Unlocking the power of open-source

Risk Reshaped

pwc

Why Credit functions are…

... migrating from legacy software to open source solutions

Credit Risk models and analytics in major UK banks and building societies have been built around legacy software (e.g. SAS Enterprise Guide). Legacy platforms were incredibly flexible at a time when analytical data marts and analytics were in their infancy. Recently, there has been a surge expectations, including the **need for additional data**, **more sophisticated calculations and transformations**, and the **ability to rapidly adjust** to increased customer demand. Further, **legacy skills are reducing in the talent marketplace**, with top talent **preferring open source** (e.g. Python) **and integrated open source solutions**. As well as this, the **pace of innovation (including Generative AI)** within the analytics space requires **high levels of adaptability** to include new techniques and connect to new ecosystems. Legacy softwares have proprietary language and calculation engines, and so do not cover these areas easily.

PwC's 'Risk Reshaped: How are credit functions evolving?' 2024 market survey

We have examined both Retail and non-Retail perspectives from UK Tier 1 and Tier 2 Banks and Building Societies on their perspectives into how credit risk functions are evolving due to rapid technological advancements supporting increased customer demand.

88% of participants have indicated that they are considering or currently migrating away from legacy software to open source software solutions.

75% of participants have indicated that migrating from legacy sources to open source leads to cost reduction, improved process efficiency, and faster decision making.

Value created from transition to open source across the credit risk implementation journey, from data processing into strategy and model development/execution, and through to reporting.

100%

No licensing fees!

By converting and optimising legacy scripts/programs to open source, this eliminates 100% for the need of licensing fees potentially saving £1m+.

£0

Upgrading model development

Free access to extensive libraries for statistical analysis, visualisation and machine learning to enhance and optimise the model build process.

50%

Driving cost efficiencies

Facilitating portfolio strategy and capital modelling analysis by reducing the number of FTE required for executing regular processes.

70%

Computational efficiency

Parallel computing can significantly reduce monitoring MI and ECL / RWA engine processing time by at least 70%.

Supporting regulatory compliance

Full codebase transparency, to support audit/compliance with regulations.

Enabling data management

Easy to store, customise, and process large and diverse datasets.

Unlocking your potential…

… by transitioning from intention to widespread adoption

Migrating from legacy software to open-source technologies involves a series of activities and the realisation of benefits at various stages of the process. The transition is a **strategic move that can significantly improve the operational efficiency, innovation capacity, and competitive edge** of UK banks and building societies.

The below maturity chart outlines the key activities involved in this migration and the benefits realised by firms as they progress through each stage.

	Key activities	Realised benefits
Preparation and planning (0-6 months)	• Conduct feasibility study & develop comprehensive migration strategy. • Establish a open-source governance framework. • Develop proof of concepts and start building in house expertise. We can bring our predefined governance frameworks, vendor assessment templates, and suite of Python / R training packages.	✓ Increased awareness and understanding of open-source ecosystems. ✓ Alignment with regulatory and compliance requirements. ✓ Early stakeholder buy-in through the PoC and creating the foundation for a skilled team.
Strategic implementation (6-18 months)	• Begin integration of open-source technologies in less critical systems. • Scale up training and development. • Migrate critical systems to open-source technologies in a phased approach. We have tried and tested accelerators including Model Efficiency Manager, GenAI/ChatPwC, and our strategic tech alliances.	✓ Significant cost savings on licensing and maintenance. ✓ Efficiencies realised in key processes e.g. monitoring MI and ECL / RWA engines. ✓ Enhanced operational flexibility and system interoperability. ✓ Improved in-house capabilities and innovation potential.
Open source leadership (transitioned into BAU)	• Take an active role in leading and contributing to major open-source projects, setting industry standards. • Foster partnerships with other organisations and open-source communities. Combining our alliances and managed services offering we can ensure a smooth and sustainable transition to BAU.	✓ Recognition as an industry leader in technology and innovation. ✓ Attraction and retention of top talent, driven by a culture of openness and collaboration. ✓ Accelerated innovation cycle, enabling quicker adaptation to market changes, regulatory requirements and customer needs.

How PwC can help you...

... migrate from legacy software to open source solutions

We have supported firms with our **external strategic alliances**, our wide range of **innovative tools and accelerators,** and our experience and ability to **integrate seamlessly in to ongoing modernisation programmes.**

01 PwC's innovative toolkits and accelerators

Coding & Compliance (CoCo) tool

CoCo will offer a cost-effective way to implement models, transform systems, replatform to cloud and complete regulatory attestation.

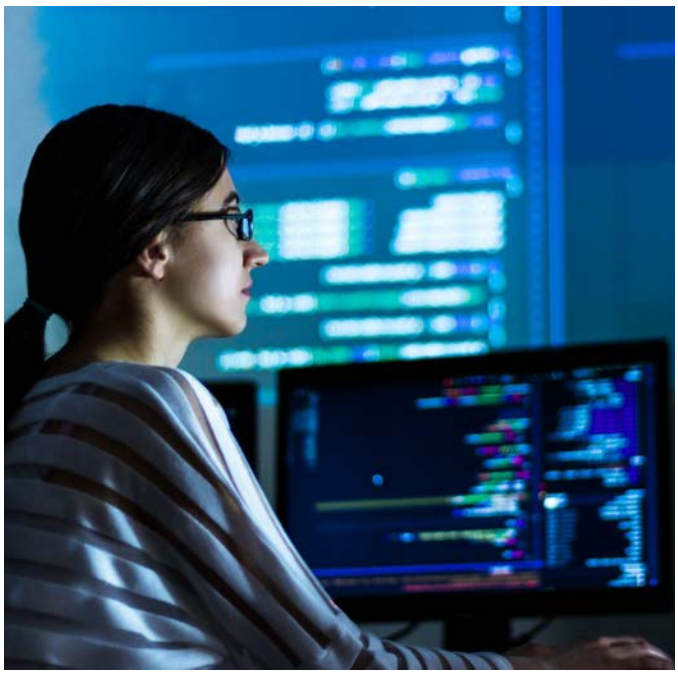
ChatPwC

A chat platform powered by GPT (Generative Pre-trained Transformer) technology.

02 Access to PwC's market leading alliances

By combining PwC's expertise and our alliance partners' technology, we can help you solve your business critical challenges.

Microsoft · aws · quantexa · dataiku · Palantir · Google Cloud



03 We can help plug your credit risk migration roadmap in to your firmwide cloud transformation programme

Feasibility — Optimal migration strategy is designed and approved by stakeholders.

Convert — Open source code is drafted, generated and optimised

Testing — New code is robustly tested and validated, leveraging Gen AI for efficiency.

Embed — New code is integrated into internal system and final user acceptance testing (UAT) is performed.

Go live — Formal deployment, staff training and support on how to use the new open source process.

Firmwide cloud transformation programme

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Thank you