

#REGTECH BLACKBOOK



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ROBERT VAN BEEK
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KOEN VANDERHOYDONK

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PRAISE FOR THE #REGTECHBLACKBOOK

The Global Financial Crisis has ignited a rush to regulation as a result of deeper than expected asymmetries of information between Financial Institutions and their customers. The final scope of regulation would be to induce Financial Institutions to act transparently in the interest of their clients. Transparency is the most important principle of modern regulation, because it is active and not passive, because it rewards ex-ante virtuous economic activity instead of just punishing misbehaviour ex-post. However, no real transparency can be achieved without the usage of technology which permits to access information about economic incentives, costs for clients and consequences for the ecosystem securely and in a timely manner. This is why a consistent RegTech approach is a key source for sustaining innovation, as it allows to build a new businessmodel in which compliance is a driver for growth and not a cost. There is no FinTech innovation without RegTech innovation.

Paolo Sironi, IBM FinTech Thought Leader and Author

The financial crisis of 2008 has had long and far-reaching repercussions many of which we are just starting to feel a decade later. The biggest outcome was the increase in regulations that have spurred innovation across all sections of the financial markets. #RegTech BlackBook puts it all in perspective providing the framework of these changes and their impact on everything from how we interact with the financial markets to investor behavior.

John Swolfs, CEO InsideETFs, a division of Informa PLC

According to "Cost of compliance 2018" by Thomson Reuters, worldwide regulators issued in 2018 an average of 216 updates daily. Could a human manage such an amount of information? Not sure. Could we use technology to navigate efficiently among these regulations? That's the goal of the RegTech sector. This book will offer you incredible insights from top-notch experts in the subject.

Damien Cabadi, CFO Financial Services LBAN

RegTech is what will keep banks alive in a near future driven by a continuous change of technology, and the rapid pace to regulatory reinforcement. Today RegTech is often still a black box for many decision makers that would benefit from it. I really hope this book will help to demystify these unknowns. I already look forward to the WhiteBook ;).

Rick Coeckelbergs, TheBankingScene.com

Innovation and technology are advancing so quickly that we need regulatory requirements fine-tuned and merged with tech to ensure there are checks and balances in place. RegTech is a rising star and a lot is happening around the globe. That is exactly why we need the #RegTechBlackBook to shed the light on the best practices and developments, to inspire us and inform us. I can only recommend reading the book to get the deeper insights.

Dusica H. Lukac, Partner DL Capital Partners

This book is insightful and multidimensional, as it combines written text with multimedia including live interviews with all co-authors and experts we know very well! It is extremely useful for those faced with ever-growing regulatory demands. And provides you with a general understanding of RegTech, but at the same time it brings a much needed global perspective. Both #RegTechBlackBook and our activities bring things down to concrete, feasible and palpable insights trying to inspire everybody to look to the future and to understand what technology could and should bring to the financial sector!

Tahnée Fernandez Coenegracht, Business Development Manager, CREO Business Information & Seminars

The financial industry has evolved fast since 2008 crisis backed up with technological disruption (AI, NLP, ML, DLT, IoT,...). This has led to new compliance & regulatory challenges. I'm happy to read that the #RegTechBackBook has taken all these elements onboard. At DigiTribe, we are convinced that the CyberSecurity & Cloudification will be further intertwined within #RegTech industry.

François Lecocq, Managing Director DigiTribe

It is funny that a tsunami of regulations created a wave of innovation. RegTech is enabling the banking industry to transform. I highly recommend this book to become familiar with the latest trends in RegTech.

Hederik Laloo – Growth Manager Investsuite

It's been really interesting to watch the development and growth of the RegTech industry over the past few years. The technology itself has transitioned from the simple automation of repetitive compliance processes to intelligent, AI-driven, enterprise-wide solutions that leverage data (at scale) to expose strategic insights and drive growth.

Gender diversity remains a concern. Women in RegTech are still under-represented, although we are beginning to see progress. There are a number of very talented and successful women in the industry and initiatives like *RegTech Women*, which I am thrilled to be involved in, are raising awareness of the vital role women play in achieving balance and driving success

**Lucy Heavens – VP, Marketing Operation, CUBE & RegTech
Women Advisory Board
www.regtechwomen.org**

"I'm looking forward to reading the #RegTechBlackBook- it's been co-authored by a bunch of RegTech experts and covers compliance, risk, cybersecurity, technology and the social dynamics of RegTech. It looks like it's going to be the perfect introduction to this fast moving field – a must-read for anyone who wants to know more about RegTech"

David Doughty CDir FloD FCIM

ACKNOWLEDGMENTS

Publishing a book requires a lot of energy, skills, expertise and involvement of many professionals. We, Koen and Robert, have met thousands of entrepreneurs, investors and professionals in the financial services and wealth management industry. We spoke to several RegTech influencers and friends globally and felt instant traction but also a lot of support for this #RegTech-BlackBook project.

We thank all chapter authors, who have been selected on merit and experiences, for their contributions, their in-depth insights and profound knowledge. We feel privileged as editors working with you. It was a real pleasure to co-creating together this first edition of the #RegTechBlackBook.

Regulations was, is and will be the perhaps most important driver for a lot of changes in the financial industry as we have already experienced the last decade. We tried to give a holistic overview together with several people in the field having different backgrounds, different opinions, experiences, and visions. And still we believe the total story has not been told yet.

Last, but not least, we want to thank all reviewers and proof readers and appreciate the help and comments. We thank our family and friends for their encouragement and support.

And we thank you, Mr. and Mrs. Reader, for joining us in our journey for creating a better financial world!

This book is dedicated to YOU!

INTRODUCTION

We know each other already for a long time and we had many interesting conversations over the years. In the beginning we discussed often about how financial planning and investment & wealth management was changing. Looking back in time, our discussions were already predominately driven by... Regulations! We spoke about new FinTech companies and how new startups were entering the traditional industry. We were fascinated by what was happening and already back then we felt that we were connected to both worlds. Koen worked for many years at a Financial Market Infrastructure and Robert worked both at traditional private banks as well as innovative financial services providers. Everytime we meet, there is always the inner desire to change the industry for the better.

2018 has been a celebration year because 10 years ago the 2008 economic crisis hit rock-bottom, and everyone was in fear of what would be next. Would it get worse before it would get better? What would be the impact on our daily lives? I, Koen, remember talks at the coffee vending machine: imagine if a banker would have gone on a few weeks' holiday to a lonely island without any access to the news... The banker would have never believed the new reality of a world without Lehman Brothers, to say the least!

So many things happened after that, a butterfly effect on a large scale. The regulator stood up to tame the beast of the financial industry. Lots of banks had to be saved and got financial backup from their governments, and many were even nationalized. Indirectly, the man or woman in the street got involved too. Ordinary people financing the perceived misbehav-

ior by banks through increased taxes. The banking crisis became personal, and the traditional feeling of trust and security in the banker was lost. The general public was furious.

That's when #FinTech was born, a totally new way of looking at the world. Early FinTech companies were convinced that they could do better than their predecessors, the banks, by having a focus on adding real value for their clients at a significantly lower cost. Disruptive? Some feel that way! Although the rise of FinTech has yet to overtake traditional banks, it would be wrong to say it hasn't brought anything to the industry. The opposite is true, FinTech has changed the industry at its core, bringing a new focus on the client, more agile delivery models and an acceptance of new technologies such as cloud. But above all, it has created a platform for change.

Regulators worldwide are reshaping the rules of the game by plotting new rules to work to, it's estimated that 60,000 compliance documents have been written since the crisis, such as Dodd-Frank, Basel III, EMIR and MiFID II, predominately introduced to improve transparency, market efficiency and investor protection. Whether larger or small, businesses will need to invest to ensure they stay compliant. For example, in wealth and asset management, independent financial advisors (IFAs) have significantly fewer resources available than large international private banks, even though both are subject to same MiFID II regulations.

Successful startups solve problems and satisfy real needs. This is the only way to become successful and survive the fierce competition. In our opinion, this is where FinTech turns into "#RegTech": solving industry issues related to regulatory matters in the financial industry. RegTech firms are not in competition with incumbents but are fully in collaborative mode. Regulators turned out to be the main driver for (needed) change!

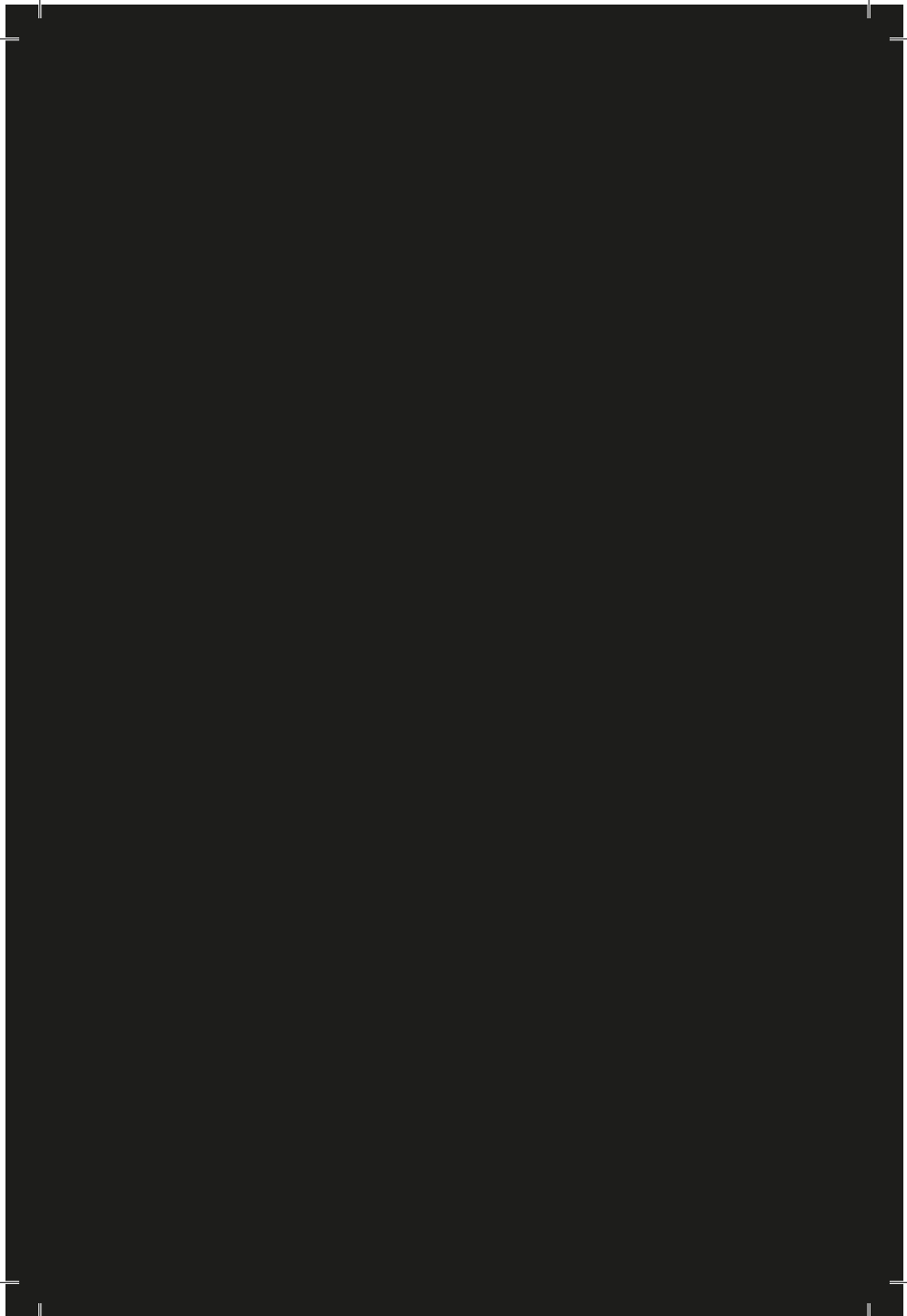
This was also the motivation when writing this book together in full collaboration with many authors around the globe. All carrying the same passion for RegTech in its different shapes and forms. We believe that RegTech currently often is being minimized to FinTech startups solving regulatory solutions. There is so much more happening that makes RegTech a movement and almost a new way of doing business. GDPR has one of the guiding principles: privacy by design. It feels the same for RegTech.

We want to give you a more intimate and immersive experience while reading this #RegTechBlackBook. That's why every insight provided in the book is followed up with a personal close encounter with all authors who contributed. When you scan the QR code, a video-interview will open where you can get to know them.

RegTech is about collaboration, so please do not hesitate to reach out should you have further questions. After all, every movement has started with the first follower.

We hope you will enjoy our first edition of the #RegTech-Blackbook.

Koen & Robert

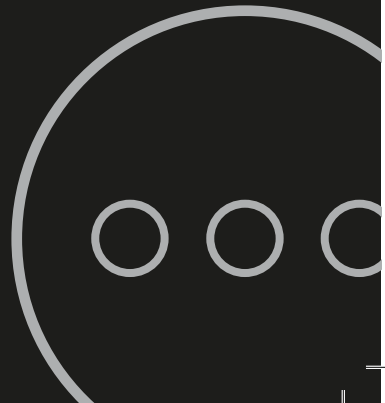


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4. ACHIEVING REGULATORY MATURITY USING REGTECH

By Bernd Richter, epoch XX

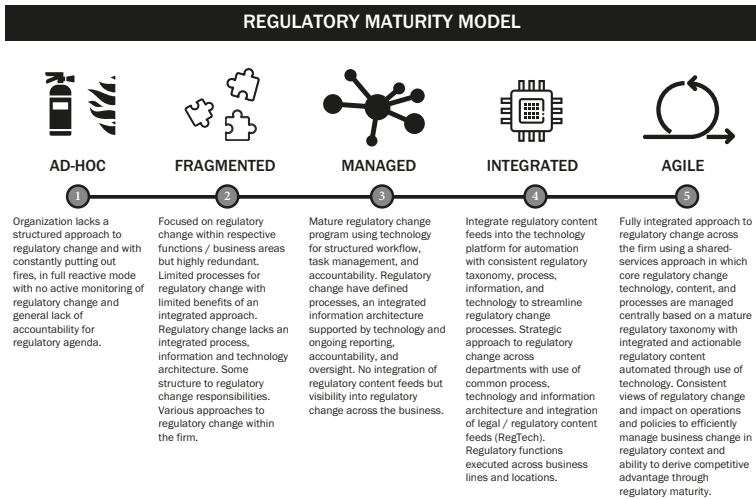


By 2020 the cost of compliance is estimated to have topped a spent of \$400bn incurred by Financial Institutions, spent on legal cost, fines, remediation since the financial crisis started in 2008. Other impacts like write-downs, trading losses, goodwill impairments, increased funding costs, reduced business activity from reputational damage and credit ratings downgrades would easily double this figure. None of this money has not been spent on becoming more competitive, sustainable or creating a better customer experience. If one thing all have learned by now is that regulations are here to stay and likely will become more complex, entangled with each other, and become cost of doing business. We have seen enormous sums being allocated to technology expenditure, failing to actually fix the problem. Regulatory reactivity is not working. Budget constraints mean that only the most urgent compliance projects are implemented, in what has effectively become a game of “regulatory response roulette”. For some banks it’s the question of what is keeping the lights on or avoiding the next fine or even loss of license. Yet Financial Institutions need to deal with up to 800 regulatory bodies globally, thousands of compliance rule books – not to mentioned their continuous nature of being revised and expanded annually. A massive increase in compliance personnel in many institutions has been unavoidable to compensate – in many cases observed they actually doubled – leading to a compliance cost of 10-15% of the total cost base.

When measuring organizations today in regards to their Maturity in dealing with regulatory affairs (e.g. operate compliance, execute regulatory change, etc.) it would surprise anyone to find most banks on the lower end of maturity curve – acting ad-hoc manor or at best operate fragmented, dealing with regulatory change (regulatory interpretation, change management, etc.) and operate bank compliance functions (e.g. regulatory reporting, KYC, AML, etc.)

How regulatory mature is an organization?

It's the ability to deal predictably, consistently and cost-effectively with the constantly evolving, cross-jurisdictional demands of the regulatory tsunami – present and future. It is based on a coherent approach to a number of important, data driven, operational and organizational scenarios supported by application of new technologies to solve regulatory and compliance problems.



The Regulatory Maturity Model enables an organization to understand its intrinsic ability to efficiently deal with operating regulatory compliance (run the bank) and adopting new regulatory schemes & directives (change the bank). Many institutions if truly reflect upon themselves may still consider to operate ad-hoc basis when new regulations are being introduced – or likewise discovered later in the game that your own organi-

zation is actually affected and impacted. The model assigns indicative regulatory maturity levels and range from ad-hoc compliance to “fragmented” (with limited or various approached to regulatory change) through “managed” (structured and consistent approach and workflows) on to “integrated” or even “agile”. Institutions at this stage in the model are able to fully leverage the expertise, to achieve highly competitive advantages from regulatory schemes – even able to drive and derive new business and growth.

Time to Industrialize ...and Mature

Industrialization emphasizes large scale, low or no-touch or straight through processing of routine activities. Engineering a significant shift in data handling capability is the foundation of regulatory maturity. This shift takes place through achieving some key operational objectives. The first is complete visibility of all key data flows across the organization – no matter how complex or fragmented it is today. There also needs to be cross-silo alignment of all data processing along a smooth continuum and data lineage. And there must be total consistency of approach. At high level, an institution demonstrating regulatory maturity will adopt a centralized operational environment, enabling a true centrally managed service. It recognizes that the scope and complexity of regulatory requirements will grow massively in the coming years. And it engages with the central challenge of that growth: ever-increasing data depth and breadth required to feed ever-expanding compliance demands.

The output is clear, accurate and, where appropriate, automated. It includes regulatory interpretation to inform optimum responses, data consolidation and process efficiency to drive consistency, and cross-jurisdiction coverage for international operation. The mature approach addresses regulatory and tax compliance and it generates and distributes reports internally, as well as submitting them to the regulator. The major shift achieved is that all these activities take place in a single, dedicated environment. No piecemeal projects. No fragmentation. No inconsistencies. Instead of being out of sync with the regulatory climate, to the point of incurring “permanent rolling fines”, consistently compliant institutions anticipate and satisfy the rules, today *and* tomorrow. They do this using the data they have, irrespective of source and structure. They do it *ahead* of the next potential crisis. This is regulatory maturity in action. It is a huge potential advantage. It grows when we realize the data driven disciplines of regulatory maturity extend into other critical areas of institutional vulnerability.

Profound changes in data culture, organizational approach (e.g. new product process for steering and selecting onboarding of new clients, segments and products) and use of technology are required to “up” an organization’s Regulatory Maturity. Essentially, fines incurred as a result of regulatory non-compliance (and losses from fraud and reputational damage) are a data management issue. Banks must move from a passive acceptance that fines or continuous remediation are part of life. Instead, they need to embrace new, proactive approaches to data culture and regulatory change management.

It's All About Data – Lots of Data

Fines are a symptom of systemic data processing failure. In the specific area of regulatory compliance, they show that an institution is not yet routinely ordering its data to satisfy the demands of the regulators. But regulatory fines are not the only data driven hazard. Organizations regularly lose large sums of money in other key areas, including rogue trader activity, fraudulent claims (insurance industry) and wider reputational damage. All these instances may appear unconnected. In reality, they are prime Big Data use cases for Financial Institutions. Underneath the hype around the words “big” and “data” there is a reality that Financial Institutions need to recognize and deal with. We live in a world of proliferating data sources. Working effectively just with the “regular” data of customer information, transaction details and internal operational processes has long been a serious challenge. The most profound shift we need is from the “store now, analyse later” approach that characterized so much data processing traditionally. We need to move to a state that we can describe as “gather, integrate, analyse and interpret” all in real time. Data is happening now. We need answers from it now, not later when it is already history. Making this shift happen will demand a new and positive data culture, backed by effective technology.

Example: we see today in transaction screening as part of AML (Anti Money Laundering) a rise towards complexity and need for speed. More complex transactions with more content information to process and transactions being processed in real-time. On an average day this translates to 1.000 false positives per person, per day – leaving an AML officer approx. 30 seconds for decision making. And it will only get worse from here on.

How Does RegTech Fit In?

All Financial Institutions can benefit from the advances made by the financial technology –in this specific case – RegTech companies. In recent years, the RegTech sector has picked up democratized technology successfully and applied cloud and as a service models, machine and deep learning, use of APIs and other matured technologies to the challenge of creating meaning from data and surrounding compliance processes. Predictive analytics, behavioural modelling and workflow integration and combining of data sources and types have all helped in kick starting an important move. This is from passive (simply accepting data processing flaws and the fines and other losses they cause) to active (interpreting data in real time to enable really timely actions). Failure in regulatory compliance is not the exclusive source of financial and reputational loss for institutions. But it is the driver behind some of the most high-profile numbers and headlines. The institutions affected are often unable to prove compliance with a particular regulation because they cannot complete the necessary data driven projects in time. In regulatory terms, they are “immature”.

Healing The Pain... Points

Many pain points are actually not specific to an institution but are structurally shared across industry participants, and sometimes represent opportunities for working together to mutualise investments and operating cost. To illustrate some of the opportunities – surely not all of them – which are addressing pain point areas available in the matured vendor space of RegTech:

1 Fraud Risk Management

An estimated 10% to 20% of insurance claims are fraudulent, with potentially less than 20% of frauds being detected. This datum is even more disturbing when we consider that claim payments account for some 80% of insurers' total costs. The industry response has been to increase the investigations budget, by more than 20% but by definition – *after* the fraud has been perpetrated – an action not timely, ineffective and unsustainable. A true long-term answer is to use data analysis technologies (e.g. machine learning, deep learning) with leading-edge analytical skills to yield predictive insights and identify patterns of fraudulent behaviour and, even, likely profiles of fraudulent customers. Only this level of sophisticated data handling maturity can truly address the ever more complex nature of insurance fraud.

2 Rogue Trading Surveillance

Since the 1990s, non-authorized (“rogue”) trading has caused spectacular and high-profile losses in many different banks. These behaviours also erode bank credibility and fuel anti-bank sentiment. Of course, in retrospect, many of the former traders’ activities – including frequent trade opening and closing or use of internal trade accounts – can be identified as suspicious. As with insurance fraud, the real need is for predictive insights that can identify, limit and then shut down rogue behaviour *ahead* of a crisis. And, once again, the real answer lies in data. Combining transactional and communication data around trading practices (access logs, settlement times, trading times, internal deals, approvals) into context quickly, in fact in real time, provide a predictive picture of undesirable behaviour and timely action to be taken avoiding a crisis leading to fines.

3 Corporate KYC

Almost all institutions have a high operating cost for KYC process and infrastructure, conducting Client Due Diligence (CDD) onboarding and maintenance due to labour intensive execution of an institution’s KYC policy and related working instructions. Additionally, CDD data quality is poorly understood and managed, resulting in high efforts and long onboarding durations (often months, not days). Meanwhile a variety of KYC solutions, enabling policy workflow automation, customer self-servicing support, fetching and combining relevant data sources (e.g. UBO, legal tree, company registrars, etc.), and support for

a better customer experience proving transparency around onboarding status and individual support if needed – so KYC truly stands for “Know Your Customer” instead of “Kill Your Customer” before any business takes place.

And The Way Forward Now...

Progress starts with a deep realization. For effective, timely and fines-avoiding compliance, data is at the heart of true regulatory maturity – cross-jurisdiction and cross-legislation. It is no longer satisfactory for Financial Institutions to handle compliance requirements in a piecemeal, retrospective way and on a never-ending burning platform. This approach is essentially passive and reactive, the time has come to recognize that the most productive culture views data as more even than a powerful defence mechanism. In reality, it is a rich source of competitive advantage today and future proofing for tomorrow – whatever opportunities, threats and demands the business environment may throw up. Just wildly implementing various RegTech solutions in hope of betterment is an illusion as well. Each institution needs to develop and embark on its very own Regulatory Maturity Transformation (RMT) for the long haul, consisting of focused selections of RegTech solutions to address real problems for running compliance functions and execute regulatory change, implementing an RM-supportive operating model across the firm's given complexity drivers (e.g. regions, business lines, legal entity structure, etc.) and a balanced culture of risk, compliance and business strategy to move towards agile state of regulatory maturity. Putting out individual fires – after they have been allowed to start – is expensive, exhausting and ineffective. The time has come to do things differently. And doing things differently – for real – means achieving and then maintaining regulatory maturity. Fines are no longer fine!

Author

Bernd Richter



Scan QR to watch an interview

Notes:

WHAT IS ...

AFM	Authority for the Financial Markets (Dutch: Autoriteit Financiële Markten)
AI	Artificial Intelligence
AIFMD	Alternative Investment Fund Managers Directive
AML	Anti Money Laundry
API	Application Programming Interface
AUM	Assets Under Management
Basel III	Third Basel Accord or Basel Standards
DGS	Deposit Guarantee Scheme
DLT	Distributed Ledger Technology
DNB	Dutch National Bank
Dodd-Frank	Dodd-Frank Wall Street Reform and Consumer Protection Act
EBA	European Banking Authority
ECB	European Central Bank
EMIR	European Market Infrastructure Regulation
ESG	Environmental, Social and Governance
ESMA	European Securities and Markets Authority
ETF	Exchange Traded Funds
ETN	Exchange Traded Notes
FCA	Financial Conduct Authority (UK)
FI	Financial Institution
FinTech	Financial Technology
FTE	Full-time equivalent
GDPR	General Data Protection Regulation
IBF	the Institute of Banking and Finance
IFA	Independent Financial Advisers
InsureTech	Insurance Technology
IOT	Internet Of Things
KYC	Know Your Customer
KYV	Know Your Vendor
LegalTech	Legal Technology
MAS	Monetary Authority of Singapore
MiFID	Markets in Financial Instruments Directive
ML	Machine Learning
NewTech	New Technology
NLP	Natural Language Processing
OTC	Over the Counter
PDCA	Plan-Do-Check-Act

PMBOK	Project Management Body of Knowledge
POC	Proof of Concept
PRIIPS	Packaged Retail Investment and Insurance Products
PSD2	Payment Service Directive
RAAS	Regulatory Compliance As A Service
RegTech	Regulatory Technology
ROI	Return on Investment
RPA	Robotic Process Automations
SCRUM	an agile way to manage a project
SECDEVOPS	an approach to development that puts security right at the heart of DevOps
SEPA	Single Euro Payment Area
SIEM	Security Information and Event Management
STP	Straight Through Processing
SupTech	Supervisory Technology
TPSA	Third-Party Security Assessment
UBO	Ultimate Beneficial Owner
UCITS	Undertakings for Collective Investments in Transferable Securities
UX	User Experience

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TALKING ABOUT...

ROBERT VAN BEEK

Robert is a Certified Financial Planning Professional CFP®, member of Editorial Board of Journal of Financial Therapy, and serves the Financial Planning Association for many years.

He is a current member of CFA VBA Netherlands Behavioral Economics Commission, and DSI Advice Exam Commission.

As the Founder/ Director of his company About Life & Finance, he appears on a regular basis in the media with articles, books (+15) and presentations throughout the U.S. and Europe. Robert is a visual thinker with a background in economics.

As a consultant, author and speaker he enjoys the challenge of translating complex problems to one-page solutions. Inspired by ideas when speaking at conferences and universities he likes to share his knowledge with anyone and also in different (visual) ways.

TALKING ABOUT...

KOEN VANDERHOYDONK

Koen has over 20 years of experience in successfully growing and managing B2B businesses in the global financial landscape. Currently he is the CEO Belgium, Luxembourg and Germany for Blanco, a scaling RegTech company founded in The Netherlands.

With a passion for innovation in the banking industry, he is a #RegTech, #FinTech and #WealthTech influencer connected to +23k global followers. Koen loves to blog and is a frequent speaker at industry events.

He has been the co-founder of the Financial Think Tank in Belgium and acts a co-head of the Brussels Disruption Disciples chapter.

Koen's favorite quote: Let's connect and collaborate!

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