About Synechron

Accelerating Digital for Banks, Asset Managers, and Insurance companies.

Synechron is a leading Digital IT Consulting firm and is working to Accelerate Digital initiatives for banks, asset managers, and insurance companies around the world. We achieve this by providing our clients with innovative solutions that solve their most complex business challenges and combining Synechron’s unique, end-to-end Digital, Business Consulting, and Technology services. Based in New York, the company has 18 offices around the globe, with over 8,000 employees producing over $500M+ in annual revenue.

Our value proposition

Unlike other firms, Synechron’s “Power of 3” approach and financial services expertise gives us a competitive edge to tackle our clients’ problems from any vantage point with great depth. Synechron combines the “Power of 3” - business process knowledge, digital design and core technology delivery excellence - to drive transformative solutions. We have the unique ability to provide an end-to-end approach, from business consulting through technical development to digital enhancement. This empowers us to deliver solutions to some of the toughest business challenges.

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Throughout its growth story, Synechron has strengthened its expertise across verticals to ensure it has experience in the most cutting-edge technologies and platforms. Synechron is proud to be a trusted Quantexa partner and to provide clients with a new era of Data Science & Analytics innovation as well as bring Automated AI decisions to life.

Synechron is a trusted Tier-One partner.

Synechron is one of the fastest-growing digital, business consulting & technology services firms. We partner with Quantexa, the leading data analytics platform, to deliver a next generation approach to creating sustainable enterprise solutions across:

- Anti-Money Laundering
- Fraud
- Credit
- Customer Insight

Synechron and Quantexa have successfully collaborated and delivered value to our mutual clients since Q1 2017.

At Synechron, we have extensive product and delivery knowledge built up through our successful collaborations with Quantexa.

We have a dedicated pool of Trained and Quantexa Accredited staff and continue to grow this capability globally to support our clients.

We have technology specialists that can deliver across the entire Quantexa open-source architecture, supported by a full LaaS, PaaS, and SaaS capability.

We have a global community of experienced client-focused domain and delivery personnel.

Synechron and Quantexa have proven expertise in Data Lakes, Data Warehousing, Data Engineering, Data Governance, Reporting, Analytics and Visualisation. We have a global presence in Data Science and have experts in the fields of ML, AI, ML, NLP, NLG and more.

Advances in computing storage and the availability of massive computing power through cloud services mean that analysis of vast data lakes is now possible. The opportunities available to organisations to effectively monetise their data are now very real and are possible today through the implementation of advanced tooling.

Synechron and Quantexa Addressing Industry Trends Together

Synechron and Quantexa Addressing Industry Trends and Clients Needs Together

Data & Analytics

Data is the lifeblood of any financial organisation.

Through proven best practices and embracing the latest innovations in Artificial Intelligence (AI), Machine Learning, Deep Learning, Blockchain, user experience (UX) design and the more traditional areas of data engineering, warehousing and visualisation, we enhance our clients’ ability to effectively and efficiently store, process, analyse, and act on their data.

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Synechron, one of the fastest-growing digital, business consulting & technology services leaders.
Quantexa Partnership

Implementation.

• Business Rollout & User Enablement
• Solution Integration
• Quantexa configuration and tuning
• Environment

Project Delivery with Agile Methodology

Typical Tech Stack

• BA/IT Analysts, PM’s
• Cloud Architect
• IT Solution Architect
• Data scientists to assemble analytical models
• Business Development (revenue generation)
• AML/KYC/FIU/Fraud/Credit
• Digital

Our Quantexa Capabilities:

Synechron’s Services

Business Consulting

We consult our clients on how their business challenges can be addressed through operational, technological, data, regulatory and digital strategies. We work with clients to understand their business pain points, conduct vendor analysis recommendations, develop their data governance strategies, help with customer lifecycle management, and to understand regulatory requirements that will impact their businesses. Based on these recommendations, we can work with clients to develop their target state operating model for everything from proof of concept work to enterprise-scale transformation projects.

Technology and Systems Integration

Where Quantexa is deemed to be the best technology solution to address a client’s business challenge, Synechron is a certified Quantexa partner with a team of data engineers and systems integration experts able to configure the datasets, the product, its environment and models to meet the specific business case goals. We have technical quality assurance specialists working on the development of the Quantexa platform itself.

Synechron’s Services

Business Consulting

Have a question? Get in touch today.

For more information about AI, please scan the code.

For more information about RPA, please scan the code.

An example implementation

Project Delivery with Agile Methodology approach, typical stages/sprints scope:

• Environment
• Data Source
• Quantexa configuration and tuning
• Solution Integration
• Business Rollout & User Enablement

Released in sprints, typically 2 weeks cycles in a POC, varies in full solution implementation.

Network visualisation

Allows data scientists or end users to view or explore network entities within the data, as well as overlaying the data on maps, charts and timelines.

Entity centric search

Offers a facility to search records or entities with a range of advanced features. Finding the data you want or avoiding the insertion of duplicates where customers already exist is critical.

Scoring framework

Apply a range of machine learning, scoring and advanced analytics to data, networks or events, driving decisions or robotics. Also including the necessary metadata to ensure the decisions can be easily understood by the users.

These capabilities should all be available through user interfaces or APIs, and provided in batch or real-time, operating on billions of records and embedded within your data lake environment.

Typical Tech Stack

The Quantexa proposition is fundamentally built using open-source technology. The tech stack includes:

• Multiple Architecture deployment models
• Quantexa can be a platform off or on the cloud on any cloud services provider, including: Google Cloud, Amazon Web Services (AWS), or Microsoft Azure
• Other utilities and software include: Hadoop (the standard choice), Spark, Parquet, Spring, Elastic, Java (NNI/JSON) etc.

Quantexa involves coordinating skills in:

• Data integration: ingesting source data
• Data analytics: risk identification, network configuration
• Software development: integration and scoring

Projects require ‘domain’ knowledge:

• AML/KYC/FIU/Fraud/Credit
• Business Development (revenue generation)

Projects require and ‘delivery’ experience:

• IT Solution Architect
• Cloud Architect
• BA/IT Analysts, PM’s

Any implementation will consider the need to determine/deploy:

Quantexa Resolves is responsible for batch based entity resolution and network building, operating over billions of records with a full scale out architecture:

• Unique compound key approach to entity resolution overcoming data quality challenges or attempts to obscure identity
• Can allow different levels of matching from stricter to fuzzier, under configuration control and can be varied by data type
• Builds networks within the data based on a range of configurable factors and can enforce overlapping time dependency
• Networks can be filtered and bounded providing statistics for analytics models

Quantexa Dynamic Resolves provides the same capability as Quantexa Resolves, but can be called in real time. Based on a scale out architecture, large numbers of requests can be handled concurrently with sub-second response. Row level security is possible and newly added data is available for entity resolution or as networks within seconds of being loaded.

Quantexa Explorer provides an extensible HTML 5 and Javascript user interface:

• Visualise networks diagrams in the data
• Provides additional views such as maps and timelines
• Drill down into the underlying data
• Perform a range of search on data record and entity level

Quantexa Analytics Framework enables data scientists to assemble analytical techniques (machine learning, statistical methods, rules, etc.), in a consistent manner to ensure operational outcomes. It manages score metadata and the hierarchy of event, entity and network scores.

Quantexa Dynamic Scoring Engine allows events, entities or networks to be scored dynamically in real time. As well as rule sets and scorecards, it can access persisted historic data and aggregate data on the fly over sliding time windows.

Our Quantexa Capabilities:
Improving KYC Data

Synechron worked with one of our existing tier one banking clients that identified a need to improve its Know Your Customer (KYC) process. After evaluating the solutions available on the market, Synechron recommended Quantexa, given its entity resolution and analytics capabilities would solve the lifecycle challenges the firm was seeing related to KYC data.

The Tier-one bank engaged Synechron to manage the business strategy, use case creation, and data engineering with the Quantexa platform to improve its European Investment Bank KYC function. The delivery team included a mixture of Synechron and Quantexa consultants and engineers.

The project delivered:

- Business case identification and use case development around the KYC challenge, lifecycle, and scoping of relevant workflows
- A working proof of concept with the ability to search across a sample of internal entity data sources to identify data deficiencies and clean up
- An easy-to-use, multiple source ingestion capability complete with entity and network resolution to be able to present comparable beneficial ownership data sets and gaps
- Feedback workshops for internal stakeholder engagement, training, and concept adoption
- Enhanced operations via resolved entities and entity hierarchies, and enhanced data governance
- A strong foundation for enterprise-scale implementation across other data sets, business lines and geographies using the Quantexa platform

FinCrime Prevention

Creation of a single network view of customers, using transactional and trading data, as well as 50+ other disparate data sources, to allow financial crime investigators to identify potential fraudulent activity.

- Built a custom network scoring framework to score complex business hierarchy relationships, and alert mechanism for investigator notification
- Involved complex aggregation techniques applied to billions of rows of transactional data generated from Internal and External data sources
- Big data processed at scale and quickly to resolve entity networks providing significant insight into potential and actual fraudulent activity

UK Retail Bank

Pilot for Fraud Detection

Focused on creating a unified view across banking and insurance customer networks for a UK retail bank with the aim of detecting insurance fraud.

- Built the ingestion schemas for multiple branch data sources and document types using custom spark scripts to join the data correctly
- Generated the network view of a customer and their economic status using anonymised data
- Parametrised the network scoring model and configured the User Interface

Large Financial Institution

Financial Crime Analytics

A POC for Banking Fraud Detection providing financial crime analytics for effective and efficient detection on a holistic scale across multiple systems.

- Design and develop a customised investigation capability underpinned by real time entity resolution and networks visualisation of individuals, companies and addresses. Providing a single, curated, entity resolution process of all clients across business lines
- Enabled easy identification of potential fraud or financial crime, allowing intelligent search and data exploration, entity and network optimisation and reduced false positives/false negatives

Major Energy Company

Customer Prospecting

A major non-financial services Corporate look to increase revenue.

- Challenge to overcome large legacy data systems with no linkage to establish customer insight to drive new prospect identification
- Multiple data extraction and linkage (sales data, account information, geographical data) was resolved into a unified system of Customer Entities
- The customers were matched against External Global Company information, to build complex networks of Customers and how their Directors linked them to other companies
- Able to assess and score existing prospective clients quickly and able to find a significantly substantial number of previously unidentified customer prospects for the account representatives to target
Quantexa Platform Development and SaaS

AML/Fraud Detection

Financial crime, whether in the guise of cyber fraud, money laundering, terrorist financing, rogue trader, bribery, corruption, or market abuse, presents a clear and present danger for the financial services industry. Post financial crisis (2008) the banks have paid over $200 billion in fines for various improprieties including forex and libor manipulation and leaking of confidential regulatory materials. The main issue across all types of financial crime is how to follow the various bread crumbs back to the perpetrator, no matter how good they are at covering their tracks.

Synechron has partnered with Quantexa to develop a Data Science solution focused on AML and Fraud detection. The technology allows firms to protect their key assets from financial crime through algorithms that can detect potential illicit behavior, allowing the firm to react in real, or near real, time to the threat and proactively put in place defenses to thwart any threat actor. The technology uses behavioral pattern detection and predictive analysis, combined with an expert understanding of financial service firms’ operations to deliver a powerful surveillance solution that can be further customized to firm processes and controls.

Quantexa Partnership

Regulatory Tuning
Quantexa has an established methodology to identify key data and analytical components and to provide solutions that leverage existing AML and screening platforms. This will provide effective alerts for operations, thus resulting in a more effective and cost efficient way to manage AML risk.

Strategic Analysis
A flexible and scalable data platform to allow a user to answer questions as they arise, integrating strategic risk assessments and providing data to financial intelligence units (FIU) for immediate action.

Fraud
Quantexa helps firms understand their fraud risk exposure, using data analysis and market insights to quantify losses and convert this information into meaningful business cases and integrating that data into other key systems.

Data API Build

The Synechron engineering team built and tested the ingestion API for the ICIJ “Paradise Papers”.
• This expansion of the Quantexa API library provides clients with an easy plug and play data schema for data relating to entity offshore financial information, enabling financial tax-related investigations, as well as customer insights use cases

Quality Assurance

Engaged to build out the Quantexa test strategy and end to end test automation framework and provide a managed Quality Assurance service direct to Quantexa.
• Reviewed the existing Quantexa test framework, test cases, backlog, and already automated test cases from Front End and Back End applications, inclusive of infrastructure review, to develop a scalable unified framework
• Example of Tools & Skills: Cucumber, Git, Selenium, Jenkins, Maven, Serenity, Java, Microservices, RestAssured, Scala, Jira, amongst others
Quantexa technology is an open source Architecture

Meet the Team

London

Phil Sturmer
Director, Business and Management Consulting - Global Partnership Lead
phil.sturmer@synechron.com

Ben Musgrave
Head of Digital
Ben.Musgrave@synechron.com

Ankit Jain
Specialist - Delivery & Quality Assurance
Jain.Ank@synechron.com

Cameron Peak
Data Scientist & Software Engineer
Cameron.Peak@synechron.com

Davor Zrnic
Sr. Director, Technology
Davor.Zrnic@synechron.com

Dnyandeo Totare
Technology - QA Automation Test Analyst
Dnyandeo.Totare@synechron.com

Chloris Yu
Associate Consultant
Chloris.Yu@synechron.com

Nagappan M
Technology - QA Automation Test Lead
Nagappan.M@synechron.com

Serbia

Davor Zrnic
Sr. Director, Technology
Davor.Zrnic@synechron.com

Mario Vukovic
Technology - Software Engineer
Mario.Vukovic@synechron.com

Ivan Milasevic
Technology - Senior Delivery Lead & Accreditation Trainer
Ivan.Milasevic@synechron.com

Danilo Dimitrijevic
Technology - Software Engineer
Danilo.Dimitrijevic@synechron.com

Dragana Knezevic
Technology - Senior Software Engineer
Dragana.Knezevic@synechron.com

Dusko Roknic
Technology - Software Engineer
Dusko.Roknic@synechron.com

Zivko Raicevic
Technology - Software Engineer
Zivko.Raicevic@synechron.com

Sasa Ferenc
Technology - Software Engineer
Sasa.Ferenc@synechron.com

Dragna Knezevic
Technology - Senior Software Engineer
Dragana.Knezevic@synechron.com

Dusko Roknic
Technology - Software Engineer
Dusko.Roknic@synechron.com

Zivko Raicevic
Technology - Software Engineer
Zivko.Raicevic@synechron.com

Sasa Ferenc
Technology - Software Engineer
Sasa.Ferenc@synechron.com
The breakthrough technology solutions from Synechron’s FinLabs encompass the following:

- **Blockchain**
- **RegTech**
- **Artificial Intelligence**
- **Automation**
- **Data Science**
- **Blockchain**
- **InsurTech**
- **Wealth Tech**

Here, clients can actually touch and feel the latest digital technologies and be energized and inspired to develop transformative solutions. Visitors can do everything from role-playing the customer journey through a typical digital engagement scenario in order to understand the impact of beacons, drones, biometric authentication and virtual reality, to prototyping around new technologies like Blockchain, Artificial Intelligence, InsurTech, RegTech and more.

Synechron’s Financial Innovation Labs (FinLabs) act as an innovation hub - allowing our clients to reap the benefits of Synechron’s digital R&D investment and scale transformative ideas with access to the brightest minds using cutting-edge technology. Synechron combines the “Power of 3” - business process knowledge, digital design and core technology delivery excellence - to drive transformative solutions.