FEA

Foodservice
Equipment
Association

Information Involvement Influence

AI - ETHICS, SECURITY, POLICY AND GOVERNANCE

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MIDLANDS ENGINE | HM Government

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IOT

WHERE AI ALREADY TOUCHED YOUR EQUIPMENT / SYSTEMS?
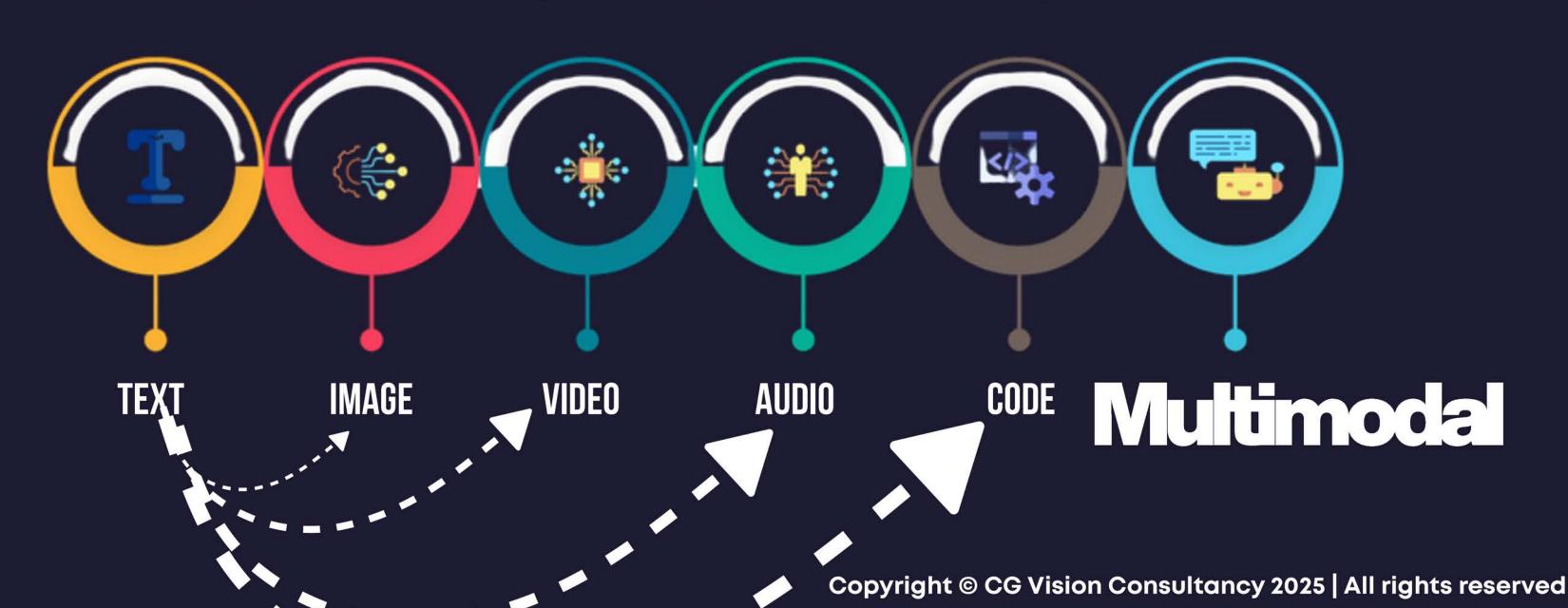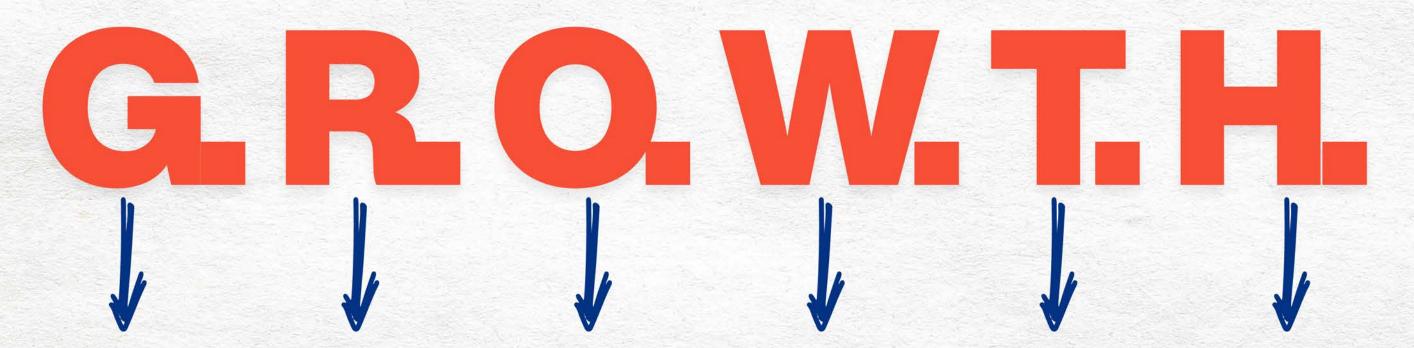
Hope for Efficiency and Innovation

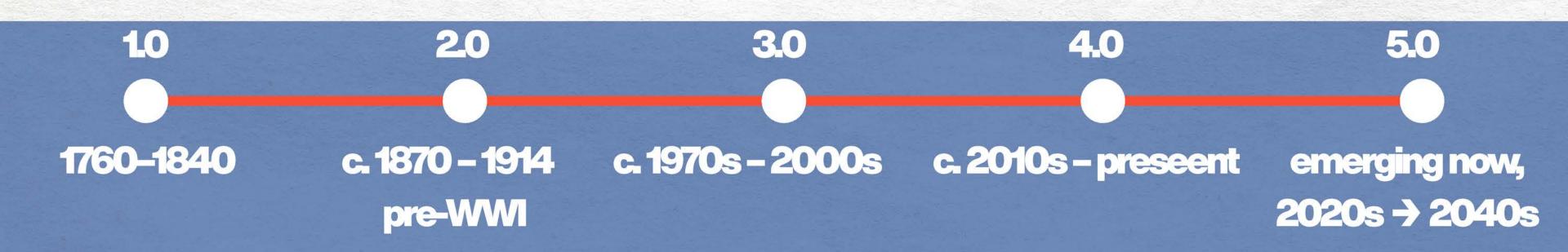**Caution and Fear Around Autonomous AI**

Industry 5.0
HumanIngenuity
SocietyEnvironment

1.0	2.0	3.0	4.0	5.0
1760–1840	c. 1870 – 1914 pre-WWI	c. 1970s – 2000s	c. 2010s – preseent	emerging now, 2020s → 2040s

AI Adoption

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e.g.

FOODSERVICE EQUIPMENT REIMAGINED

smart ovens

connected refrigeration

predictive maintenance

spare-parts demand forecasting

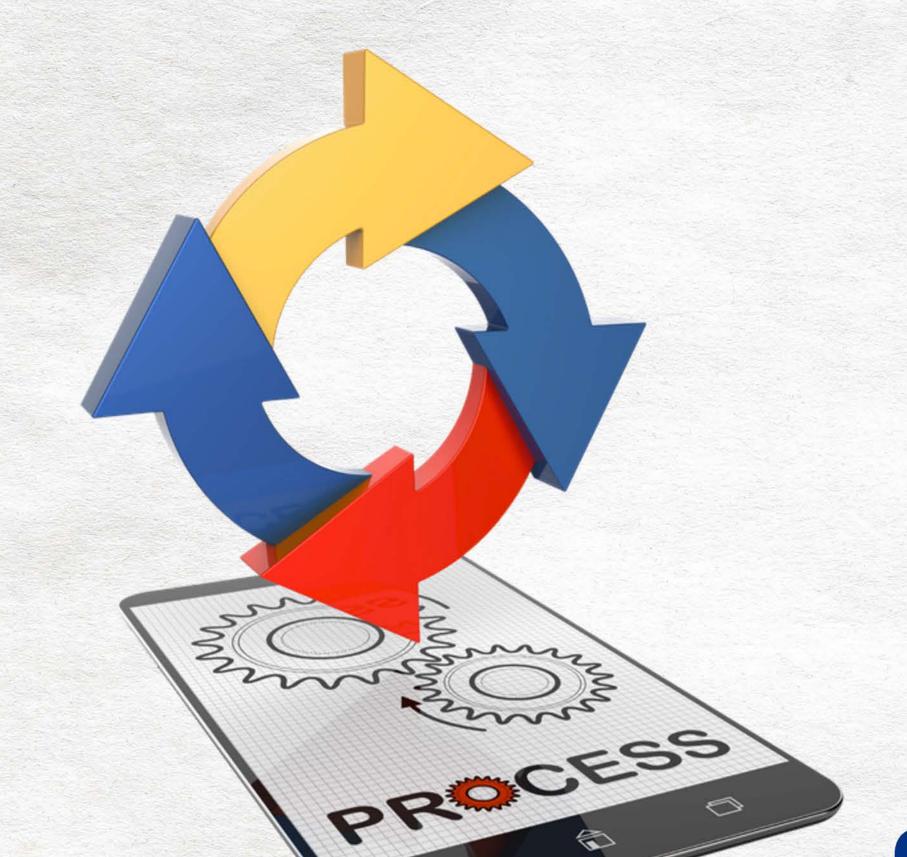Gen AI in service documentation and customer journey

HACCP IoT sensors

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6
5G

Safety
Privacy
Uptime
IP
Brand
Reputation

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Ethics → People
→ Fairness
→ Transparency

Security → Secure by Design for AI and IoT

Policy → What actually applies
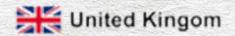
Governance → Adopt an AI Management System Fairness
→ Risk Management
→ DPIA vs. GDPR

United Kingom

Legislation & regulation: Online Safety Bill (2022, draft); Data Protection and Digital Information Bill (2023, draft)
Standards: Algorithmic Transparency Standard (Central Digital Data Office, 2021)
Principles: A pro-innovation approach to AI regulation (2023)

Canada

Legislation & regulation: Directive on Automated Decision-Making (2019) Bill C-27: Digital Charter Implementation Act, including AI and Data Act (AIDA) (2022, draft)
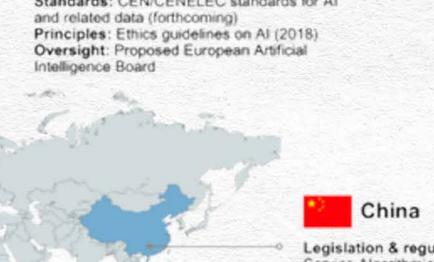**Standards:** CAN-ASC-6.2: Accessible and Equitable AI Systems (2023, draft)
Principles: Canada's Digital Charter (2019)
Oversight: Minister; Proposed AI and Data Commissioner

European Union

Legislation & regulation: Proposed EU AI Act (2021, draft); Updates to the EU Product Liability Directive (2022, draft); AI Liability Directive (2022, draft); EU's Digital Services Act
Standards: CEN/CENELEC standards for AI and related data (forthcoming)
Principles: Ethics guidelines on AI (2018)
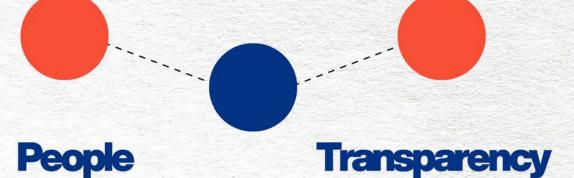**Oversight:** Proposed European Artificial Intelligence Board

China

Legislation & regulation: Chinese Internet Information Service Algorithmic Recommendation Provisions (2021); Opinion on Strengthening the Ethics and Governance of Science and Technology (2022)
Standards: National Standards for Autonomous Vehicle Testing (2018)
Principles: New Generation AI Ethics Specifications (2019); New Generation AI Code of Ethics (2021); White Paper on Trustworthy AI (2021); Internet Information Service Algorithmic Recommendation Management Provisions (2021)

United States

Legislation & regulation: Federal Trade Commission Act, for deceptive practices from deepfakes or chatbots (1914); Algorithmic Accountability Act (US AAA) (2022, draft)
Standards: NIST AI Risk Management Framework (2023)
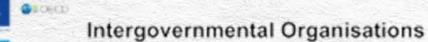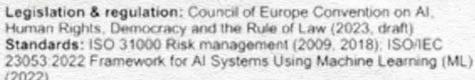**Principles:** Blueprint for an AI Bill of Rights (2023

Brazil

Legislation & regulation: Report and proposed substitute text for draft bills 5051/2019, 21/2020 and 872/2021 (2022, draft); Bill 705 on the compatibility of AI use in the public sector with ESG practices (2022, draft)
Standards: Incorporation of international standards National standards by the Brazilian Association of Technical Norms (ABNT)
Principles: Art. 3 of the proposed substitute text for draft bills 5051/2019, 21/2020 and 872/2021 (2022, draft)

Intergovernmental Organisations
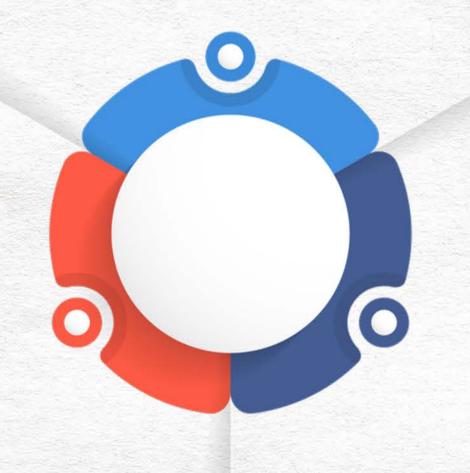
Legislation & regulation: Council of Europe Convention on AI, Human Rights, Democracy and the Rule of Law (2023, draft)
Standards: ISO 31000 Risk management (2009, 2018); ISO/IEC 23053:2022 Framework for AI Systems Using Machine Learning (ML) (2022)
Principles: OECD Recommendation of the Council on AI (2019); UNESCO Recommendation on the Ethics of AI (2021)

Ethics

People

Transparency

Fairness

Explainability

(Examples of existing and emerging AI-specific regulatory approaches, OECD, 2024)
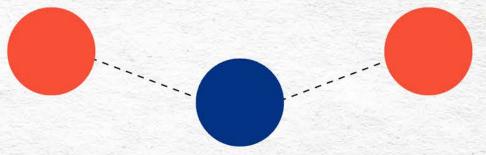
Policy & Regulation

A sectoral approach by establishing cross-sectoral, non-binding principles.

UK

- UK AI Regulation: A Pro-Innovation Approach White Paper (2023)
- Data Protection and Digital Information (DPDI) Bill
- UK GDPR / Data Protection Act 2018
- Product Safety and Machinery Regulations (UK Supply of Machinery (Safety) Regulations)
- Equality Act 2010
- AI Safety Initiatives (AI Safety Summit, AI Assurance Frameworks by CDEI)

EU

- EU Artificial Intelligence Act (AI Act)
- EU Machinery Regulation (2023/1230)
- General Data Protection Regulation (GDPR)
- Digital Services Act (DSA) 2022
- EU Data Act (2022/2023)
- EU General Product Safety Regulation (GPSR) 2023
- Proposed AI Liability Directive
- Proposed Product Liability Directive (Revised)
- EU Ethics Guidelines for Trustworthy AI (2019)
- ISO/IEC 42001:2023 – AI Management System Standard

Regulate AI systems across domains and applications with comprehensive frameworks applicable to all sectors.

What actually applies

The Process-Based Governance (PBG) Framework

Level 3

Deployment — Design

Development

The SSAFE-D Principles

Level 2

S	S	A	F	E	D
Sustainability	Safety	Accountability	Fairness	Explainability	Data Stewardship

The SUM Values

Level 1

Respect · Connect · Care · Protect

Level 1

The **SUM Values** are a set of ethical values intended to provide general normative guideposts and moral motivations for thinking through the social and ethical aspects of AI projects, and to establish well-defined criteria to evaluate their potential impacts as well as their ethical permissibility.

Level 2

At the second, and more concrete level, the **SSAFE-D Principles** are a set of actionable goals which provide tools to make sure that AI projects are bias-mitigating, non-discriminatory, and fair, and that they safeguard public trust in their capacity to deliver safe, sustainable, accountable, transparent, and reliable AI innovation.

Level 3

At the third and most concrete level, the **Process-Based Governance (PBG) Framework** provides a mechanism for integrating the SSAFE-D Principles within AI design, development, and deployment processes as well as a template for documenting corresponding governance actions.

Map
Context is recognized and risks related to context are identified

Measure
Identified risks are assessed, analyzed, or tracked

Govern
A culture of risk management is cultivated and present

Manage
Risks are prioritized and acted upon based on a projected impact

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Governance

Adopt an AI Management System

ISO420001

Risk Management

DPIA vs. GDPR
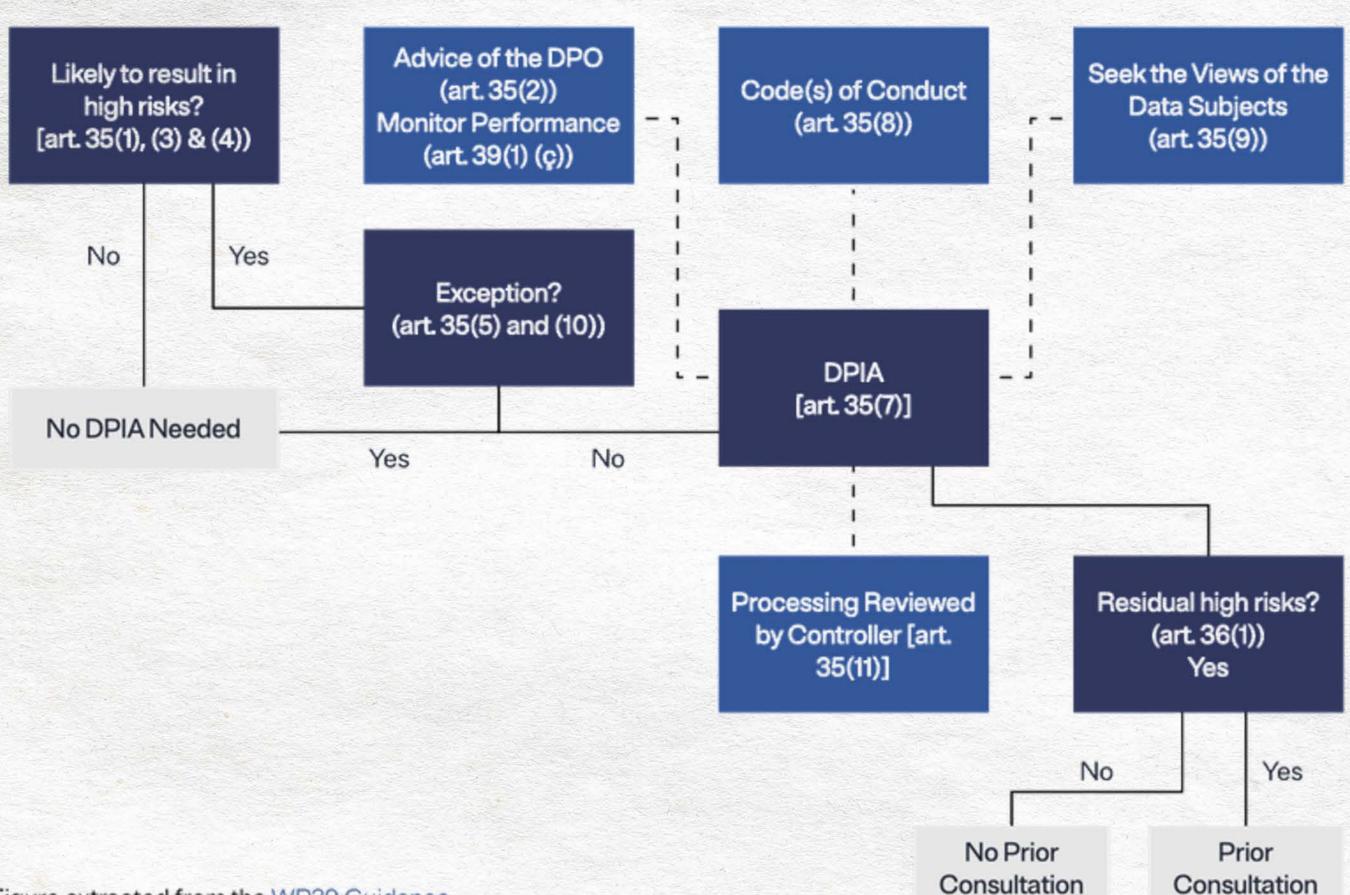
Risk management

The following figure illustrates the basic principles related to the DPIA in the GDPR:

Basic Principles related to DPIA in GDPR

Likely to result in high risks?
[art. 35(1), (3) & (4))

Advice of the DPO
(art. 35(2))
Monitor Performance
(art. 39(1) (ç))

Code(s) of Conduct
(art. 35(8))

Seek the Views of the Data Subjects
(art. 35(9))

No

Yes

Exception?
(art. 35(5) and (10))

No DPIA Needed

Yes

No

DPIA
[art. 35(7)]

Processing Reviewed by Controller [art. 35(11)]

Residual high risks?
(art. 36(1))
Yes

No

Yes

No Prior Consultation

Prior Consultation

Figure extracted from the WP29 Guidance

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Prepare for audits & continuous improvement

Embed ethics and human oversigh

Align with recognised standards

Document lifecycle maintenance

Conduct adversarial and resilience testing

Implement secure-by-design and by-default

AI ETHICS, SECURITY & GOVERNANCE

Checklist

Map your AI use cases

Classify risk levels

Nominate an AI lead or "Responsible AI Champion"

Apply data governance controls

Check for bias and fairness

Ensure transparency and explainability

✓ Governance & Compliance

✓ Security & Technical Assurance

✓ Data & Design Integrity

✓ Foundation & Awareness

THINK BIG | START SMALL

BUILD | IMPROVE | GROW

Scan here for feedback and AI adoption opportunities

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MIDLANDS ENGINE | HM Government

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