Building an Al Assurance Ecosystem

Centre for Data Ethics and Innovation

Ghazi Ahamat - UK Centre for Data Ethics and Innovation

2 June 2022









About the CDEI

Centre for

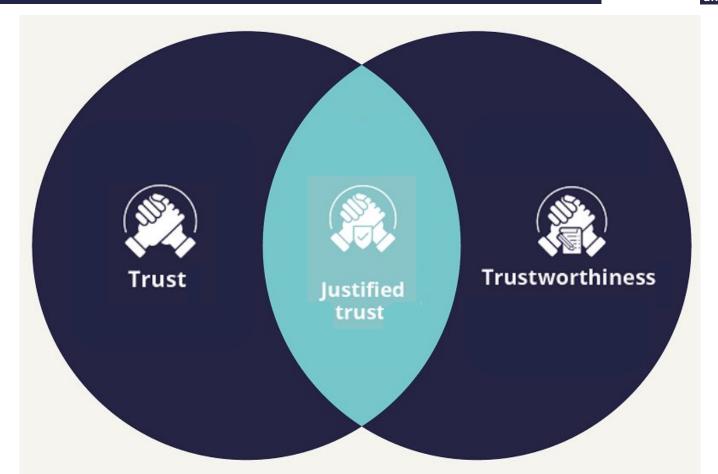
Data Ethics

and Innovation

- The first in the world of its kind, the Centre for Data Ethics and Innovation (CDEI) leads the UK government's work to enable trustworthy innovation using data and AI.
- It is vital that the public can trust innovation in data and AI. To earn that trust, the CDEI works with partners across the public sector, industry and academia, in the UK and internationally, to identify and tackle barriers to responsible innovation.



To unlock the transformative potential of AI, we will need <u>justified</u> trust



Assurance builds justified trust



1st Party:
Responsible
Party

E.g. Al developer

Justified trust

2nd Party: Assurance User

E.g. Executive procuring an Al system

Assessment, testing and verification

3rd Party: Assurance Provider

E.g. Al auditor

Information about trustworthiness

First & Second Party Assurance



1st Party:
Responsible
Party

E.g. Al developer

Justified trust?

2nd Party: Assurance User

E.g. Executive procuring an Al system

Self Assessment by the responsible party

3rd Party: Assurance Provider

E.g. Al auditor

Due diligence by the Assurance user

Al Assurance provides a range of tools to build this trust





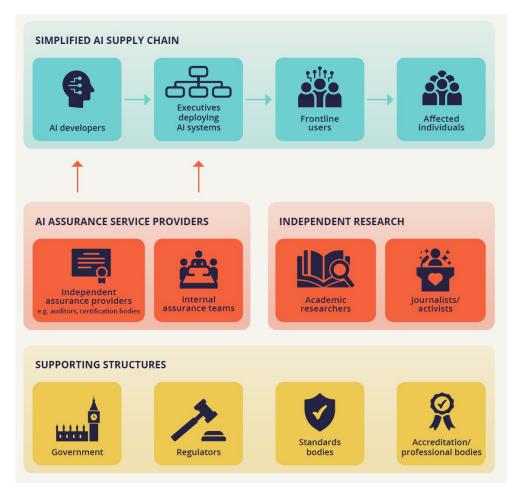
There is no silver bullet for AI Assurance - we will need the full toolbox to enable trustworthy AI adoption.

Key actors in the AI assurance ecosystem

Centre for

Data Ethics

and Innovation



Roadmap Key Steps



01	Demand	Clarify the supply chain's understanding of AI risks
02	The Market	Grow a dynamic, competitive AI assurance market
03	Standards	Develop a common language for Al assurance, including common measurement standards
04	Assurance profession	Grow demand for a reliable and effective assurance across the AI supply chain
05	Regulation	Produce assurable guidelines to enable trustworthy Al innovation
06	Independent researchers	Allow independent researchers to play a role developing assurance techniques and identifying AI risks

The role of standards in AI assurance



Assurance relies on commonly accepted standards at different levels:

- 1) **Foundational standards** around common terminology and concepts
- 2) **Process standards** for risk management, quality management, and other good practice
- 3) Measurement standards (metrology) for common ways to measure performance and risk
- 4) **Performance standards** for minimum levels of acceptable outcomes, eg in safety regulations
- 5) Audit/reporting standards are required for reliable information that is reported consistently
- 6) **Professional standards** are necessary to accredit service providers

Without standards of some kind, we have advice, rather than assurance (though this is also useful).