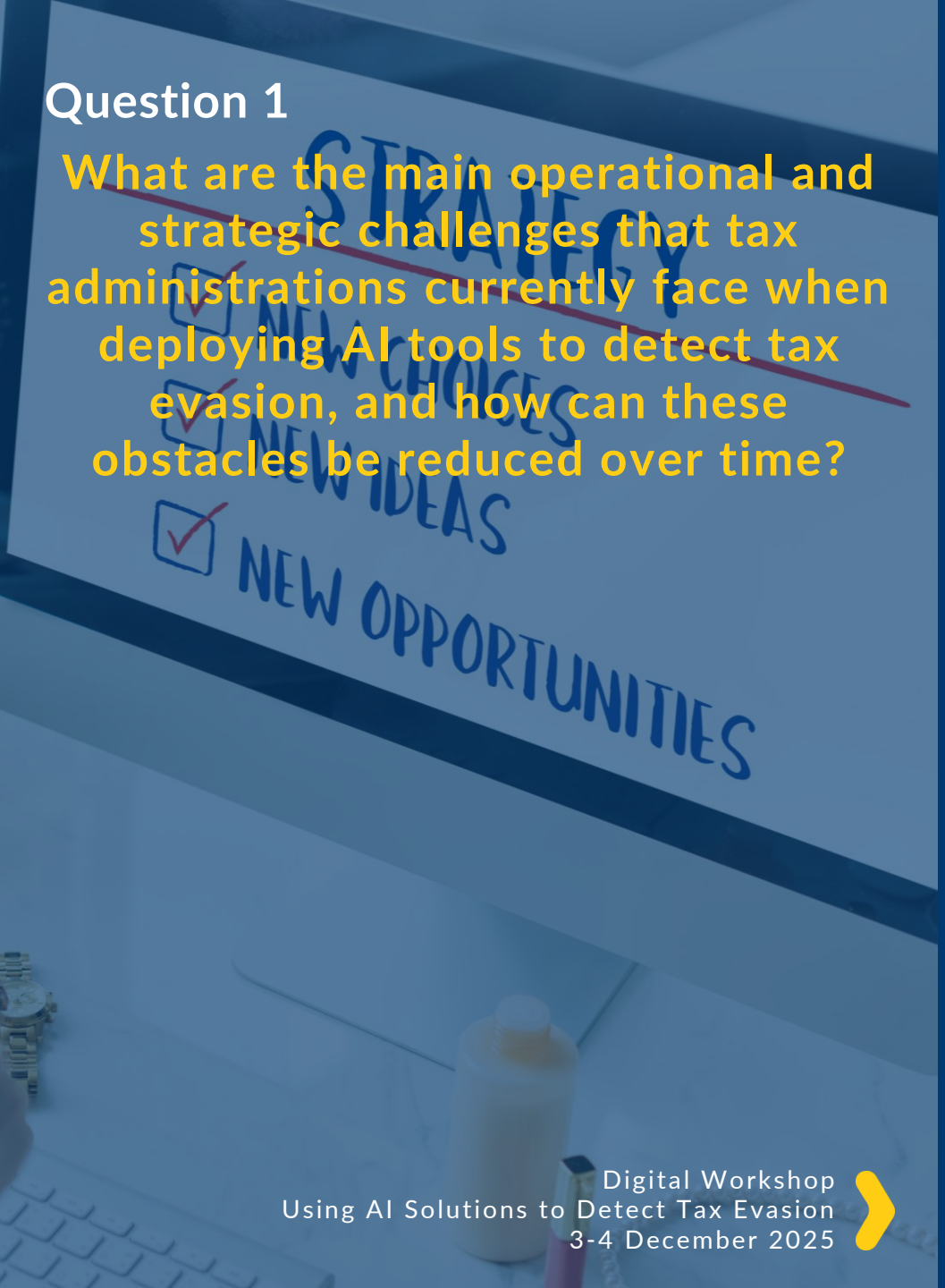
Incomplete and inconsistent tax data reduce AI model accuracy and reliability.

Integration with Legacy Systems

Existing tax IT platforms pose challenges for deploying AI predictive analytics effectively.

Resource and Cost Constraints

Shortage of skilled staff, high costs, and infrastructure needs limit AI adoption success.



Question 1

What are the main operational and strategic challenges that tax administrations currently face when deploying AI tools to detect tax evasion, and how can these obstacles be reduced over time?

Strategies to Overcome Challenges

Leadership Buy-In Importance

Securing leadership commitment ensures prioritisation and resource allocation for successful AI adoption.

Enhancing Data Governance

Improving data quality, harmonisation, and cleansing processes is essential for reliable AI outcomes.

Training and Explainability

Develop interpretable models and train staff to effectively use AI tools across departments.

Secure Development and Monitoring

Internal hosting and continuous monitoring maintain data confidentiality, compliance, and model accuracy.

Question 2

How might emerging technologies, such as generative AI and advanced analytics, transform the way tax administrations identify and address tax evasion in the coming years?

Digital Workshop
Using AI Solutions to Detect Tax Evasion
3-4 December 2025

Innovations Transforming Tax Evasion Detection

Generative AI for Data Processing

Generative AI summarizes audit reports and converts unstructured data into structured formats for easier analysis.

Network Analytics for Fraud Detection

Advanced analytics identify complex relationships among taxpayers and companies, uncovering organized fraud schemes.

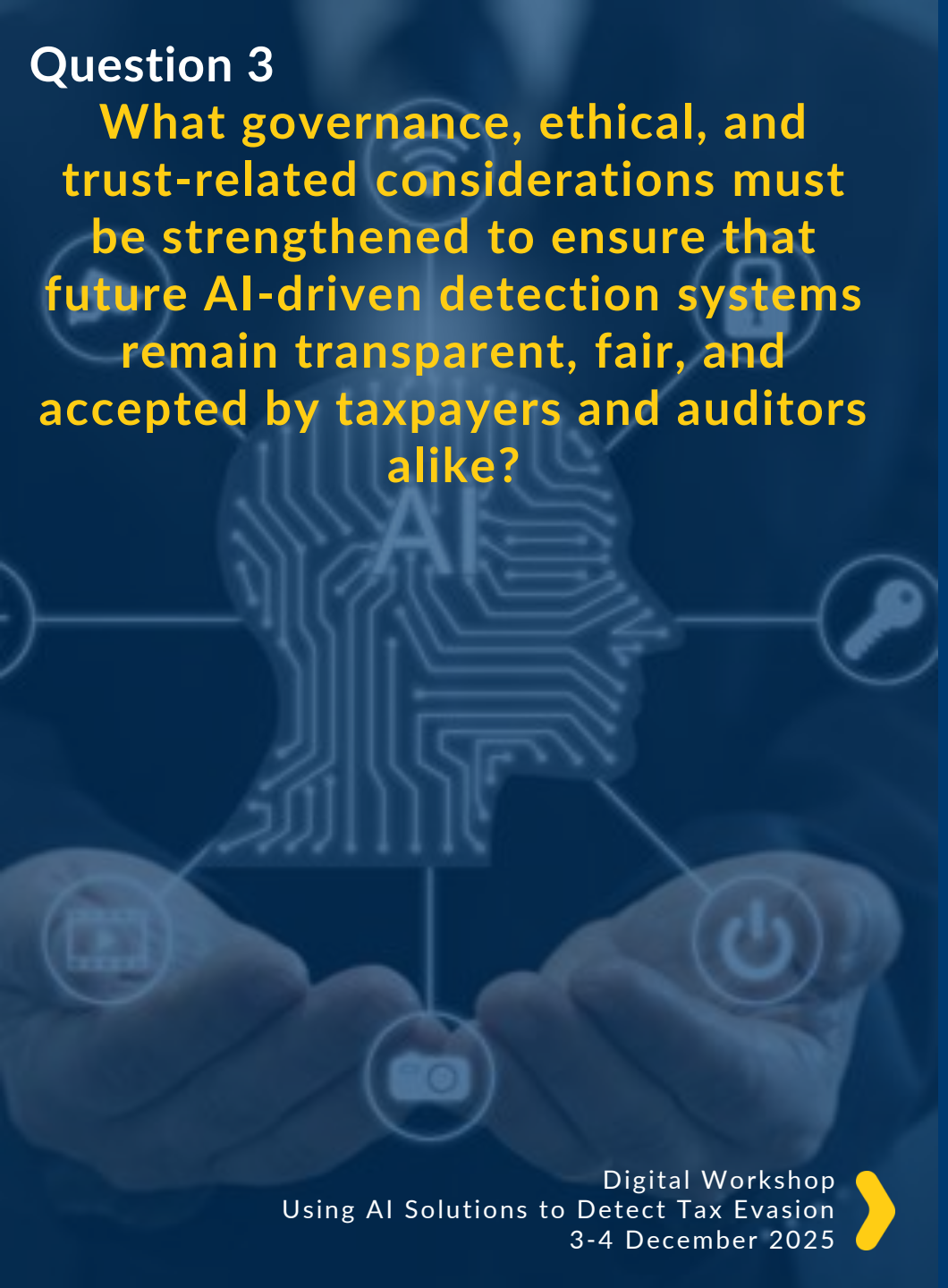
Predictive Compliance Approaches

Shifting from reactive audits to predictive risk scoring enables early intervention and proactive compliance.

Secure Offline AI Models

Offline large language models securely process sensitive data internally, reducing cloud-related risks.

IOTA



Question 3

What governance, ethical, and trust-related considerations must be strengthened to ensure that future AI-driven detection systems remain transparent, fair, and accepted by taxpayers and auditors alike?

Ensuring Transparency and Accountability

Transparency and Explainability

Disclose data sources used in AI models while maintaining proprietary safeguards and ensure flagged cases are understandable.

Human Oversight and Accountability

Maintain human decision-making in enforcement to avoid full automation and preserve accountability in tax evasion detection.

Bias Mitigation and Fairness

Implement bias mitigation and fairness validation to prevent discrimination in AI models based on demographic factors.

Data Privacy and Ethical Compliance

Ensure GDPR compliance to protect sensitive data and avoid using public cloud AI for confidential information.