

Decision Intelligence for UK Government

Service Definition Document

About Quantexa

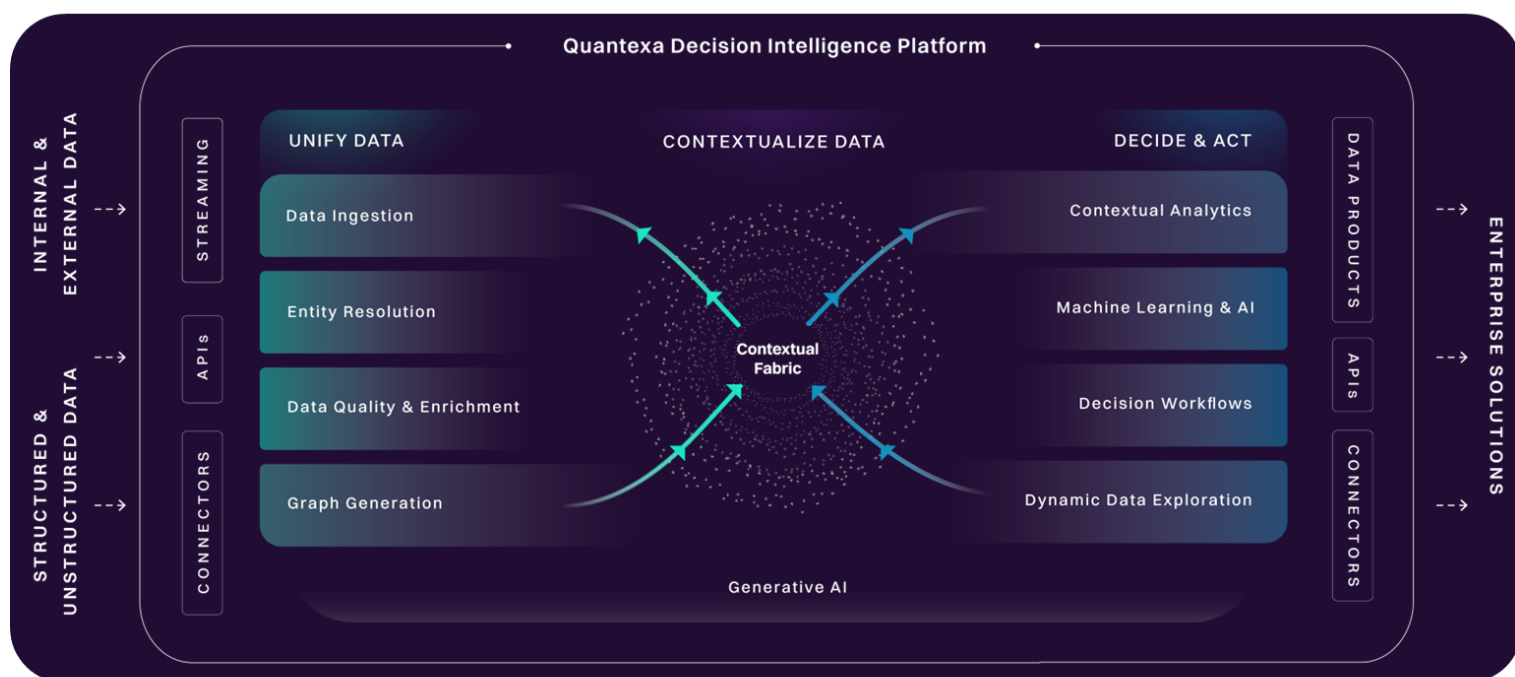
Quantexa is a UK company, founded with the objective of enabling organisations make better business decisions. Our Decision Intelligence Platform excels at ingesting billions of disparate and siloed data points, often of poor quality, and stitching them together to create a trusted, unified, context-rich, and reusable data resource across your organisation.

Our open, modular, and integrated approach enables augmented and automated decision-making that will allow your teams to do their best work. With a wealth of experience in multiple sectors, we have deployed our technology to build world-class solutions using decision intelligence with proven results that protect, optimise, and grow both public and private enterprises globally.

Since our inception, Quantexa has expanded globally, establishing offices in locations such as New York, Boston, Washington DC, Brussels, Toronto, Singapore, Melbourne, and Sydney. Our reference clients in the UK include the Cabinet Office, HMRC, Crown Commercial Service, NHS, HSBC, NatWest and Vodafone.

Decision Intelligence for UK Government

Conceived by the original pioneers of entity and network analytics, Quantexa's Decision Intelligence Platform has been developed from the ground up to overcome the challenges of legacy platforms including scalability, granular security, accuracy and timeliness. Quantexa's platform contains open and fully explainable advanced Artificial Intelligence and Machine Learning techniques which leverage over 20 years of expertise and has been trained & proved on over 1 trillion records.



Quantexa's Decision Intelligence Platform is designed to deliver numerous benefits to UK Government organisations, including:

- Accurately bring together disparate records to create a 'golden record' of data
- Reveal hidden insights and risks to organisations and citizens
- Inform evidence-based policy, strategy, and decision making
- Improve the accuracy and confidence of automated and augmented decision making
- Enhance department efficiency by automating investigation and data management tasks

- Monitor and enforce regulatory compliance and support prevention and detection of crime
- Detect and prevent fraud to protect public funds

Business Purpose Solutions

Achieve dramatic improvements in operational performance, results, and efficiency. Solve a range of critical data quality and analytical challenges when fighting fraud, enforcing compliance, collecting taxes, investigating crime, and securing borders.

Financial Crime Solution Suite

Traditional rules-based transaction monitoring systems are often inward-looking with limited innovations and only detect partial surface-level risk. Harness the power of networks and contextual monitoring to protect your organisation and citizens with a unified approach to combatting economic crime.

Quantexa's contextual monitoring focuses on holistic relationships in addition to transaction values and volumes. It automatically consolidates and connects internal and external data for a complete view of citizens and businesses. This uncovers hidden risk quickly and more accurately, accelerating efficiencies and effectiveness. Sophisticated visualization models and an intuitive UI helps to prioritise investigative actions on real risk.

Supply Chain Integrity Solution Suite

Government supply chains are multi-layered and opaque. Traditional tools can't decipher complex relationships and growing risks. Market challenges and disruptions create uncertainty, exposing organisations to regulatory, reputational, and operational issues, while limiting opportunities to optimise supplier ecosystems. Yet achieving visibility across suppliers remains a must-solve problem for agencies across the public sector.

Quantexa brings together disparate data sources, including supply chain data, other internal data sources, and enriches with external data. It resolves entities across your entire data estate to create a connected and contextual single view of all third parties in your supply chain. Then proactively identifies vulnerabilities through AI-powered supply-chain specific scorecards that alert meaningful risk. Quantexa enables predictive, proactive decision-making that empowers your teams, elevates productivity, and optimises your supply chain.

Supply Chain Integrity – Uncover hidden connections that pose risks to your organisation's operational integrity such as bribery, corruption and conflicts of interest.

Supply Chain Resilience – Anticipate and prevent supply chain disruptions by creating an AI-powered unified view of internal operational data and external signals.

Counter-Fraud & Security Solution Suite

Fraud losses are rising, and countless cases go undetected and underreported. Counter-fraud teams struggle with siloed data and endless false positives. Instead, fraud teams require a holistic, context-based understanding of all relevant entities, networks, and behaviours to improve fraud prevention,

detection and investigation success across government. Quantexa provides a transformative approach that enables enterprises to detect and mitigate fraud as it occurs.

Quantexa builds a contextual single view of citizens by unifying billions of data points from internal and external sources. It reveals hidden relationships and behaviours to expose highly sophisticated fraud networks and subtle risk indicators. Then using AI-powered, machine learning-driven fraud analytics and scoring, Quantexa's contextual approach generates more true alerts and fewer false positives across even the most sophisticated fraud typologies. Data and intelligence is consolidated into a streamlined workflow, powered by AI, to alert analysts and investigate complex fraud effectively and efficiently.

Counter-Fraud & Security Solution Suite has five options:

Tax Fraud and Evasion – Use real-time advanced capabilities to integrate internal and external data for a consolidated view of tax evasion risk.

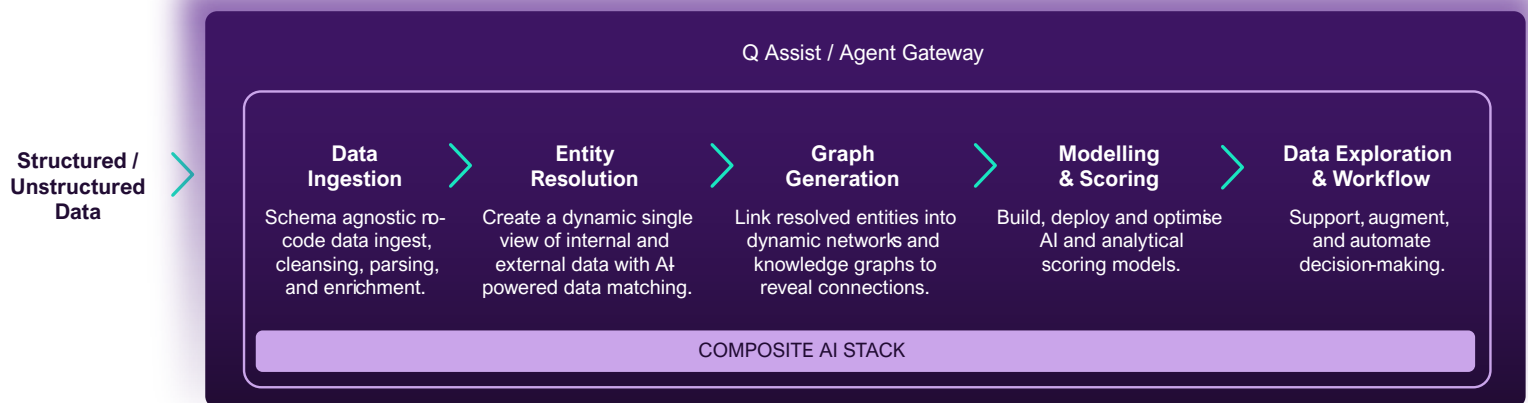
Customs, Goods, and Duties – Gain a single view of risk to facilitate efficient investigations and the safe and effective movement of goods in real time.

Grants, Benefits, and Other Payments – Detect and deter criminal deception or mismanagement with intuitive analysis, investigations, and proactive decisioning.

Borders and People Movement – Enable the safe and efficient movement of people in real time with a single view of risk.

Goods Targeting – Operational targeting to combat movement of illicit goods, across borders and within the UK.

Our Technology



Data Ingestion

Data Ingestion accelerates onboarding of disparate and ambiguous data, using low-code, scalable, high performance data preparation and ingestion capabilities including AI /ML-powered mapping, parsing, cleansing and matching models. Quantexa has no pre-defined data model or schema, allowing for faster deployment and the use of all available data to ensure the highest possible accuracy and context.

Data Ingestion has one additional optional module that can be deployed:

Unstructured – capability for ingesting documents, emails, articles etc.

Entity Resolution

Quantexa's proven Entity Resolution engine unifies your data to create a single view of entities, faster and more accurately than any other alternative on the market by employing configurable, pre-trained machine learning models, which use tens of thousands of data elements iteratively in combination, to match across multiple documents or data sources. Quantexa's Entity Resolution supports batch, real-time, and uniquely, dynamic processing, which allows for the specific view of an entity to be built at the time of request, driven by the permissions of the user making the request.

Entity Resolution has two optional modules that can be deployed:

Data Quality – Metrics and UI options for understanding data quality.

Reference Data Store – resolved entities can be held as references for upstream systems to ingest

Graph Analytics

Resolved entities are automatically connected into networks that reflect real world relationships, revealing the context of how people, objects, locations, and events interact with each other. With Quantexa's unique dynamic graph generation, ego-graphs are built dynamically when requested and are specifically relevant to the problem being solved. This approach preserves all the benefits of graph analytics including identifying commonality, inference and hidden risks without the resource costs or limitations of a conventional graph database. Quantexa Knowledge Graph enables population-scale analytics to be performed on connected entities spanning millions of nodes.

Modelling & Scoring

Quantexa's Modelling & Scoring module enables data scientists to access entity, and graph features to create and apply monitoring and analytics models utilising common tools and data science methodologies. Quantexa also provides 'Detection Packs' that offer out-of-the-box, configurable risk identification models that accelerate deployment and development. Automatic application of configured analytics proactively identifies risks and opportunities for analysis, pre-building investigations and alerting users to new intelligence.

Data Exploration & Workflow

Quantexa Explorer UI enables teams to search for and visualise data in rich detail, including relevant relationships, transactions, and behaviours. Users can create dynamic queries across billions of data points to highlight risk, explore large volumes of data easily and identify significant information, trends, and patterns at the population level, or refine searches and filter data to understand situations and circumstances at the local or individual level.

Workflow has one additional optional module that can be deployed:

Stewardship – enables data stewards to manage, curate and remediate entities.

Quantexa AI

Connect and contextualise data to uncover deeper insights and drive explainable actions with trusted copilots and agents.

Q Assist

Q Assist brings contextual insights to end users at scale by combining the power of large language models and the Quantexa Decision Intelligence Platform. Q Assist enables users to query large and disparate data via a natural language interface, or selected prompts, in combination with contextual RAG. Q Assist's integration with Quantexa Knowledge Graph generates insights from population-scale networks and speeds up investigation efforts by creating automated investigation summaries and reports.

Q Assist has two deployment models that can be deployed independently or together:

Copilot – Users interact with Q Assist within investigations, providing contextual summaries, next-best-actions, report generation and more.

Workspace – Users interact with Q Assist at a platform level to search, explore, and derive insights across all available information within Quantexa.

Q Assist empowers investigations, analysis and decisioning through human-machine teaming, increase efficiency and standardisation of report writing and escalations, and distil complex investigations into easy-to-understand summaries.

Agent Gateway

Agent Gateway is a secure integration and orchestration layer within Quantexa's Decision Intelligence Platform to expose the data and context created by Quantexa Platform into Agentic Systems and fuel customer agents with rich context and insights. It uses Quantexa MCP, A2A, and other frameworks to govern agent-to-agent interactions, enforces data entitlements, and ensures explainability, scalability, and security in distributed agent ecosystems.

Platform Suites

Quantexa's Platform Suites are specifically designed to meet Government challenges using a flexible approach that leverages Quantexa's modular technologies to provide better context to generate actionable insights. This open approach enables organisations to adopt the right features to meet their current requirements with flexibility to add further functionality in the future. The Suites' open architectures integrate seamlessly into existing IT ecosystems, with multiple deployment options for faster time-to-value.

Quantexa has security at its core, allowing you to control user access to sensitive data, and can dynamically serve different views to different users based on their permissions. This enables you to serve a broad set of users from a single foundation of trusted data.

Trusted Data Foundation

Get a trusted single data product, generated from across internal and external data assets. Create consolidated records about citizens, customers and organisations in streaming or batch. Overcome data quality issues and achieve a step change in results, duplicating records and enabling enrichment across disparate sources. All data products are exposed to downstream applications via APIs, batch export or stream, so your application and analytics teams have confidence they are all using the same high-quality data.

Contextual Data Foundation

Build on your trusted data foundation to contextualise your entities. Utilise advanced analytics to understand the connections between people, objects, locations and events. Map complex relationships and information flows, such as transactions, call logs or repeated events, revealing hidden connections and suspicious patterns. All data products are exposed to downstream applications via APIs, batch export or stream, so your application and analytics teams have confidence they are all using the same high-quality data.

Decisioning Suite

Trusted by governments and other large organisations globally, Quantexa's Decisioning Suite is proven to provide quick and effective decisioning support for multiple use-cases at scale. Through dynamic Entity Resolution the platform connects billions of data points across internal and external data sources, creating a holistic view of real-world entities. Graph Analytics empowers users with a view that's enriched with vital intelligence about the relationships between individuals, organisations, and places. Analytics then facilitates clear understanding of people, objects, locations and events to proactively identify trends and patterns of behaviours. Quantexa's innovative approach to maximising the value of data supports multiple use-cases simultaneously; modernises agency operations, improves efficiencies, ensures compliance, increases revenue collection, prevents fraud and ultimately empowers more intelligent decisioning and services to citizens across the UK.

Agentic AI Suite

Agentic AI Suite solves the integration, governance and scaling challenge for customers building and deploying agents and agentic systems that require fully contextualised and trusted data. It enriches organisational agents with data from Quantexa, drawing on Entity Resolution and Graph Generation to simplify access to rationalised and connected data for LLMs and agents. Agentic AI Suite creates a

fully explainable paper-trail from source data through to decisioning process that can span use-cases and departments, ensuring a joined-up approach to agentic AI data use across government.

Data Modernisation Suite

Get a trusted single data product, generated from across internal and external data assets, improving data quality, application efficacy, and control of master data.

Using best-in-class Entity Resolution technology, Quantexa creates single views of individual citizens to drive timely, personalised interactions across digital and physical government services.

Entity 360 – Utilises pKYC methodology, pioneered within the financial industry, ensures that entity data is always showing the user the most up-to-date information.

Unified Data Quality – Builds on Entity 360 to include data quality analytics and stewardship capabilities to enable users to understand and manage data product quality within Quantexa.

Master Data Hub – In addition to Unified Data Quality, this adds the ability to utilise a reference data store in order to make data changes available back to systems to improve data quality at source.

Platform Suite Specific Capability Platform Suite Pre-Requsite Capability	UNIFY						DECIDE AND ACT			
	Data Ingestion	Entity Resolution		Data Stores		Graph Generation	Contextual Analytics	Data Exploration	Workflow	Agentic AI
Trusted Data Foundation										
Contextual Data Foundation										
Decisioning Suite										
Agentic AI Suite										
Data Modernisation Suite*										

* Data Modernisation capabilities sold as part of the 3 Solutions under the Suite (Entity 360, Unified Data Quality and Master Data Hub)

Why is our technology different?

Accurate



- **99%** matching accuracy for single views
- **20%** proven de-duplication of records
- Over **75%** reduction in false positive alerts

Fast



- Accelerate deployment & time to value with low-code, schema free data ingestion
- Scale up to **60 billion** records
- Reduce analysis time from weeks to hours

Open



- Easy-to-integrate into your existing tech stack
- Flexible, modular platform easily configured into your operations
- Extensible with multiple views & use cases

Secure



- Advanced permissioning and role-based data access
- White-box Machine Learning models
- Transparent scoring and alerts

Becoming Self-Sufficient

Whilst Quantexa supports all its clients with service adoption and deployment, we know that many organisations wish to own and manage their systems independently. Our end-to-end training academy takes clients along the path to self-sufficiency, supported along every step of the way. If clients do not have the capacity to train in-house staff, we have large network of clients with skilled Quantexa teams who are able to deploy, manage and enhance implementations of our technology and have a wealth of experience at operating in hybrid teams.



Initialise

The Quantexa and Customer partnership begins. The Customer will begin to train internal Centre of Excellence team. Quantexa or partner support high during this period.



Scale

Customer teams will become skilled and self-sufficient. Still a blended team of Customer and Quantexa, but Quantexa will be the minority.



Full Self-Sufficiency

Customer teams are fully self-sufficient and only coming to Quantexa for support where required.

Customer Self-Sufficiency

Initialise the Capability

Scale the Capability

Full Self-Sufficiency

Roll-out of first / initial use case into production

- Customer team completes Quantexa training
- Blended team of Quantexa and Customer resources
- Customer teams are shadowing and working with Quantexa teams to configure/implement the platform

Initial use-case in production. New data / capabilities / use cases are being added to the platform

- Customer moves to become "prime" on the delivery of the platform with Quantexa team support reducing
- Customer team will move towards self-sufficient support using the Quantexa Communities and Support for help

Multiple use cases fully deployed within the Quantexa platform

- Full Quantexa Center of Excellence will be formed
- Requests for new data / capabilities / use cases will come from business areas direct to the CoE
- Fully supported by Communities and Q Support
- Regular roadmap sessions and reviews through Quantexa customer success

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quantexa