



Data Analytics & AI. Enabling Public Sector delivery

Steve Taylor
Head of Strategy Software and Hardware

Data remains on the Government's agenda, with AI now sat firmly alongside it

HMG publications / events with either AI or Data Analytics at their core

Data Analytics

2022-25
Roadmap for
digital and data

National data
strategy

Net Zero, build
back greener
strategy

Levelling up
white paper

Data protection
and digital
information bill

UK's ten tech
priorities

Artificial Intelligence

National AI
strategy

HMG gen AI
framework

First AI safety
summit
(UK hosted)

Govt
AI funding

AI consultation -
"a pro -
innovation
approach"

i.AI - AI
incubator

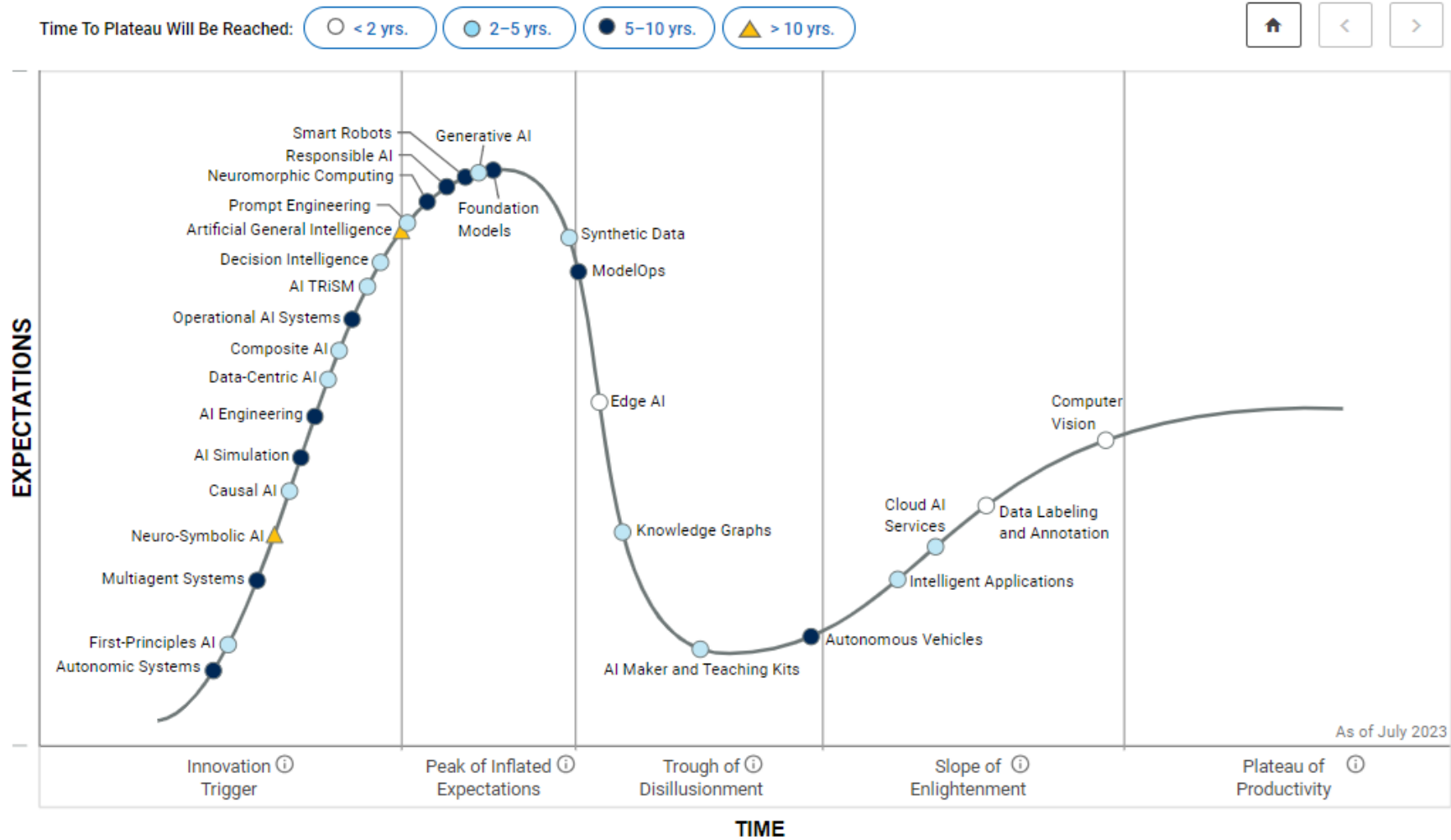
Central Gov
AI adoption
project

AI market, key observations

“By 2024, 40% of enterprise applications will have embedded conversational AI, up from less than 5% in **Gartner** 2020.”

- **emerging market** - products, suppliers and pricing not stable, heavy investment in building AI capabilities.
- **content creation is the fastest growing use case** - likely to drive workplace and process productivity across enterprise tasks, such as writing bids, software development and marketing activities.
- **strong digital maturity and data foundation required** - AI needs to be trained with complete data sets. Data governance & IPR is key to ensure security and valuable outputs.
- **skills shortage** - expertise in data & AI is sought after and in short supply, especially relating to ethics and security.
- **supply chain** - supply v demand, concerns over future supply of AI chips to meet demand. AI is also being used to revolutionise supply chain management.
- **data security & safety** - increased malicious use of Gen AI (eg deep fakes for social engineering & fraud), issues re discrimination & bias, and hallucinations

Gartner Hype Cycle for AI



AI Market Size

Estimates of UK market size vary from £8.2bn to over £16bn

The Oxford Insights 'Government AI Readiness Report' report states that the UK is ranked **3rd** in the world for AI preparedness for innovation

The UK market can expect significant growth over the next 5 years, with a **14.3%** compound annual growth rate (CAGR)

Commercial challenges & considerations for the Public Sector

- **ethics** - need to ensure transparency, accountability & fairness to prevent exacerbating biases, misuse & misinformation
- **intellectual property (IP)** - needs to be protected for any AI software developed / bought for closed LLMs. AI hallucinations present risk - consider IP infringement & indemnification
- **privacy and data security** - compliance with GDPR, Data Protection & Digital Information Bill
- **our rights & freedoms** - ensuring these aren't infringed by AI
- **sustainability & social value** - processor power and data storage requires electricity, and this is growing exponentially
- **vendor lock in** - enable ease of switching supplier in longer term plans, factoring in explainability and interpretability of algorithms, and **how do you get your data back?**
- **aligning with new best practice and regulation** - new use cases and best practice are emerging monthly
- **cost** - AI is not cheap! And getting it wrong could cost lots too.

Opportunities

“Ensure a human stays in the loop with all AI implementations requiring decisions”

Example AI tools:

- instant content generation, summarisation, moderation & prompt engineering
- call recording, transcription & summarisation (eg contact centres) integrated with...
- workflow - document/process management
- AI enabled digital workers - eg chatbots
- code creation/software development

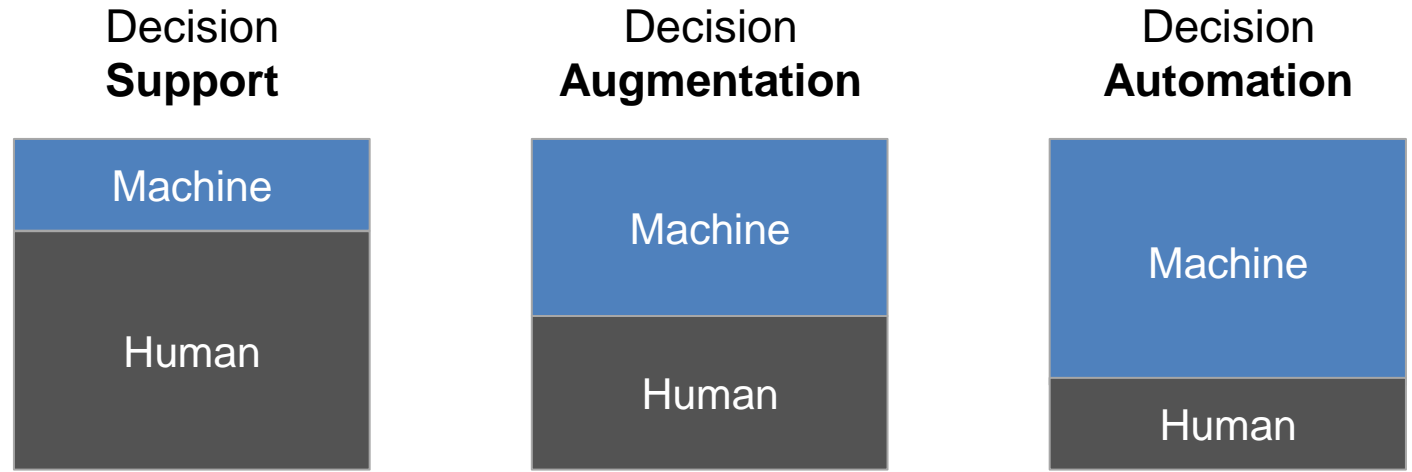
Potential outcomes from data & AI:

- bespoke & improved citizen services with a more holistic experience across channels
- increased business value and innovation
- increased momentum to legacy decommissioning
- enhanced risk management and prioritisation of deliverables
- more efficient, effective and faster decision making



Adopting decision automation

- data analytics & AI offers potential for significantly enhanced decision making
- level of human involvement required will vary by use case type

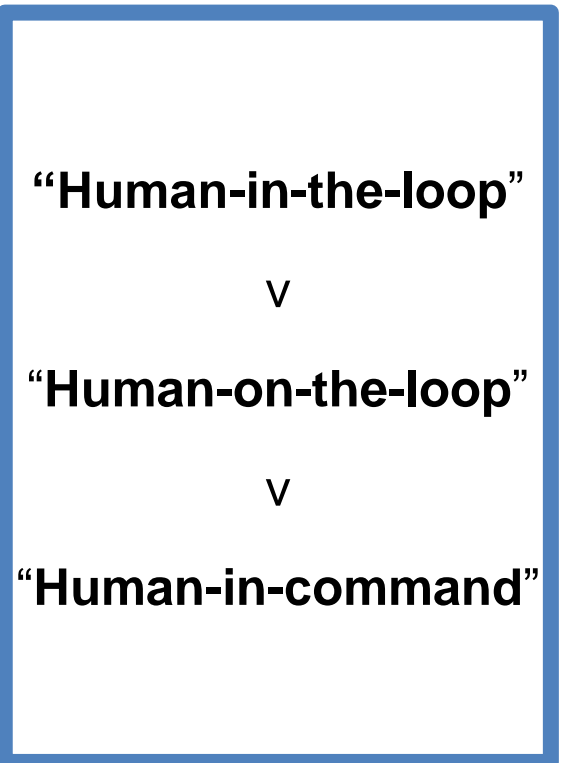


Controls

- contextualisation is key - human judgement will remain essential for many situations
- data ethics must remain core to ensure robust and meaningful outcomes

Considerations

- reengineering decision-making challenges power - classical hierarchies are turned on their head
- removal of 'decision power' from designated grades is a significant culture shift



Using AI in procurement


AI is expected to change the way many suppliers bid for public sector contracts and how contracting authorities operate.

- suppliers are already using Gen AI to write bids
- onus remains on the supplier to confirm the accuracy of bid contents
- for successful commercial outcomes, it remains imperative to assess capability and capacity
- increased volume of bids per procurement likely, as Gen AI removes barriers to some suppliers responding (eg SMEs)
- AI has potential to help contracting authorities optimise procurement & contract management processes, reducing costs & enhancing decision-making, for example through:
 - autonomous sourcing
 - contract redaction
 - predicting & forecasting
 - contract creation



CCS offers the UK Public Sector a range of commercial solutions to support with realising the opportunities and reducing the risks presented by Data Analytics & AI

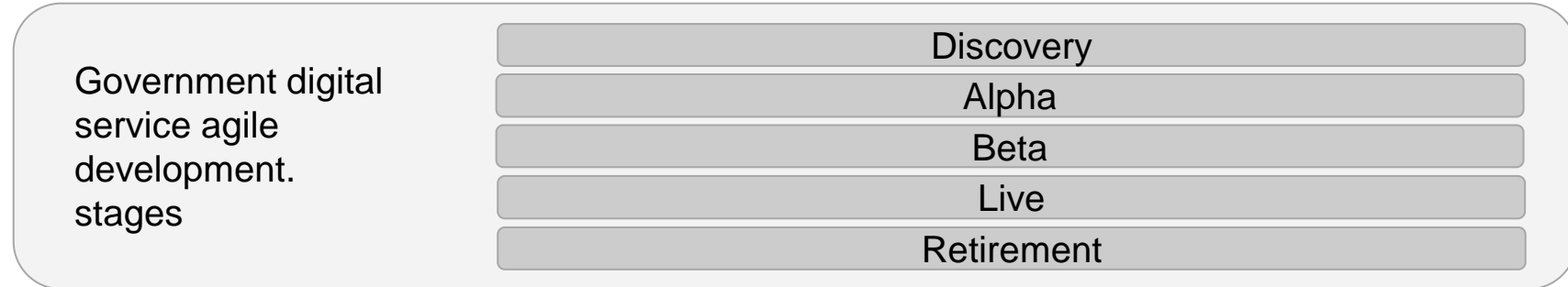
The range of commercial agreements to consider

Framework Agreements	Dynamic Purchasing Systems
<ul style="list-style-type: none"> • range of buying options, including Direct Award • prime suppliers fixed for framework term • rigorous evaluation and ongoing compliance (excludes GCloud) 	<ul style="list-style-type: none"> • further competition only • open to new supplier applications • basic supplier compliance checks by CCS
<u>Big Data & Analytics</u>	<u>Artificial Intelligence</u>
<u>GCloud 13</u>	<u>Automation Marketplace</u>
<u>Technology Products & Associated Services 2 (TEPAS)</u>	<u>SPARK</u>
<u>Technology Services 3</u>	
<u>Back Office Software</u>	
<u>Cloud Compute 2</u>	

Big data & analytics framework

- range of buying options & pricing mechanisms
- flexible call-off term up to five years
- 50 suppliers awarded across both lots

LOT 1 - 'Design, Build & Run' professional services



LOT 2 - Commercial Off-the-Shelf (COTS) software



Artificial intelligence DPS

- further competition only
- open to new supplier applications
- promotes Data Ethics
- bespoke terms for IPR

Capability Filters

Scope of Engagement	Type of AI	Sector
<ul style="list-style-type: none">● AI Discovery● licencing, customisation and support● end-to-end partnerships	<ul style="list-style-type: none">● AI applications● augmented decision making● data and analytics● virtual assistants and chatbots● medical AI technology	<ul style="list-style-type: none">● blue light● central government● devolved administrations● health● Local government● Not-for-profit



Medical AI Technology
<ul style="list-style-type: none">● screening● diagnosis● augmented decision making● improving system efficiency

Automation Marketplace DPS

- intelligent automation services & solutions, including automation technologies, services, consultancy & licences.
- further competition only
- open to new supplier applications

Capability Filters

Design	Build	Live
<ul style="list-style-type: none"> ● Business Strategy and Change Management ● Business Case Development ● Benefits Realisation ● Analytics - Clear overlap with 'Data and Analytics' in AI DPS ● Cloud Migration Strategy ● Automation Road mapping ● Customer Journey ● Setting up a Centre of Excellence (CoE) 	<ul style="list-style-type: none"> ● Business Process Optimisation ● Business Process Improvement ● Process Discovery ● Desktop Automation ● Robotic Process Automation ● Cognitive Automation ● Natural Language Processing ● Optical Character Recognition ● Computer Vision ● Computer Audition ● Text to Speech and Speech to Text ● Machine Learning ● Smart Workflow ● Analytics 	<ul style="list-style-type: none"> ● Time and Materials Resource ● Training Packages for Educational Workshops ● Training In-House Capability with Digital Skills ● Workforce Training ● Coaching
		License
		<ul style="list-style-type: none"> ● Orchestration Licences ● Component Licences ● Integrator platforms ● Software as a Service (SaaS) ● Platform as a Service (PaaS) ● Analytics Licences ● Licencing Support ● Cloud Based Managed Services ● Automation Operation and Managed Services

SPARK DPS

- further competition only
- open to new supplier applications

For buying emerging technology products and services, including IoT, AI and automation, simulated environments, wearables and new improvements in security.

Subject Area (Level 1 of 2)	Delivery Method (Level 1 of 2)
<ul style="list-style-type: none">● corporate● transport● defence/security● health● local gov● police/justice● fire and rescue● education● geospatial	<ul style="list-style-type: none">● internet of things (IoT)● AI and automation● simulated and enhanced environments● engineering/materials science● data● wearables● transport● security

Memorandum of Understanding

- centrally negotiated deals and terms for the public sector
- MoU savings can be accessed through any route to market

In addition to commercial agreements, CCS has signed a number of [Memorandum of Understanding \(MoU\) with suppliers](#). These set out preferential pricing and discounts on products and services across the technology landscape, including cloud, software, technology products and services and networks.



Crown
Partnership

A request from CCS....

We want to understand the issues and impact and challenges you are seeing by the changes in its range of products and licence models - we are in discussion with VmWare direct on behalf of CO / HMG to minimise the impact on behalf of HMG

steve.taylor1 @crowncommercial.gov.uk



We are here to help

Contact

steve.taylor1@crowncommercial.gov.uk

Join

CCS - Data & Analytics Community of Practice & Software Buyers Group

CCS - DDAT Community of Practice.

