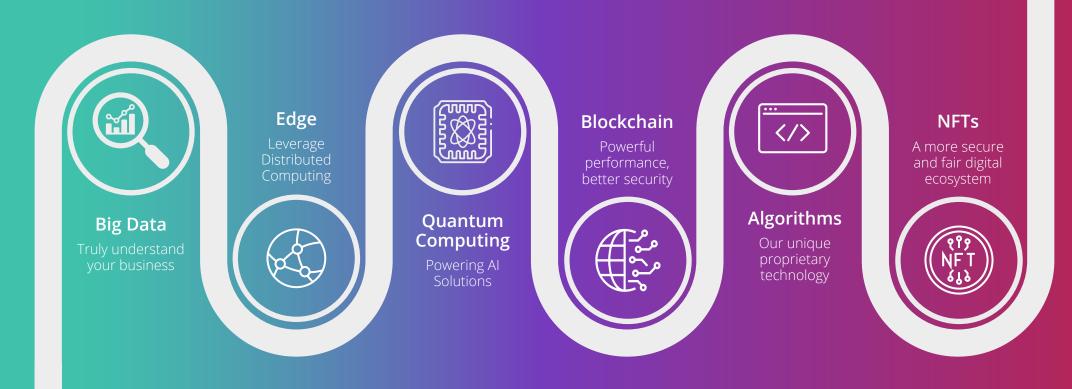


Unlocking Al's true potential in the critical utilities sector for the greater good.



Our Technologies



Why **Quantum**?

Data is the last frontier when it comes to competitive advantage. Being able to identify, collate, mine, and interpret your business data – and act on it – provides new avenues for innovation, automation, and growth, irrespective of the market you operate in.

With a full intelligent solution suite, powered by the latest developments in Al and machine learning, Quantum Al can help your organisation unlock business intelligence with Al, spot trends and patterns in big data with deep learning, and remain secure.

Trusted in the industry, we have created a secure Al platform on the basis of next-generation methods, including future concepts of Quantum Computing, for the modern organisation. We provide business insights, pattern & trend learning, and self-learning. Quantum helps organisations across sectors achieve leaps forward by providing tailor-made Al-driven solutions that apply Deep Learning, Machine Learning and Artificial Intelligence to rapidly resolve business challenges and unlock intelligence. And we're committed to doing this in an ethical manner.

Our mission is to help businesses apply the best aspects of Al to their business through innovative technology, services and solutions that automate mundane, repetitive tasks, create a competitive edge or improve security. And our objective is always to do so in a manner that augments and informs the activity of your human workforce. Al to assist - not to replace.



Our Solutions: Tomorrow's Technology Today

Intelligence that drives innovation, security and growth

Quantum AI deliver a powerful suite of ground-breaking technologies that help organisations across sectors overcome critical business challenges through the very best in Deep Learning and Machine Learning applications. These applications are underpinned and accelerated by harnessing the power of quantum and edge technologies, and combined with our unique algorithms, deliver faster, deeper and more accurate intelligence for your business.

Quantum Computing

We build intelligent software for organisations of varying operations; creating the opportunity for individuals to do great things with a dynamic Al engine growing with you and your organisation to make better-informed decisions.

The Quantum platform is a real-time, Al-centric product that works intelligently with self-governance. Once calibrated for your requirements, it's then able to self-learn, self-heal, and adapt to deliver insights and performance or security improvements you didn't know were possible.

Machine Learning

Machine Learning can be a powerful tool across multiple parts of your organisation, with a breadth of capabilities that simply make work more efficient. At Quantum, we see Machine Learning as a powerful ally of your human workforce – Not a threat to them: By leveraging the power of Machine learning tools in the right way, you can free your teams from mundane, low value tasks, and enable them to concentrate on higher-value projects, while getting more of those mundane tasks done faster.

But the Power of Al goes far beyond this: its ability to constantly learn and adapt means it can help human workers find faster, more efficient ways of working themselves, as well as uncover new insights from data that inform more confident human decision making. In any industry where responsiveness counts, this can lead to significant advantage.



Deep Learning

Deep Learning takes the capabilities of Machine Learning to another level. This is particularly powerful in environments with "Big Data" challenges - large quantities of unstructured data, which simpler ML algorithms might struggle to fully understand, and where therefore, commercial or security insights may be missed.

DL therefore incorporates a significant training stage during which it compares data characteristics and teaches itself how to behave when it encounters similar data the next occasion. And the benefits of this can be felt across almost any business unit, from manufacturing and logistics, through to Human Resources and Payroll. Deep learning helps to disentangle any number of abstract data sets and select which features improve performance, continually providing better insights as a result.

DDNA

Cybersecurity is a constant technological battle between security and IT professionals seeking to secure their businesses and threat actors looking to compromise it. Increasingly, artificial intelligence has a powerful role to play in keeping intruders out, whilst allowing verified users easy access to the tools and data they need to fulfil their jobs.

Being able to strike the balance between high security and ease of use is critical, and it's where Quantum's Digital DNA platform really comes into its own.

By applying AI to existing security products – whether at the end-user level (such as Single Sign-On Identity Access Management) through to far-reaching SOAR and SASE applications, Quantum DDNA levels up every aspect of your security perimeter. User behaviours are tracked and mapped against 'known' behaviours, with any changes flagged, while deep learning can be leveraged to inform – and automate better network and application design with a SASE framework.



Applying Quantum AI to Critical Utilities

Added Intelligence for Water and Gas

Companies in the utilities sector have an arguably unique role to play in the well-being of our communities and the security of our nation. It's for this reason that it's so important businesses in this space are able to predict, mitigate and protect against any changes in demand or supply, and that they can ensure the security of their vast networks.

With assets widely dispersed, and often in remote locations, getting a true picture of operational performance and asset health and security can be difficult. This is often exacerbated by data silos locked in legacy systems, unable to integrate with each other. Quantum's AI is the solution, and it's here now.

Identifying Issues Before They Occur

Disruptions in supply, such as broken gas or water mains, are hugely costly for utilities companies in both outright financial terms and in reputational damage. Prevention is, of course, far preferable to the alternative, which can involve major disruption to customers and nearby road and rail infrastructure.

Leveraging AI to understand the causes behind historic breakages, utilities' operation teams are able to identify patterns in the data that predict where a new break can be expected next, providing opportunities to prevent issues before they incur major costs.

Supporting Vulnerable Customers

Utilities have a mandate to protect vulnerable customers from being cut-off in the event of being unable to pay bills. But it's important that, while protecting those in rightful need, other customers don't abuse the system, effectively passing on the costs of their unpaid bills to the wider customer base.

For the bill payer, that means less costs to be passed on, and for the business and its regulators, a clear audit trail of where issues have been identified and rectified swiftly.

Al, supported by other emerging technologies, such as the internet of things (IoT), sensors, big data, and distributed ledger technology, can monitor, interpret and cross reference data sources such as bill payment patterns, customer calls, and usage, to build a picture of potential defaulters and suggest appropriate methods for utilities providers to address issues with the customer before they incur heavy debts.



Bringing artificial intelligence and data analysis to our everyday critical utilities



Edge analytics

Enables fast and decentralised learnings to be gathered from multiple datasets and applications within the business and externally.



Tracking and forecasting activity

Understanding historic performance and the factors influencing that performance enables accurate, insightful planning of future activities.



24×7 Operations

Optimise media planning and bidding around the clock, respond to live events, and maximise the effectiveness of your operations by automating key functions with Al.



Take the **Next Step**

Whatever your data or security challenge, we possess the expertise, technology and mindset to make a transformative difference to your business.

To arrange a demonstration, schedule a detailed briefing, or simply to talk about your challenges, please get in touch on:

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