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Trusted Software Delivery for the Public Sector

Engineering | Data | AI | Cloud

G-Cloud 15

Service Definition

Generative AI and Machine Learning Solution Development

This service provides the design, development and deployment of generative AI and machine learning solutions for public sector organisations.

Audacia works with organisations to build AI-enabled applications that improve efficiency, decision-making and user experience, while ensuring appropriate security, governance and accountability.

The service supports the delivery of applied AI solutions from validated concepts through to implementation.

Features

- Design and development of machine learning and generative AI solutions
- Model selection, development and evaluation
- Integration of AI capabilities into digital services and workflows
- Development of AI-enabled applications such as chatbots, document processing and decision-support tools
- Secure deployment within agreed cloud environments
- Testing, validation and performance assessment
- Documentation and handover to internal teams

Benefits

- Deliver applied AI solutions that improve services and operations
- Enhance productivity through automation and decision support
- Provide better user experiences for staff and citizens
- Reduce risk through controlled, governed AI implementation
- Build internal understanding and sustainable AI capability
- Create a foundation for future AI adoption and scaling

Outcomes

- Delivered AI-enabled solutions integrated into services or workflows
- Tested and validated models with documented limitations
- Secure deployment within agreed environments
- Responsible AI practices embedded throughout delivery
- Clear handover materials supporting ongoing sustainability

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Generative AI and Machine Learning Solution Development

Methods, Tools & Techniques

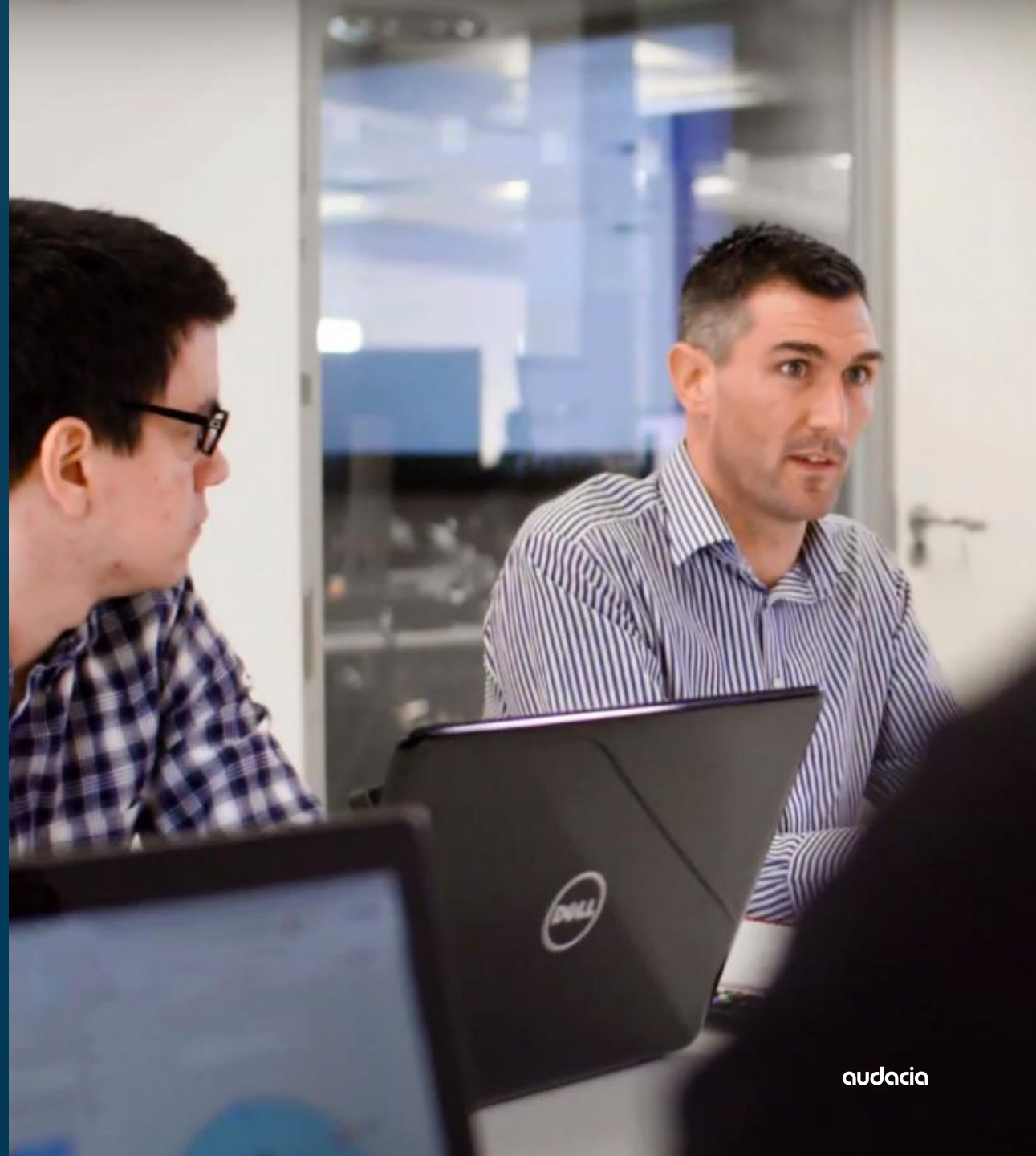
Depending on requirements, the service may use:

- Generative AI models and frameworks (open-source or commercial)
- Machine learning techniques for prediction, classification or optimisation
- Natural Language Processing (NLP) and Computer Vision approaches
- Cloud AI services on Microsoft Azure or AWS
- Secure integration and orchestration tooling
- LLM data security assessments including retention and processing risks

Specific tools and models are selected based on organisational context, data constraints and governance requirements.

Security, Data Protection & Governance

- Data handling aligns with UK GDPR and the Data Protection Act
- Model behaviour, limitations and risks are documented
- Bias, fairness and transparency considerations are assessed
- Access controls and secure deployment practices are applied
- Use of external services or models is agreed explicitly with the buyer



Generative AI and Machine Learning Solution Development

Delivery Approach

Audacia delivers generative AI and machine learning solutions through an agile, controlled delivery approach. Delivery is collaborative, transparent and aligned to public sector assurance expectations.



Solution Design & Planning

Confirming requirements, constraints, governance and success measures.



Model Development & Integration

Building AI components, integrating them into applications and workflows.



Testing & Validation

Evaluating performance, reliability, security and limitations.



Deployment & Transition

Deploying within environments with documentation and knowledge transfer.

Generative AI and Machine Learning Solution Development

Onboarding & Offboarding

Onboarding:

- Initial workshops to confirm scope, governance and success criteria
- Agreement of datasets, environments and constraints
- Delivery planning aligned to organisational assurance needs

Offboarding:

- Documentation of models, integrations and limitations
- Knowledge transfer to internal teams
- Handover to MLOps or operational services where required



"From start to finish the working relationship between Audacia's team and ours was productive from the iterative development approach, meaning we worked in shorter time frames but increased levels of communication to ensure all updates were reviewed quicker. Audacia's end platform delivered on all aspects."

Sarah Thorp, The National Institute of Health Research (NIHR)

NIHR | National Institute for Health and Care Research

About Audacia

We deliver technology solutions to provide better public services

Audacia partners with leading organisations to uncover opportunities for growth and innovation, delivering value-driven technology strategies and business critical software platforms. From AI systems to process life-saving drugs quicker for the UK's medical regulator, to digital platforms to manage funding allocation for the nation's largest funder of health and care research.

We have established a reputation as a critical technology partner with long-standing relationships. We support organisations at every stage of their digital journey - from consultancy, engineering and QA testing, to AI & machine learning, data engineering and cloud. Overall working together to deliver technology solutions that are focused on accessibility, security and performance.

100 People

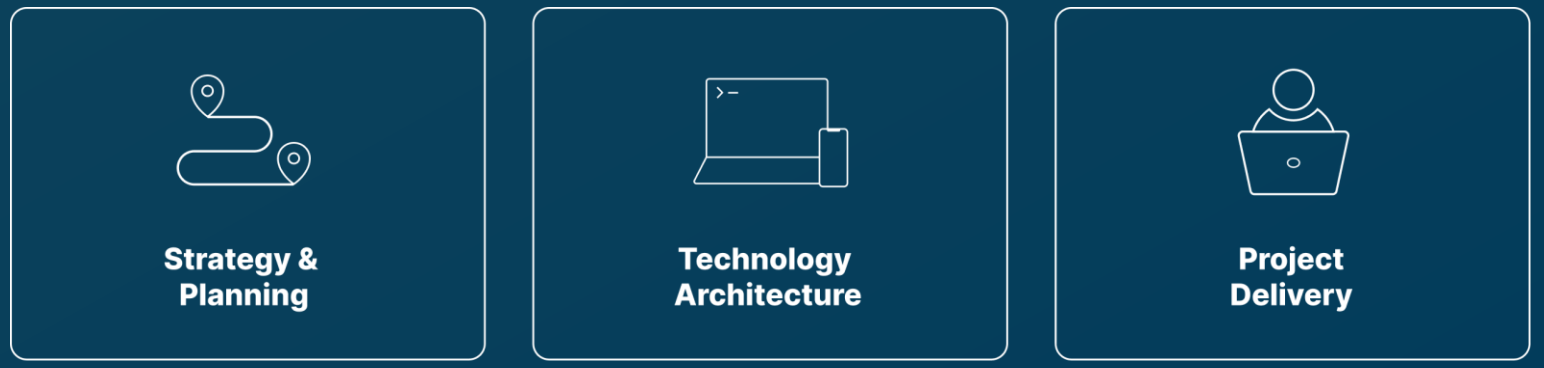
Award Winning

96% Outstanding Rating

Global Clients

UK Onshore Delivery

Delivering digital transformation



Software Engineering

Data Analytics

Artificial Intelligence

Cloud & DevOps

NORTHERN · SAINT-GOBAIN · NIHR · ENGIE · ADM · AESSEAL · Bellway · SMC · SCANIA · ROYAL PHARMACEUTICAL SOCIETY

Awards, Assurance & Accreditations

ISO 27001
ISO 9001
Cyber Essentials Plus
AWS Partner
ISTQB Gold Partner
Microsoft Solutions Partner – Data & AI
Microsoft Solutions Partner – Digital & App Innovation

"Best Place to Work" – UK IT Industry Awards 2025
Winner

"Services Company of the Year" – UK IT Industry Awards 2025
Highly Commended

"Consultancy of the Year" – British Data Awards 2024
Winner

How We Work

Underpinning our culture is a set of core values that we live by each day, from how we recruit, to how we work with each other and our clients.

Simplify

Remove unnecessary complexities, don't over-engineer solutions.

Single Team

Share the vision of your client and the wider Audacia team.

Transparency

Be open, honest and fair with clients, teams and with each other.

Own Outcomes

Be accountable, challenge and take initiative across working activities.

Curiosity

Continuously improve by challenging and asking questions.

Personal Excellence

Strive for technical excellence in everything that you do.

Our Social Value

Audacia has dedicated internal working groups that cover three core areas, together delivering our CSR initiatives.

Community Connection

Driving initiative and action of our social, environmental and economic impact.

Wellbeing

Supporting and improving employee holistic health covering mind, body and soul.

ED&I

Ensuring equity and representation to create a more inclusive place to work free from bias and prejudice.

Ahead Partnership

Helping young people to achieve their full potential, regardless of background.

TechTalent Charter

Contributing to greater inclusion and diversity in the technology sector.

Northern Powerhouse

Make the region's great cities, towns and communities a powerhouse of the UK economy.

audacia Academy

Providing opportunities for everyone to get into tech irrespective of background.

Our Work

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Medicines & Healthcare products Regulatory Agency

Using AI to improve efficiencies of medicines and medical device approval

Problem:

The British Pharmacopoeia (BP), managed by the MHRA, faced a steep increase in complex customer queries, with scientists manually reviewing thousands of emails referencing historical guidance and published standards. The single shared inbox made it difficult to locate past responses, resulting in long response times, inconsistent answers, and increasing workload pressures.

Solution:

Audacia partnered with MHRA to co-develop a secure, internal AI assistant using Azure OpenAI (GPT-4) with Retrieval-Augmented Generation. Trained on validated past queries and BP documentation, the tool delivers cited draft responses for staff review. Developed through close collaboration with BP teams, it reflects regulatory tone and ensures accuracy through a “human-in-the-loop” design.

Outcome:

- 80% of queries now resolved within 10 working days, 95% within 18
- Actively used in production with patterns explored for wider MHRA adoption across teams, departments and use cases
- Recognised internationally, with MHRA sharing the approach with regulators in Vietnam, Australia, Qatar and others

NIHR | National Institute for Health and Care Research

A modernised finance platform and AI transformation for clinical research funding and dissemination

Problem:

NIHR faced two major challenges: managing over £317m in health research funding across 15 regional networks using a legacy finance system, and a bottleneck in disseminating research alerts, limited to just 10 per month despite over 1,500 monthly publications.

Solution:

Audacia delivered a secure, WCAG-compliant finance platform enabling real-time budget tracking, audit trails, and accurate reporting to the DHSC. In parallel, we built an AI-powered summarisation system using GPT-4 Turbo and Retrieval-Augmented Generation (RAG) to automate research alert generation. The AI solution was co-developed with NIHR's editorial team and included workshops, prompt engineering, and performance evaluation via Arthur Bench.

Outcome:

The finance platform reduced submission time from minutes to seconds and improved data accuracy and traceability, supporting COVID-19 trials like RECOVERY. The AI system cut alert generation time by 35%, significantly increased volume, and upskilled NIHR staff in AI best practices, transforming research dissemination at scale.



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NHS
The Leeds Teaching Hospitals

Enhancing the efficiency and effectiveness of emergency physicians treating 1.5m patients every year

Problem:

Emergency physicians at one of the UK's largest NHS trusts face intense demand, with over 1.5 million patients treated annually. Leeds Teaching Hospitals sought to explore how AI could support clinical efficiency, accuracy, and decision-making within its emergency departments.

Solution:

Over a 6-day engagement, Audacia co-designed and delivered three AI proof-of-concepts in collaboration with clinicians:

- Active Learning: A tailored training platform aligned to the Royal College of Emergency Medicine curriculum, supporting continuous professional development.
- Risk & Guidelines: An AI tool delivering evidence-based clinical support to augment decision-making and improve consistency in high-pressure environments.
- Medical Scribe: A system to generate structured summaries of consultations, supporting safer, more efficient clinical workflows.

Outcome:

- Identified high-impact use cases for AI adoption in emergency medicine
- Delivered working PoCs to test feasibility and alignment with clinical workflows
- Laid the foundation for future AI innovation across frontline NHS services

“This ‘person in the loop’ approach ensures quality and consistency while still saving significant time for the team - query handling has already delivered measurable improvements. Response times have improved dramatically: 95% of queries are now answered within 18 working days, and 80% within just 10 days. This is a significant boost compared to previous performance, and the team is regularly exceeding their key performance indicators.

Work has now started to better understand the potential to roll out the tool to other teams managing external queries, such as the Customer Experience Centre (CEC)”

Phil Gillibrand, The Medicines and Healthcare products Regulatory Agency (MHRA)

Medicines &
Healthcare products
Regulatory Agency



Thank you.

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