

FUTURE SKILLS AND JOBS IN FINANCE

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FOREWORD

Financial services firms face several challenges, from economic instability and policy uncertainty to shifting consumer expectations and the impact of new technology. All of these further impact the roles that are available and the skills that are needed within the financial services sector. Financial organisations play a fundamental role in financing economic growth and the transition to net zero they are on the lookout for talent who can adapt to ongoing evolution.

As career expectations evolve, financial services is evolving with them and is able to provide a career that offers unparalleled meaningful opportunities to be at the forefront of innovation, sustainability, and economic change. For those already working in the sector, upskilling and reskilling become fundamental tools to ensure that they are able to continue working in a career that provides purpose.

We hope this report provides a valuable contribution for people looking to start, or further, their career in financial services by identifying both hard and soft skills that will be critical for the future of finance. Allow me to also take this opportunity to thank the colleagues from McKinsey for their work and partnering with us to produce this report.

Nicolas Mackel

CEO, Luxembourg for Finance



1.

TRENDS RESHAPING JOBS AND SKILLS IN FINANCE

Financial services is changing, with new opportunities, responsibilities, and technologies emerging. These changes are reshaping jobs and new skills are required. This report looks at these developments to help professionals plan for a future career in finance.

The fundamental purpose of the financial sector is to finance economic growth and create jobs. This has been clearly underlined by the recent pandemic, the volatile geopolitical environment and climate change challenges. These events impact many aspects of the daily lives of businesses and citizens; from global value chains and energy markets, to consumer habits and remote working.

The financial sector, in Luxembourg and elsewhere, has come to play an important role in fostering resilience and managing the economic consequences of these global challenges. Bank lending provides companies with capital for key projects, such as new facilities or machinery. Investment funds help finance economic activity through capital markets by investing in equities or in the bonds of non-financial companies. Insurance companies support

economic activity by allowing companies to hedge their risks and investing the premiums they collect. All these diverse activities, and the expertise which clusters in financial centres as a result, benefit the European and global economy.

The sector will play an even more important role on the long-term: it will finance the transition to net-zero, which will require mobilising capital to increase sustainable investment from the billions into the trillions of euros in the coming years. Firms, both SMEs and larger corporates, will need new sources of sustainable investment beyond purely national borders. Many of the financial sector's key priorities and challenges for the future, be it sustainable finance or digitalisation, will come to the fore with increased persistence.

Meaningful opportunities

Unparalleled opportunities exist within financial centres for people searching for an occupation that is meaningful for society. One that sets high standards for ethics, responsibility, and compliance, and stands at the forefront of technological and sustainable innovation. These jobs also bring significant responsibility.

Financial professionals are expected to act as responsible citizens, reflecting on the impact of their work on the environment, supporting sustainability and advancing social causes.

As societal expectations rapidly evolve, financial service professionals must develop a fine sense for what is expected from them and what overarching ethical principles to adopt. Moreover, they must continuously strengthen their ability to comply with new norms and standards.

Going forward, financial professionals will actively take part in shaping the new world of finance. The financial services industry is in the midst of a digital transformation.

Customers expect to access financial services “anytime, anywhere, anyhow.” In response to this demand, financial institutions are taking their digital assets to the next level. Financial modelling and analytics techniques are becoming more sophisticated.

Clearly, technology will make jobs in finance more interesting. FinTech is transforming established business models and bringing the industry to the next level. Repetitive tasks are increasingly being replaced by robotic process automation, smart workflows, machine learning, and natural language processing, rapid advances in software (e.g., AI) and hardware (e.g., quantum). Web 3.0 will also profoundly affect financial services. Together with distributed ledger technology, decentralised finance (DeFi) will be a game changer for finance, democratising access and leading to new talent needs.

Financial professionals who are willing to learn about technology and widen their horizons, will see career openings never realised before.



Accelerating pace of change

We often have the impression that innovation proceeds at warp speed. Actually, the current speed of change is probably the slowest that we will ever experience. Financial services are moving from cycles of 20 years to cycles of 18-36 months.

Mainstream financial services today are largely the result of a 20-year cycle. Many of today's innovations rest on these heavy-lifting efforts that took decades. Ten years ago, the fastest transfer of money between New York and London required a withdrawal at an ATM in Manhattan, a commercial flight to London, and a deposit in the City. Today, 50 percent of transfers are credited to the end beneficiary within 30 minutes, 40 percent in under 5 minutes, and many within seconds. Likewise, point-of-sale transactions in most European countries happen in real time and are even contactless.

In the coming years, the speed of change and the magnitude of its impact will accelerate significantly. By 2026, more than 90 percent of the global population will have a smartphone. Combining this connectivity with innovations such as 5G, quantum computing, basic AI, the Internet of Things, and virtual/augmented reality will change our everyday interactions with financial services.

Financial professionals will witness significant impact to their day-to-day, including:

- ✕ The acceleration of **e-commerce** which allows digital marketplaces to offer financial products traditionally sold by banks, fund houses, and insurance companies.
- ✕ The introduction of **digital identification** solutions as a critical differentiator in the battle for consumer confidence and user experience.
- ✕ Several forms of **digital wallets** that are competing with traditional banks to be the repository of household and corporate assets. Their importance is only increasing as the use of cash decreases.
- ✕ The emergence of new **blockchain-based technology** that let borrowers receive credit through centralised and decentralised protocols.
- ✕ DeFi, including **digital-asset-native** and digital-asset forward companies, which can offer a viable alternative to traditional finance across asset classes.

2.

HOW JOBS AND SKILLS IN FINANCIAL SERVICES WILL CHANGE

Financial services is facing one of the greatest workforce transitions, offering exciting opportunities for people in the years ahead. This section explores what skills will see less and what skills will see more demand.

Talent gaps

A recent McKinsey survey¹ asked organisations to define their greatest skills gaps. Almost half cited data analytics (43%), followed by IT management (26%), and executive management (25%). Reflecting on the specific skills with the greatest mismatch between current supply and requirements in the next five years, respondents identified advanced data analysis and mathematical skills and said that reskilling programs most often focus on building employees' skills in critical thinking and decision making (44%), leadership and managing others (41%), and advanced data analysis (36%).

Other emerging trends are :

- ✕ Demand for financial professionals with **technological skills** is skyrocketing and will see the strongest growth.
- ✕ Financial professionals will spend more time on activities that require **social and emotional skills**, all the while leveraging on their expertise: be it financial, technological, people management, and others.
- ✕ **Leadership skills**, as well as demand for professionals who take initiative is also set to increase.
- ✕ Robust financial literacy and **solid quantitative skills** will remain key to analyse and understand financial data. Writing skills will be crucial for offering thoughtful recommendations to management as well as clients.

Skill shift: automation

Automation will be a, perhaps the key factor. In the coming years, it will eliminate repetitive tasks in our daily lives and our professions. These technologies generate significant benefits for users, businesses, and economies, lifting productivity and economic growth. Like past technological revolutions (e.g., Industry 1.0, 2.0., and 3.0), automation will cause declines in some occupations, profound transformation in many more, and the emergence of new occupations.

As automation in financial services lifts the routine task to a new standard, in parallel people will have to up the game in ways that machines have difficulty replicating. Highly skilled staff who have the ability to work closely with technology, or develop and deploy automation technologies, will see strong demand. As this shift occurs, education systems will need to evolve for a changed workplace. Everyone will need to develop agility, resilience, and flexibility as all jobs are likely to change to some degree.

Data processing and data collecting offer the greatest automation potential in the financial sector, approximately 70% and 65% respectively. About half of financial professionals' time is spent collecting and processing data, ranging from mortgage brokers and insurance sales agents completing forms, back-office staff processing payments, and underwriters and bank tellers verifying the accuracy of financial data. However, as technology progresses, computers help increase the scale and quality of these activities.

Some financial services activities are less suitable for automation – for example, interfacing with stakeholders (~20% potential) and applying expertise to decision making, planning, and creative tasks (~18%). Managing and developing people are the tasks least suitable for automation (10%).



Overarching soft skills

Processing Mortgage Applications – An automation case study

Mortgage applications can be highly automated, as the activity consists largely of collecting and processing data. As several industry examples show, automation can significantly accelerate the speed of processing mortgages and, at the same time, lower default risks and eliminate processing inconsistencies.

Automation can boost customer satisfaction, thanks to instant pre-approval, hassle-free applications, and much faster turn-around. Automation can also ease some of the industry's challenges, including human bias in underwriting and the difficulty that underserved borrowers can have accessing affordable capital.

For mortgage brokers, automating and accelerating the approval process frees time for more complex tasks like advising customers, handling exceptions that require human expertise and judgment, and managing unusual applications.

Capitalising on the evolution of financial services also requires people to have well-developed skills that have nothing to do with technology or the industry, namely soft and leadership skills. While some of these skills like empathy are innate, for some it is often easier to learn these skills than technological ones. In financial services, demand for entrepreneurship and initiative-taking will grow especially quickly.

Through 2030, skills like creativity, critical thinking, decision making, project management, problem solving, and complex information processing will grow at cumulative double-digit rates. Many activities, including developing high-quality marketing strategies, will require creativity. Complex information processing will require awareness of market trends and the regulatory environment in which a company operates and explaining the technical details of products and services will require strong communication skills.

Leadership skills, from ensuring team effectiveness and giving directions, to coaching people and fostering their individual development, are critical in financial services.

Leaders must also have a long-term strategic view of company direction and create followership.

Example of roles where you need leadership skills:

C-Suite, Heads of strategy, coaches, and instructors. Leaders of the future need to drive the strategy of the financial institution and must incorporate the long-term trends in their future vision, meanwhile ensuring the well-being of their employees throughout the organisation.

Changing job activities and capability requirements have important implications for training, especially in times of transition. As basic activities are automated, training will need to focus on higher-order capabilities. Across occupations, finance professionals will require strong interpersonal skills and advanced reasoning. Guided experience has proven especially effective at building these skills so training will likely involve more coaching in apprentice-like environments.

3.

EVOLUTION PER SECTOR

This section explores how jobs and skills will change in banking, wealth management, asset management, private equity and venture capital, as well as insurance.

Banking

Banking offers some of the most prestigious, but intense, careers in financial services. Professionals who work in this sector are involved in a wide variety of financial activities for corporate, institutional, and retail clients. Within investment banking, for examples, roles include corporate restructuring, M&A, private placement of capital, capital raising (prospectus drafting, IPOs, roadshow investment meetings), and many more. Corporate bankers offer broad support to their clients, going far beyond the occasional extension of credit and entering into all operational aspects of corporate activity, including treasury planning, management and optimisation, cash and liquidity management, project finance, factoring, trade and supply chain finance, hedging of FX and commodities exposures, and many others.

Serving clients in the new data-driven environment will require bankers of the future to be increasingly

technologically-savvy, understanding how to model rich data sets, as well as making use of AI, machine learning, and natural language processing to predict trading activities, market movements, and client risk appetite.

At the same time, monitoring and risk functions in the corporate environment are already being significantly strengthened given the drive transparency and the impact of geopolitics. Increased demands have led to the rise of specialist FinTech firms operating at a global scale in the risk, monitoring and compliance space, partnering with both regional and global banks. This also creates further opportunities for professionals looking to enter the banking space via an alternative route.

Some of the archetypal jobs will continue to exist, but in a significantly changed form.

Corporate banker

The corporate banker acts as a trusted advisor to the CFO and treasurer. In larger financial institutions, this role is structured not only by geographic area but also by industrial sectors, as issues and opportunities are often common to an activity.

However, the increased technicality of products that corporate bankers offer requires deep technical expertise that often leads to the creation of “product teams” within corporate banks. Transaction Banking is a typical example, grouping expertise in trade and supply chain finance, cross-border payments and liquidity management as core topics. Corporate bankers will increasingly need to have strong knowledge of the technology and industry standards in which their clients work, combined with a robust understanding to implement best-practice solutions for their clients.

Securities Trader

Traders work in different contexts: Sell-side traders typically work for banks, buying and selling products for the benefit of the bank's clients or the bank itself. Buy-side companies, such as asset management, also employs traders, buying and selling under the direction of a portfolio manager.

Most traders have a background in finance, and many have advanced degrees in statistics, mathematics, or related fields. Traders also need to have a good understanding of the global financial sector, connectivity across international systems and rules, and the ability to avoid siloed thinking.

Automation and AI have had significant impact on trading. At its height in 2000, the US cash equities trading desk at Goldman Sachs's New York headquarters employed 600 traders, buying and selling stock on the orders of the

investment bank's large clients. Today, only two equity traders remain. Automated trading programs perform the rest of the work, supported by hundreds of computer engineers.

However, traders will not disappear as the power and speed of the new prediction machines increases. Counterintuitively, as machines make predictions better, faster, and cheaper, the value of human skills like judgment also increases. AI works well when the trading objective is obvious, but when the objectives are complex, human judgment knows no substitute. The traders who once moved rapidly to interpret and react to new information will likely be replaced by those who work on the edges and judge opportunities that no one else – including automated bots – can see.



Wealth Management

Wealth managers use their know-how to design personalised strategies to fit each client's particular needs. They work with specialists in the banking sector, asset management and fund administration, life insurance and capital markets, providing value propositions to international institutional and private clients.

Among the immediate key challenges for the wealth management industry are market volatility, heightened operational risk and increased reliance on digital channels. Many features of this "distance economy", emphasising remote working, omni-channel customer service, and digital interaction, are likely to become permanent. Digitalisation permits the development of more customised advice and services. It also creates cost savings, which can in turn be ploughed into investments in productivity and process optimisation. The economic consequences of these trends will be far reaching. That said, the (Ultra-) High Net-Worth Individual segment will remain a key growth area. Client needs, stricter regulations and milestone developments in technology are reshaping future business models and careers in this area.

Wealth structurer

As investments of wealthy individuals have internationalised considerably over the last years, the issues with which they are confronted have also become more complex and international in nature: complex family situations, international short and long term mobility, real estate and other assets spread globally, sources of revenues stemming from a wide range of international activities, diverging views on ethics and impact of investment decisions raise substantial questions in terms of taxation, succession and inheritance, personal and corporate liability and conflict resolution.

Mastering the finer details of international civil, corporate and tax law, understanding their interplay and the risks and opportunities arising from latest developments in multiple jurisdictions is more than any single individual can cover and typically requires that access to networks offered by global professional services firms. However, understanding the requirements of wealthy individuals or families, mobilising the required specialised advisors, synthesising their findings, tactfully advising clients in highly sensitive personal "moments of truth" and flawlessly implementing the solutions in the strict respect of law and ethics is the role of the "wealth structuring" wizards. They are the experts at the core of the value propositions of the best private banks globally.

Relationship manager

Customer expectations have shifted as technology and data access make clients better educated. These customers expect easy access, deep technical expertise, and real insights. Leveraging data analytics across platforms and channels, technology enables better client engagement, equipping the relationship manager of the future to build deeper customer relationships.

Future relationship managers will need to leverage their expertise of the client's needs, as well as financial products and markets in order to provide a deeper level of insight to the analysis of the robo-advisor. As wealthier citizens become increasingly international in their investments, wealth managers will also need to have a keen understanding of various markets' eccentricities. If unable to rise to these challenges, the traditional relationship manager focused exclusively on transactional interactions is almost certain to be replaced by a chatbot.

Asset Management

The asset management industry is an important pillar of the global and national economies. By raising capital from savers and institutional investors and investing it in equities and corporate debt, investment funds help finance the real economy, allowing firms to grow and create jobs.

Investment funds of course provide a return to investors and look set to play a key role in resolving the looming pensions crises facing many developed economies. As people live longer and birth rates fall, most traditional state-pension systems are under increasing strain. People will increasingly have to save and invest more of their own money to have an income when they retire. Investment funds offer one of the most effective ways for them to grow their savings.

Rapid advances in technology and data analytics are reshaping multiple dimensions of the industry. The power of data and the emergence of new technologies are fundamentally changing the identification of investment opportunities, portfolio management, as well as investor reporting, distribution, and customer interactions.

Portfolio manager

Portfolio manager is one of the highest responsibility roles in financial services, overseeing the investments of, often, internationally oriented clients – be they retail or institutional. The portfolio manager recommends personalised investment strategies and specific investment decisions to clients and usually has discretionary power in executing those strategies to meet client goals.

Professionals in this role will often specialise in specific asset classes, sectors, or geographies; funds that focus on these specificities may seek people with a background in analytical research or with specialised knowledge of the sector or geography. Others have broader mandates, such as a multi-asset-class strategy. These firms often look for portfolio managers with a broad base of investment knowledge and background.

This role will increasingly demand advanced quantitative and modelling skills in order to make predictions and forecasts. Professionals need to understand the institution's balance sheets, asset and liability management, hedging principles, correlation between asset classes, risk models, and more. While some of this knowledge can be obtained through early job training, these skills are in high demand within the labour market and are critical for the future of this role.

Quantitative analyst

The quantitative analyst (aka “quant”) typically works behind the scenes, creating mathematical models to help companies make business and financial decisions. Asset managers, banks, hedge funds, insurance companies, and PE firms all employ quants to help them manage risk and identify investment opportunities. Quants are in especially high demand in the trading world, where they create algorithms to find the most profitable trading opportunities.

Here, the outlook is simple. If the future of financial services lies in data and analytics, somebody has to build and run the machines. Quantitative analysts often have advanced statistical and mathematical education.

International fund distribution expert

Currently, around \$100 tn in assets are managed via around 100,000 fund structures globally. Approximately 15% of these structures target international investors. The expertise around these internationally distributed funds is geographically highly concentrated, with Luxembourg being the domicile to almost half of these funds.

As soon as funds are distributed internationally, there is a set of additional complexities that arise: making basic but up-to-date fund information available to distributors globally, supporting the remuneration of various players in the distribution chain, ensuring efficient order routing, guaranteeing fast and efficient settlement, accompanying these assets across their lifecycle (taxation, dividends and other corporate events), requiring a specific set of competences. Historically, a large part of international

funds have been managed and distributed by industry behemoths, with smaller players often struggling with the complexities involved.

Technology is also here fundamentally changing the landscape: fund platforms are gaining in importance, allowing for efficient international B2B distribution. The adoption of DLT/blockchain in fund management promises further in-depth transformation as decentralised nature of the solutions investigated perfectly corresponds to the challenge of international distribution. This opens a wide field for experts combining an in-depth understanding of the challenges of international distribution with the mastery of advanced technologies and the stamina to support at-scale adoption and bear the consequences of the structural adjustments required.



Private equity and venture capital

The basic premise of private equity (PE) and venture capital (VC) is the ability to identify early promising business ideas and develop these opportunities more effectively than public markets can. Reserved initially for a very limited set of ultra-wealthy private and large institutional investors, PE and VC funds have grown at staggering speed. Recent years have seen the rise of technology-driven innovation, providing access to private markets via digital platforms, significantly broadening the investor population and increasing the transparency of the asset class.

PE jobs are typically found at smaller, specialist firms, but many investment banks have PE arms. The financial services professionals raise money for non-public enterprises and companies, keeping a portion of any profits they generate through deals. These professionals often have prior

experience at investment banks, as well as outstanding academic credentials.

Many VC firms specialise in providing cash to emerging companies, often in rapidly developing industries, such as tech, biotech, and green technology. While many target companies eventually fail, VCs often prosper by getting their financial stake in and out at the early stages of development, generating massive returns on investments.

Employees of VC firms are typically adept at number crunching and deal making, and are savvy about new technologies and ideas. They thrill at the prospect of discovering the next new thing, which requires keen sensitivity to the Zeitgeist and exceptional ability to detect the human potential in entrepreneurs and management teams.

GP Fundraisers

Most PE and VC funds have a limited lifetime (say 5-7 years, after which the assets are sold and profits distributed), which means that the General Partners (GP) of a fund need to regularly raise fresh money from their investors (Limited Partners or LP's) that could be pension funds, insurance companies, family offices or wealthy individuals. As this fund raising is typically independent (and ahead of time) from any individual investment opportunity of the future fund, the fundraising pitch is largely based on the track record of previous funds raised by the GP's or on an overall investment strategy and thesis that the GP's present.

Building up a network of potential investors, targeting the right subset of LP's for a new fund to be raised, preparing a convincing pitch that demonstrates the value of a particular

investment strategy is the role of GP's and takes significant commitment and effort not only in the months prior to the launch of a new fund, but also over the whole lifecycle. With more than 22,000 PE funds and 32,000 VC funds globally, this has become an extremely competitive industry vying for the funds of a large but limited set of investors.

Technology has made inroads in this sensitive area as the most advanced firms are building impressive investor-friendly portals that allow investors access to a wealth of information, simplify onboarding of new investors, and provide automated monitoring of the mostly illiquid investments in individual funds. This level of automation and transparency forces suppliers such as fund administration service providers to rapidly automate their offering.

Investment analyst

This analyst is typically responsible for researching potential investments and offering opinions and recommendations to help guide traders and portfolio managers. The analyst typically specialises in one or more areas, including geographic locations, industrial or economic sectors, or types of investment vehicles. Investment analysts need strong analytical, mathematical, and communication skills, as well as the ability to keep a cool head, especially in increasingly competitive transactions and a volatile investment environment.

Increased cross-border connectivity across markets, real-time market updates, and increased volume of data to analyse are complicating the role of the investment analyst and requiring even more advanced (big data) analytical and mathematical skills.

Insurance

Insurers manage financial risks and protect businesses and households against potential losses, often providing an early warning of looming economic, financial and social dangers. Through loss prevention and mitigation, risk-sharing, and as large institutional investors, insurance companies have shaped financial markets worldwide.

Increasing customer expectations, new competitors and the economic hardship inflicted by the Covid-19 crisis and the volatile geopolitical environment have again underscored the importance of a robust, stable and developed insurance industry, and the role it plays in economic development and stability.

The insurance sector (Property & Casualty, Life, Health, and Re-insurance) is undergoing a significant change in its own right. The emergence of InsurTech, payper-mile car insurance models, the development of blockchain solutions in insurance contracts and the provision of cyber insurance services, which take into account consumer and EU data protection requirements, are driving fundamental changes across the insurance industry's value chain. Future growth in the sector will depend on innovation and a greater focus on proactive prevention, instead of just protecting against loss.

The life insurance activity remains a key component of wealth management. As with banks and investment funds, life insurance companies rely on an international talent pool with strong cross-border financial expertise. These highly skilled multilingual insurance professionals work alongside a workforce experienced in investment fund management. Technology is considered a key business enabler and agile solutions are developed in direct response to insurance partners' concerns – to serve the needs of their (U)HNWI and delivering an efficient and innovative user experience.

Meanwhile, sustainable and responsible investing also continues to grow. The approach of insurance companies to sustainability is of the utmost importance, not just to the financial services industry, but to the very fabric of our economies and societies. Environmental, Social and Governance (ESG) factors increasingly influence risk management and enhance insurance company earnings and long-term company value by avoiding losses and delivering new product offerings.

Claims handler

The role of a claims handler will diverge based on claims complexity, i.e. in an ideal scenario, simple claims be automated and streamlined in up to 99% of the cases, while complex claims will still require human intervention. The claims handler will be supported by analytics and decision-making tools which will improve the accuracy of claims and makes the assessment of the claim more accurate. Towards the future, the decision making for also complex claims will be automated by machine-learning models. To support this shift, claim handlers will be in charge of helping to codify how they make complex-claims decisions to inform machine learning.

Actuary

Actuaries analyse the monetary consequences of risk by using mathematics, statistics and financial theory. They gather, assemble, and analyze data to estimate the probability and likely costs of such events as injury, sickness, disability, death, and property loss. Actuaries could work for a variety of financial players, i.e. insurance companies (the most common employer), pension plans, banks, investment firms. Actuarial services are helped with the digitization and automation of certain processes that helped them in processing, analysing and crunching data. As a consequence, they could focus on more complex situations where the human interaction remains significant. Similar to a claims handler, machine-learning models could also help in the further acceleration of automating the tasks of an actuary. Actuaries could work for a variety of financial players, i.e. insurance companies (the most common employer), pension plans, banks, investment firms.

4.

CROSS-SECTORAL ROLES FOR THE FUTURE

This section explores new skills and jobs in sustainable finance, IT, compliance, legal, audit and accounting.

Leading on sustainability

Managing the assets of clients in their best interest and taking their needs, ambitions, fears, and biases into account entails significant responsibility. Beyond their responsibility solely to their client, financial services professionals have a growing responsibility towards society as a whole. For example, environmental risks account for three of the top five risks affecting humanity according to the World Economic Forum.

Governments cannot finance these goals alone and that is where the financial sector and the new generation of professionals have a major role to play.

This global effort will require an army of bankers, experts, scientists, quants, portfolio managers, sales teams, and marketers, among many others. A traditional economics and financial background may not be enough. People will have to sharpen their sustainability knowledge to access the many opportunities in the field.

As green finance evolves, it will require new jobs, including.

Sustainability Director

Professionals in this role are responsible for setting the overall ESG and sustainability agenda within an organisation. For financial institutions, this type of position could reflect driving and executing the internal ESG strategy, working with key stakeholders include C-Suite and the Board of Directors, as well as a role such as the Chief Sustainability Investment Officer (CSIO), who is

responsible for setting the overall investment approach with regards to sustainability.

For professionals responsible for the internal ESG strategy, exceptional interpersonal and relationship building skills are key, as they will need to be able to influence individuals and drive change from the top down within the organisation. Furthermore, it will require excellent creativity in order to execute new ideas and strategies to improve ESG practices.

CSIO

CSIO's require excellent technical knowledge honed over years within the investment landscape. Alongside this, however, is the need for a deep understanding of sustainability, its effects on an organisation's operations and financials, and how changes on a regulatory level might affect portfolios. Additionally, CSIOs must build strong interpersonal skills to be able to guide portfolio companies along their sustainability journey. This aspect is especially important in the PE and VC space where the portfolio company and asset manager are far more closely linked.

Sustainable Finance Analyst

As financial institutions themselves shift towards sustainability, analysts will become all the more important in helping to map internal developments and develop ESG policies. At the same time, these analysts will need to monitor market data, be able to provide sustainability analysis on companies and the overall market and thereby assist in sustainable investment decisions.

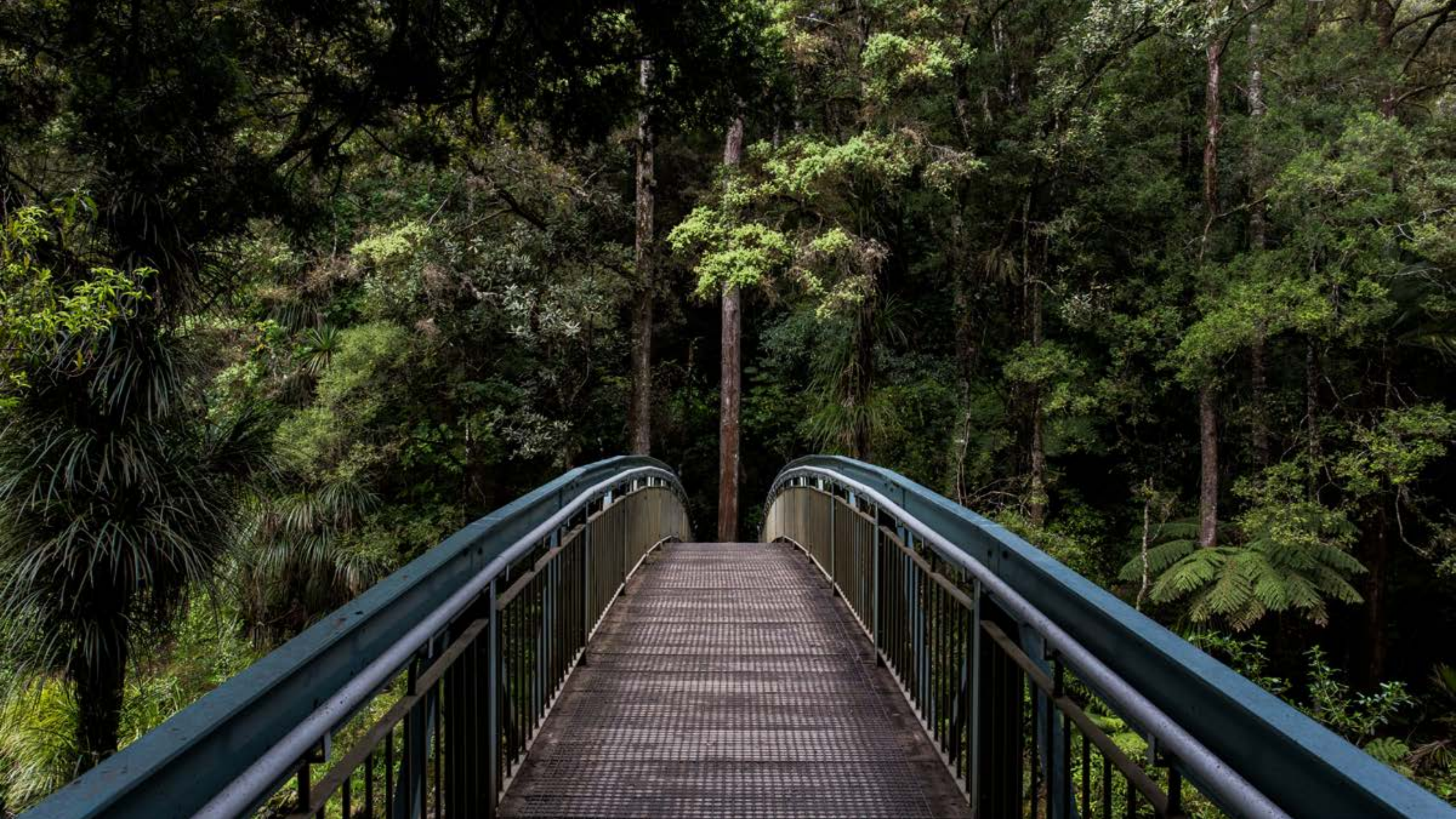
Alongside strong skills in mathematics, economics and statistics, analysts will need excellent knowledge of the latest developments within the field of sustainability, including global compacts, regional taxonomies, disclosure requirements, and standards within sustainable finance. A familiarity with ESG data and the analysis thereof is also critical.

Head of ESG Data Services

It has become clear that companies must not only pursue financial profitability, but to pursue also commit to ESG goals. However, the definition, the target setting, and the measurement of achievements is a matter of controversy. In particular when it comes to environmental targets, there is considerable nervousness around whether firms only pay lip service or truly change their ways.

To settle the debate internally and externally, there is a strong need for accurate and reliable data that allows to set targets, propose concrete initiatives, measure the performance and report to stakeholders in an accurate, timely and consistent way.

The role of the head of ESG data services is to collect, compile and report these indicators internally and externally. As many of these initiatives are recent, hard to measure and even harder to benchmark, this role requires creative problem solving, constant adaptation but also integrity and truthfulness to equip stakeholders and data users with the required analytical input.



Increasingly complex rules

The wave of new and increasingly complex regulations put in place post the global financial crisis of 2008 shows no sign of abating. In fact, more and more are being put in place to ensure that financial institutions are not only more transparent in terms of their investments but are also acting more in accordance with their fiduciary duty. As such, legal and compliance roles in financial services are growing rapidly.

However, they are also shifting as the workplace becomes more data driven and automated. Financial professionals will therefore require not only a strong understanding of the legal and regulatory environment and how it is evolving, but also setting and adhering to strict governance standards within financial institutions. As information becomes more complex, employees who are able to understand these changes and their effects on all aspects of internal operations, as well client investments will increasingly be needed in financial services.

Legal functions

As the financial industry changes, it necessitates the shifting and evolution of many complementary functions, including legal services.

First and foremost, the legal function will transform to drive results. Businesses are more and more relying on their legal team to help them identify opportunities to increase revenue and decrease cost and risk. Legal data will grow richer, and legal teams will get better at analysing it for strategic insights. Lawyers will play an increasingly important role in strategic business decisions and will be expected to work closely with other departments (HR, compliance, IT/cyber-security, etc).

Furthermore, the very nature of assets is changing. Digital assets no longer reference counterparties. The rise of robo-advisors changes the nature of legal responsibility relating to advice. New cloud-based solutions, DLT, and authentication outsourcing are leading to questions regarding responsibility in securing customer records

and issues of fraud. Further, many FinTechs were born in the “digital-space” and are not attached to any particular geography, creating situations relating to applicable regulatory bodies.

It is clear that this (non-exhaustive) list of developments will have considerable impact on the functioning of legal departments: the legal function will advance into a true partnership with the business, offering advice that is more proactive, evidence-based, strategic, and innovative. Pressure to reduce costs and growing comfort with automated solutions and legal software could also see routine legal work increasingly moving out the legal function and into the business. Any legal processes that are not bespoke will be automated and self-service-enabled. This will change the scope of legal services that the legal function delivers, tightening risk management, enhancing efficiency, and freeing up time for leaner legal teams to focus on higher-value work.

Head of legal

The head and the legal team will address a broader spectrum of risk, compliance, governance, operations, and regulatory issues. At the same time, they will apply new processes, technologies, and skills to meet the company's ongoing need for practical legal advice and support the business with greater efficiency, more user-friendly approaches, and a stronger focus on adding value.

Leadership of the legal function will likely expand to focus more on getting the operating model right and seeing that it runs efficiently, while continuously seeking ways to improve processes, balance risk with reward, and deliver more value. As orchestrating the functioning and the efficiency of large teams of experts in corporate legal departments becomes critical, the role of a legal "COO" becomes in many instances as important as the content-focused role of a corporate General Counsel.

Legal professional, i.e. financial lawyer

A legal professional is mainly in charge of drawing legal documents and contracts, giving advice on legal aspects of various personal, business and administrative problems. However, automated solutions, standardised processes and digitisation have and will further shift the role of legal professionals towards more added value services beyond the standard contracts and legal documents. Nevertheless, the role is becoming more complex given different business units and departments requiring (often more complex) legal advice. The increased regulatory pressure that financial institutions are facing makes the role of a legal professional more challenging in order to be on top of all the new upcoming regulations. Reputational risk has also become important for financial companies in a world of social media platforms where everyone can easily provide opinions, hence legal professionals are also considering legal repercussions and checking legal documents on possible reputational damages.

Compliance functions

The compliance team focuses on aligning the business with key regulatory objectives to protect investors and ensure that markets remain fair, efficient, and clear. The team also works to reduce system risk and financial crime. This requires experience and skills related to sanctions, anti-money laundering (AML), anti-bribery, as well as fraud and corruption detection.

Compliance professionals must also be able to implement tests and controls of real-world behaviour to capture policy breaches (e.g., monitoring insider trading by staff or recordings of client and customer transactions that exceed KYC/AML limits).

These compliance responsibilities will call for skills in data and, potentially, fraud analytics, as well as strong communication and stakeholder management skills. Compliance officers and analysts tend to be inquisitive and detail-oriented; they know the questions to ask so they miss nothing.

Compliance professionals of tomorrow will need to be commercially savvy and must be open to using new technology and understand its potential to benefit both the control framework and the business.

Chief Compliance Officer (CCO)

The CCO must be a trusted senior leader, who has a broad perspective on the organisation and the economic and geopolitical environment. They must also understand behavioural issues that might arise and their potential reputational damage to the organisation and the industry.

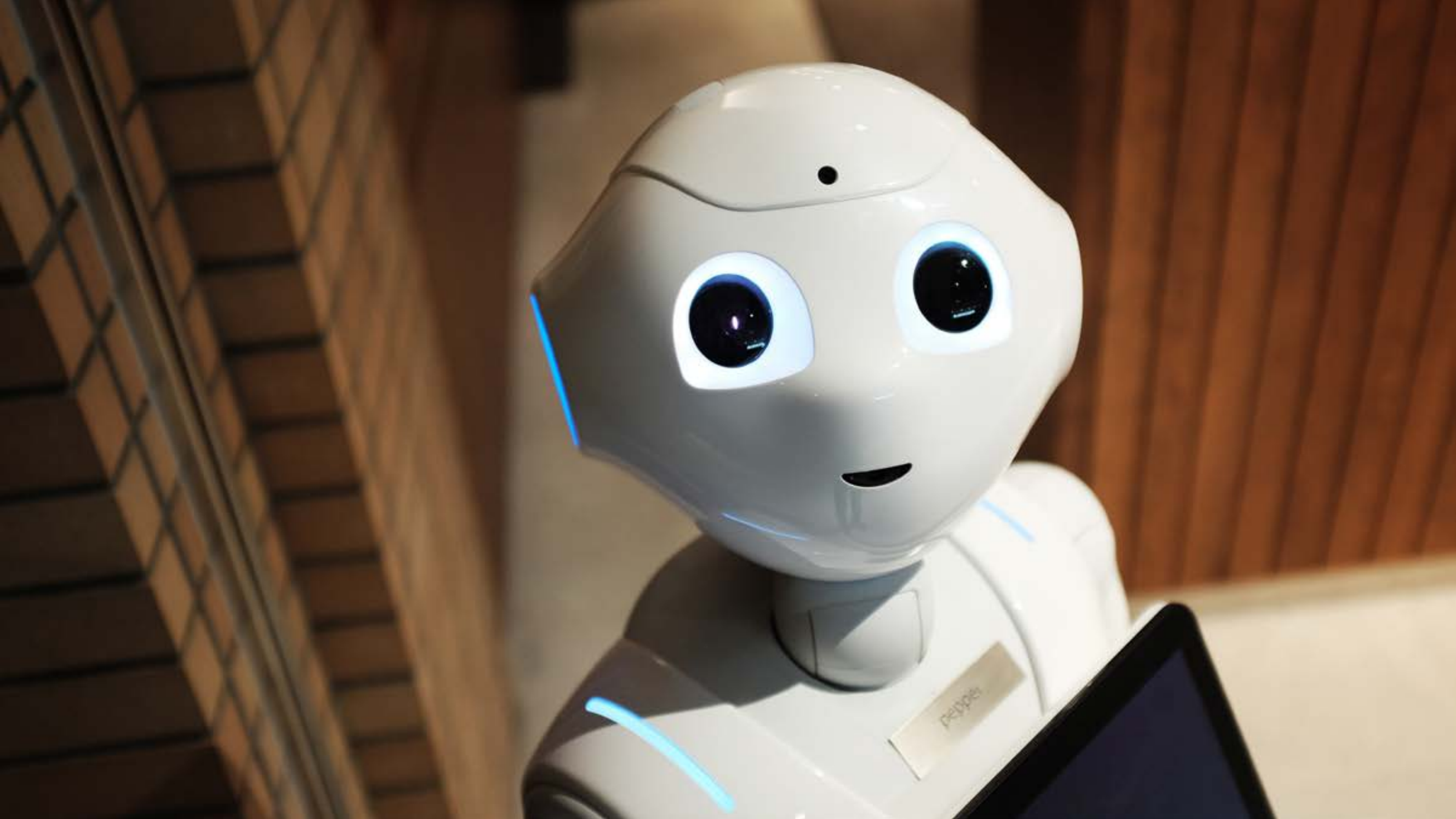
The CCO must set a forward-looking conduct and compliance agenda that will survive scrutiny from the perspective of the next crisis, not just the last one. They will need to be able to interact effectively with regulators and government and have a close relationship with internal stakeholders. The role requires not only embracing technology, but also a strong knowledge of the businesses long-term strategic decisions and excellent relationship management skills.

Data Protection Officer (DPO)

General Data Protection Regulation (GDPR) remains relatively new, but the DPO role will mature and grow more complex. As technology changes rapidly, the amounts of information and the need to protect personal data are already massive. Be it from a data controller perspective or a processing perspective, the data protection officer will need to understand where regulation is going and how GDPR must be applied, and what impact that will have on all the activities of the organisation. This will entail the officer assuming a more independent and advisory role.

IT Compliance Officer

Cybersecurity, regulatory compliance in data management and protection, business continuity and resilience considerations etc. have definitely become CEO-level topics and have given rise to scores of legal obligations, external standards and internal guidelines affecting IT. The monitoring of the compliance with these norms has become mission critical for financial institutions, but it is obvious that an undiscerning and mechanical application of rules will bear excessive cost and stifle innovation. The role of a senior IT compliance officer is to understand the expectations, monitor the compliance of different areas in IT with the policies and procedures and propose and prioritise where required change initiatives. Their role as a single point of contact for management, business and audit into the IT organisation allows them to contribute to make the right trade-offs between cost and risk, based on their familiarity with audit frameworks and risk standards as well as a good grasp of business imperatives.



Audit and accounting function

The key evolution in accounting (and to some extent in audit) is the elimination of manual tasks. In the short term, existing repetitive processes will be further automated. Long-term, DLT solutions will be introduced that eliminate the need to reconcile data contained in multiple ledgers, simplifying, in particular, consolidation work.

Simultaneously, there is an expectation for financial institutions to provide accurate and auditable accounting for non-financial information such as carbon footprint of their credit portfolio and other ESG-related information. This will open entirely new fields of information gathering for which standards and definitions are currently being developed.

As a consequence, the task of the accountant will radically change: less repetitive reporting, more data analysis and forecasting, transforming the accountants' role into a strategic partner for CFO and business.

The audit function will increasingly adopt similar tooling, allowing to monitor irregularities in real time and eliminate "false positive" alerts through learning algorithms. In parallel, the domain of investigation will considerably broaden, covering financial, operational as well as ESG related topics.

Sustainability auditor

An emerging role following the further growth of ESG in the financial world, sustainability auditors verify if an organisation, process, product (e.g., sustainable investment product, sustainable mortgage) is complying with the current ESG standards. The demand for sustainability auditors will only grow in the future. Nevertheless, the role will become increasingly complex given the growing number of regulations, new standards, new norms, and new political agreements which need to understand and embedded.

Internal auditor

An internal auditor provides an objective review of the internal organisation and financials of a company. The role will further evolve over time and will become more complex given different businesses and departments are more interlinked than before. Internal auditors will need to work in a fast and flexible way to keep up with the speed at which financial companies are changing, including flexible working regimes, shifting economic environments and the higher customer demand. An internal auditor also needs to be able to anticipate any upcoming reputational risks and is also increasingly using upcoming new technologies (advanced analytics, artificial intelligence) to comply with the changing environments.

Incorporating leading-edge technologies

Financial services institutions are increasingly becoming technology firms and the demand for these skills is growing significantly. Advanced technologies require people who understand how the technologies work and can innovate, develop, adapt, and service them in the workplace.

Financial institutions work within a strict regulatory environment and therefore people who design, develop, test, and maintain software solutions and big data frameworks for this sector not only need an excellent understanding of the various technologies, but also need to be aware of how to adapt them for the sector's requirements.

Data scientist

This role looms large in most conversations about the data-driven future of financial services. The data scientist must be able to work effectively with data and leverage it to the company's advantage. The financial data scientist will support the organisation's decision making by providing data-driven insights developed through statistical analysis, fraud detection, forecasting, and risk monitoring.

Engineer

This title applies to a host of specific positions, each with specific requirements for specialisation and competencies. All are evolving rapidly.

- ✖ Full stack developer is a computer programming professional who is proficient in both front- and back-end coding. The developer designs interactive tools on customer-facing websites and develops servers and databases using computer coding languages. The primary responsibility is ensuring the functionality of websites and mobile apps. A full stack developer designs entire projects and works with team members to make sure that the team uses the correct configurations and programming methods at each stage of project development.
- ✖ Automation engineer delivers highly efficient solutions for software processes. This engineer identifies and corrects issues that arise during implementation or automation. The engineer reviews and improves hardware and software and often automates services and business processes.
- ✖ Cloud engineer is an IT professional who designs cloud-based systems for businesses. The cloud engineer develops and implements cloud applications and troubleshoots potential problems. The engineer designs unique cloud solutions and may consult on cloud technology and innovation that can improve productivity and efficiency.
- ✖ Application developer designs and improves application features and functions based on client requirements. This engineer collaborates with the development team and other IT staff to define specifications for new applications, code programs, and complete projects on schedule.
- ✖ Machine learning engineer develops self-running AI software to automate predictive machines. The engineer designs mathematical algorithms and creates adaptive software to address global or organisational challenges.
- ✖ AI strategy director advises clients and offers technological guidance. This engineer develops high-level strategies and uses AI to strengthen multiple aspects of the business and operations. The AI strategy director also helps set the company's AI strategy for managing risk, assisting employees, storing data, and protecting confidentiality.

Cybersecurity analyst/specialist

The cybersecurity analyst will prevent sabotage of the new world of digital finance by managing security threats, keeping up-to-date on (international) security technologies, monitoring attacks, and using advanced analytics to spot patterns or vulnerabilities. The cybersecurity analyst implements technologies to secure consumer and client data and protects people and companies by designing, communicating, and implementing best practices and technological processes across business platforms. The analyst also participates in all security-led projects, from start to finish, and collaborates with other departments and teams, including information technology, user experience, customer support, and engineering.

5.

THE CHANGING WORK ENVIRONMENT

The work environment of financial firms will change to meet the demands of current and future talent.

In a time of rapidly evolving work environment, young professionals will need to be equipped with the right skills to harness the power of new technologies, meet changing client requirements, adapt to new and complex rules regarding international finance, and contribute to the financing of a sustainable economy.

However, the onus doesn't only lie on the professionals already working, or coming into, the sector. Financial institutions must also make significant changes in order to meet shifting work demands. We interviewed a wide array of professionals from traditional financial institutions, FinTechs, and generalist BigTech players to understand how they are changing the work environment to meet the demands of current and future talent.

Meaning and purpose

A new generation of financial services professionals are calling for the sector to do more. As such, financial institutions are having to shift the way they approach business, aligning their organisations' values and purpose with themes which move the new generation of professionals.

Management vs. leadership

In the past, top talent accepted the premise of a hierarchy and management as they performed their daily tasks. Next-generation top talent typically expects leadership to abandon micro-management for direction setting and incentivisation.

Hyper-personalised experience

Top talent increasingly expects a hyper-personalised work experience that takes into account their personal preferences for the on-the-job experience, work hours, work location, and career trajectory. These expectations are stretching the limits of traditional corporate operating models and even legal frameworks (tax, social security).

Skills-building vs. "hire and fire"

Financial services firms recognise that smart retention and upskilling policy makes more economic sense than high staff turnover and the constant struggle to attract and retain talent.



Skills

- A** Complex cognitive skills (complex information processing & interpretation)
B Quant, math, and statistical skills
C Advanced data analysis and modelling skills

- D** Technological skills
E Interpersonal skills
F Communication skills

- G** Applying expertise
H Entrepreneurial skills
I Managing & developing people

- J** Financial knowledge
K International skills

	A	B	C	D	E	F	G	H	I	J	K
Executives (CEO, CFO, CRO, COO)					X	X		X	X	X	X
Securities trader	X	X	X	X			X			X	X
Corporate banker	X	X			X	X	X			X	X
Relationship manager	X			X	X	X	X			X	X
Wealth structurer	X				X	X	X			X	X
Portfolio manager	X	X	X							X	
Quantitative analyst	X	X	X								
International fund distribution expert	X	X					X	X		X	X
Investment analyst	X	X		X						X	X
GP Fund raisers					X	X		X		X	X
Claims handler	X		X	X	X	X	X			X	X
Actuary	X	X	X				X			X	
Sustainability director					X	X	X	X	X	X	X

	A	B	C	D	E	F	G	H	I	J	K
CSIO					X	X	X			X	
Sustainability finance analyst	X	X	X	X			X			X	
Head of ESG Data Services	X	X	X	X	X	X	X	X	X	X	
Head of legal	X				X	X	X	X	X		X
Legal professional	X				X	X	X				
Chief compliance officer					X	X	X		X		X
Data protection officer	X			X	X		X				X
IT compliance officer				X	X		X				X
Sustainability auditor	X				X	X	X				
Internal auditor	X			X	X	X	X				
Data scientist	X	X	X	X	X		X				
Engineer	X	X	X	X	X		X				
Cybersecurity analyst/specialist	X			X	X		X				X

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About Luxembourg for Finance

Luxembourg for Finance (LFF) is the Development Agency for the Financial Centre. Founded in 2008, it is a public-private partnership between the Luxembourg Government and the Luxembourg Financial Industry Federation (PROFIL). LFF's objective is to develop Luxembourg's financial services industry sustainably by putting qualitative growth, innovation and stability at its core.

