



Financial Services & Banking

Finbox – a digital solution for integrated financial and risk management

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PERSPECTIVES

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In recent years, traditional banks have been racing to adopt Fintech solutions to transform their banking operations. One of the drivers of this trend was the implementation of several new regulatory requirements for stress testing, including those required by the European Banking Authority (EBA) and those related to climate risk stress testing globally. Another driver was the growing complexity and uncertainty of the global economy, which led to the need for an integrated financial and risk analysis solution capable of generating insights much more quickly than in the past (i.e. in a few hours rather than in 1–2 months, as is the case in traditional banks' existing practices).

Against this backdrop, Accuracy has developed its own digital solution – Finbox – for integrated financial and risk management analysis to inform bank-wide strategic and critical decision-making. This solution is a proven success, having been adopted by major financial institutions.

Meeting defensive and offensive needs

As a one-stop-shop solution, Finbox addresses the defensive requirements of banks and other financial institutions, while also providing valuable support for implementing offensive strategies. By using Finbox, organisations can proactively anticipate market conditions, make prompt business decisions, optimise budget allocation and effectively manage risks even during periods of extreme market conditions or disruptions.

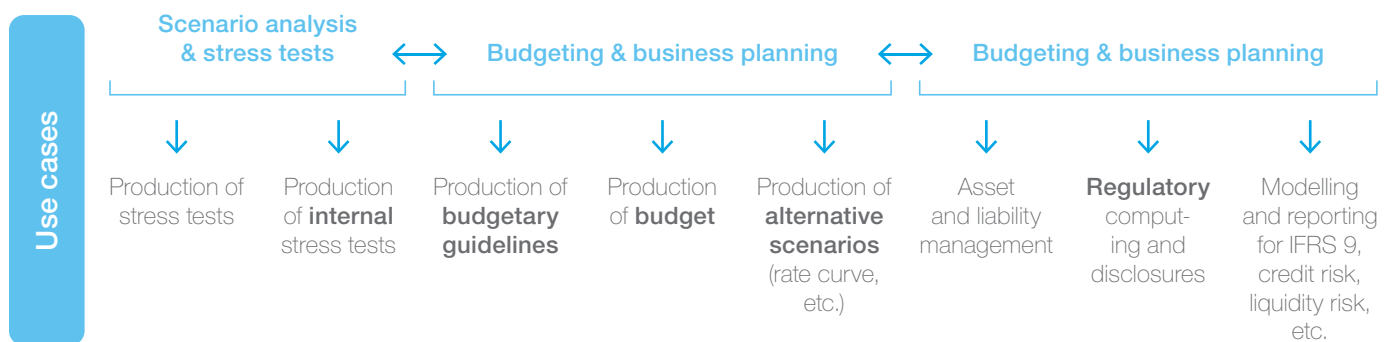
Figure 1 Defensive vs offensive needs of financial institutions



While Finbox originated from regulatory requirements, financial institutions have quickly made it a major financial and strategic steering tool to inform business decision-making. In addition to using the platform for regulatory stress testing, some major banking groups use it for internal scenario analysis and budgeting purposes, with a tendency towards more sophisticated uses (e.g. embedding advanced mathematical and statistical modelling techniques in the calculation processes).

There is growing demand for simulation requirements, not only in risk management but also in the analysis of activity/risk correlation, financial and strategic planning, and the quantification of ad hoc and extreme events. To make our solution more flexible and meet changing needs, we have developed the platform based on modules. Financial institutions can therefore find specific modules for asset-liability management (ALM), Basel IV capital requirements, IFRS 9, and climate risk stress testing and more.

Figure 2 Finbox, a flexible and modular solution



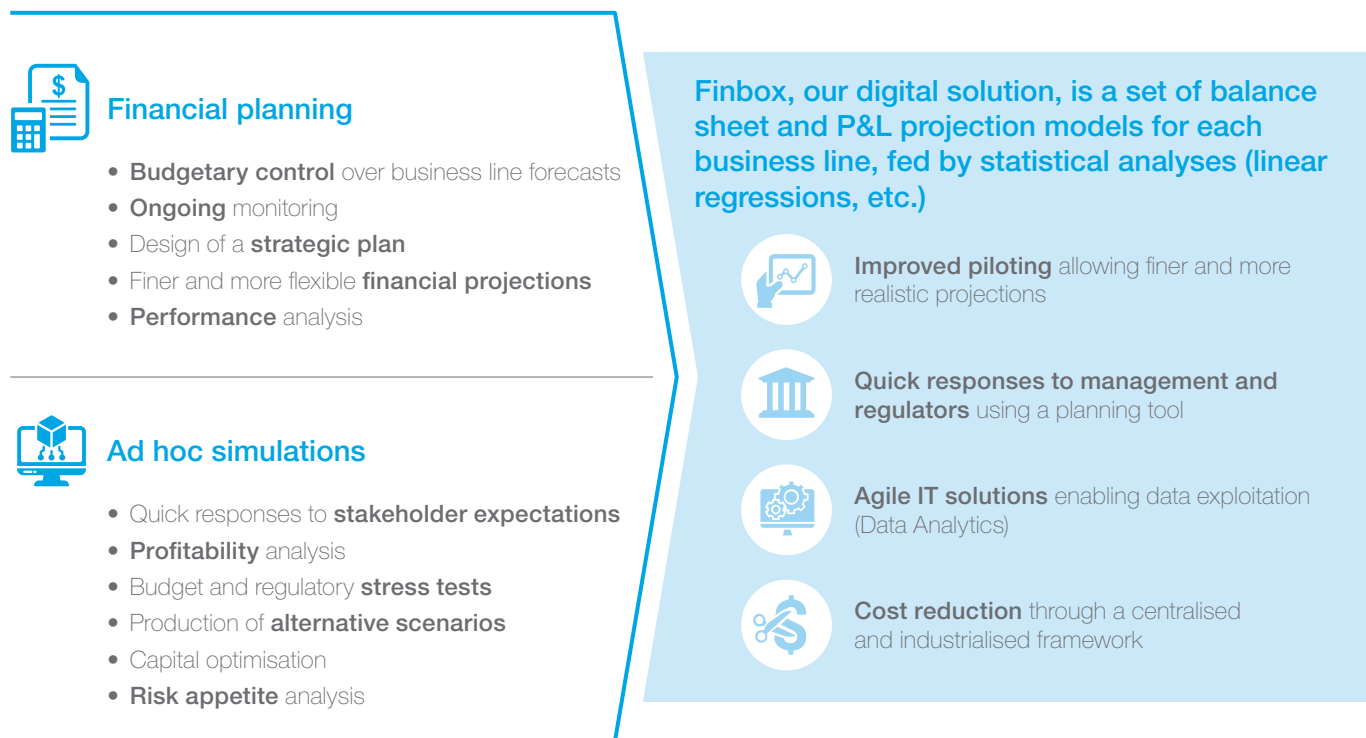
Key advantages

- Rapid **performance of scenario analysis and stress tests** on the entire portfolio of a group
- **Ability to challenge the budgets** of business lines and entities
- Ability to project all group key indicators (P&L, balance sheet, capital and liquidity)
- Asset-liability management, regulatory reporting and risk modelling

Traditionally, a financial institution's finance department manages its finances and its risk department manages its risk. The analyses performed by these two departments do not interact with each other as the relevant data, systems and reports are generally scattered.

However, with Finbox, it is possible to perform these analyses in a single platform.

Figure 3 Integrated solution for financial analysis and risk management

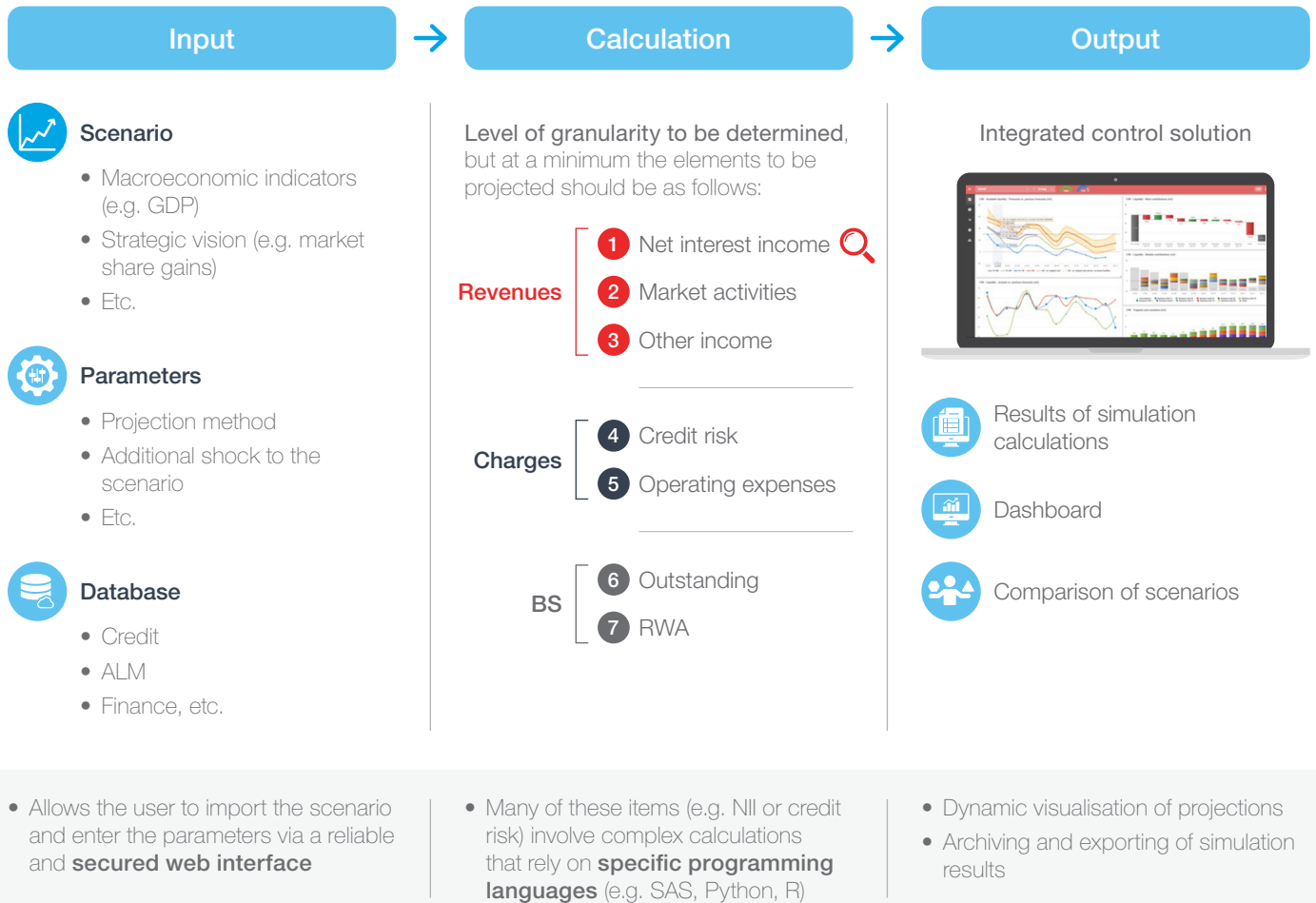


4 Finbox – a modern simulation tool

Finbox takes a centralised data management approach to enable collaborative analysis. The centralised database includes financial data, risk data, scenario data, macroeconomic data, etc. This enables granular analyses at all levels, such as the projection of an entire balance sheet and all P&L statements, under a specific economic scenario during the model projection and analysis process.

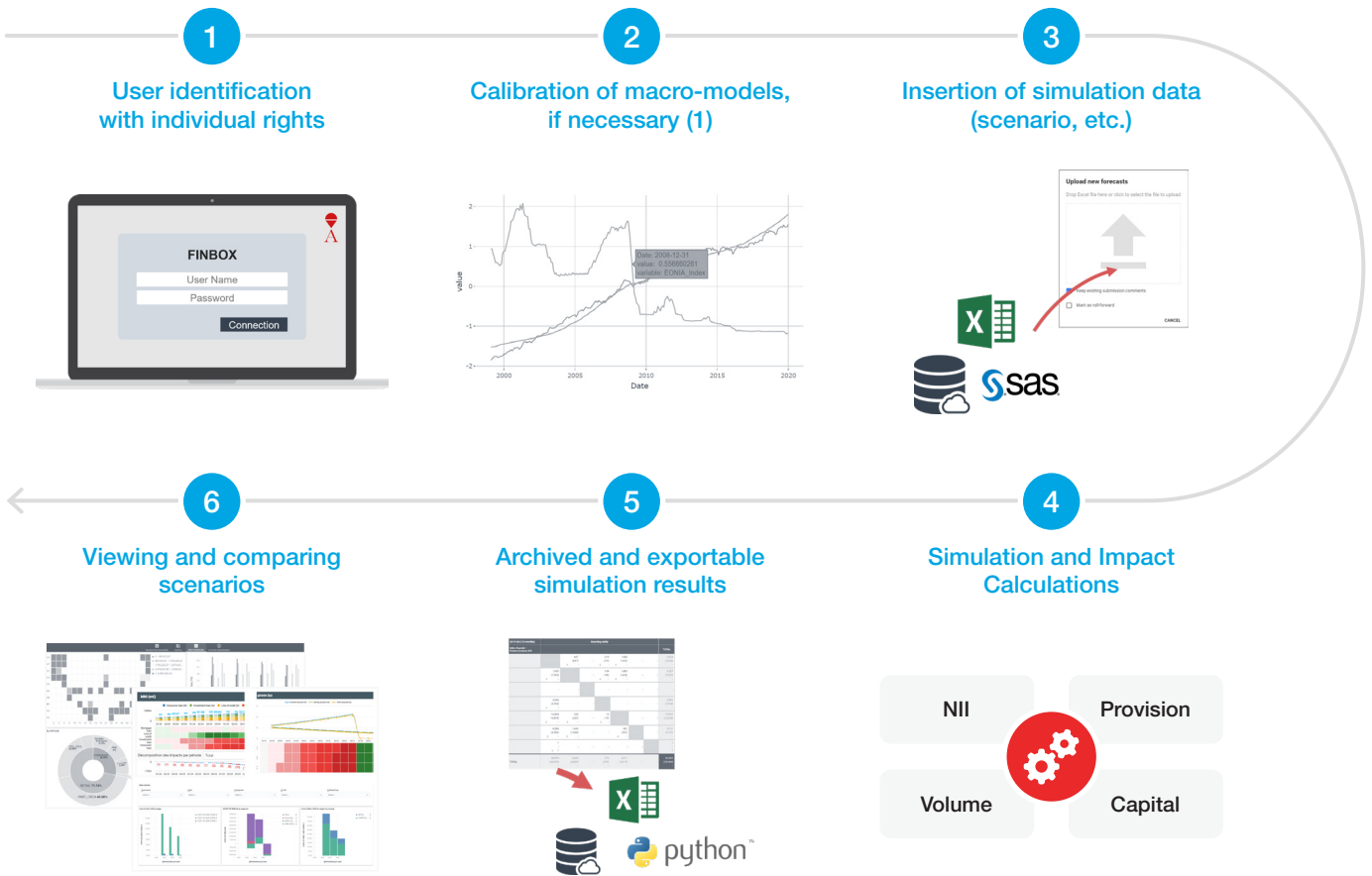
As part of the development of Finbox, Accuracy identified the potential benefits of syncing the database and simulation results on the client’s cloud through cloud connectivity. This functionality has been successfully developed and implemented.

Figure 4 Finbox analysis workflow



The solution is accessible through a web interface, which allows personalised access by user type. It provides customised visualisation, comparison of a full list of key performance indicators, and easy archiving and retrieval of historical analyses and results.

Figure 5 Illustration of analysis and results in Finbox

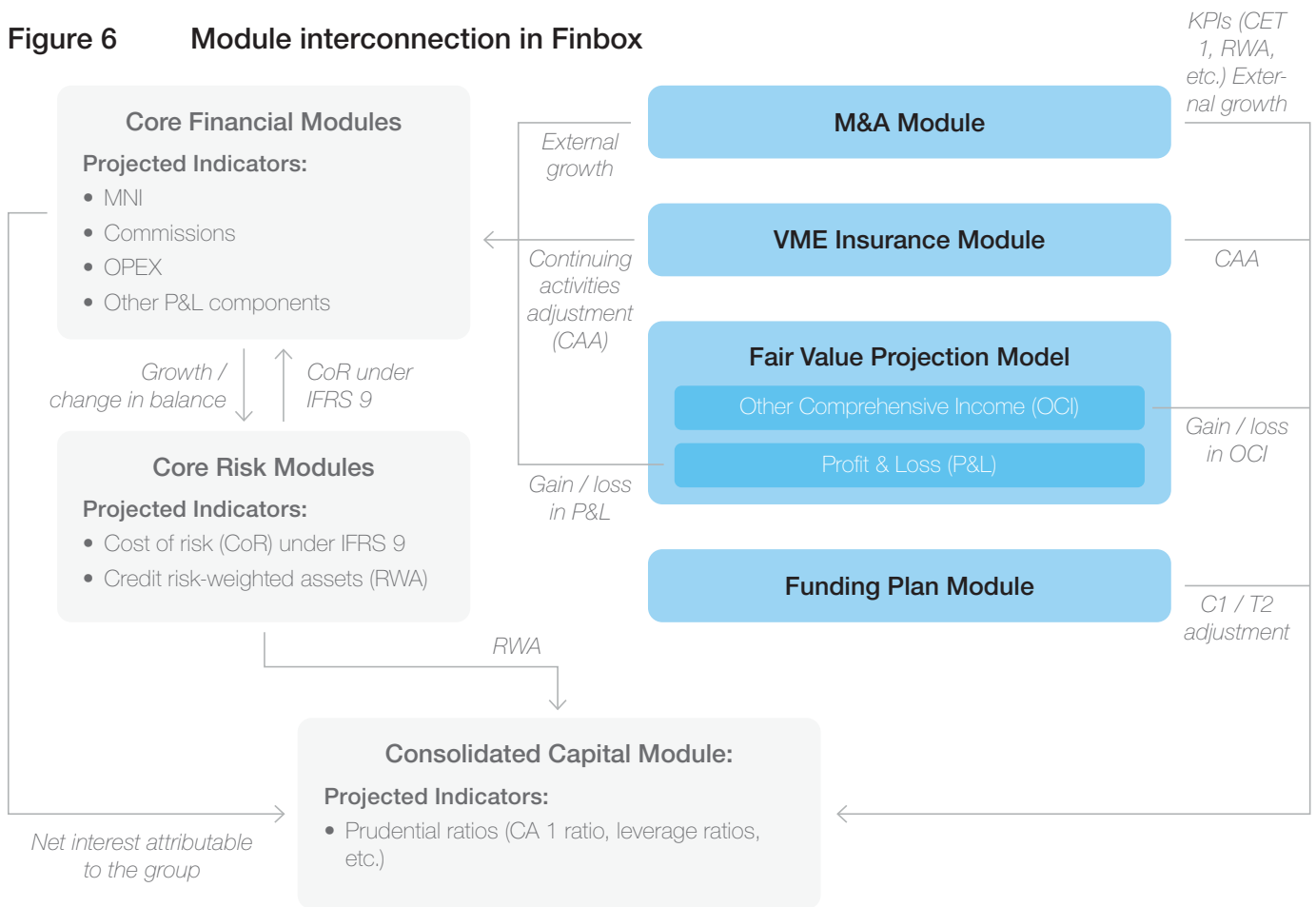


The Finbox platform centralises all models, enabling optimised projection and analysis processes. The various projection models within Finbox are internally connected, facilitating result sharing, mutual feedback on output results and result adjustments between models. The interconnected system makes it possible to transfer information between models, enabling them to learn from each other's output and share insights to enhance performance.

This implies that one model can provide real-time input support to a second model, while using the predicted feedback results from the second model to make predictions for the next set of data. These interconnected internal models serve as the foundation for Finbox's multifunctional analysis and projections.

By effectively combining and analysing the output results of different models, Finbox provides users with more accurate and robust predictions and analytical insights. It also enhances data connectivity among different departments within financial institutions, thereby saving time and reducing the cost of communication.

Figure 6 Module interconnection in Finbox



What Accuracy Does

At Accuracy, we understand the importance of having a multidisciplinary and collaborative team to tackle complex challenges in the financial services industry. That is why our project team is composed of experts in business consulting, software engineering and data science. The team works seamlessly together to provide powerful solutions.

Our business consultants have a deep understanding of risk management, stress testing and regulatory compliance, as well as experience working with financial institutions around the world. They work closely with our clients to understand their unique needs and requirements and to develop customised solutions that are aligned with their business objectives.

Our software engineers are experienced in developing cutting-edge technology solutions that are scalable, secure and easy to use. They work closely with our business consultants to design and implement risk management systems, stress testing platforms and other solutions that meet the specific needs of our clients.

Finally, our data scientists are experts in data analysis, machine learning and statistical modelling. They are responsible for developing models and algorithms that power our technology solutions and work closely with our business consultants and software engineers to ensure that our solutions are based on sound data analytics and modelling techniques.

By bringing together business consultants, software engineers and data scientists, we are in a unique position to help our clients. This multidisciplinary and collaborative approach allows us to deliver effective and efficient solutions that help our clients address their most pressing challenges in the financial services industry.



Contacts



Nicolas Darbo

Partner

Nicolas joined Accuracy in 2012 as a partner. Thanks to his significant banking experience in different establishments (Compagnie Bancaire, BNP Paribas, Caisses d'Epargne and Crédit Foncier), Nicolas has developed in-depth expertise in the banking and insurance sector. He is able to use this expertise from both a financial and a strategic perspective. Most notably, Nicolas has substantial knowledge in the realms of ALM and financial risk, as well as throughout the retail banking sector.

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David Chollet

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David has over 20 years of experience in financial management, risk management, securitization and asset valuation. He started his career at BNP Paribas in the planning department, in charge of risk management. After 5 years within the BNP Paribas group, David entered Crédit Agricole Corporate and Investment Bank to manage the risk quantitative team. David subsequently joined the debt and capital markets front office team and participated in numerous Pan-European operations of ABS, CLO, CDO and Covered Bonds.

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Philippe Wüst

Partner

Philippe joined Accuracy in 2014 after gaining experience in quantitative finance with Deloitte's Risk Services for three years. Philippe has extensive expertise in the finance industry, having worked with clients across various sectors, including retail banking, corporate investment banking, insurance, asset management and private banking. He has worked on a diverse range of engagements, covering risk management (including ALM, credit and market risk), strategic planning, complex valuations (e.g. for derivatives and other financial instruments) and financial due diligence on actors in the finance industry.

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Carl Chan

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Carl has 15 years of professional experience in serving financial institutions, governments and large corporates. He has acquired 10+ years of advisory experience from Moody's Analytics and Big 4 advisory firms before joining Accuracy in early 2021. Carl is highly regarded by clients for his professionalism and expertise in relation to quantitative modelling, data analytics, technology solution adoption and development of analytics solutions. Carl has worked with a wide range of professionals including product specialists, researchers, system developers and data providers to deliver projects.

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