

# Intelligent technology



1. **Intelligent technology.** exhibit intelligent behavior by analyzing their environment and - with some degree of autonomy - taking action to achieve specific goals.

- ▶ increasingly finding its way into business and everyday life.



2. **Artificial Intelligence (“AI”).** Intelligent technology, such as AI, can play an important role in the audit process.



3. **Improvement.** Higher efficiency and accuracy of audits performed and help identify key risks and deliver valuable insights.

- ▶ AI is not a replacement for human expertise and judgment, but rather complements it.

# Intelligent technology



1. **Volume.** The sheer volume of digital support tools has made us uncritical of using them responsibly.



2. **Historical data.** This is a problem because artificial intelligence consists of mathematical models (algorithms) that determine an outcome for new data based on historical data, often containing biases.



3. **Detection.** AI does tend to be better at detecting situations that require action, for example, finding tumors in CT scans, finding fraud in bank transfers, or noticing unwanted situations in live camera images.



4. **Accountable systems.** Transparency, Accountability and Fairness.



# Intelligent technology



1. **Standardization.** Digitization of business processes lead to standardization of processes, the use of data in the design of processes and from automation of repetitive activities.



2. **Automated decision.** Decision processes are also automated through the use of algorithms set up according to programmed decision trees or through artificial intelligence trained on historical data.



3. **Audits.** The audit pays particular attention to the reliability and credibility of the processes using the IT systems, and the role the IT systems play in them.

- ▶ **IT Audit.** Auditing IT systems consists of mapping the hardware and software used and its linkage to business processes and outcomes.
- ▶ **Data Privacy Audit.** Datasets are audited for data privacy regulations, as are processes that use (personal) data.
- ▶ **Cybersecurity/Data Protection Audit.** Cyber security is also a risk area and thus part of audits.

# Intelligent technology



1. **Trustworthy AI.** Lawful, Ethical and Robust.



2. **No intuitive understanding.** There is legislation, but not yet an intuitive understanding of what is and what is not allowed.



3. **Transparency.** transparency about digital systems and AI algorithms leads to explanations that data or an algorithm is being used in a decision-making process or work environment.



4. **Accountability.** Concept that stands for being able to be held accountable for the consequences of a service or process.



5. **Inclusiveness.** Inclusiveness of a digital system is strongly linked to the inclusiveness of human decision-making processes.



# Intelligent technology



1. **Difficult to Audit AI?** AI is trained on a small data set , only to be applied to all new situations it receives as input, i.e., the entire future data set.



2. **From input to output.** How we get from input to output is not clear in an AI system, even to the system's programmers.



3. **Or is it?** The dataset used for training seems to determine the characteristics on which an AI calculates outcomes.