# Cyber Security of AI Code of Practice and Technical Standard

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# WHAT IS THE NATIONAL CYBER SECURITY CENTRE (NCSC)?

- UK's National Technical Authority on cyber security

- Part of the UK Government, but not a policy department or a regulator

- Collaborate with and provide advice to…
  - UK government departments
  - Industry (UK and global) and Institutions (such as Standards Bodies)
  - International counterparts
  - Academia, Think Tanks, Research Centres, etc
  - Wider society (aka the public)

National Cyber Security Centre

- We work to…
  - Understand the evolving cyber threat
  - Develop cyber security mitigations and publish advice/guidance
  - Reduce risk by securing and improving the resilience of public & private networks
  - Respond to significant cyber security incidents

https://www.ncsc.gov.uk/

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# SCOPE OF AI CYBER WORK

- Addressing the cyber security risks to AI
- All AI systems which includes different models, tools and technologies
- Entire lifecycle of AI
- AI supply chain, particular focus on developers and deployers



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# WHY DID WE WANT TO DEVELOP A STANDARD?

- Create international alignment on minimum security requirements for AI systems
- Drive good cyber security practices in organisations planning to and already deploying AI
- Supported by the cyber security community due to clear baseline expectations to protect systems and supported by the AI industry due to its reasonable/proportionate requirements



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# STAGES OF THE WORK

- NCSC's Guidelines for Secure AI Development
- Research outputs (risk assessment, literature reviews, organisation survey) and collaboration with other governments and in multilateral fora
- Global consultation on draft Code of Practice, technical review and publication of Code of Practice & Implementation Guide
- Development of ETSI Technical Standard and Accompanying Guide



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# GLOBAL CONSULTATION KEY STATS

- 12 workshops
- 123 responses (5 government responses, 10 from industry/trade associations and 9 membership bodies)
- 80% supported DSIT's proposed approach, 11% opposed and 9% don't know
- Support for the principles ranged from 83% to 90%
- Main overarching feedback was that stakeholders wanted more guidance on how to implement the Code


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# MAIN CHANGES TO UPDATED CODE

- New principle on disposal and decommissioning of AI systems
- Principles now more contextualised to AI security
- Revised stakeholder groups
- Implementation Guide on how to implement the Code



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# THE NEW IMPLEMENTATION GUIDE

- The Implementation Guide was led by John Sotiropoulos (OWASP co-chair). Technical reviews were provided by DSIT, NCSC and ICO.
- The document includes detailed actions linked to examples of AI use cases to support organisations with adhering to the Code.
- We have ensured the Guide is mapped to UK and international publications for consistency.
- The Guide has been submitted to ETSI so that it can become the accompanying guide to the future standard.



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# ACTIVITY SINCE PUBLICATION OF CODE

- Further review from AI professionals and cyber security experts at ETSI
- Approval and publication of ETSI Technical Specification
- Approval and imminent publication of Accompanying Guide as a Technical Report
- Research projects (future gap analysis and mappings)
- Ongoing engagement with industry partners, international counterparts, academia and other standards bodies (CEN/CENELEC and ISO/IEC) for further consultation to upgrade TS to EN to ensure alignment of the EU AI Act
- Work with stakeholders to support future adoption of the standard inside EU market and outside EU market.



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# WHAT IS IN THE STANDARD (TS 104 223)?

**Secure Design**

Principle 1: Raise awareness of AI security threats and risks

Principle 2: Design the AI system for security as well as functionality and performance

Principle 3: Evaluate the threats and manage the risks to the AI system

Principle 4: Enable human responsibility for AI systems

**Secure Development**

Principle 5: Identify, track and protect the assets

Principle 6: Secure the infrastructure

Principle 7: Secure the supply chain

Principle 8: Document data, models and prompts

Principle 9: Conduct appropriate testing and evaluation

**Secure Deployment**

Principle 10: Communication and processes associated with End-users and Affected Entities

**Secure Maintenance**

Principle 11: Communication and processes associated with End-users and Affected Entities

Principle 12: Monitor the system's behaviour

**Secure End of Life**

Principle 13: Ensure proper data and model disposal



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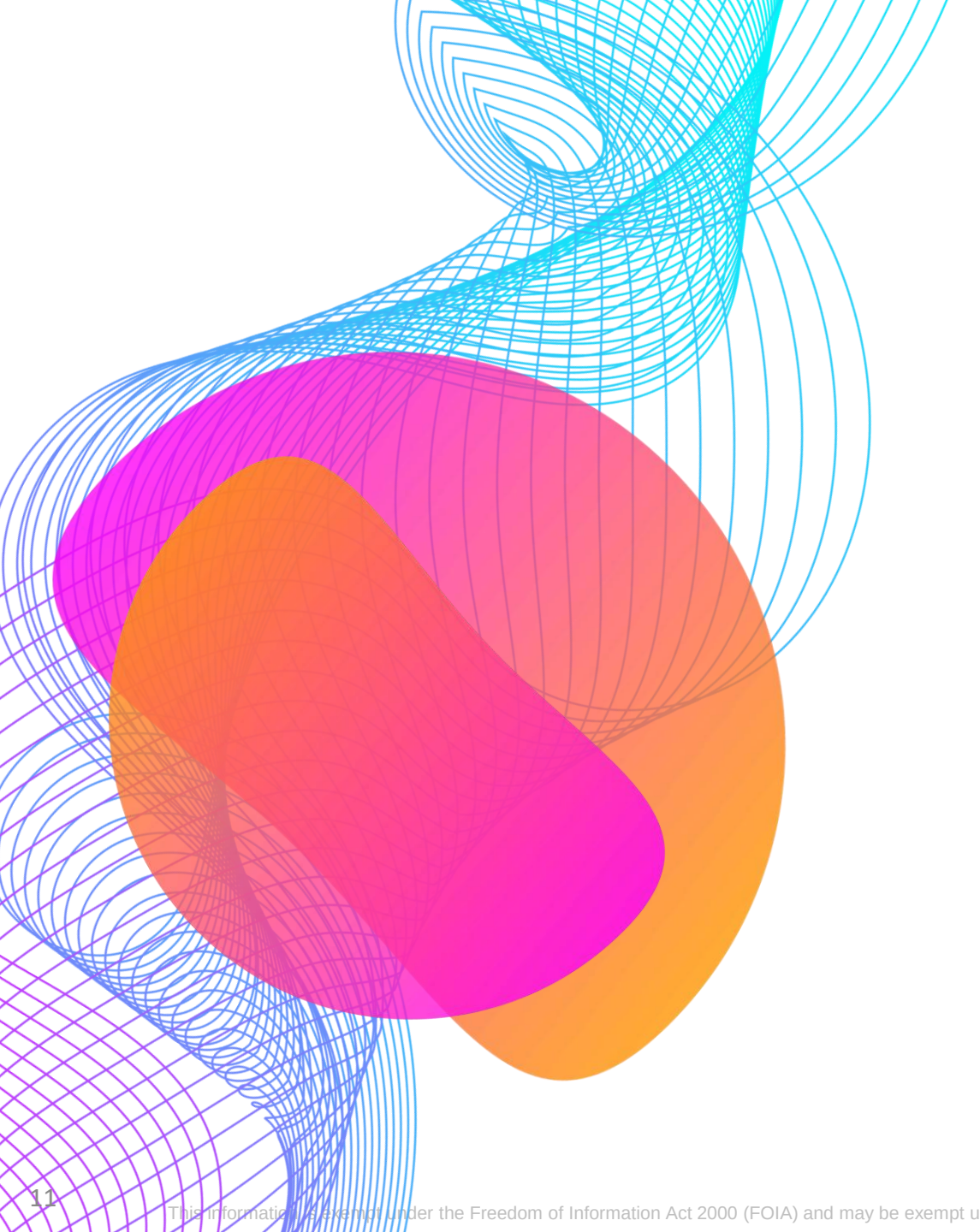

# Q&A



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