

Unlocking the potential of RegTech

KPMG in Ireland kpmg.ie The value of Regulatory Technology (RegTech) in financial services (FS) is crystallising around the globe, as realworld use cases demonstrate increasingly clear benefits to institutions, customers and regulators.

But in order to harness the power of RegTech solutions, there are still significant challenges that need to be overcome. A balanced and joint approach is needed to realise RegTech benefits and foster an innovative environment. All ecosystem participants should assess their own position in this complex landscape and consider what they can do to encourage RegTech adoption.

This white paper sets out the case for wider RegTech adoption, and outlines a series of actions that FS institutions, RegTech vendors, regulators, industry trade bodies and associations should consider taking to accelerate the process. We hope that we can spotlight some the main benefits of RegTech, encourage key ecosystem stakeholders to actively consider the business challenges that RegTech can solve, and ultimately accelerate the adoption of RegTech solutions.

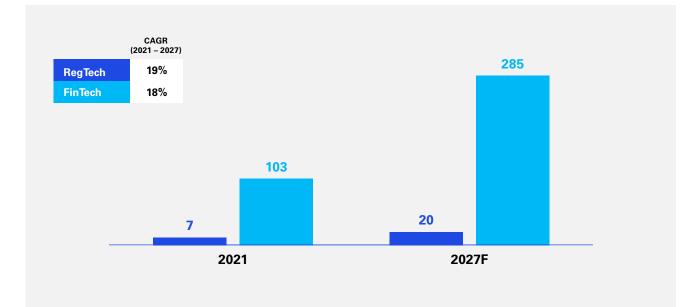
The global RegTech landscape - growth & evolution

Financial institutions have been using technology to improve their regulatory compliance and risk management functions long before the term "RegTech" became popular.

RegTech in its current form emerged from the aftermath of the 2008 global financial crisis, as regulators raced to mitigate risks to stability, and financial institutions began to adopt a new generation of technologies, such as cloud, application programming interfaces (APIs) and artificial intelligence (AI) under the wider umbrella of FinTech solutions. Technological advancements made in recent years have led FS incumbents to introduce new digital business models, resulting in the emergence of newer risks. Regulatory oversight has become more data-driven, with regulators making more detailed and frequent data requests. Regulatory pressures combined with fast-evolving customer expectations, have compelled financial institutions to embrace technology that can assist them in meeting these expectations in a timely and cost-effective manner.

As financial markets continue to deepen and products proliferate, so will the regulatory burden continue to grow. Whilst the rate of new regulation creation has slowed in recent years, the overall volume of regulatory alerts has rocketed since 2008, numbering more than 64,000 in 2021 (vs 8,700 in 2008)¹. FS institutions face enormous regulatory complexity, making compliance management ever more challenging and expensive.

This, combined with the seemingly infinite need for faster transaction speeds and the widespread encouragement of RegTech solutions by regulators across key markets, has driven solid doubledigit growth in recent years, which we expect to continue in the foreseeable future despite the current economic climate. Against this backdrop, the appeal of RegTech is clear.



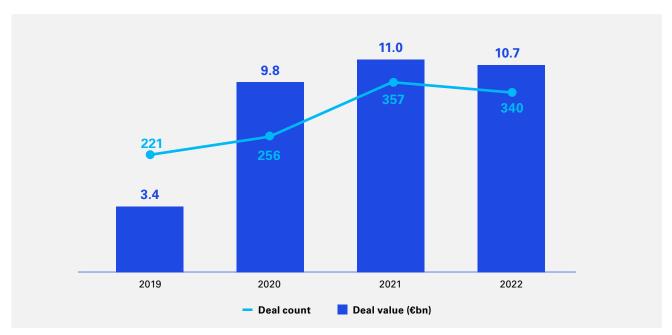
Global RegTech and FinTech revenue², €bn

Sources:

(1) Regulatory Intelligence Feeds, Thomson Reuters (2020), and Regulatory intelligence Cost of Compliance 2022: Competing priorities, Pitchbook, The Global RegTech Industry Benchmark Report, FinTech Global Market Analysis 2021 Report.

Notes: (2) Rounded estimates. The RegTech opportunity has sparked significant interest in the investor community. KPMG analysis shows that total global investment activity in RegTech reached €11bn in 2021.

In comparison to other FinTech sub-segments, global investment in RegTech remained strong in 2022, which also saw significant acquisitions across multiple markets, as larger RegTech vendors acquired smaller players to consolidate their position.



Total global investment activity (VC,PE and M&A) in RegTech 2019-2022³, €bn

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The view of RegTech as a sound investment becomes clear if considering the main purpose of this technology, namely increasing efficiency in compliance operations, which is something that companies seek in any economic climate. In times of growth, manual processes hinder scalability, so they should be replaced by automation. But automation is key also in times of economic downturn, as companies are under pressure to optimise resource allocation to reduce overall spending.

Claus Christensen CEO & Co-Founder, Know Your Customer

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Benefits of RegTech

In comparison to most sectors, FS generates a unique volume of data and is subject to an extraordinary degree of regulation. RegTech solutions can play a crucial role in helping regulators and financial market participants manage this complexity while also ensuring a safe market. RegTech is solving many pressing challenges for a wide range of stakeholders:



FS institutions

- Enhanced risk management processes. The financial and reputational consequences of poor risk management can be significant. In 2021, financial institutions were fined a combined amount of €4.9 billion in penalties.⁴
- Enhanced monitoring/sampling. When compared to a traditional sample-based approach, RegTech solutions allow for a more comprehensive review of large data sets.
- **Reduction of human errors and scalability.** RegTech solutions tend to be highly automated and require less human intervention.
- Facilitates predictive analytics. Many RegTech solutions offer a comprehensive suite of compliance reports and data analytics such as root cause analysis.



• Protect financial markets.

The effective implementation of RegTech solutions can reduce residual risk at an institutional level and therefore, in aggregate, lead to a reduction of risk in the financial system.

• Enhanced visibility.

Regulators offering support programmes such as 'sandboxes' benefit from having early visibility of what is coming into the market, enabling them to see what does and doesn't work. This data is essential to drive risk-based supervision and for the implementation of mechanisms that could facilitate innovation in the interest of the consumer.

• Lowering compliance cost.

Cost management is increasingly critical to maintaining profitability in the face of a challenging business environment. RegTech can bring significant cost benefits to financial institutions.

• Enhanced customer experience.

As a result of delivering compliance checks in a faster and more efficient way. In particular, client onboarding and AML RegTech solutions have significantly reduced the time to client activation for financial institutions.

• Streamline change management functions. RegTech solutions and related workflows can be quickly updated to reflect newly introduced requirements.

000 (()) Consumer

- **Better service quality.** Effective compliance and risk management processes make the financial sector safer and more competitive, and push providers to improve service quality.
- Accelerate financial inclusion.

RegTech solutions can help FS firms with the identification of customers needs and ultimately help financial institutions comply with consumer duty. Regulators are also focusing more on consumer outcomes (for example, through the implementation of regulations such as the UK's Consumer Duty).

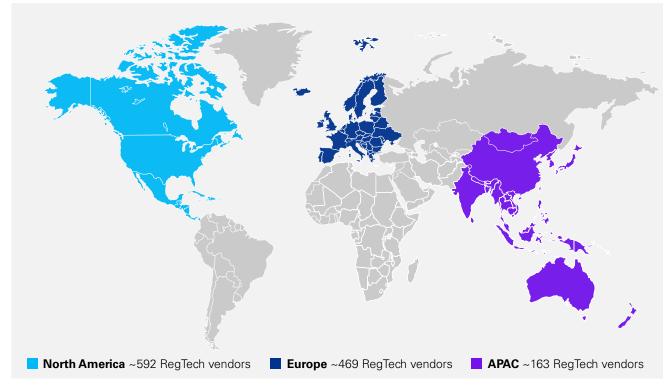
By partnering with RegTech firms, financial institutions have a unique opportunity to use technology to get closer to their customer, while also transforming the AML compliance function beyond a set of repetitive tasks and tick-box exercises. As counterintuitive as it might seem, one of the great advantages of RegTech is that it can help banks reduce the number of compliance-focused interactions with their customers, building a "more human" kind of business relationship from the start. Similarly, by relying on RegTech to automate repetitive manual tasks, compliance teams have more opportunities to apply their critical thinking and their ability to connect the dots, resulting in better AML controls and risk mitigation for the overall organisation."

Claus Christensen CEO & Co-Founder, Know Your Customer

Geographic adoption – Global RegTech Hubs & the APAC opportunity

There are ~1,300 RegTech vendors across the globe. The vast majority are headquartered in North America and Europe.

Estimated number of RegTech vendors per region⁵



The US is the forerunner RegTech Hub in terms of investment and vendor concentration.

Last year investment activity in the US market surpassed €4.6bn, as compared to the UK, the closest counterpart, which recorded a total investment of €3.1bn during the same period. The US is home to ~529 RegTech vendors, followed by the UK and other key European peers.

While both the Americas and EMEA markets are considered to be mature in terms of RegTech adoption, the RegTech solutions offered in each of these markets differ slightly.

In many European countries, regulations are highly prescriptive and specific to manual or technologyspecific processes. For example, the Swiss and German KYC video identification requirement, does not take into account new technical developments such as automated liveness detection⁶.

In addition, European FS firms are often operating in multiple countries under multiple regulatory authorities, dealing with a higher number of different regulatory requirements. As a consequence, RegTech solutions offered in the European market are often designed to cater for a wider set of customer requirements. By contrast, regulatory expectations in the US are defined by the SEC or FINRA. This simplified regulatory landscape allows RegTech vendors to provide more specific services tailored to the particular regulatory nuances of the US market, with the exception of consumer finance regulation which differs across states.

Source: (5) KPMG analysis (6) Automated liveness (

(6) Automated liveness detection refers to technologies used to distinguish digital representations of a person's face and a live image. It is used in various industries to verify customer identity. Below we include a spotlight on key global RegTech Hubs and comment on some of the factors that have led these countries to embrace RegTech solutions.



- The US has the world's largest financial markets and abundant investment with a mature ecosystem of VCs, banks, and incubators.
- The regulatory stringency and high demands for accountability and compliance drive adoption.

- London remains at the heart of global RegTech, with the world's largest cluster of financial services providing a vast pool of clients, partners and talent for RegTech vendors.
- London has a generous suite of tax incentives, strong regulator and investor support, FinTech-friendly infrastructure, and collaborative ecosystem which is home to 26 FinTech unicorns.⁷
- More than 3,000 FinTech companies are headquartered in London, alongside 250 foreign banks. The success of challenger banks and the FinTech sector in this country is linked to the adoption of RegTech. For example, the elegant and smooth user interfaces and low-click needed for onboarding are only possible because RegTech solutions power their back end operations. Whilst Brexit created a degree of regulatory uncertainty, London is a true leader in RegTech, with world-beating depth of FinTech players, FS firms, accelerators and access to talent and funding.⁷
- In addition to London, Belfast deserves recognition. Home to internationally recognised third level institutions with dedicated FinTech courses and globally recognised research centres, Northern Ireland's capital benefits from a vibrant and joined ecosystem due its smaller size, with dedicated public bodies fostering collaboration amongst all ecosystem participants.
- Belfast has already seen success as a global Cybersecurity hub, on which a RegTech focus is now a conscious build out.



- Targeted government policy has been one of the key drivers of Dublin's rise as a RegTech power. This includes grants, tax incentives, incubators, university programs and funding. Government agencies such as Enterprise Ireland, are actively investing in early-stage companies and supporting with their international expansion from the start of the venture.
- Ireland boasts a unique infrastructure and wellestablished financial and technology Hub. For example, over 40% of global hedge fund assets are serviced in Ireland.7
- Ireland has one of Europe's most competitive corporate tax rates with a strong cluster of companies who are gaining traction globally in areas such as KYC and AML.
- It also has a talent pool for RegTech, sourced from excellent academic institutions, global tech giants and a vibrant FS sector.
- RegTechs operating in Ireland benefit from a highly concentrated and collaborative environment, as well as the ability to create, test, and implement solutions with global players.

Lithuania

- Vilnius is a tech-friendly Hub with strong business activity in compliance and risk management, making it an attractive market for RegTech vendors.
- Lithuania has a strong track record with 147 fully passportable FinTech licences issued (second-highest in Europe after UK).
- Regulatory authorities have an open mindset and a strong focus on compliance and risk management.
- 78%⁷ of FinTechs established in Lithuania host their compliance functions locally. This has led to a high number of partnerships between peers with 31%7 of FinTech partnerships being compliance management related.
- Vilnius offers a deep talent pool with expertise in AML, CTF and compliance.

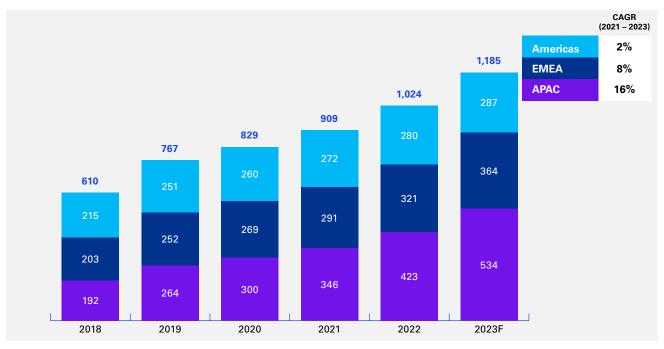
Based on our experience at various Asian Fintech conferences and among APAC financial institutions, we found 'Irish RegTech' to be very well established and highly regarded.

Claus Christensen - CEO & Co-Founder, Know Your Customer

Source: (7) The FinTech Landscape in Lithuania. Irish Advantage RegTech, Ireland for Finance, The Irish FinTech ecosystem: A guide for foreign investors, Tech Ireland Fintech Report and Pitchbook

While it is clear that geographically RegTech adoption is significantly more mature in the Americas and the EMEA regions, Asia-Pacific presents an interesting opportunity for RegTech vendors due to the recent growth of the southeast Asian digital economy.

The adoption of digital payments is reaching an inflection point worldwide; Cashless transactions have crossed the 1 trillion euros mark in 2022 and almost half of them are expected to occur in the APAC region by the end of 2023.⁸



Cashless transactions worldwide by region (€bn)⁸

As central banks and governments across APAC have made huge efforts to digitise their economies, the rapid proliferation of disruptive technologies and products in FS is a major challenge for regulators, who are finding supervision and oversight more and more difficult. Added to this complexity is the fact that regulatory regimes across members of the APAC region are very different. On the other hand, FS institutions operating in the region are faced with a growing number of regulations and compliance requirements.

RegTech solutions are urgently needed to lessen the burden of these difficulties for both the regulator and the regulated. Authorities in Hong Kong and Singapore are responding by actively promoting RegTech adoption and facilitating RegTech vendors' entry to market via sandboxes and other platforms for accelerated testing. Some of them are going as far as incentivising institutions who decided to adopt RegTech solutions. The supportive attitude of regulators, coupled with the expansion of the digital economy have the potential to propel further adoption of RegTech solutions.

An additional driver of RegTech adoption is APAC's rocketing rates of fraud and cyberattacks; Asia accounts for a third of global cyberattacks, whilst 60% of Asian companies do not have any cyber threat monitoring system in place and take on average almost double the length of time to respond a cyber attack when compared to global peers.⁸

The huge potential and forecast growth in the APAC market presents a significant opportunity for established RegTech vendors with a track record of success in mature markets.

RegTech use cases and practical examples

In practice, around half of the RegTech products on the market are intended to address financial crime and cyber, identity and privacy issues, but RegTech solutions have a diverse set of applications that will only expand in tandem with regulatory reach and technological complexity.

Breakdown of global RegTech products by category⁹



The continued development and implementation of regulatory regimes and guidelines, such as DORA, MiCA, Basel IV, EU AI Act, and Environmental, Social, Governance standards among others will provide a further increase in demand for RegTech solutions in categories such as ESG and regulatory reporting.

Source: (9) KPMG analysis and Radar – RegTech Associates 2022 Below are some practical examples of how key vendors are addressing the current dominant issues in the RegTech landscape.

01.

The corporate onboarding and Know Your Customer/Know Your Business (KYC/KYB) process is an essential component of any

regulated business relationship, but it is frequently a frustrating and inefficient experience for both compliance teams and their customers. Most financial institutions are still plagued by manual processes, limited data sources, restricted document access, and language barriers.

'Know Your Customer' is a RegTech vendor offering an easy and safe modular compliance solution for businesses to build the KYC/ KYB and onboarding process. Their solution provides a wide coverage of live connections to official company registries globally, auto-UBO identification, integrated AML monitoring and ID verification.

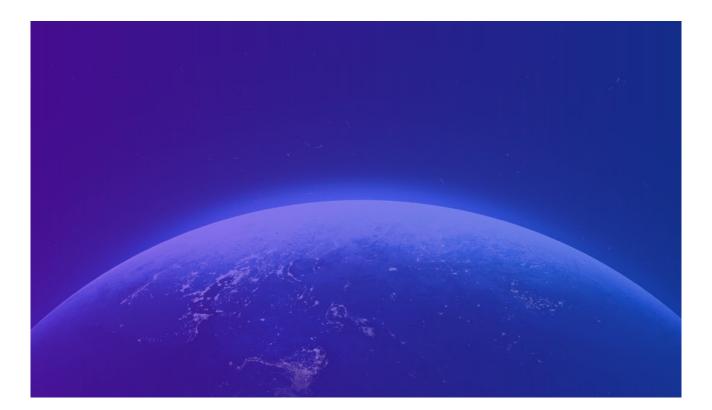
KYC/KYB solutions have the potential to reduce onboarding of a new corporate customer to just one day through automation.

02.

The fair treatment of vulnerable customers is another area that has recently sparked the interest of both regulators and regulated firms.

The identification of vulnerable customers is a challenging process for financial services firms as the information needed is scattered across different sources of data and providers, therefore making it hard to find accurate and reliable information. For instance, to verify a customer with physical disability, FS firms typically need to request a medical report from the customer, which then must be reviewed and verified by an expert. This process is time-consuming, costly, and inconvenient for the customer.

Automated Regulatory Monitoring (ARM) is a RegTech vendor that uses various partners and data to obtain complete and accurate vulnerability information. Their solution provides organisations with a vulnerability passport that contains all of the information verified and in an easy-to-understand format.



RegTech adoption: hurdles remain

Whilst the potential opportunity is enormous, there are a number of factors acting as brakes on the widespread adoption of RegTech solutions.

The wide variety of global regulatory standards and lack of harmonisation across jurisdictions can make scaling and adopting individual RegTech solutions difficult. The fluidity and dynamism of the global regulatory landscape can quickly render solutions obsolete, demanding retroactive adaptation.

In addition to these general challenges, individual players in the ecosystem must address role-specific challenges:



- Business case not clearly articulated and a conservative, risk-averse cultures prevails in large FS institutions.
- Data-related challenges and cybersecurity threats. Data privacy regulation and cross-border data sovereignty rules impinge on FS institutions' willingness to share necessary datasets.
- **Identifying the right partner** who shares the enterprise vision.
- Conducting technical due diligence.
- **Integration of solutions** with legacy systems and lack of human capability to integrate them is a common challenge.

"I would advise FS firms to create Sandbox environments to trial new solutions before performing long due diligence process. This will help them accelerate the adoption of new solutions that can improve their services and operations."

Ignacio Colis Vidal Co-Founder, ARM



Early Stage Vendors

• Accessing data to develop solutions . Many vendors rely on personal data, such as bank transactions, which are difficult to obtain if an FS institution is unwilling to share it. Early-stage RegTech vendors who are fortunate enough can gain access to this data through a regulator's "Sandbox" program, or they can go to companies that offer synthetic data and other FinTech programs that facilitate PoCs.

- **High customer acquisition costs.** Driven by a high cost of sales as RegTech vendors must invest heavily in infrastructure and security, which is understandable, but it is a significant barrier for a early-stage vendors with limited funding.
- Access to funding. Long sales cycles make it difficult for early stage RegTechs to progress beyond seed rounds as it is difficult to get those first few sales off the ground. Transitioning to a Series A, where vendors are already expected to have some recurring monthly revenue, is a difficult barrier to overcome, start-ups tend to typically run out of funds before reaching that stage.

All RegTech Vendors

- Long sales cycles as a result of navigating security and data protection issues with FS players. Is a significant time investment for the RegTech vendor, as well as one of the elements that is most likely to slow down the sales process.
- Identifying partners with the required technical capabilities to enable deployment of the solutions. The majority of RegTech solutions require FS firms to aggregate data from different source systems into relevant datasets, but not all are prepared to do so.
- Find a common ground while meeting the hyper-specific requirements of established FS firms during procurement and implementation processes.

- Lack of understanding of RegTech solutions by FS institutions. This has an effect on the lengthy sales cycle as it is difficult for the FS institution to identify areas that can benefit and who the key stakeholders are in those areas. The absence of a globally recognised and unified taxonomy in the RegTech landscape is exacerbating the situation.
- Competition with / differentiation from other solutions.

"The FCA and City of London Sandbox was a crucial step for ARM. It allowed us to test and train our model with hundreds of millions of transactions."

Ignacio Colis Vidal Co-Founder, ARM



 Determine the required interventions that will deliver on skills development, training, funding, R&D and next generation technology capability.



- **Finding the right balance** between encouraging innovation and safeguarding the financial system from unknown risks.
- **Pursuing regulatory simplification** and jurisdictional harmonisation where possible.

"Regulators are very important to promote RegTech innovation. They can provide advice on grey areas of regulation or disruptive innovations that would be very difficult to get otherwise. Regulators can also help disruptive startups file for a license in an agile way. This can help startups save legal costs they don't have money to pay for. The example is the success and large number of neobanks in the UK."

Ignacio Colis Vidal Co-Founder, ARM

Trade bodies/associations/ economic development agencies

- Forming strategies to expand the numbers of domestic and FDI RegTech players in the ecosystem.
- Advocacy and outreach for the sector to increase the attractiveness of the region.

Investors

- **Identifying key winners.** On the macro view the opportunity is appealing and clear but the reality is there are several vendors tackling the same issue, making it difficult to differentiate beyond the team behind the platform.
- Finding vendors that meet ARR expectations. RegTech vendors have lengthy sales cycles, which makes it difficult for investors to find vendors that fall within their acceptable ARR thresholds, particularly pre-series A.

"The scale of the RegTech opportunity is huge and there are numerous high-level macro drivers. A challenge for us in this sector, as an earlystage investor, can be finding opportunities with sufficient traction and evidence of differentiation. Nonetheless, we have made some investments recently in this area that we are excited about."

Colm O'Sullivan Partner, Furthr VC

In such a complex value chain like FS, with thousands of players operating in specific niches, vendors are not always best positioned to understand the most compelling benefits offered by their own technology to individual customers. Equally, FS institutions can struggle to keep abreast of RegTech solutions or to fully understand their potential within their own organisation. Deliberate and regular collaboration between all stakeholders is the key to plugging such gaps in knowledge and understanding.

Conclusion: practical implications for stakeholders

RegTech promises enormous benefits throughout the FS sector, but barriers urgently need to be removed for that potential to be fully realised.

All players need to evaluate their own position in this complex landscape as well as understand the benefits available through RegTech adoption and deployment. To conclude, we consider practical implications and actions for each player type:

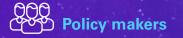


FS institutions

- Perform full strategic review to understand capability gaps, business-specific applications of RegTech technologies as well as the available solutions in the market.
- Assess the organisation technology readiness level and trajectory in coming years.
- Identify RegTech vendors and solutions that match your technological readiness and capability gap requirements.
- Adapt the existing procurement process to allow for collaboration with younger RegTech firms while still effectively managing risk.
- Model cost, risk and resource implications across a range of RegTech adoption scenarios.



- Understand the addressable market and conduct product-market fit to save time and effort on long procurement processes (early stage RegTechs).
- Seek to differentiate the value offering (price, time to production, product attributes, etc.) in the marketplace.
- Present solutions and emphasise benefits in a way that aligns with the target FS institution priorities. A data architecture is the foundation of the data strategy for a FS institution. Vendors should focus on exploring with FS institutions how their solutions align with the wider data architecture vision.
- Gradually adapt to the culture of traditional FS institutions while seeking common ground and encouraging a more fit-for-purpose procurement process. Concentrate initial efforts on identifying and discussing with FS firms those pre-requisites that may be impossible to meet (e.g. provide five years of audited financial statements when the vendor is only three years old).
- Continue to drive market maturity and further consolidation to reassure buyers and de-risk large scale implementations.



- Evaluate existing supports for funding, with emphasis on seed stage and scaling. Determine possible new policy initiatives to encourage and grow investment.
- Undertake a detailed review of the RegTech and wider FinTech sector to identify key subsectors, skills required and develop policy recommendations to address potential gaps on skills demand and supply and future education and training needs.



- Take a proactive and leading role in facilitating RegTech adoption. These could include official declarations, and round-table / forum events that bring together key stakeholders: regulators, financial institutions, and RegTech vendors to align strategies and understand challenges / opportunities for each group.
- Investigate the possibility of establishing financial mechanisms to incentivise RegTech adoption such as the Singapore Monetary Authority's (MAS) regulatory technology grant and Innovate UK's Innovation in Professional and Financial Services fund.
- Create an innovation supporting environment through sandboxes and active engagement with start-ups in the space.
- Educate, reassure, and support regulated entities on their RegTech journey, provide practical and actionable guidance such as the RegTech Knowledge Hub launched by the Hong Kong Monetary Authority (HKMA).
- Provide API standards similar to what has been done to foster Open Banking. The use of standards and technical specifications enables seamless information exchange among financial service providers, lowers barriers and enables cost-effective compliance and oversight.



Trade bodies/associations/ economic development agencies

- Define a strategy to grow the number of domestic and international RegTechs in the ecosystem and advocate for the sector (i.e. what actions have the potential to deliver the most value for the ecosystem? What FDI players could be a great fit based on the local ecosystem attributes?).
- Quantify and track the success of measures adopted.

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