

Service Definition Document

G-Cloud 14





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Executive Summary

4most is a proven credit risk analytics consultancy delivering effective solutions and advice for our clients. We pride ourselves in being a company with deep industry experience, helping our clients optimise risk identification and reporting frameworks, model risk management capabilities and business transformation projects to help you achieve your strategic goals.

We provide boutique advisory services, with opportunity to own delivery, partner projects or aid client owned delivery with technical resource or advisory support.

We have a wealth of industry experience through our 60+ clients globally with experience of interacting with a range of worldwide regulators and 4most's collaborative approach means we can draw on our wider team's experience and knowledge to meet any project needs.

Our senior leaders have held roles managing the data, analytics, credit and risk functions within financial institutions.

In this pack, we look to provide an overview of the relevant experience and expertise 4most has in this area however it does not include commercial items. We would be happy to provide a proposed engagement structure if requested.



4most are a specialist financial consultancy with extensive experience in delivering successful and cost-effective projects for UK and international clients.



4most work on projects covering all areas of strategy, development planning, model builds, validation and ongoing monitoring.



4most can mobilise a team of experienced, capable and highly skilled consultants to develop a compliant solution in the required timescales.



4most work with Client's teams to facilitate knowledge transfer and considered sign-off of key decisions.

4most Core Delivery Areas



Our team of over c.200 specialised risk consultants, led by our vastly experienced senior leadership team, deliver exceptional outcomes.

Banking, Data & Financial Consulting



Data Services

Data Architecture
Data Governance
Web Applications
Data Analytics



Capital & Impairment Risk

IFRS 9 IRB

CRR / Standardised Stress Testing, Forecasting & Economic Modelling



Market & Liquidity Risk

Capital & Liquidity Risk Counterpart Credit Risk (CCR) Interest Rate Risk in

the Banking Book (IRRBB) Traded Market Risk 9

Credit Risk

Origination
Account & Portfolio
Management
Collection & Recoveries



ESG Advisory

Climate Risk



Fraud & Compliance Risk

Fraud Risk
Compliance & Conduct
Risk



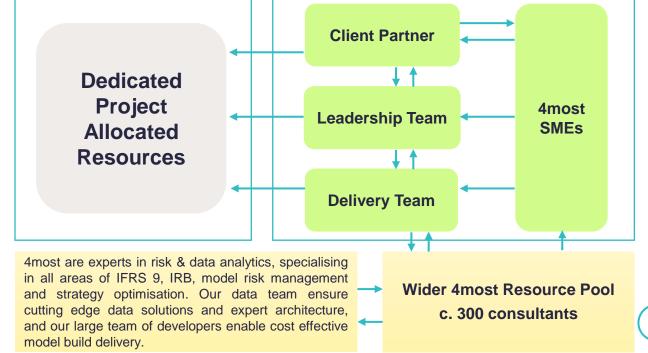
Governance

Organisational Design Model Risk Management

Ways of Working

bring domain together knowledge. through different execution arms, offering more than just consultancy services. Typically, 4most propose a structure in which a dedicated is allocated with the team ability to call upon specific expertise and experience from the wider 4most resource pool when required, as on the right-hand illustrated side.

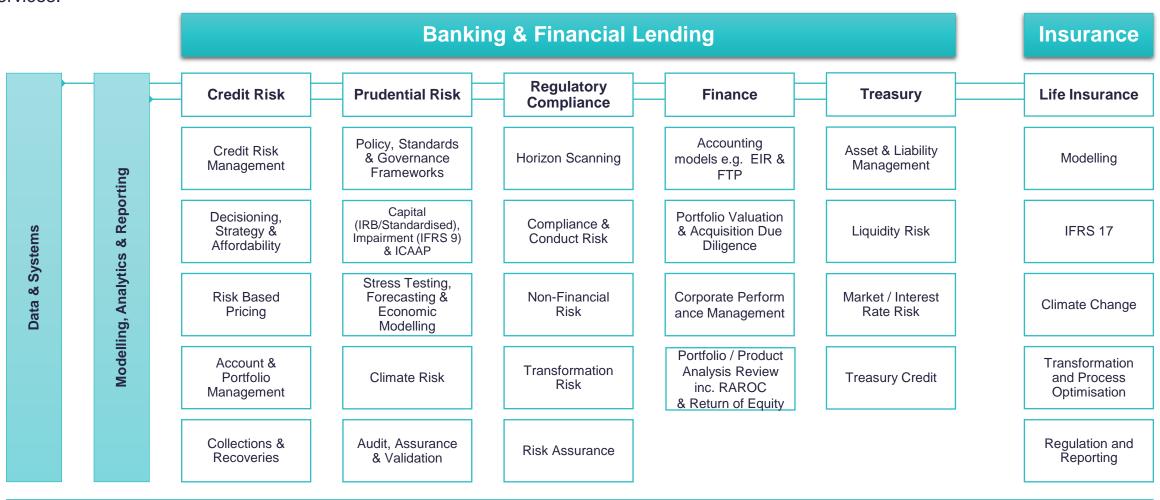




4most's Core Delivery Areas – Banking



As the UK's leading specialist risk consultancy, we provide expert analytics and advisory services to multiple disciplines within financial services.







We bring industry leading data, systems, analytics and advisory services across Data Services.

4most Data Services

Data Architecture and Engineering

Data Governance

Specialised Applications

Current 4most Data Service

- Data services offers 4most an end-to-end service for regulatory programmes such as IRB, IFRS, Finrep, Corep and Solvency II
- Our data governance expertise allows us to fulfil mandatory obligations for BCBS239 and support the fulfilment of Section 166 events on data management across an organisation
- Organisations are encouraged to replace manual processes with secure, robust, auditable solutions which drives the need for strategic decisions on enterprise-wide technology supported by our Data directors and partners
- Where enterprise-wide solutions are seen as non-viable, lengthy to execute or costly our Agile Application approach can develop appropriate solutions for the business who cannot wait on IT

Data architecture & Engineering

- Advisory service
 i.e. IRB application Module 3
- Programme leadership for risk and finance data transformations
- Architectural design service (Cloud and On-Premise)
- Data Engineering service (ETL optimisation)
- Data Migrations

Data Governance

- Data management and Operating model advisory
- Data policy & standards i.e. BCBS, IRB, Solvency II, FRS alignment
- Data governance and oversight
- Data Quality and Lineage
- · Data Remediation
- Assurance i.e. section 166 gap analysis

Specialised Applications

- · Business application development
- Replacement of End User Computing i.e. Excel
- Use of suite of pre-designed accelerators
- Agile design thinking i.e. Proof of Concept, Minimal Viable Product

Case Study: Data Migration UK Challenger Bank



The 4most team was integral in the supporting a UK bank in migrating their Credit Risk data analytics platforms.



Background

Bank required to move from a legacy analytics platform to a modern cloud data platform.

Legacy solution had limitations which resulted in simplistic data structures.

The incumbent solution didn't have enough data and wasn't flexible enough to incorporate additional internal data or external data feeds quickly.

Limited Data Governance was in place and data quality and data lineage weren't captured.

What we did

Created Data mapping documents between the existing solution and the new solution.

Supported the bank in identifying additional internal data feeds and selecting value add external data to improve credit risk capabilities.

Enhanced the data governance practices to meet the requirements of an IRB bank. Covering Data linage and Data Quality.

Created Data profiling capabilities to allow the data to be profiled on a monthly basis to support model development and portfolio analytics work.

Results

Increased efficiency of new solution improving the run time of MI production and the timeline for model development.

Improved the Data governance practices ensuring new solution had complete data lineage and robust data quality process.

Increased accuracy of matching within the data mart improving the completeness and accuracy of data while expanding the available data universe.

Enhance the Credit Risk Data and MI to meet the expectation of an IRB Bank.

What we are proudest of

Quality of our work, as well as working closely with the Client's representatives, responsible for the delivery of the engagement allowed us to build an exceptionally close and trusting relationship.

Despite the exceptional complexity of the project, we managed to facilitate clarity and consistency in setting design and development plans, allowing for a smoother migration process.

Even with tight deadlines and working within a challenging environment of such a large project, we were getting outstanding feedback throughout. Consistent delivery quality is something 4most is particularly proud of.

Case Study: Climate Change Model



The 4most team constructed a model to measure the impact of physical and transition risk hazards on long term expected losses.



Background

The client engaged with 4most looking for support in mapping physical risks and transition risks (EPC) to their properties in their secured portfolio.

The engagement also looked to build machinery around existing stress test model to calculate climate stressed expected losses as per CBES guidance.

What we did

Identify physical location of properties and hazards associated with these locations (flood, subsidence, coastal erosion).

Link EPC data on energy efficiency.

Estimate impact of both on property value and default probability.

Scale the risk of flood and subsidence occurring in the future under different climate change scenarios.

Produce account level estimates aligned with CBES guidance.

Results

Developed and delivered models for estimating expected losses under climate change for both residential portfolios.

The approach taken has been utilised at another lender in the industry to deliver similar benefits.

What we are proudest of

The engagement supported the client in not only achieving greater levels of risk management but also helped progress the organisation towards their climate goals.

Our solution has been adapted and embraced by another lender in the market illustrating our expertise in the space of Climate Risk.

Case Study: Acquisition Strategy Development



The 4most team enhanced the acquisition strategy for a prominent Tier 1 lender's Secured portfolio in the UK financial services industry.



Background

The client required support in developing numerous up-front customer facing strategies to enhance their risk management framework.

These strategies covered credit and affordability risk for multiple different customer types and demographics.

A full expenditure model rebuild was also planned with use of the model risk management expertise possessed by the team at 4most.

What we did

Provide resource augmentation FTE to support the ongoing BAU requirements while also providing dedicated resource to develop and enhance the wider strategies.

3 layered engagement focused on the expenditure model rebuild.

Phase 1: Benchmarking - Using internal & external data and 4most proprietary data to benchmark expenditure and levels of spend over time.

Phase 2: Data Extraction & Cleansing

Phase 3: Model Build

Results

We delivered lending strategy enhancements for populations such as self-employed and the mass affluent segments.

We delivered full expenditure model equations, complete with EPC enhancements, as well as a second set of equations to account for customers with multi properties.

Huge incremental benefits in lending from the work that went live expected to be in excess of c£2.5bn.

What we are proudest of

The Client was satisfied with our proposed improvements and pleased that we had gone above and beyond by calculating the effect of the improvement.

We supported the client in not only enhancing their future lending capabilities but also in ensuring their BAU activities remained unaffected during the engagement.

We built long standing relationships positioning 4most in a place to provide further support in the future following the project.

Case Study: IFRS 9 Model Build



The 4most team developed of a suite of models to support IFRS 9 ECL calculation and basic forecasting solution including all underlying models, the ECL calculation, an emulator and pseudo code for a Python-based solution.



Background

Provide a Gen 1 IFRS 9 solution including a basic forecasting solution for a mortgage provider in the UK market.

Ensure all the solutions and models developed met all required regulation with full documentation provided.

What we did

Identify the portfolio characteristics and product offerings and generate expert-led PD, LGD and EAD models

Determine an appropriate approach for deriving lifetime PDs using signature curve approach

Determine appropriate settings to support staging approach

Create a forecasting solution that is based on the expected characteristics of the portfolio as determined during the model development process

Results

Delivered a comprehensive Gen 1 IFRS 9 ECL model suite that supported company goals.

The ECL model suite was built with the capabilities set budget forecast and support implementation of a IFRS 9 solution.

A complete suite of documentation created aligned to the client's formatting requirements with consistent knowledge transfer of key understandings throughout the engagement.

What we are proudest of

Despite the complexity and challenges of delivery of the project, the team worked in partnership with the client to ensure a smooth transition of knowledge and material at the end of the engagement.

We developed an extremely close relationships with the client and the whole project delivery team ensuring the engagement ran smoothly with all stakeholders actively involved.

Some of the 4most Leadership Team





Rob McDowell
Chief Executive Officer

Rob is a highly regarded and focused leader with significant business strategy and development experience. Since joining 4most in 2012, Rob has successfully designed & executed 4most's strategic growth plans, appearing repeatedly in the Credit Strategy Credit 500 Hall of Fame.

Throughout his lengthy tenure, Rob has developed a deep understanding of 4most's clients, services and people, and has shaped the business to grow across multiple territories while maintaining the highest levels of service quality. Rob is passionate about 4most, its clients, partnerships, services and... most of all... its people.



Manish Gandhi Chief Commercial Officer

Manish has a strong and proven track record of developing and maintaining commercial relationships throughout the UK, Europe and the Middle East.

Joining 4most Manish has brought extensive industry experience from senior banking roles spanning some 25 years. He has extensive knowledge of regulatory risk, risk management and the cutting-edge data science techniques we use to fulfil our client's servicing requirements.

In 2018, Manish was recognised by Data IQ as one of the top 100 "Most influential data and analytics practitioners in UK organisations.



Craig WattersChief Operating Officer

Craig is a highly regarded business leader with extensive experience directing all aspects of 4most operations. He joined 4most in 2011, and since then Craig has had a lengthy tenure solving business problems and enabling the efficient servicing of client requirements through 4most's rapid expansion.

Having held several roles in UK banking and fulfilled many technical project leadership roles for 4most, Craig has a deep understanding of what drives business success and what adds value to 4most's business partnerships.



Nicola Richards Chief Financial Officer

Nicola is a chartered accountant and Chief Financial Officer with extensive expertise in accounting and financial services.

Having joined 4most in 2017 with an extensive career in audit across the Government and experience working in commercial finance, Nicola has provided financial leadership to 4most through rapid expansion – as well as supporting growth targets through delivering key strategic financial transactions.

Some of the 4most Leadership Team





Emma Heathcote
Managing Partner – Banking

Emma is a Managing Partner and a seasoned leader with extensive experience managing risk at a senior level for large UK banks. Having held Head of Retail Risk positions at both Virgin Money and HSBC Canada, and Head of Retail Risk Analytics for HSBC UK and Europe, Emma specialises in risk data, decisioning systems, portfolio analytics and all credit modelling. This includes IRB, IFRS 9, stress testing and more.

Emma is a highly regarded partner who deploys her partner team to effectively build and strengthen client relationships.



Chris Warhurst
Technical Director

As Technical Director, Chris leads the field in regulatory and technical modelling expertise, specialising in IFRS 9 and IRB. With many years operating at a senior level in UK Banking, Chris provides the perfect balance of client partnership and practical regulatory experience to support businesses as they navigate the ever-changing regulatory landscape. Chris is responsible for overseeing projects across the UK, Europe and the Middle East, providing leadership and advisory support to both project teams and clients.



Colin CarmichaelClient Partner – Data

Having held senior roles at both PwC and Sopra Steria, Colin is a Client Partner with extensive financial services and risk experience. With a wealth of industry expertise from his lengthy tenure leading consulting engagements specialising in data analytics across all business areas including CIO, Operations, Risk, Customer, Finance, Actuarial and latterly Sustainability.

Colin has supported clients across a range of services such as strategic advisory and business case development through to full transformation execution across the lifecycle of a programme. Some recent engagements include IRB, IFRS 9, Sustainability Reporting, Mergers and Acquisitions, Cost Optimisation and company wide Data Strategy.



Alice Webb
Commercial Director

As Commercial Director, Alice is responsible for ensuring 4most supports its clients and partnerships with a detailed understanding of current and upcoming client-specific issues as well as industry challenges. Her work is key to strengthening 4most's relationships, plus executing tactical and strategic changes that help businesses navigate the dynamic risk landscape.

Alice has delivered multiple large-scale projects, covering everything from data augmentation to model development and strategy design, specialising in scorecards, monitoring and portfolio management.

Resource Profile Descriptions



The below outlines our resource profile grades, as outlined in the SFIA rate card, in order of seniority.

Role	Role Profile
Set Strategy, inspire, mobilise	Industry SME and vastly experienced industry leader. Our partners will be the most senior resource on the project, responsible for the overall delivery and that all components of the deliverables meet client and 4most expectation. They will lead the mobilisation and provide technical oversight, as required, throughout the programme. Depending on the project, this person could also be the subject matter expert.
Initiate, influence	Industry SME with significant experience of delivering and leading large-scale change programmes. Has in-depth knowledge across most of, if not all required disciplines including involvement with developing the existing 4most team. Has led projects and manages client expectations with ownership of key decisions and project activities.
Ensure, advise	A vastly experienced consultant with meaningful experience leading teams, with significant regulatory and reporting experience that can combine their breadth of knowledge and impart that into the project. They will take responsibly for key parts of the project as well as individually owning a material work-stream. They will also assume ownership of some day-to-day activities, whilst ensuring a common delivery approach across other work-streams.
Enable	A significantly experienced consultant with leadership qualities, with regulatory and reporting experience that can combine their breadth of knowledge and impart that into the project. Able to take responsibly for parts of the project as well as individually owning a material work-stream.
Apply	Consultant with significant industry experience with responsibility for the execution of day-to-day activities, including ownership of a particular end-to end delivery and accompanied documentation. Can draw on previous experiences to advise and complete tasks.
Assist	Consultant with independence that can own the responsibility for the execution of day-to-day activities under the supervision of the senior or management level consultant resources.
Follow	Graduate level resource responsible for the execution of data to day activities.



4most ANALYTICS CONSULTING

