Regulation is eating the world

Altus

About us

Altus Consulting is a specialist provider of consultancy services to the Financial Services sector. We help clients achieve operational excellence and improved returns via a combination of proven industry models, technology expertise and market insight.

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Regulation has eaten the world

The financial crisis of 2008 changed the world forever. The Bank of England estimated the cost of the crisis to the global economy as somewhere between $60trn and $200trn. This cost relates in part to direct support for banks and economies, and in part to a decline in the productive potential of nations around the world.

A loss so significant would be difficult to stomach under any circumstance, but it is made tougher by the fact that it was caused by the poor behaviour of a number of individuals and organisations. As Barack Obama famously put it in his 2016 state of the union address, "Food Stamp recipients didn't cause the financial crisis; recklessness on Wall Street did".

The response from governments and regulators to the crisis has been globally consistent: a raft of very high-value fines and an outpouring of new and tougher regulation.

Regulators have been keen to show that they have teeth, both to deal with retrospective punishment for the acts which led up to 2008, as well as any poor behaviour that has been exhibited since. As a result, the last decade has seen some of the biggest individual fines ever levied against corporations for a variety of failings, some in direct response to the financial crisis, and some for subsequent poor practices.
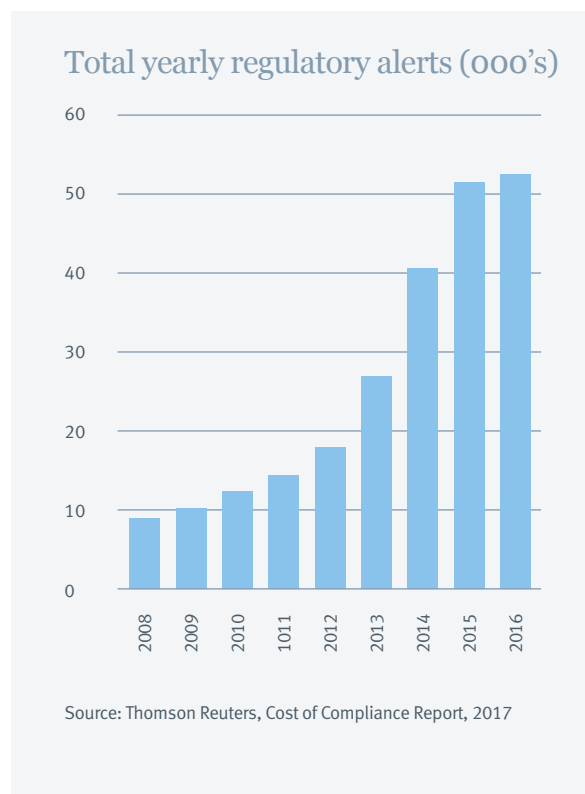
Total yearly regulatory alerts (000's)

Source: Thomson Reuters, Cost of Compliance Report, 2017

Figure 1: Total annual regulatory reports recorded

FCA Fines Profile 2011–2016 (£bn)
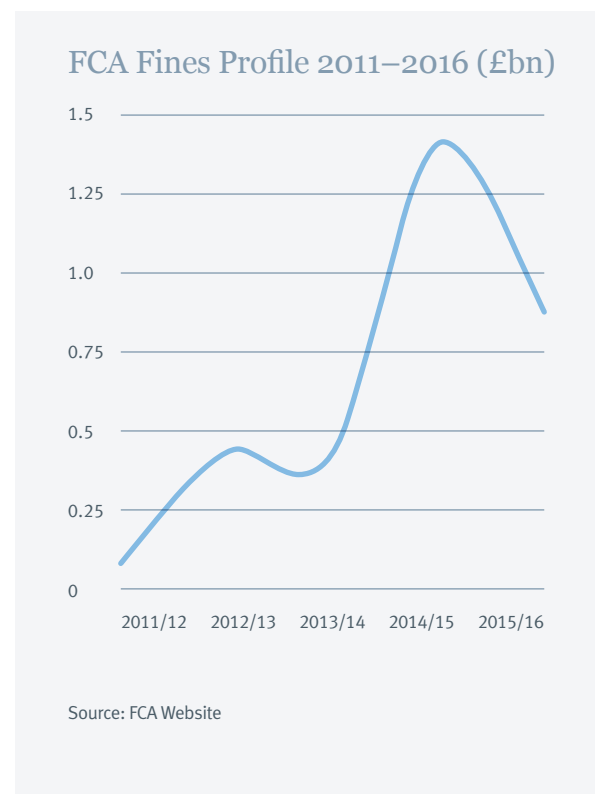

Source: FCA Website

Figure 2: FCA fines profile 2011-2016

With a number of global banks (Including Bank of America, JP Morgan, HSBC, UBS and BNP Paribas) picking up fines of over a billion dollars for a range of misdemeanours, it has become clear that global regulators, notably the SEC in the US and the FCA in the UK, are more than willing to punish bad behaviour.

In order to provide a framework for more effective control in the future, regulators have also been busy drafting large swathes of new regulation. The number of rule changes that global financial institutions must track on a daily basis has trebled since 2011, to an average of almost 200 revisions a day[*].

Not only have we seen an increase in the volume of regulation being produced, we have also seen a change in its nature and scope. MiFID II, FATCA and GDPR all have a multi-geography and multi-domain impact. Whilst all firms are used to complying with requirements in their known product lines, many find the concept of such wide-ranging regulation a new and challenging development.

This state of flux, which organisations are having to manage, has led to firms dramatically increasing the number of risk and compliance professionals they employ in their business. For example, HSBC has increased the number of compliance staff globally from 1,750 to 7,000 between 2007 and 2016. They are far from an exception. Spanish bank BBVA recently estimated that on average, financial institutions have 10 to 15 per cent of their staff dedicated to governance, risk management and compliance.

Of course, this level of staffing comes at a price. The costs of delivering compliance in large-scale financial services organisations has skyrocketed in the last decade. HSBC spends up to $1 billion dollars globally on compliance, while the BBA suggests that the average cost for members of dealing with financial crime is £5 billion.

While many firms are hoping that the last ten years of change represents a one-off reset of the watch by regulators, our prediction is that this level of change will soon become the new normal. Over the next five years we fully expect to see at least as much regulatory change as over the last five, if not more.

In the rest of this paper we will take a look at how firms currently deal with the growing volume of regulation, some of the challenges involved and how new technology can help, both in the short term and, finally, with the aid of a crystal ball to look further into the future.

10-15%

of staff in Financial Institutions are dedicated to compliance

Source: BBVA Digital Economy Outlook, Feb 2016

£4 bn

The industry cost of meeting compliance with Solvency II

Source: ABI

*Thomson Reuters

RegTech: indigestion cure or placebo?

They say one man's meat is another man's poison, so we shouldn't be surprised that the software industry has seen the smorgasbord of regulation over the last decade as an opportunity to carve out a whole new category of technology solution: RegTech. But what exactly does the term mean?

According to the FCA definition on its own website, RegTech applies to "new technologies developed to help overcome regulatory challenges in financial services ". It's one of the more concise definitions and, with dozens of technology firms involved in Project Innovate and the Sandbox, the FCA seems well placed to judge.

It is, however, a very broad definition. The FCA is just one of many organisations who govern the activities of UK financial services firms. From the Advertising Standards Agency with its rules on marketing, to HMRC regulation around tax collecting and reporting, financial services firms in the UK have to satisfy the regulatory requirements of numerous organisations as illustrated in the diagram below. And that's without including global regulatory initiatives such as FATCA or GDPR. We calculate that around half of the activities involved in running a financial services organisation are subject to some kind of external rules. This possibly explains why there are over 600 RegTech solutions in the UK according to the RegTech Markets Directory.

Figure 3: A selection of UK regulators and the business capabilities they impact

With $2.3 billion of venture capital funding flowing into RegTech* globally it's easy to see why technology entrepreneurs are keen on the label. RegTech Markets is a leading commentator on this topic and has divided the field into eight distinct areas as illustrated below. But, for all the excitement and press comment of recent months, on closer inspection it becomes clear that many RegTech solutions are not based on fundamentally new concepts. Like much of FinTech, what we are seeing is newer technology enabling a fresh take on old ideas.

This should come as no surprise; after all, financial services has always been a heavily regulated industry. Look across the capabilities of a typical financial services firm and you will find established software solutions that have been busy with compliance for years. Whether it's KYC, fraud detection or regulatory reporting, they are all familiar challenges to software suppliers.

That's not to say some of the new technology isn't exciting. Using biometrics and AI to validate identity, or behavioural analytics to detect fraud, is pretty cool but, ultimately, they are still point solutions to deal with particular regulations.

The bigger challenge for established players in the financial services sector is how to cope with the continuous flow of new regulation against the backdrop of a complex landscape of largely legacy technology. Our focus in the remainder of this paper will be the Change and Regulatory Intelligence category where we believe technology can make a significant impact.
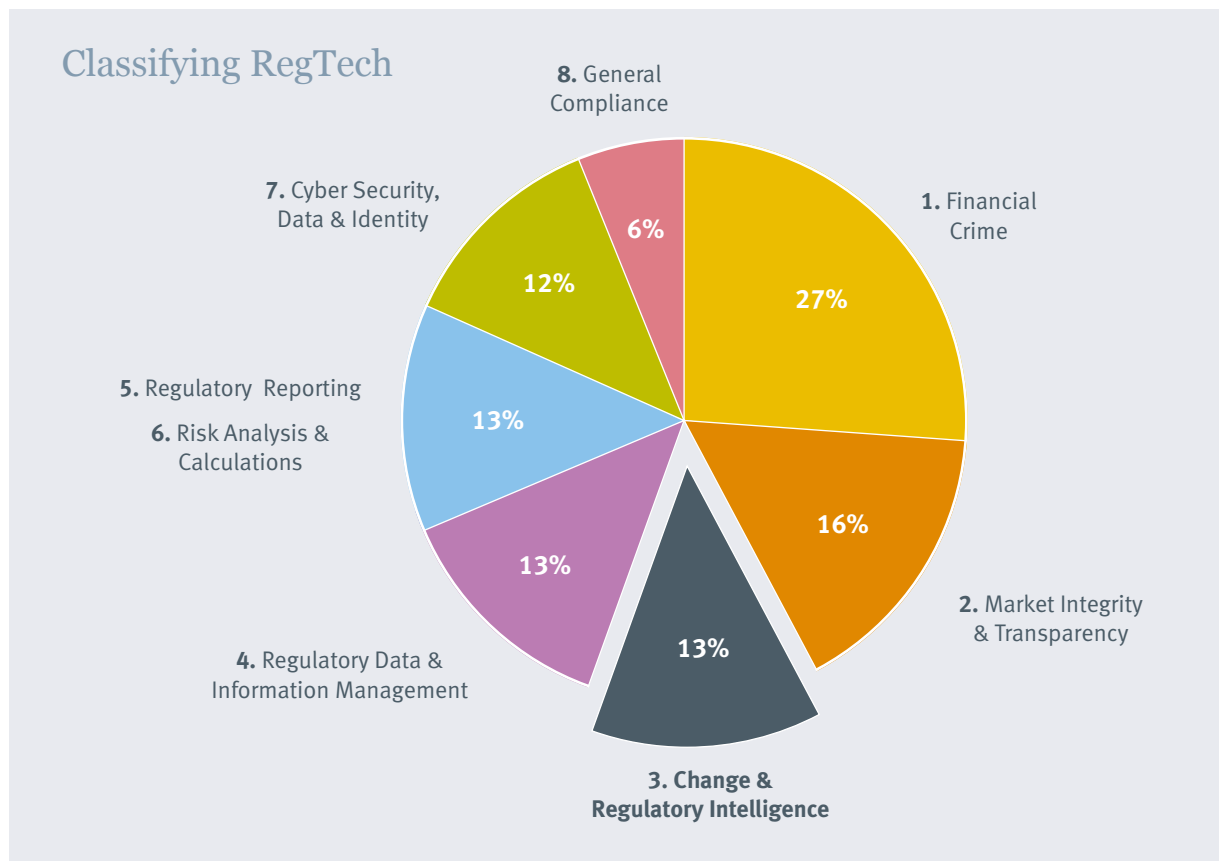

Figure 4: RegTech solutions classification and example suppliers, based on RegTech Market Directory courtesy of RT-Markets

*https://www.cbinsights.com/research/regtech-regulation-compliance-market-map/

Slow cooking: the traditional approach to regulatory change

Regulatory change can be cumbersome; ask anyone who has worked on a Solvency, Basel or MiFID programme for a large financial institution. So what precisely is involved in ensuring regulatory compliance and where does the effort go? Whilst the precise details of approach vary, there is a logical timeline to regulatory change programmes which is largely consistent across the industry and illustrated in figure 5 below.

Firms monitor the output from regulators, review the contents at a high level to see if their business is affected, then analyse the output in more detail to understand its impact on their organisation. In order to make sure that the impact assessment is effective, change professionals require various views of the current business and technical architecture.

Once the impact is understood, projects move on to planning, building and implementing the required changes, as they would for any other IT or operational change.

In an attempt to analyse where the time is invested, Altus surveyed 35 of its own financial services clients to understand what proportion of a typical regulatory programme they spent at each stage. The results are displayed in figure 6 and it is striking that almost as much time is spent on understanding the change required as on implementing it.

If we dig a little deeper into each step we begin to see a number of issues which slow down regulatory change projects.
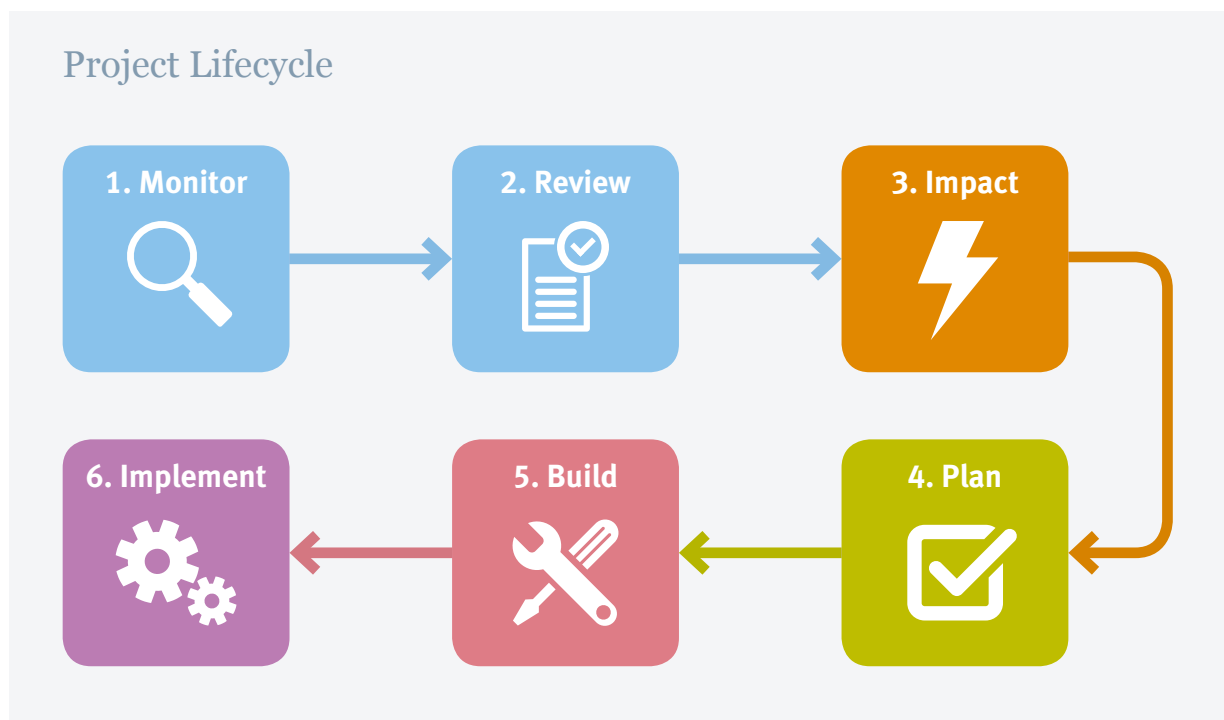

Figure 5: Project lifecycle for regulatory change projects.
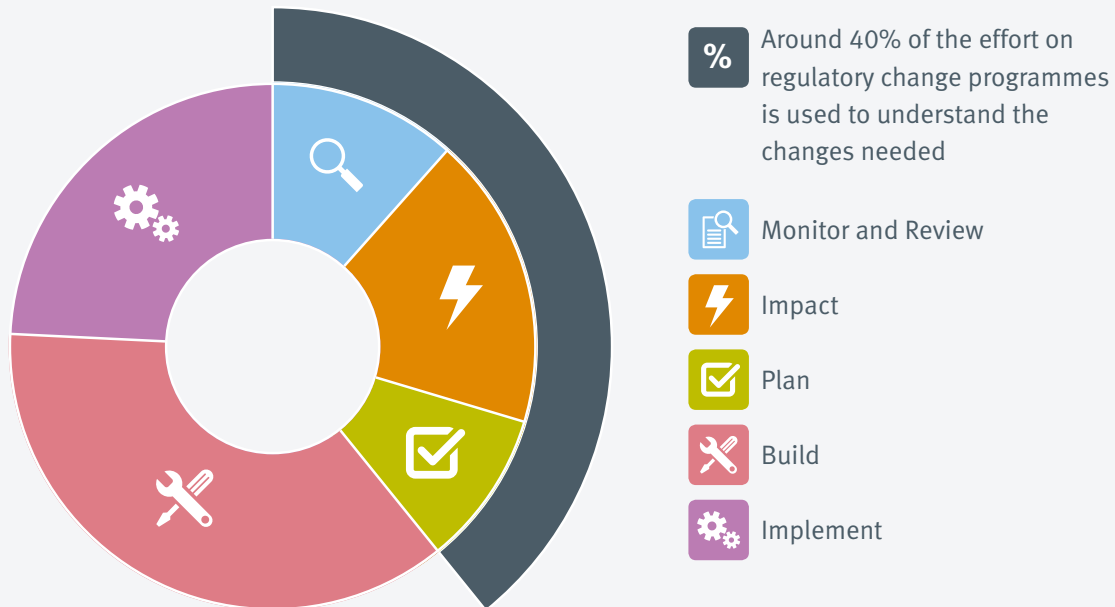
Effort spread for regulatory change programmes

% Around 40% of the effort on regulatory change programmes is used to understand the changes needed

Monitor and Review

Impact

Plan

Build

Implement

Figure 6: Altus survey of typical effort breakdown across regulatory change programmes

Monitor

Most firms lack a systemised way of monitoring the output from regulatory bodies and agencies.

This results in a time-intensive task for compliance professionals, maintaining a journal of upcoming regulatory change and ensuring this is brought to the attention of change and IT teams in good time.

The fluidity of regulatory publishing schedules makes this activity high-risk and increases the chances that key pieces of regulation will be missed. All too often firms are reliant on key individuals in the business keeping themselves abreast of the regulatory change pipeline and alerting relevant parts of the business when needs be.

The problem is only going to get worse as financial services becomes increasingly globalised and the number of interested regulators proliferates. The US Inland Revenue Service has already flexed its overseas regulatory muscle with FATCA and it won't be long before other powerful nations follow suit.

Review

For those regulatory changes the compliance team does pick up, the next step is to review them and decide whether they are relevant to the business.

Given that an average month now sees over 4,000 regulatory revisions on topics that can range from product suitability to liquidity reporting, that is quite a challenge. What's more, given the way regulation and timescales tend to evolve during consultation, it is a process which often needs repeating making it imperative this can be done quickly.

So it's hardly surprising that important changes can slip through the net.

Slow cooking (cont)

Impact

In our experience, impact analysis is the most critical stage in any big regulatory programme. Shortcuts here are dangerous and can prove very costly if important systems or processes are missed in the initial analysis.

Despite this fact, our research shows that most firms lack a clear and definitive view of what their business looks like in terms of technology and operations. So instead, regulatory change programmes spend significant effort documenting software architectures, distribution channels, operational processes and data structures for their own purposes and with a focus on understanding just enough about the current business in the context of the change at hand.

Ultimately this means that the task of developing a clear view of the current business gets repeated by every significant change programme, adding enormously to the cost and timescale.

Plan

A typical FS provider firm spends around 30% of its operating budget on IT. Despite this, most firms are unlikely to be able to tell you accurately how many applications they have.

Regulation compounds this complexity. Firms may be running half a dozen regulatory change programmes at any one time, ranging from the seismic (RDR) to something discrete that only impacts a single product line. The FCA's RDR post-implementation review reported final compliance costs in the region of £355-625m across the UK's major Life & Pensions providers, with the largest share incurred for technology changes.

Unfortunately, regulatory changes are almost always tackled as individual projects, typically aligned to the regulator's publishing schedule. For example, a programme of work on Solvency2, RDR or GDPR.

The problem with this approach is that synergies between programmes, especially around technology, are often missed. Without a consolidated picture of regulatory impact, firms inevitably miss the potential to join up change and end up, for example, with dedicated programmes to deal with MiFID II and PRIIPs, when really what is needed is one project to cover all disclosure requirements for a firm. This is the equivalent of digging the same road up twice and can cost a large organisation £millions.

Build

The surge in regulation documented earlier in this paper, together with the advent of ubiquitous, distributed computing power has led to an explosion of niche technologies targeted at specific regulated activities; RegTech in other words.

Whether it be one of the 80 or so KYC tools or 40 plus regulatory reporting systems on the market, today's regulatory change programmes are much more likely to involve buying software components than building them. As a result, we are seeing increasingly complex digital ecosystems in financial services organisations, which are typically made up of numerous external software systems.

However, there is almost always a traditional administration system at the heart of these landscapes surrounded by numerous bespoke elements which have been bolted on over the years.

The challenge in this phase of a regulatory change programme, therefore, has become less about building new functionality and more about integrating it into a legacy technology landscape.

For many organisations this is still new ground and we see some old habits dying hard as they push to bend off-the-shelf solutions to fit their own unique requirements. This will come back to bite them.

Implement

Creating a digital ecosystem of specialised regulatory components is one thing; running one is a different matter.

More software vendors in your estate means more release cycles to work with, more relationships to manage and a more complex challenge to deal with in the event of component failure. These obstacles are not insurmountable but they require a different skillset from traditional technology silo operations.

At the same time, those technology silos are not about to disappear and represent a huge investment for most large financial services firms. Finding a way to blend the competing demands of large-scale robust and resilient transactional systems with consumer expectations of new digital channels is key.

The focus must be on service integration, resilience and the end-to-end experience from a customer's perspective. This may all sound perfectly logical and straightforward but they are qualities which are still hard to find in many financial services IT departments.

Fast food: RegTech to the rescue?

So what can RegTech do to speed things up? Fortunately, whilst big data and biometrics have been grabbing the headlines, quiet but steady progress has been made by a range of solutions which focus on improving the process of managing regulatory change.

Ranging all the way from smart workflow to the automated translation of regulatory documentation into actionable insight, technology from a range of vendors is being developed to make a better job of compliance.

In this chapter, we'll take a closer look at how they might accelerate the different stages of a regulatory change programme. In each section we have named a few examples to add some colour, but there are many, many more you could choose from.

Monitor

Notification services designed to alerts subscribers to changes in regulation are not new; Better Regulation and Compliance Monitor have both been providing automated feeds of UK regulatory initiatives for almost 20 years.

What has changed more recently though is their ability to cover a much broader range of regulation thanks to the development of new technology which can detect changes automatically.

JWG, for example, has deployed its RegDelta service to analyse over half a million pages of regulation, while Thompson Reuters goes even further with its Regulatory Change Management service which provides content from 750 regulators globally.

Review

Here too there are established services which can help – ARIES Insight for example has been interpreting pension rules for over 25 years and Technical Connections has been providing technical opinion on regulation for almost as long. Services like these rely on teams of industry experts providing website content and interpretation.

More recent offerings are beginning to harness the power of machine learning to produce searchable rulebooks that can keep users updated on regulatory changes related to their specific areas of interest - massively reducing the amount of material compliance experts need to trawl through.

Corlytics, developer of the FCA's Intelligent Handbook, deploy 'trained models' to help understand and interpret regulatory texts. This technique has been borrowed from medical data scientists who use it for oncology research.

In a similar vein, Waymark is using its Wayfinder AI tool to work out the meaning of regulations and policies, and save compliance teams valuable time.

Impact

The next challenge for RegTech is not just to understand new regulation but to analyse its impact on the organisation it applies to, and progress is being made here too.

Tools like Axiom provide the ability to link regulation to a firm's policies and controls and to automatically see the impact of change at this level. CUBE combines a similar capability with automated monitoring of global regulation and Covi aims to go even further by integrating the way a firm manages risk and compliance into its core processes.

Plan

So far, we've looked at tools which start from the regulatory end of the telescope. However, one of the big challenges for large, established organisations is to understand their own operations and technology landscape in a way which allows the impact of regulation to be readily understood and changes to be carefully planned.

Mapping regulation to functions, policies and controls is all well and good but, ultimately, the rules apply to actual business activity and firms need a robust model of their business which describes this and the technology that supports it.

Enterprise Architecture tools, such as System Architect and Troux, have been around for many years now but remain largely the preserve of IT departments and are often seen as theoretical by others in the business.

We are, though, now beginning to see a few examples which bundle real FS sector models with an analysis capability, and which could be combined with any of the technologies we've discussed here. These offer the potential to bridge the gap to real operations and technology and enable a joined up approach to planning change across silos.

Build and Implement

Having made the necessary changes to embed the right controls in your systems and processes, the final step is to ensure those controls continue to perform consistently and reliably.

Unfortunately this step is often neglected but a new breed of systems, such as TrackMyRisks, is emerging to manage the complex task of staying on top of the full spectrum of policies, procedures and controls.

RegTech can help reduce costs

£££

1. Monitor — Automated monitoring tools

2. Review — AI interpretation tools

3. Impact — Policy automation tools

4. Plan — Industry modelling tools

5. Build — RPA tools
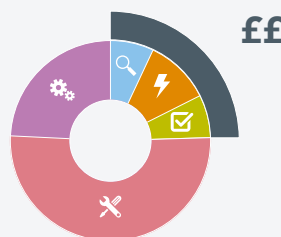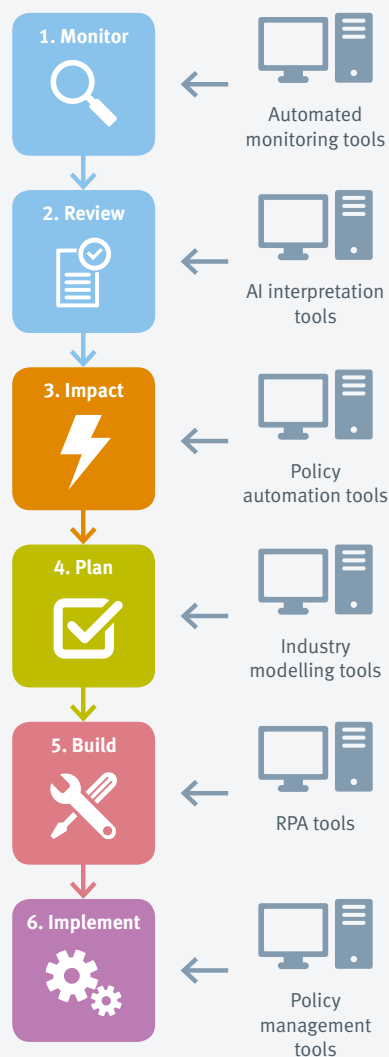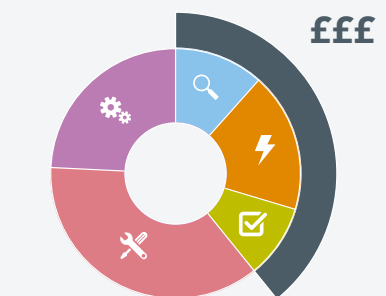
6. Implement — Policy management tools

££

Figure 7: RegTech can help reduce the cost of regulatory change, in particular the 40% of time it takes to understand and assess regulation

Self-Service: the future of regulation

Today RegTech is addresssing issues in how firms currently deal with regulatory change. But, if we look further ahead, there is potential for a more fundamental shift in how regulation works.

The Automation of Regulation

One of the key challenges firms face currently is the ability to convert longform regulatory text into something a computer system can understand.

The FCA are undergoing a programme of restructuring the handbook in order to add repeatable shape and introducing meta data and tagging to facilitate data-driven solutions.

The work being done in this area is admirable but will only ever take us so far. For this process to be really transformed, regulators need to develop machine-executable regulation. By this we mean, regulation which has a testable outcome and can be consumed by computers and tested against, without the need for human intervention.

The FCA announced this year that one of the threads of research and exploration they are entering into with RegTech firms is the potential for delivering rulesets which are unambiguous and can be consumed directly by software. While this work will initially focus around less controversial areas, like regulatory reporting requirements, the scope to extend this is vast but will require a change in mindset.

At the moment, the majority of the rules laid out by the FCA and other regulatory bodies are broadly principles-based and set out general definitions for good practice. It is very rare for regulators to be prescriptive about processes, or indeed about outcomes generated by processes. For machine executable regulation to work, the regulator will need to define testable outcomes which systems can understand.

Take suitability under COBS as a case in point.

9.2.1 (1) - *A firm must take* **reasonable** *steps to ensure that a personal recommendation, or a decision to trade, is* suitable *for its client.*

Having a computer testing whether investment advice is suitable is the underpinning of the concept of robo advice, but with no clear and testable definition of the words reasonable or suitable in the above statement, the idea of encoding a test for this seems unlikley.

Regulators need to move to a position where they can provide a regulatory framework against which firms can test actual business scenarios and obtain a clear answer as to whether an action is compliant or not.

If this hurdle can be overcome, the benefits could be enormous. Not only would firms be able to automate the act of regulatory compliance as part of their day to day business, they would also have a testable framework on which to innovate and change without fear of retrospective punishment. In terms of empowering the industry to change its place in the world, little else could be as important.

Once we reach the point where the majority of regulatory compliance is automated, the next logical step would be a move towards a more active regulator. We have seen steps towards this recently with the trial of mortgage sales reporting via R3's Corda platform for RBS. In this example, instead of receiving an aggregated sales report months after the fact, the FCA have day to day visibility of sales occuring in the network. Fundamental to the success of approaches like this will be effective data management, which will almost certainly be faciliated by distributed ledger technologies.

There is a strong case to be made for having the regulator (and other parties such as the HMRC) as supervisors in the financial services network. It could potentially reduce the risk of events such as the financial crisis of 2008, the PPI misselling scandal, and LIBOR rate fixing.

This said, for the regulator to be effective in this new role, they themselves will have to introduce a range of new capabilities into their operations. They will need to become data scientists and programmers instead of compliance professionals with encyclopedic knowledge of the handbook. If they succeed in this change, they could be empowered to make real-time decisions based on actual transactions, and intervene to shape future regulation accordingly.

Figure 8: A simplified financial services blockchain

Conclusion

Let's start with a balanced diet.

The hype around RegTech is hard to ignore. Billions of dollars of funding into hundreds of start-ups, all promising to transform the way we do compliance, is bound to create an appetite. Of course, if you share in our view of the future, we could eventually move to a self-service regulator, who gets to see everything on the buffet and select the things that look tastiest to them.

But for all the talk of the future, the truth is our current regulatory diet is full of fat that we need to cut out before we even start to think about radical new dishes. Whilst it's easy to get excited about visionary start-ups, the statistical probability is that half of them are unlikely to be around in 5 years' time.

The good news is that healthier eating is within reach thanks to some of the less esoteric RegTech offerings. A combination of automated monitoring, AI-based interpretation and an engineered model of financial services business will bring a step-change in performance for regulatory change programmes.

A new restaurant may be a few years off, but a new dish is just around the corner.

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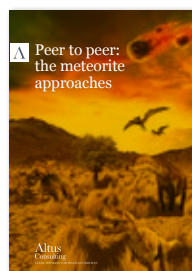
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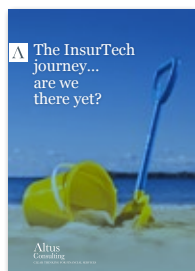
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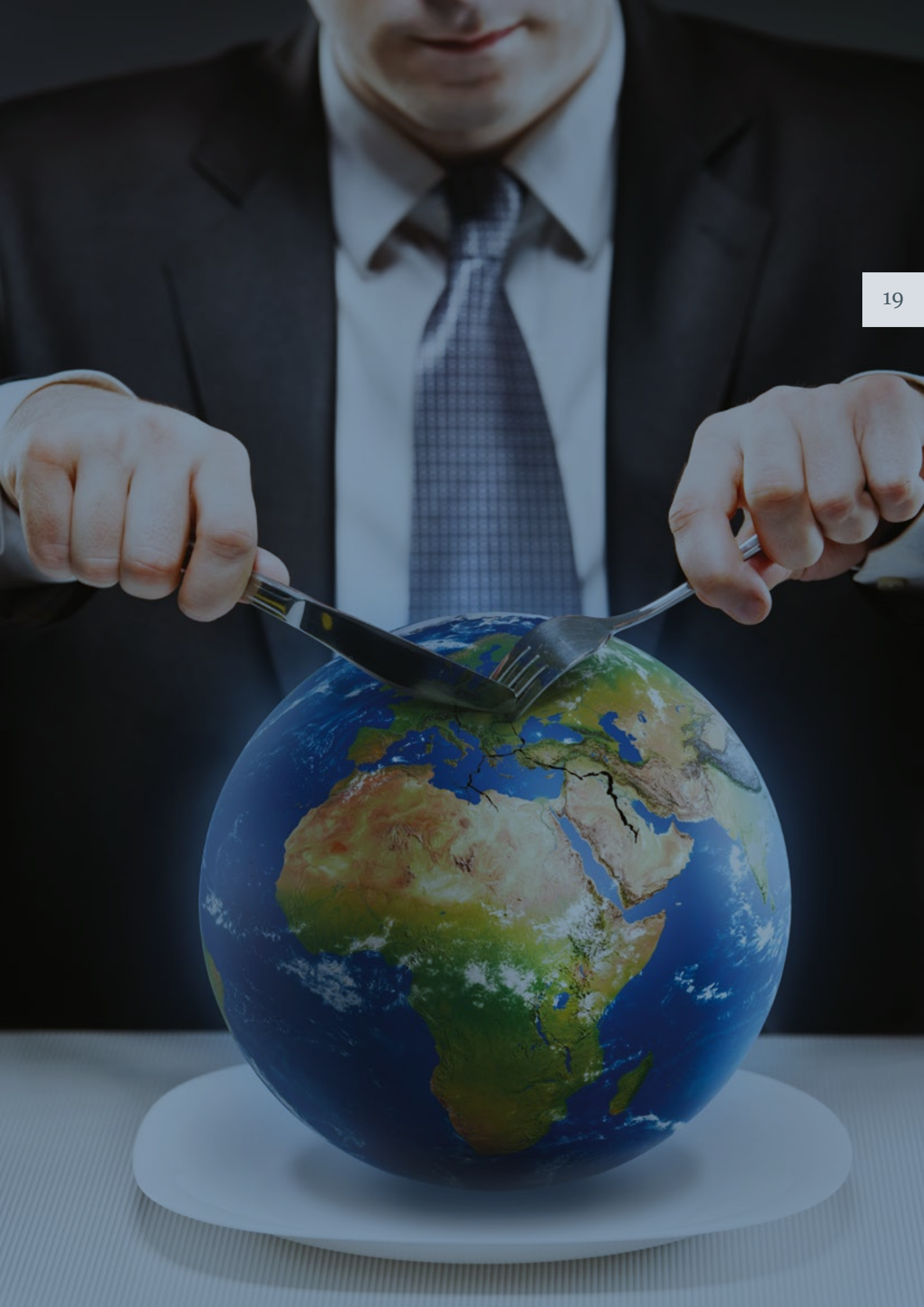
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