



# **Artificial Intelligence (AI) Essentials for Directors**

With Diane Nolan, Strategic Advisor to Technology & Financial Services C-Level

Lunch Bites @ the IoD Series: Sponsored by IQEQ



## Introduction – what is AI?



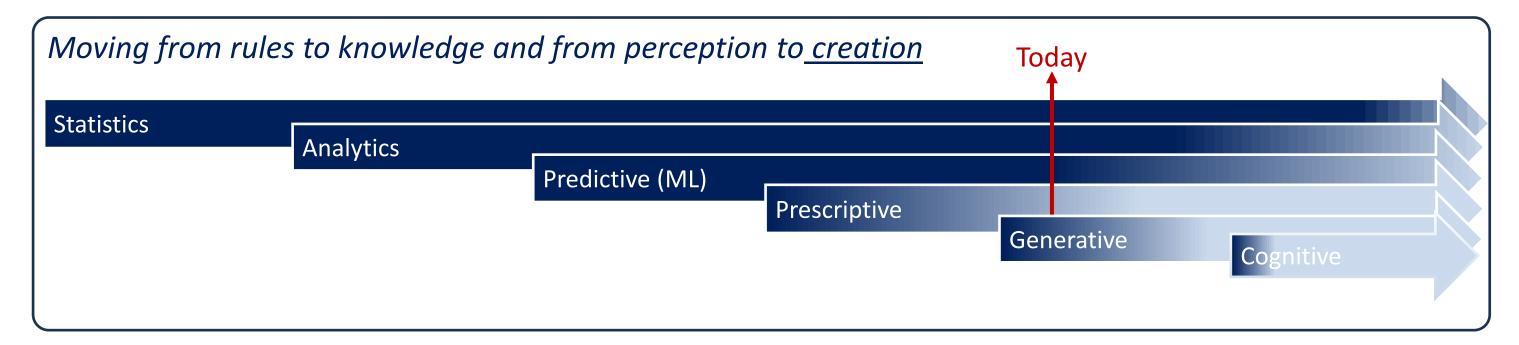
Digital Art generated by DALL-E Prompt "Robots and human, hand in hand in Dublin, digital art"

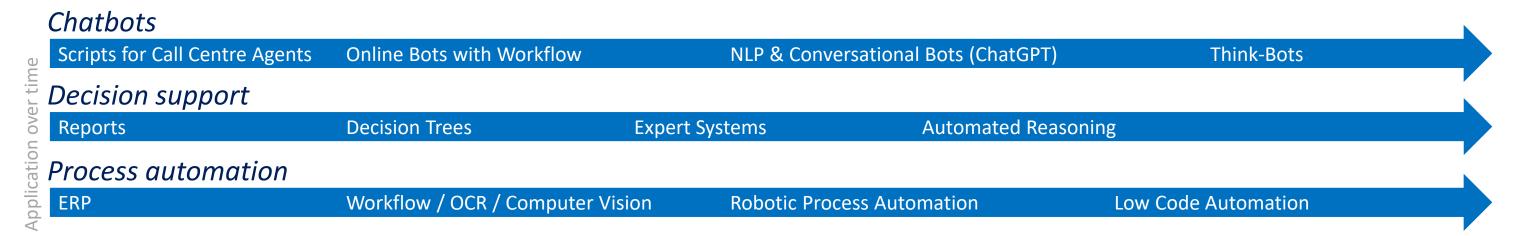
"AI is the 'science of making computers do things that require intelligence when done by humans."

Marvin Lee Minsky (co-founder of MIT, AI founding father)



# "The next generation of employees will work 3.5 days a week and live to 100 years old" Jamie Dimon, CEO JP Morgan







# Solutions available – to experiment with!

### **Large Language Model Transformers**

- https://openai.com/chatgpt (OPENAI) text (now image integrated), most commonly used as first deployed.
   Restricted version free, else small monthly fee for ChatGPT4.
- https://www.microsoft.com/en-us/microsoft-365/enterprise/microsoft-365-copilot (Microsoft) already embedded and free if you have office in MS Edge use for e.g. for summerising emails, creating exec sum of a document, amongst others, also shows link and source from text.
- https://bard.google.com
   (Google) idem above
- <a href="https://ai.meta.com">https://ai.meta.com</a> (Meta) idem above (Llama opensource LLM)
- https://claude.ai/login (Anthropic) just bought by amazon, created and branded as responsible AI text

### **Image transformers:**

- https://openai.com/dall-e-2 (OpenAI) image generation, free, else small fee with image credits
- https://stablediffusionweb.com/
   image generator

### Other foundation models – there are many more...to explore:

- https://www.bedrock-ai.com , CodeWhisperer (Amazon FMs)
- o <a href="https://github.com/features/copilot">https://github.com/features/copilot</a> for developers (GitHub),
- https://alphafold.com/ (Google DeepMind > Amazon) Pharma specific foundation model.... Etc...

Link to interesting prompt cheat sheets: <a href="https://lnkd.in/gt9">https://lnkd.in/gt9</a> YjWF



## GenAl Usage – sample use cases

Most regularly reported generative Al use cases within function, % of respondents

Marketing and sales	Product and/or service development	Service operations
Crafting first drafts of text documents	Identifying trends in customer needs	Use of chatbots (eg, for customer service)
9	7	6
Personalized marketing	Drafting technical documents	Forecasting service trends or anomalies
8	5	5
Summarizing text documents	Creating new product designs	Creating first drafts of documents
8	4	5

#### Other expected use cases:

**Source: Quantum Black "**The state of AI in 2023: Generative AI's breakout year" Aug 2023. McKinsey Global Survey.

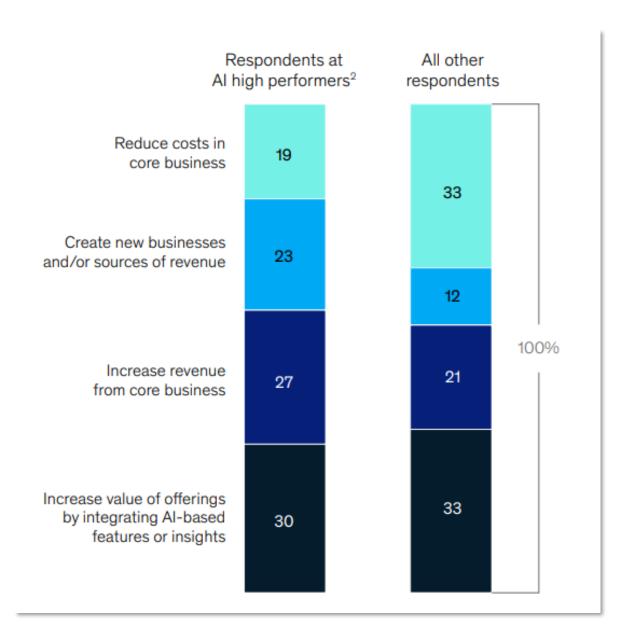
- Algorithmic trading / other predictive market insights
- Accelerating code rewriting & transformation (synthetic data generation)
- Global reference data source + BI

If combined with external models' data sources > fraud, compliance, and other modalities > Meta VR / Avatars etc.



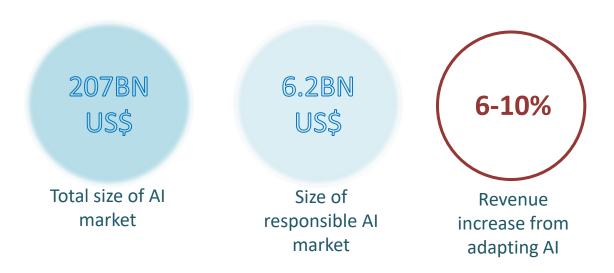
# The value case "AI will be our "co-pilot" in life and work."

Quantum Black "The state of AI in 2023: Generative AI's breakout year"



<sup>\*</sup>Source: Quantum Black "The state of AI in 2023: Generative AI's breakout year" Aug 2023. McKinsey Global Survey.

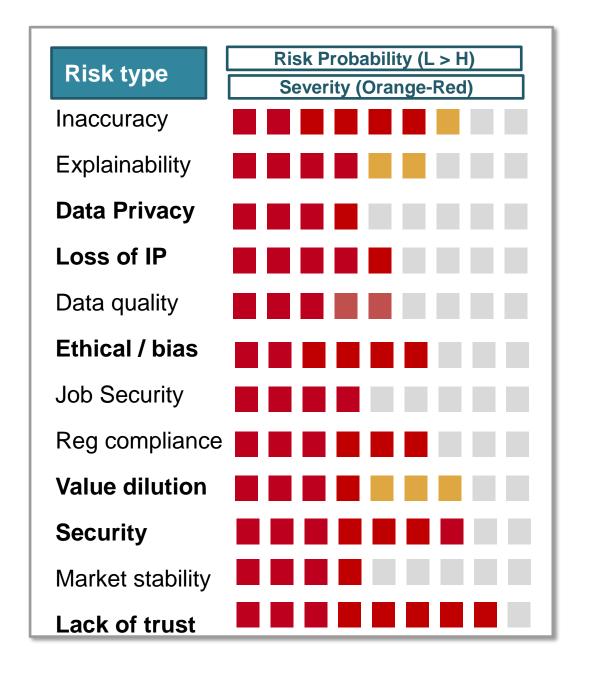
- The Generative Al opportunity for Al mature players is mainly on increasing the value of offerings, integrating Al features.
- For more novice Al organizations, it will also be a major cost reduction opportunity.



<sup>\*</sup>Generative AI haS the potential to add value by \$2.6 trillion to \$4.4 trillion annually to GDP annual



"I'm increasingly inclined to think that there should be some regulatory oversight, maybe at the national and international level, just to make sure that we don't do something very foolish. I mean with artificial intelligence we're summoning the demon."

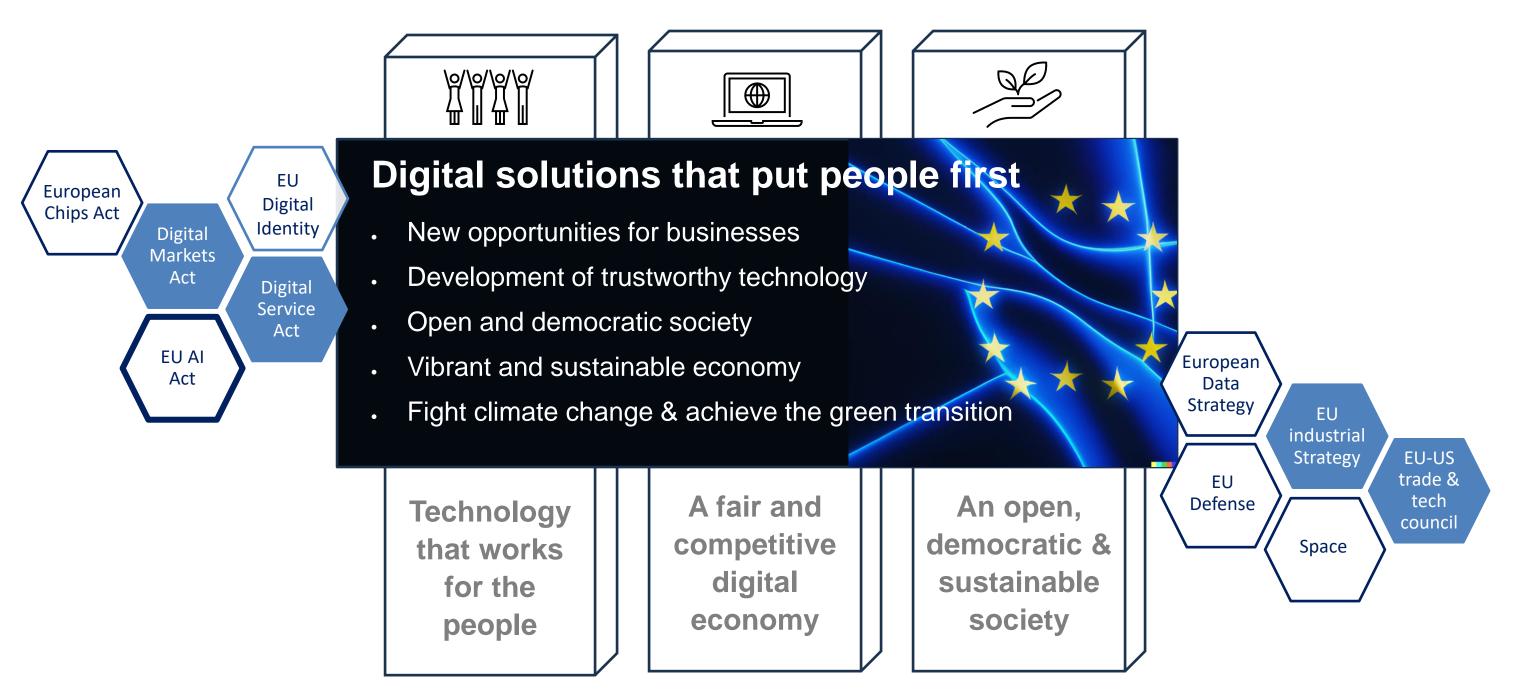


Elon Musk



# Shaping Europe's Digital Future - The Digital Decade

The EU AI Act is 1 of 10 key initiatives in progress to 2030 as part of the EU Digital Strategy





# "Technology is currently at the heart of geopolitical competition and the EU wants to be a player, and not a playground"



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EP VP Věra Jourová 10/23

Source: Runway Strategies Nov 2023



# "Mitigating the risk of extinction from AI should be a global priority alongside other societal-scale risks such as pandemics and nuclear war."

*Von der Leyen 09/23* 

- The EU AI Act sets out harmonized rules for the development and placement of AI systems in the market to ensure its safety and respect for fundamental rights and values.
- A Risk based approach is defined.
- Next step is full approval of the Act by the EU parliament, council and commission on Dec 6<sup>th</sup> 2023.
  - Prohibiting certain harmful AI practices (safety, rights livelihood, e.g. social scoring by governments, biometric data (exceptions) – banned
  - Imposing mandatory requirements and conformity assessment for highrisk Al systems (e.g. critical infrastructures, education, safety, essential services, employment, law enforcement, migration, justice).
  - Transparency obligations for some low-risk AI systems (e.g. chatbots)
  - Database of applications to be centrally managed by the EC
  - Governance defined
  - Penalties scheme will be applied.

1) Unacceptable risk

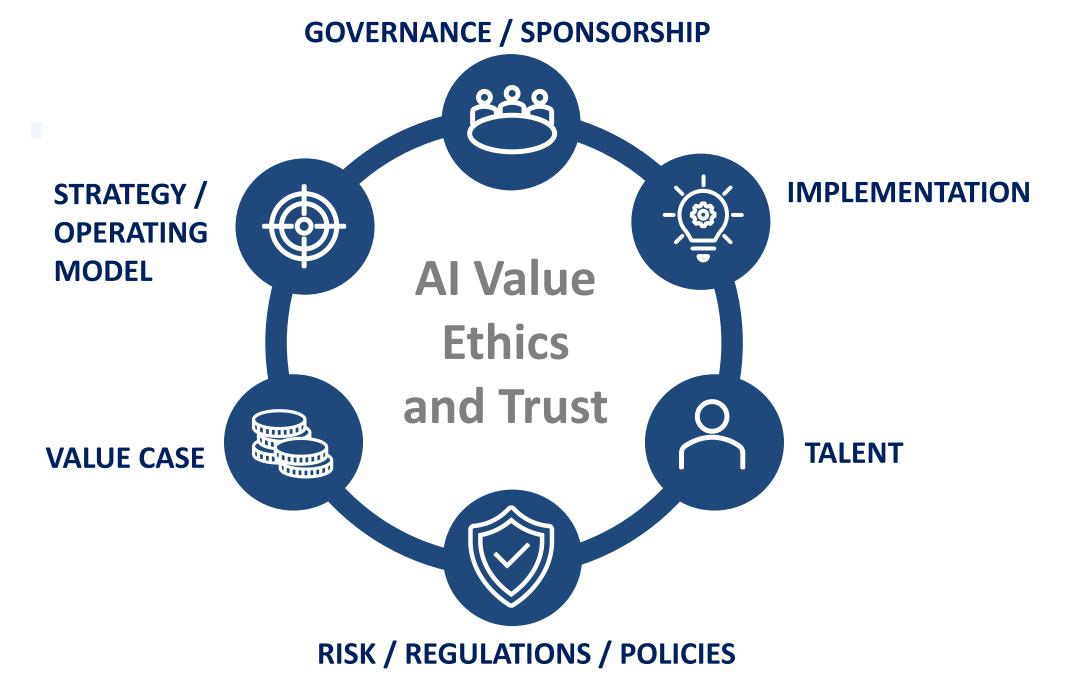
2) High Risk

3) Limited Risk (transparency obligations)

4) Minimal Risk

Al Act on "Al system": 'machine learning', 'logic & knowledge-based' systems, and 'statistical' approaches.

# D ○ Define a Responsible AI strategy and Governance with Value, Ethics and Trust as core principles





## Key Takeaways



- Verify understanding of AI maturity, strategy and policies
- Determine / reinforce accountability
  Get started. Start with 1 case. Collaborate.



Embed ethics/sustainability/non-bias in your Policies from the outset and design a robust risk framework.



Invest in fit-for-purpose AI. Work in partnership with Big Tech, Fintech and service providers. Treat as core strategy.



- Prepare the workforce of the future.

  Get your people on higher value tasks and make a case for Ireland!



# Thank you!



Digital Art generated by DALL-E. Prompt: "create Half human Half Robot banker of the future, futurist style, digital art"

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# I would be delighted to continue the discussion!

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