



# The EU AI Act

# Compliance in the Era of General-Purpose Al

A Holistic Approach for Regulatory Adherence

October 2024

- About



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# EU AI Act, 'a benchmark for comprehensive AI regulation'

We are living in an era of rapid innovation and global uncertainty, where generalpurpose artificial intelligence (AI) has emerged as a transformative force. This technology is impacting a wide range of industries, economies, and societies globally. With the European Union's (EU's) AI Act now in effect, a new benchmark for comprehensive AI regulation has been set. The US, Canada, Brazil, the African Union, Japan, and China are also working on their own regulatory frameworks. At this critical juncture, visionary leadership and a collaborative approach to anticipatory governance are essential.

Over the past four years, AI & Partners has conducted comprehensive market research in an effort to ensure that AI serves the broader public good while prioritizing responsibility, inclusivity, and accountability. We have positioned ourselves as a key resource for enterprises who are navigating the complexities of complying with AI regulations, while also facilitating meaningful dialogue across the entire AI value chain on emerging issues related to AI development.

As a recognised knowledge partner, AI & Partners has worked towards establishing a comprehensive governance framework for helping firms comply with the regulatory requirements applicable to general-purpose AI. This framework is designed to be sustainable and adaptable for future AI applications.

# Providing a clear roadmap to enterprises in order to help them navigate GPAI requirements

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This paper represents the culmination of those efforts, providing enterprises with a clear roadmap for addressing the requirements placed on general-purpose AI. It examines regulatory gaps, the governance challenges faced by different stakeholders, and the evolving nature of AI technology. The outcomes of this paper are designed to be both practical and implementable, equipping global enterprises with the tools they need to strengthen AI governance measures within their business units and divisions.

Given the global nature of this technology, we strongly advocate for a harmonized approach to complying ih general-purpose AI governance requirements that encourages cooperation and interoperability. This is critical for addressing the global challenges posed by general-purpose AI and for ensuring that its benefits are distributed equitably, especially to low-resource economies that stand to benefit greatly from its responsible use.

We invite enterprises, industry leaders, academics, and civil society to join us in this mission. Together, we can shape a future where general-purpose AI contributes positively to society and promotes a prosperous, inclusive, and sustainable future for all.



# Enterprises face a challenge in balancing economic and social opportunities while managing risk

As generative AI rapidly evolves and is adopted across industries, enterprises must stay ahead of its impacts and future developments. Businesses are increasingly focused on how generative AI can be harnessed for innovation, growth, and competitive advantage while mitigating associated risks.

To support these efforts, AI & Partners has developed a comprehensive governance framework designed to help enterprises comply with regulatory requirements for general-purpose AI. This framework focuses on three essential pillars:

#### **Utilise Past**

Leverage Existing Compliance Structures: Instead of creating entirely new systems, enterprises should assess and adapt their current compliance frameworks to manage the unique challenges posed by generative AI. To ensure a smooth integration of AI technologies while maintaining regulatory compliance, businesses should:

- **Review** existing internal policies and legal frameworks for gaps or conflicts related to generative AI.
- **Clarify** roles and responsibilities across teams and departments to ensure clear accountability for AI governance.
- Evaluate the readiness of existing compliance and risk management teams to address the complexities of generative AI, considering whether to invest in specialized internal capabilities.

### Create Present

**Encourage Cross-Functional Collaboration**: Effective governance of generative AI within enterprises requires collaboration across departments, including IT, legal, compliance, and business units. Enterprises should foster a culture of cross-functional cooperation to ensure comprehensive governance and risk management. Key steps can include:

- Engaging diverse teams and stakeholders in AI governance efforts.
- **Promoting** knowledge-sharing between departments and encouraging interdisciplinary problem-solving.
- Leading by example, with top management adopting and advocating for responsible AI practices throughout the organization.

#### Structure Future

**Plan for Future AI Developments**: To stay competitive and compliant in the long term, enterprises must embed foresight and flexibility into their AI governance strategies. As AI technologies evolve, businesses need to be prepared for emerging risks and regulatory changes. Key actions for future readiness can include:

- Investing in AI-related skills development and recruiting talent with expertise in AI governance and risk management.
- **Continuously** monitoring AI innovation and assessing potential risks, including the interaction of generative AI with other technologies.
- **Conducting** foresight exercises to anticipate multiple future scenarios and adapt strategies accordingly.
- **Implementing** agile governance frameworks that can evolve with regulatory changes and technological advancements.
- **Engaging** in industry-wide collaboration to align AI governance practices and share insights on best practices and risk management.



## Emergence of GPAI holds tremendous potential, while raising risks

As enterprises and individuals evaluate how best to adopt general-purpose artificial intelligence (AI), the emergence of new and powerful capabilities offers both promise and challenges. For some organizations, the future with general-purpose AI holds tremendous potential, while for others, it raises significant concerns. Across industries, general-purpose AI presents a duality of opportunities and risks. For instance, will AI revolutionize personalized healthcare by improving patient outcomes, or could it introduce unforeseen biosecurity risks? Will it enhance journalism by enabling new forms of storytelling, or could it lead to an escalation of disinformation?

There is no predetermined future for general-purpose AI. How businesses and society adapt to this technology will depend on the choices made in its development, deployment, and management. Enterprises, through effective governance, have the potential to ensure that general-purpose AI fosters innovation, drives economic opportunity, and contributes to fair and equitable outcomes, all while protecting consumer rights and promoting sustainability. The governance decisions made today will shape the future impacts of this technology on industries and society, determining how its benefits are distributed and who may be left behind.

In response to the continued growth of general-purpose AI and its rapid integration across sectors, AI & Partners has developed a comprehensive 360° governance framework to help enterprises manage both the opportunities and risks associated with AI. This framework guides businesses in building resilient AI governance structures that support innovation while mitigating potential risks from the initial stages of development to deployment and use. It is designed to provide enterprises with a holistic and adaptable governance strategy that fits diverse industries and business models.

The specific implementation of this framework will vary based on the enterprise's sector, strategic goals, and operational context. By adopting tailored governance approaches, businesses can ensure they are well-positioned to maximize the benefits of general-purpose AI while addressing regulatory, ethical, and operational challenges, helping them stay competitive, compliant, and responsible in the evolving AI landscape.



Resilient enterprise AI governance framework facilitating innovation while mitigating risks

Enterprises, through effective compliance, can help to ensure that general-purpose AI facilitates economic opportunity and delivers fair consumer outcomes, ensures market integrity, promotes stakeholder equity and encourages sustainable practices.

Figure 1: A holistic approach for robust enterprise compliance efforts





Pillar 2: Create Present

Advocate cross-enterprise and industry GPAI governance and knowledge sharing.

**Pillar 1**: Utilise Past **Pillar 2**: Create Present **Pillar 3**: Structure Future



## Pillar 3: Structure Future

Embed preparedness and agility in GPAI governance and steer enterprise-wide cooperation.

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Make use of existing regulations, such as the EU AI Ac, and address gaps caused by GPAI.

Greater clarity regarding existing regulatory efforts helps address emerging GPAI challenge



Successful implementation of enterprise strategies for responsible and trustworthy compliance with GPAI requirements requires a timely assessment of existing regulatory capacity – among other governance tools – to capitalise on the unique opportunities and risks posed by the technology.

 Table 1: Selection of complexities introduced by GPAI for existing regulatory areas

Regulatory Area	Emerging complexities (non-exhaustive)	Potential strategies under consideration by enterprises (non-exhaustive)
Privacy and Data Protection	<ul> <li>Determining the legal basis for using personal data to train general-purpose AI models.</li> <li>Incidental collection of personal data by AI systems (e.g., web crawlers).</li> <li>Defining purpose limitations for data collection.</li> </ul>	<ul> <li>Enforcing data minimization principles and providing clear opt-in/out rights for users.</li> <li>Revising terms-of-service agreements to enhance clarity on data usage, and promoting privacy-enhancing technologies, such as automated detection and redaction of personally identifiable information (PII).</li> </ul>
Copyright and IP	<ul><li>Copyright infringement concerns over data used to train AI models.</li><li>Ownership of works generated by AI systems.</li></ul>	<ul> <li>Consideration of new IP challenges related to emerging data types is underway.</li> </ul>
Consumer Protection and Product Liability	<ul> <li>Liability concerns arising from overlapping regulatory frameworks.</li> <li>Challenges in determining liability for AI models without a clear specific purpose during development.</li> </ul>	<ul> <li>Enterprises should assess whether their AI products fall under existing liability frameworks or require new approaches.</li> <li>Conventional criteria for fault and defectiveness are being adapted to address AI's technical nuances.</li> </ul>
Competition	<ul> <li>Potential for business conduct or agreements that enable dominant firms to exclude competitors.</li> <li>Impact of AI applications on competition across various sectors.</li> </ul>	<ul> <li>Sectoral studies are being conducted to understand the competitive dynamics of AI across industries, with a focus on reviewing business agreements and the conduct of dominant firms.</li> </ul>

### Clarify expectations around responsibility allocation



Maintaining accountability and oversight for trustworthy digital technologies, such as AI, requires clearly assigned and well-defined legal responsibilities alongside remedy provisions for upholding regulators' expectations

Table 2: Challenges and considerations for GPAI responsibility allocation (non-exhaustive)

Responsibility Allocation	Challenge	Considerations for Enterprises	
Variability	<ul> <li>General-purpose AI models differ in features (e.g., size), intended use (e.g., applications), and development methods (e.g., open-source vs. closed-source).</li> <li>Technical advancements in model layering and fine-tuning allow these models to adapt their functionality for various specific applications.</li> <li>Complexities arise from the involvement of multiple actors across different sectors, each potentially playing overlapping or multiple roles.</li> </ul>	<ul> <li>Collaboration with industry peers and regulators to develop shared terminology for models, applications, and roles is essential, potentially aligning with standards like ISO 42001 from the International Organization for Standardization (ISO).</li> <li>Enterprises should be vigilant about regulatory carve-outs that could allow unfair advantages, ensuring compliance with critical safeguards and accountability measures.</li> </ul>	
Disparity between actors	<ul> <li>The concentration of power and single points of failure result from a few foundational models serving numerous applications and billions of end users.</li> <li>There are disparities in influence between upstream and downstream actors in the generative AI lifecycle.</li> <li>Limited transparency exists for downstream actors concerning training data, while upstream actors often lack visibility into end-user activities.</li> </ul>	<ul> <li>Enterprises must assess their control, influence, and resources within the generative AI lifecycle and develop strategies for addressing potential harm resulting from their AI applications.</li> <li>Engaging with third-party certification processes can enhance trust and credibility, ensuring that products meet necessary standards and requirements.</li> </ul>	
Complexity of review	<ul> <li>The interpretability of outputs can be challenging as models frequently operate as "black boxes" to varying degrees.</li> <li>Traceability is complicated due to diverse data sources, the sequence of events leading to a fault, and determining who is responsible for negligence or malicious actions.</li> <li>Physically inspecting or verifying changes in generative AI products in the market is often impractical.</li> </ul>	<ul> <li>Implementing traceability mechanisms is crucial, allowing outputs to be traced back to their origins while managing intellectual property and data privacy concerns.</li> <li>Enterprises should integrate standards for compliance and procedures for post-approval changes, encouraging regular reviews and audits to ensure adherence to regulations and continuous improvement in AI governance.</li> </ul>	
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Because enterprises play a critical role in Al's operationalisation, they can independently ensure the resilient governance of a technology that has simultaneously broad and diversified impacts, and capabilities that continue to evolve. Other stakeholder groups hold key puzzle pieces to assembling resilient governance and a responsible AI system.

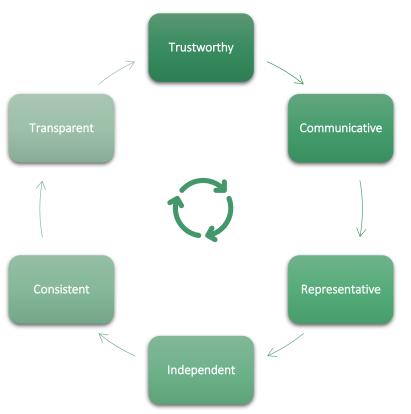
 Table 3: Compliance challenges by business size (non-exhaustive)

Туре	Challenges	Considerations for Enterprises
Large businesses	<ul> <li>Implementation: Large organizations, particularly those with complex or decentralized structures, may encounter difficulties in operationalizing AI governance and ensuring consistent compliance across business units.</li> <li>Competition: Competing firms may not uniformly invest in responsible AI practices, creating potential disparities in ethical AI development.</li> </ul>	<ul> <li>Implementation: Enterprises should build upon existing risk management frameworks and global standards to develop internal AI governance systems. AI &amp; Partners recommends using industry benchmarks and baselines to streamline governance processes across diverse organizational structures.</li> <li>Competition: Businesses should not only focus on compliance but also consider the long-term value of responsible AI governance as a competitive differentiator. Transparent reporting and demonstrating leadership in ethical AI can enhance trust with stakeholders and regulators.</li> </ul>
Small- and medium- sized enterprises (SMEs) and start-ups	<ul> <li>Resources: SMEs and start-ups may lack the financial and human resources to develop and demonstrate robust AI governance practices to regulators, investors, or partners.</li> <li>Adaptability of Governance Frameworks: Existing AI governance frameworks may not fully align with the specific needs and operational realities of SMEs, which often operate with leaner structures and faster innovation cycles.</li> </ul>	<ul> <li>Resources: AI &amp; Partners encourages smaller enterprises to seek out AI governance training, participate in industry consultations, and utilize certification mechanisms that can demonstrate their commitment to responsible AI. Collaborative efforts, such as partnerships with larger firms, can also help SMEs access the necessary resources.</li> <li>Adaptability of Governance Frameworks: SMEs should contribute their perspectives to the development of industry standards and AI governance frameworks to ensure they reflect the realities of smaller operations. AI &amp; Partners supports creating inclusive governance models that are scalable for businesses of all sizes.</li> </ul>



Enterprises should facilitate knowledge-sharing across stakeholder groups and wider organisational business units to reduce duplicative efforts, offset expertise gaps and enable informed compliance initiatives capable of addressing emerging, nuanced and wide-reaching GPAI compliance challenges.

Figure 2: Feedback loop conditions for effective multistakeholder participation





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Table 4: Challenges impacting feedback loop conditions (non-exhaustive)

Туре	Challenges	Considerations for Enterprises
Trustworthy	<ul> <li>Enterprises may hesitate to openly share their AI models due to concerns about revealing trade secrets or facing legal liabilities.</li> <li>Fear of exposing proprietary information or facing competitive disadvantages can limit openness in collaborative discussions.</li> </ul>	<ul> <li>Enterprises should create mechanisms that allow safe sharing of information, such as through nondisclosure agreements or trusted partnerships that mitigate legal and competitive risks.</li> <li>Striking a balance between openness and protection of trade secrets is key to fostering trust without compromising proprietary information.</li> </ul>
Communicative	<ul> <li>Different stakeholders (e.g., enterprises, civil society organizations, and government entities) often speak distinct languages: enterprises focus on technological aspects, civil society on social impacts, and governments on policy.</li> <li>This can result in miscommunication or difficulty finding common ground, as enterprises may view issues through the lens of business risks, while civil society examines them through human rights.</li> </ul>	<ul> <li>Enterprises should invest in professional facilitators who can bridge gaps between technological, social, and policy perspectives, ensuring a common understanding across all stakeholders.</li> <li>Engaging in frameworks that incorporate both business risk and rights-based considerations will help align enterprise objectives with broader societal expectations.</li> </ul>
Representative	<ul> <li>Coordinating broad participation from all relevant actors, including small businesses, academia, and large enterprises, can be challenging, and synthesizing the diverse input can complicate decision-making processes.</li> </ul>	<ul> <li>Enterprises should actively seek diverse input from multiple sources, including customers, regulators, and civil society, and consider using layered approaches, such as combining broad surveys with focused roundtables, to gather comprehensive feedback.</li> <li>Sufficient time should be allocated to review and synthesize input, ensuring diverse views are accounted for in strategic decisions.</li> </ul>
Independent	<ul> <li>Public perception may be that some enterprises have outsized influence in research partnerships or advisory boards, potentially leading to regulatory capture or biased outcomes.</li> </ul>	<ul> <li>Enterprises should maintain transparency in their collaborations with research institutions and boards by clearly disclosing the extent of their involvement and financial contributions.</li> <li>Setting internal term limits for participation in external advisory boards can help prevent perceptions of undue influence.</li> </ul>
Consistent	<ul> <li>Sporadic or irregular engagement between enterprises and other stakeholders can create knowledge gaps. This may lead to enterprises moving faster than civil society or governments can keep up, or vice versa, in understanding technological and policy advancements.</li> </ul>	<ul> <li>Enterprises should establish regular, ongoing touchpoints with stakeholders to stay aligned with both technological advancements and policy changes. Regular engagement will ensure continuous collaboration and reduce lag times in understanding shifts in the ecosystem.</li> </ul>
Transparent	<ul> <li>Concerns about some enterprises having greater influence in the feedback process may arise, undermining trust in the integrity and inclusivity of the review process.</li> </ul>	<ul> <li>Enterprises should promote equitable representation in stakeholder consultations and make their feedback review processes transparent. Providing clarity on how feedback is handled and including safeguards like whistleblower protections can help build trust in the process.</li> </ul>
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GPAI's capabilities are rapidly evolving alongside other technologies and interacting with changing market forces, user behaviour and geopolitical dynamics. Introducing ongoing clarity to GPAI's changing short- and long-term uncertainties is critical for effective compliance.

Table 5: Enterprise challenges and actions to keep pace with GPAI

Area	Challenges	Considerations for Enterprises
Limited Resources and Expertise	Many enterprises, particularly smaller firms, may struggle to allocate sufficient resources and expertise toward developing state-of-the-art general-purpose AI capabilities while balancing other operational priorities.	Enterprises should be deliberate with their investments by targeting key areas for AI upskilling and strategic hiring. AI & Partners recommends a focused approach, leveraging partnerships and specialized training programs to efficiently build AI expertise without overwhelming resources.
Rapid Evolution of AI Technologies	Enterprises may not be closely aligned with the rapid pace of AI advancements, potentially leading to missed opportunities or difficulties in assessing the societal and business impacts of emerging AI capabilities.	Regular horizon scanning should be a priority for businesses, enabling them to monitor and stay informed about evolving general-purpose AI capabilities. AI & Partners advocates for proactive technology assessment and foresight exercises to prepare organizations for shifts in AI use cases and market demands.
Uncertain Futures in Technology and Markets	The fast-paced evolution of AI technologies, combined with societal and market uncertainties, makes it difficult for enterprises to plan effectively.	Enterprises should implement strategic foresight practices to build resilience and adaptability in their operations. By anticipating multiple possible futures, businesses can position themselves to react swiftly to technological advancements, societal changes, and shifts in the geopolitical landscape.
Slow Decision-Making Processes	Large enterprises, particularly those with complex governance structures, may find that slow decision-making mechanisms hinder their ability to respond to the fast- evolving AI landscape.	Agile regulatory and governance practices should be adopted to enhance decision-making speed and flexibility. AI & Partners recommends integrating agile methodologies and conducting regular impact assessments to prepare for the downstream effects of regulatory changes and technological disruptions.

## Horizon scanning. Dynamic compliance initiatives to meet the horizon of GPAI innovation



As developers scale up GPAI models, the latter may exhibit qualitative changes in capabilities that do not present in smaller GPAI models. These emergent GPAI model properties must inspire appropriate compliance measures to effectively address unpredictable powers and potential pitfalls.

Table 6: GPAI emergent capabilities (non-exhaustive)

Area	Example Use	Example Risks	Consideration(s) for Enterprises
Multimodal GPAI	Systems that synthesize and generate outputs across diverse data types and	<ul> <li>Compounded data manipulation across multiple input types</li> </ul>	• Data Integrity and Security: Enterprises should implement robust frameworks that ensure the
Systems that synthesize and generate outputs across diverse data types and sensory inputs.	sensory inputs	▶ Amplification of flaws, biases, and vulnerabilities	<ul> <li>integrity of multimodal data sources, focusing on secure-by-design systems to prevent data manipulation or breaches.</li> <li><i>Model Transparency:</i> Disclosure of model architecture and development processes can help mitigate risks associated with biases and vulnerabilities in multimodal AI systems.</li> </ul>
Multi-agent GPAI	AI systems involving multiple agents that autonomously pursue complex goals with minimal supervision	<ul> <li>Increased unpredictability and control complexity due to the interaction between agents</li> <li>Greater accountability challenges when multiple</li> </ul>	• <i>Transparency and Traceability:</i> Enterprises should implement mechanisms that provide transparency into the decision-making processes of each agent,
AI systems involving multiple agents that autonomously pursue complex goals with minimal supervision.	goals with minimal supervision	autonomous agents are involved	ensuring traceability in the event of failures or malicious attacks.
Embodied GPAI	AI systems embodied within physical entities, such as robots and devices capable of interacting with the real	<ul> <li>Physical safety risks from control system failures (e.g., malfunctioning robotics)</li> <li>Security vulnerabilities, including potential</li> </ul>	<ul> <li>Security Measures: Security protocols must be a priority, with a focus on preventing malicious actors from hijacking or exploiting these physical</li> </ul>
Al systems embodied within physical entities such as robotics and devices capable of interacting with the real world.	world	malicious use of physical AI systems	<ul> <li><i>Enterprises</i> should conduct regular security audits and updates to stay ahead of potential threats.</li> </ul>

### **Convergence**. Dynamic compliance initiatives to meet the horizon of GPAI innovation



As a potent general-purpose technology, GPAI can amplify other technologies, old and new, exposing complex compliance challenges. Looking ahead, the convergence of GPAI with advanced technologies can pose unprecedented opportunities and risks, as both the technologies and their compliance measures are in the early stages.

Table 7: GPAI convergence with advanced technologies (non-exhaustive)

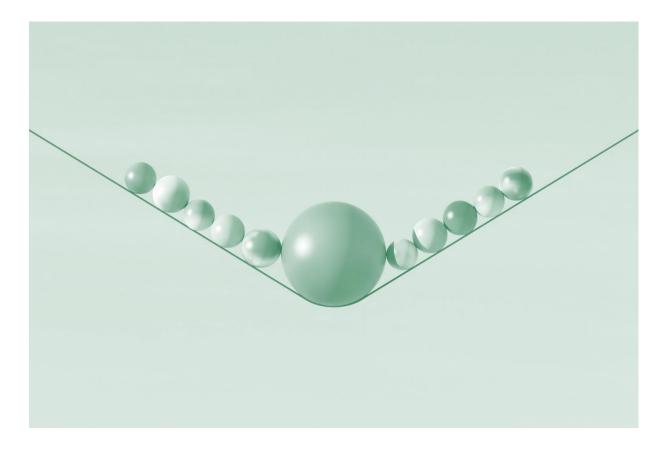
Area	Example Use	Example Risks	Consideration(s) for Enterprises
Synthetic biology	GPAI is applied to develop artificial analogues of natural processes, such as generating genome sequences, simulating genes and proteins, and building "virtual labs" that reduce hazardous waste and space requirements for real-world experimentation.	<ul> <li>Unintended ecological consequences from engineered biological entities.</li> <li>Gain-of-function research that could give diseases new symptoms or make them resilient to treatments.</li> </ul>	• <i>Biosecurity Protocols:</i> Enterprises engaged in synthetic biology should adopt and enforce strict biosecurity measures to mitigate risks of misuse or accidental release of genetically engineered organisms.
Neurotechnology	GPAI combined with advances in neuroscience and brain- computer interfaces can lead to breakthrough discoveries in treating neurological disorders, enabling communication for paralyzed individuals, and addressing conditions like PTSD, ADHD, and severe depression.	<ul> <li>Intentional misuse of brain-computer interfaces (BCIs) for behavior modification, cognitive enhancement, or lethal autonomous weapon systems.</li> <li>Amplifying existing social inequities through selective cognitive enhancement.</li> </ul>	• <i>Privacy and Cognitive Liberty:</i> Enterprises should implement privacy-first approaches when designing and deploying neuro-technologies, ensuring users' cognitive liberty, autonomy, and protection from potential manipulation.
Synthetic biology	GPAI can optimize quantum computing circuit designs, allowing for solving problems too complex for classical computing. Quantum computing, in turn, can accelerate AI training and parameter optimization.	<ul> <li>The development of models beyond human comprehension, creating ethical and operational challenges in managing such systems.</li> <li>Increased energy and resource demands leading to environmental impacts due to the scale of quantum computing.</li> </ul>	<ul> <li>Sustainable Innovation Practices: Enterprises should prioritize energy-efficient quantum computing designs and generative AI models, incorporating sustainability into R&amp;D strategies. Investment in energy optimization technologies can reduce the environmental footprint of quantum AI systems.</li> </ul>

# GPAI touches upon 'shared values and fundamental rights'

This document is designed to offer enterprises a detailed, practical, and implementable governance framework for general-purpose AI. Like other transformative technologies, general-purpose AI is not neutral—it intersects with shared values and fundamental rights. Before implementing new AI governance frameworks, organizations must assess their current regulatory environment and ensure alignment across departments and sectors to address tensions caused by AI. It is critical to evaluate whether existing governance structures are capable of addressing the challenges posed by general-purpose AI, and to weigh the benefits of a distributed governance model versus a centralized approach under a dedicated leadership team.

A comprehensive, organization-wide governance strategy should incorporate perspectives from multiple stakeholders, including industry, civil society, and academia, fostering collaboration and interdisciplinary solutions to manage AI's complexities. Moving forward, businesses must account for resource constraints and global market uncertainties. This requires building flexible, forward-thinking strategies that allow for agility in governance, while participating in international cooperation to align practices, share knowledge, and standardize governance approaches.

By adopting a harmonized strategy, enterprises can not only address the unique challenges of general-purpose AI but also capitalize on the opportunities it presents, ensuring alignment with global standards and maintaining a competitive edge in an AI-driven world.



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- Thank you!





# Al & Partners

Amsterdam – London - Singapore



Email

contact@ai-and-partners.com



Phone

+44(0)7535 994 132





#### Website

https://www.ai-and-partners.com/



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