European
Commission

# Promoting digital transformation in internal audit

## State of the play at the European Commission's Internal Audit Service (IAS)

José Ignacio BENITO PRIETO

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Service

# Digital challenges for auditing institutions

## Internal

1. **Risk evaluation**. Need of extensive knowledge and experience not only on the subject and related regulations but also in information and communication technology

2. Senior **management's limited knowledge** about IT make it difficult for them to evaluate the effectiveness of new digital technologies in the implementation of business and operations, as well as effectiveness and efficiency of IT internal controls

3. Recruiting and retaining **skilled staff** (build proper analytical capabilities, reflect on how best to update their professional practice)

## External

1. The increased **volume of** available **data**

2. The ever growing **automation of business processes** and their information available through logs in the systems

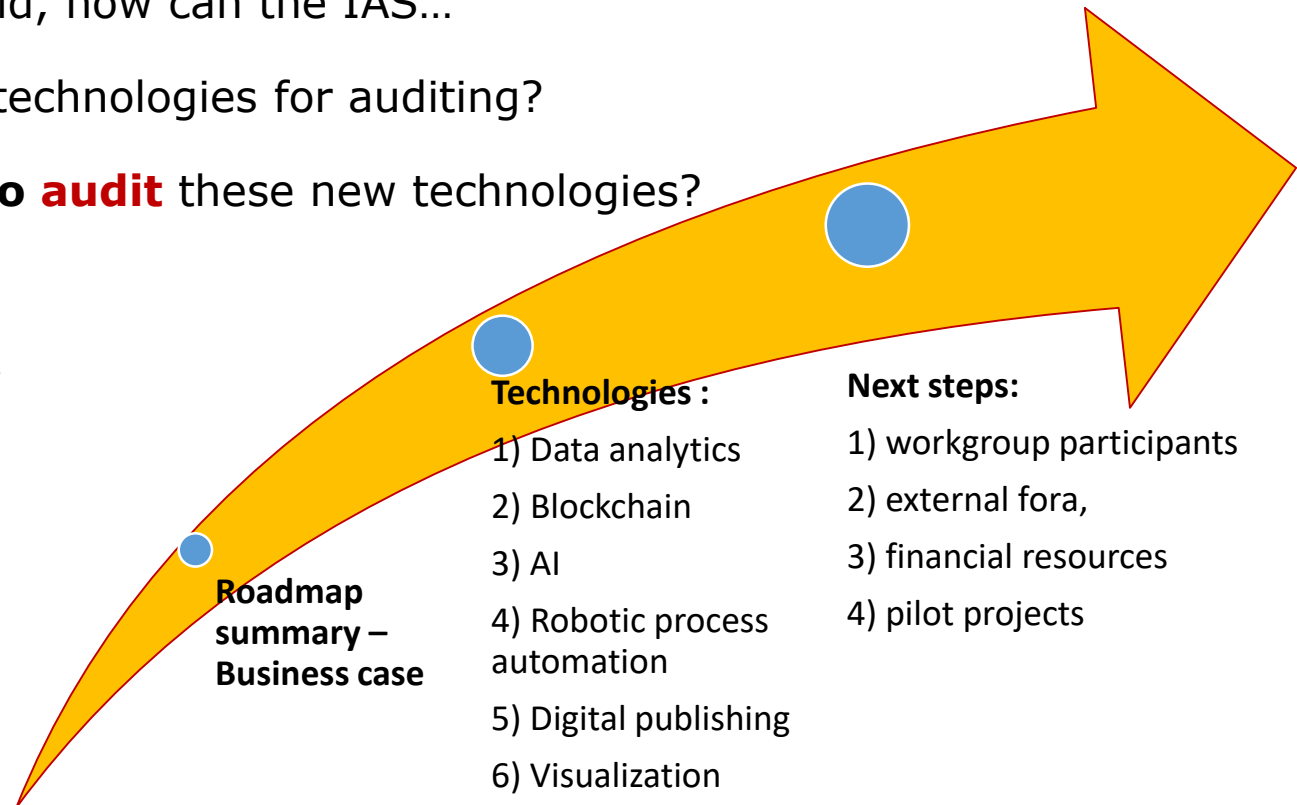3. **Scarcity of** audit **professionals** with adequate skillsets in the market

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# Vision

## IAS challenge

In a digital world, how can the IAS…

1. **apply** new technologies for auditing?

2. get **ready to audit** these new technologies?

## IAS journey

**Roadmap summary – Business case**

**Technologies :**

1) Data analytics

2) Blockchain

3) AI

4) Robotic process automation

5) Digital publishing

6) Visualization

**Next steps:**

1) workgroup participants

2) external fora,

3) financial resources

4) pilot projects

# 1- Roadmap summary

**A.  UNDERSTANDING** THE STATE-OF-THE-ART (2019)

**B.  BUILDING CAPACITY** (2019-2020)

    a.  Establishing **IAS working groups** to explore, connect to others and be innovative (2019)

    b.  Collaborating with **international organizations** (2019-2020) (Belgian/Netherlands government, World Bank, ECA, OECD, etc.)

    c.  Participating in **external fora** for emerging technologies (2019-2020) (e.g. IIABel)

**C.  DELIVERING** (2019-2020)

    a.  Deliver a **study** / position / reflection paper indicating what is out there (internally and outside EC) and suggest how to proceed with short to medium/long term targets (2019)

    b.  Set up a number of **pilots** to explore pragmatically the use of technology and deliver initial hands-on results (2019 – 2020)

# 2 – Data analytics

## A. Understanding the state-of-the-art

1. Benchmarking with other organizations (CNECT, JRC, TAXUD, ECA, Dutch Gov. IA, others)

2. Participating in pilot working groups by CNECT, DIGIT, JRC, etc.

## B. IAS capability building roadmap and deliverables:

1. Use of CAATs tools by auditors at audit engagement level:

   • Teammate analytics, IDEA, ACL, etc. (Already explored in audits like BUDG MIs, PMO Consulting, etc.)

2. Offline analysis of EC corporate databases (Download of full datasets and analysis of full population offline)

3. Continuous auditing (robotic process automation):
   ▪ Interfaces to corporate/local systems to access production data
   ▪ Offline analysis of replicated datasets from production systems in real time
   ▪ Management of audit work by exceptions in continuous auditing processes
   ▪ Possible transfer of outcome to first and second level of defence

## C. In parallel and immediately,

1. Starting using available tools by DIGIT like PowerBI for internal reporting (e.g. dashboard) to build capability in IAS audit and support functions

# 3 – Blockchain

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#EUBlockchain
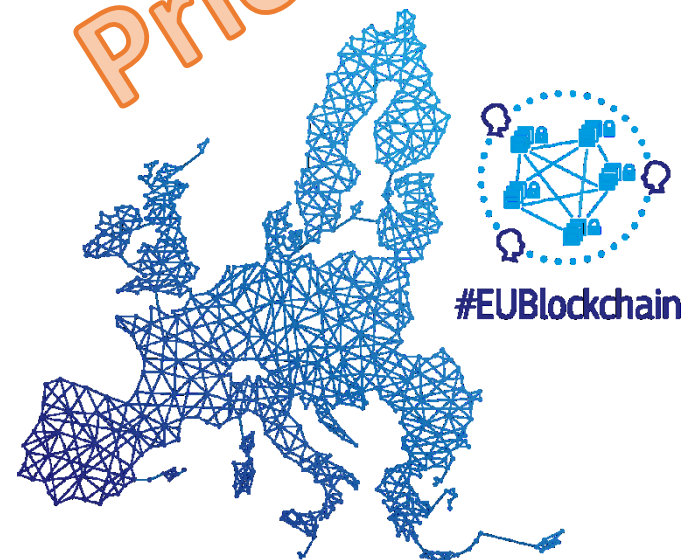
*A. Understanding state of the art:*

1. Getting familiar with blockchain and public transaction ledger technologies

2. Understanding current initiatives in EC and other public administrations

*B. IAS Capability building roadmap*

1. Participating in some of current EC competence centres and working groups on this technology

2. Exploring blockchain technology for audit execution processes (lifecycle of documents, validation chain, audit trial, archival, etc.)

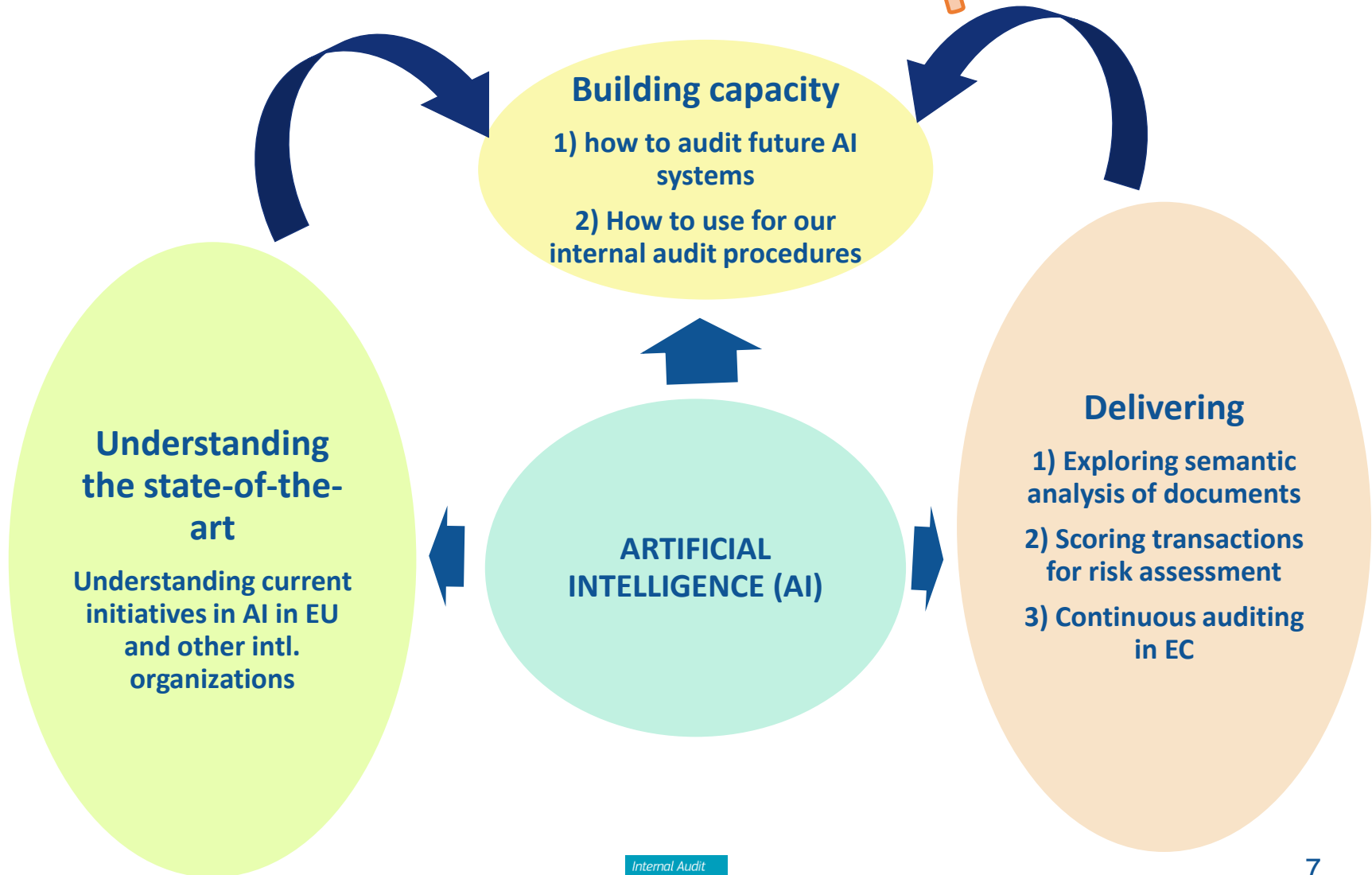*C. Delivering*

1. Participating in the user group for "audit and blockchain" with DIGIT, CNECT and ECA (immediately)

2. Experimenting with a pilot "European blockchain infrastructure" to perform an audit engagement (2020-2021)

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**Priority 2**

**Building capacity**

1) how to audit future AI systems

2) How to use for our internal audit procedures

**Understanding the state-of-the-art**

Understanding current initiatives in AI in EU and other intl. organizations

**ARTIFICIAL INTELLIGENCE (AI)**

**Delivering**

1) Exploring semantic analysis of documents

2) Scoring transactions for risk assessment

3) Continuous auditing in EC

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# **Thank you for your attention!**

Contact the Internal Audit Service:
[ias-europa@ec.europa.eu](mailto:ias-europa@ec.europa.eu)