

*Reimagine and transform your
finance function in
the digital age*

How digitisation is reshaping
the finance function

11 April 2017

Contents

Preamble

‘Digital’ is not just about the technologies. It’s about new ways of solving problems, creating unique experiences and accelerating business performance.

Responding to the digital age isn’t just about new levels of IT sophistication but rather the need to **change the whole operational approach**. CFOs will need to adopt a new mindset and language to deal with the New Economy and to **lead transformational change**.

Senior managements are focussing more on **digital strategies**. They are looking to **technology** and **finance leaders** to help them understand what the digital developments and wider megatrends **mean for their businesses** and develop the strategies needed to respond. Forward-looking CFOs are already bringing in the new skills, systems and collaborative ways of working needed to succeed. Those that do nothing not only put at risk the business, but also talent and investment in the finance function.

In this paper, we look at six megatrends shaping the finance function:

- Digital agility;
- Enterprise Risk Management (ERM);
- Automation and robotisation;
- Big data and data analytics;
- Outsourcing and offshoring;
- Compliance.

Companies don’t just need a digital strategy, but a **business strategy for the digital age**. Accordingly, the **finance target operating model** has to be reviewed.

“Digital finance is about the finance operating model, simplifying underlying systems, empowering people and enabling deep organisational change.”

PwC Finance Leaders

“How you gather, manage and use information will determine whether you win or lose”

Bill Gates, Microsoft

“To be successful, business transformations should align all support functions around common organisational goals and internal stakeholders’ needs.”

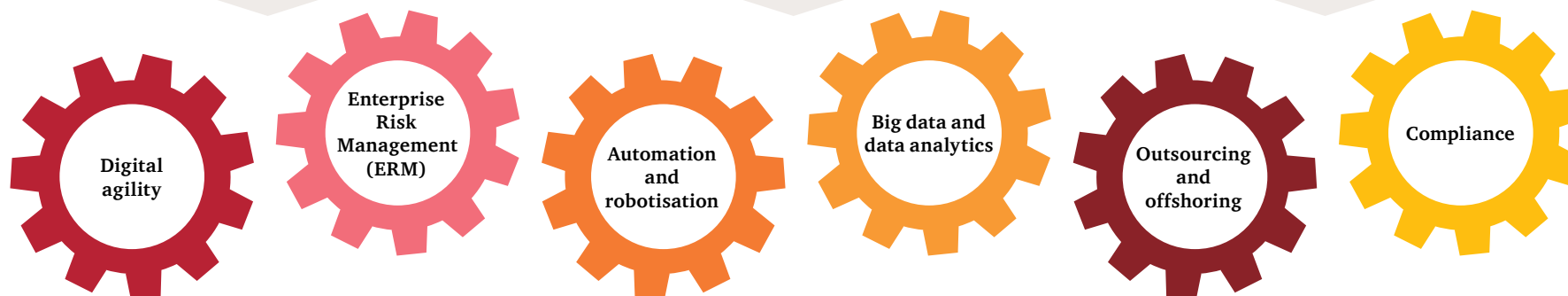
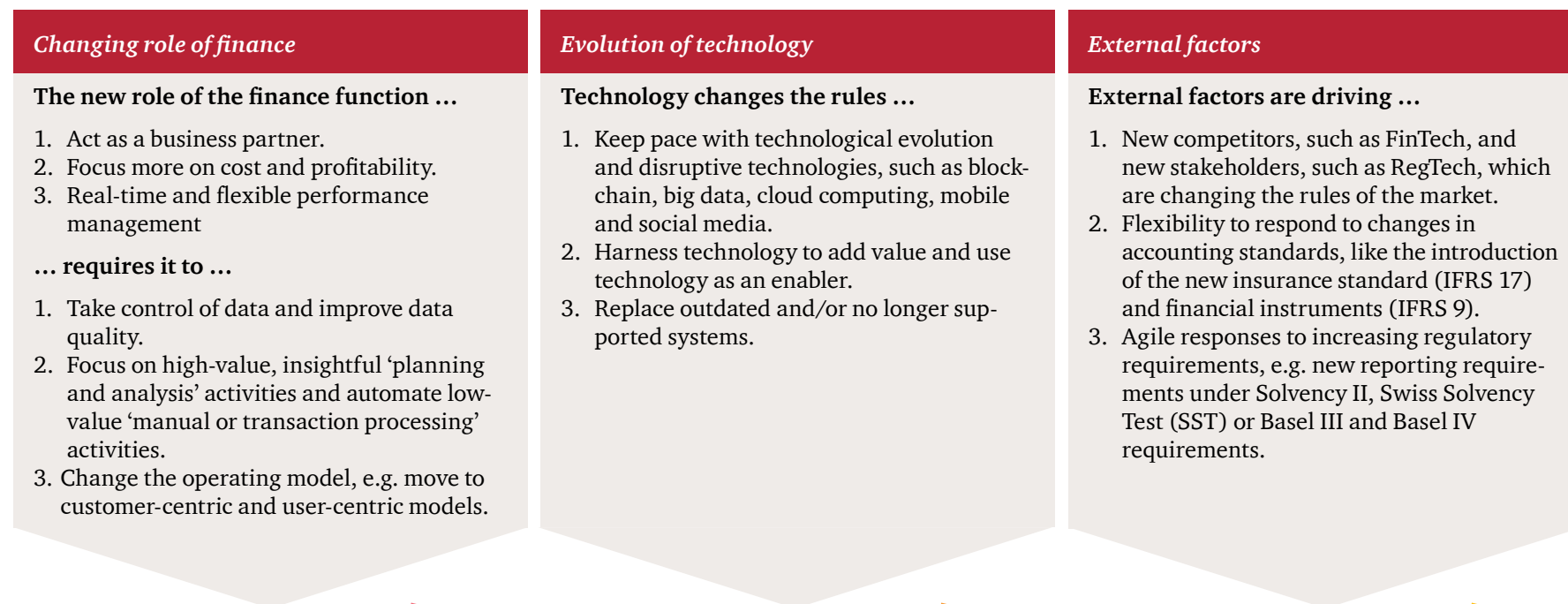
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Current trends in digital finance

1

The finance function is undergoing massive change

The role of the CFO as we know it today has evolved over time in response to the need for the finance function to add more value.



The digital age forces companies and their finance functions to change!

The need for change

In light of the evolving role of the CFO, industry leaders recognise the need for change. A digital finance function will have new accountabilities and opportunities to generate more insight and add value.

“17% of Swiss CEOs believe digital technologies will completely reshape competition over the next five years.”

“Only 6% of finance leaders attending a recent PwC Summit report being comfortable with the status of their current finance technology.”

“83% of Swiss CEOs believe digital technologies will moderately or significantly reshape competition over the next five years.”

Currently, the finance function spends a lot of time on transactional processing and report production. It also has to deal with data inconsistencies. There is now an opportunity to move towards standardised reports and data alignment. These will increase the function’s ability to generate insights by using technology for quick analyses.

Digital agility – Digitisation is an opportunity to redefine a global strategy supported by new tools




Digitisation is driven by ever-evolving technologies and tools.

The main characteristic of the 'New Economy' driven by digitisation is **rapidly changing technology**. This enables companies to benefit from new tools to support their global strategy more efficiently. It is key to consider digital as part of the implementation of business strategy.

Five trends in digital agility

- 1 Process automation to increase operational efficiency
- 2 Blockchain technology to redefine the transactions model
- 3 RegTech to cope with the increasing complexity of regulation
- 4 Robotisation to invent a new and efficient working relationship between men and robots
- 5 Cloud computing to optimise the IT infrastructure and software use

A successful digital transformation means companies must...

-  **Rethink strategy**
 - Digital enables companies to deploy new products, services and processes easily and to use analytics to improve effectively.
 - To leverage this new way of working, companies need to move from being functional-focused to outcome-focused, with teams that combine various skills and apply creative solutions.
-  **Embrace the change**
 - The digital world has no boundaries.
 - Competitors come from outside your industry and internal processes can change quickly.
 - Companies need to adapt and be well-equipped to leverage and respond to change in order to stay in the game.
-  **Be multi-modal**
 - Combining the legacy culture and the digital culture needs the right strategy.
 - A digital organisation requires an embedded evolution and the ability to work in multiple operating models.

The evolution of Enterprise Risk Management

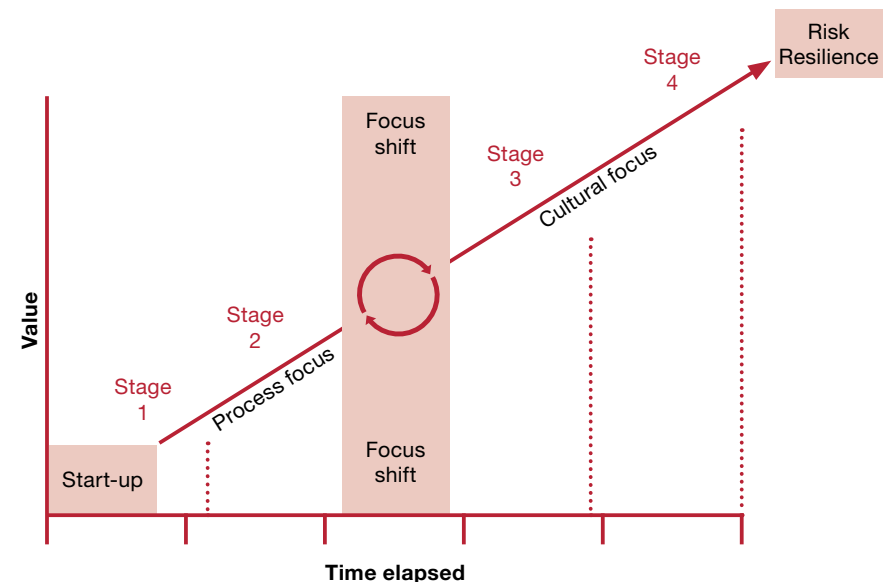
Every organisation will have to develop risk resilience to adapt to a fast-changing and increasingly technology-driven environment.

Established approaches to risk management are struggling to cope with the speed, connectivity and contagion of unfolding events. Enterprise Risk Management (ERM) has developed in the past decade and has its roots in regulatory change and compliance. The next decade will bring refinements to its role and the best ERM functions will be key drivers of business value.

The intensity of change in today's business environment requires new ways of thinking about risk. In the face of disruptive technologies, cyber-threats, complex business ecosystems, globalising markets and tighter regulatory scrutiny, businesses need proactive, innovative governance, risk, and compliance (GRC) strategies to seize competitive opportunities and address stakeholders' expectations.

With this in mind, we observe ...

- The past 20 years have seen significant growth in the activity and the remit of control functions.
- Significant investment has been made across the industry to improve overall governance, financial control and risk management activity. All such functions have evolved and developed in order to deliver improved governance and a risk-resilient environment.
- In recent years, 'first movers' have enhanced their risk function overall by moving from a reactive to a proactive stance ('performance improvement function' vs 'line of defence'). This trend will evolve dramatically over the next three to five years.



Automation and robotisation

Twenty years ago, there were fewer than 700,000 industrial robots worldwide. Today, there are 1.8 million and the number could soar to 2.6 million by 2019.



Computer-coded software

- Non-invasive, zero-change integration in target system and security.
- Operates on top of other existing software.



Mimic user interactions

- Record and automate user interactions with one or more software applications.
- Interact with the user interface (UI) of existing applications in the same way that an everyday user would.



Work cross-functionally and cross-application

- 'Technology agnostic' and can be used with any application (e.g. ERP, DB, MS Suite, ASCII file, structured PDF, thin clients such as Citrix).
- Use a central repository for easy management of automation scripts and processes.



Enable the automation of repetitive, rule-based processes

- Build workflows with dynamic decision/branch points and loops for scaling (up/down).
- Able to break down processes into smaller components to enable reuse.

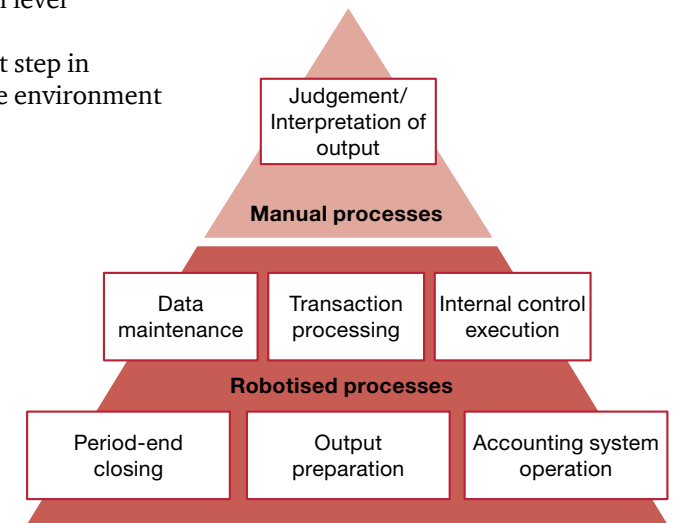
Robotics Process Automation (RPA)

The impact of RPA on a company's operations and competitive positioning is significant on a number of fronts: economic value, workforce advantages, quality and control improvements and flexibility of execution. RPA allows a company to customise solutions and to digitise processes rapidly.

RPA is dramatically streamlining a wide variety of back-office processes at financial services companies. It also supports compliance efforts by providing error-free document processing.

Factors making robotics attractive in Switzerland

- Data protection as a reaction to cyber-threats
- Control of complex systems and repetitive work
- RPA and AI can save costs and increase efficiencies
- High education level
- Innovation
- Taking the next step in the competitive environment



Automation and robotisation

The benefits of RPA are wide-ranging.

Software robotics brings immediate reductions in operational cost, beyond labour arbitrage, and generates a rapid return on investment (e.g. nine-month pay back).

The priorities of the employee workforce will shift to innovation, strategy and other business development activities.

A virtual workforce can respond to growth events (e.g. organic, acquisitive) with speed, agility, and resiliency. Robots are managed from the control room and require little IT expertise.

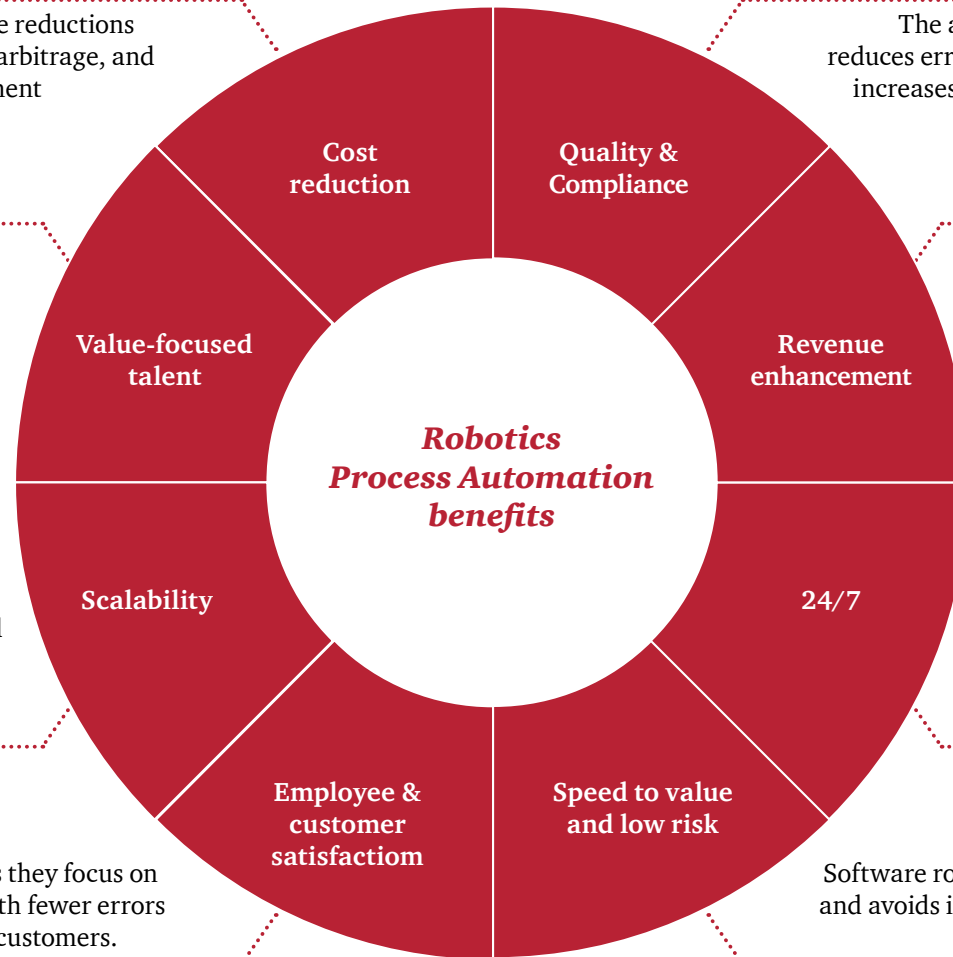
Increased employee satisfaction (as they focus on higher-value activities) together with fewer errors will result in increasingly satisfied customers.

The automated nature of software robotics reduces errors and leaves a digital audit trail that increases accuracy and regulatory compliance, enabling programmable controls.

Software robotics increases revenue growth by shortening the cycle time to serve customers.

Robots never sleep and many of today's digitally-enabled processes can operate autonomously 24/7, driving real-time transactions.

Software robotics accelerates the time to delivery and avoids invasive traditional system integration – weeks or months instead of years.



Big Data and Data Analytics

Data and analytics is a key enabler for the Finance Function to answer more challenging questions arising from the business.

How data and analytics can help

- 1 **Simplify:** visually present complex information to make it easier to digest.
- 2 **Interact:** create interactive deliverables for a better client experience.
- 3 **Answer ‘what’:** create a clearer description of the situation.
- 4 **Answer ‘why’:** create a more accurate diagnosis of root causes.
- 5 **Predict the future:** optimise future actions.

What this means for Finance

- Moving from retrospective data to **predictive information**.
- Evolving role from accounting to **data scientist**.
- **Alignment** with business **strategy**.
- Ability to provide **real-time reporting** with **insight**.
- Evolving need for **programming** and **data skills** over and above finance skills.
- Significant cost savings can be achieved with speed and agility.

This leads to Insight.

Big data is not about replacing the existing ecosystem but about enhancing strategic capabilities

Traditional mindset	Big data mindset
Reporting	Discovery, predictive
Return on investment	Option creating investments
Transactional	Interactive
Business intelligence	Analytics, simulation, visualisation

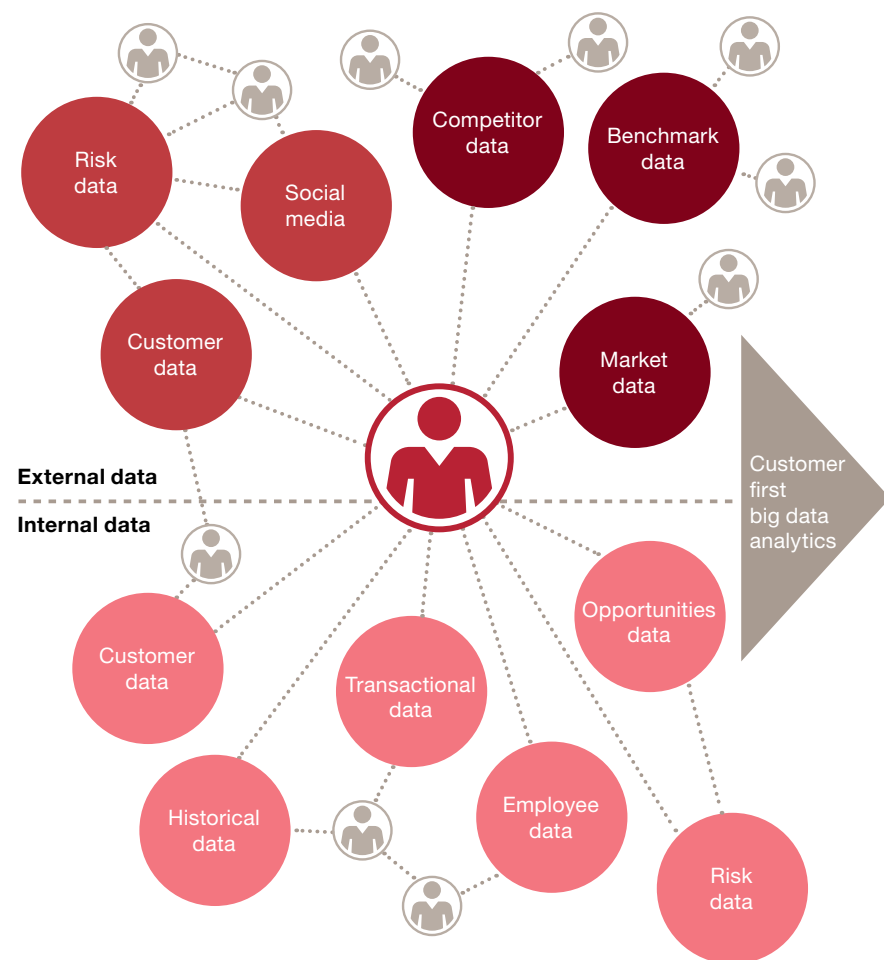
Data lake – “a reservoir of opportunity”

- Data lake is a **reservoir** for **large quantities** and **varieties** of **raw data**, both **structured** and **unstructured**.
- The data lake accepts **input from various sources** and can **preserve** original data fidelity and lineage of data transformations.
- Data lakes take advantage of **cluster computing techniques** for massively **scalable**, **low-cost** storage of data files in any format.
- **Significant cost savings** can be achieved with **speed** and **agility**.

Data analysis for finance and financial modelling

Along with a unique opportunity to drive innovation with the business, finance and financial modelling must also maintain their steward roles across a set of new expectations and value propositions.

Taking new sources of data ...



... finding new ways of looking at the business

Growth/Investment decisions: Where to invest

- Identify new markets, channels, and partnerships
- Rationalise investment for **innovation/R&D**
- Validate **customer behaviours** and economic outcomes
- **Challenge and refine** business cases

Performance and profitability management

- Analyse profitability levers
- Assess effectivity of business strategies
- Analyse customer acquisition and distribution costs
- Deliver customer and segment lifetime value analysis
- Drive planning processes with integrated analytics

Managing risk

- Consistent performance measures
- Integrated stress testing capabilities
- Collaboration and stewardship with data governance and model risk management

...and answering questions like

- When and what loss events are more likely to drive fraudulent claims?
- What drives true customer engagement and loyalty beyond products and cost rates?
- How will changing regulation impact the product portfolio and sales model?
- How do political and climatic instability impact overall risk and product demand?

Offshoring and outsourcing

Offshoring and outsourcing has been a trend for quite some time and continues to play a significant role.

Key trends and figures

- Organisations continue to expand their use of alternative delivery models through global business services (GBS). Some organisations are investing in shared services and many are making investments in outsourcing.
- Higher value functions, such as finance and accounting, IT, HR, legal, tax, real estate/facilities, are shifted to offshore company-owned shared-service centres or outsourcing providers.
- Locations continue to emerge as viable sourcing destinations. Costa Rica, the Philippines, Poland and Malaysia have enormous potential for shared services and outsourcing. Companies typically have a global GBS strategy and implement regionally.
- FINMA has revised its outsourcing provisions to harmonise the requirements for banks, securities dealers and insurance companies. Intra-group outsourcing is to be treated like external outsourcing.

Companies now have a broader range of sourcing opportunities, while their sourcing strategies go beyond cost considerations:

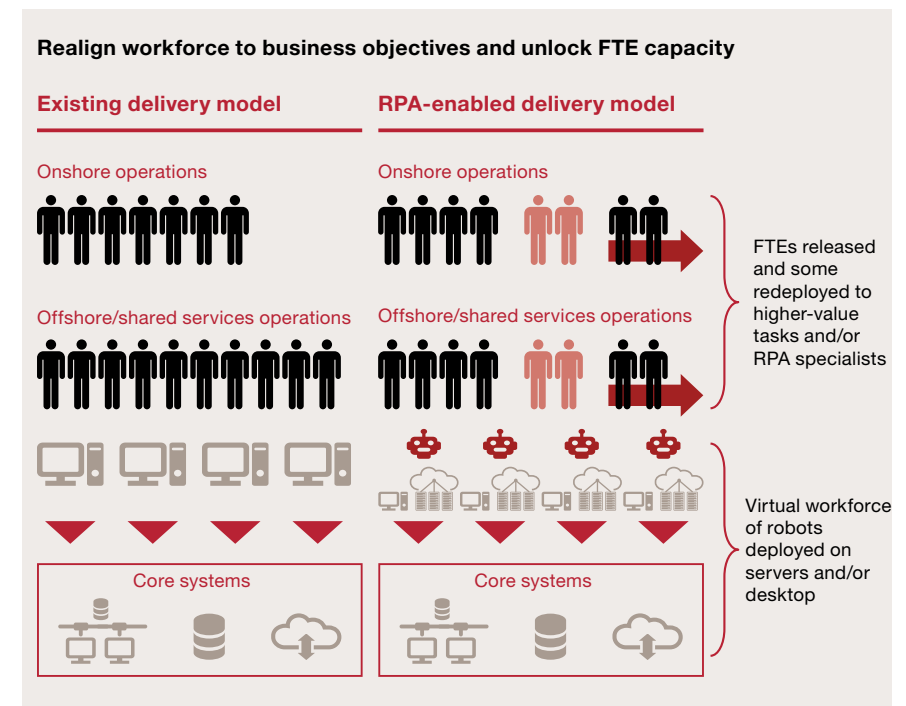
- Offshoring
- Nearshoring (locations in neighbouring countries are chosen for certain business activities),
- Farmshoring (activities are moved to lower-cost [e.g. rural] locations in a company's home country)

Digitisation impact on outsourcing

Outsourcing is an inefficient process. Without tackling any underlying weaknesses first, it can backfire. The digital age allows new ways of minimising costs, improving performance and thereby increasing value.

New economies and technologies enable new synergies

Strategic outsourcing can now use a partner to provide technology and business operations as well as upgrade robotics and data analytics capabilities.



Regulation and compliance

In today's global marketplace, financial services organisations have greatly expanded the scope and complexity of their activities and face an ever-changing and increasingly complex regulatory environment.

Increasing regulation

In light of the consumer credit crisis, several high-profile compliance breakdowns and an increased emphasis on consumer protection, the focus on financial institutions' customer practices and regulatory compliance is increasing.

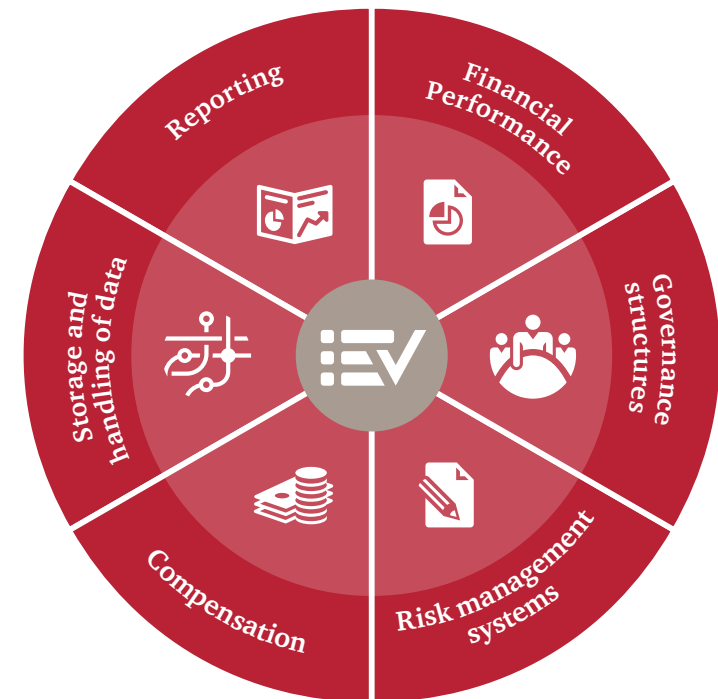
For better or worse, regulation now appears to be a growth industry. Businesses around the world are coming under the regulatory microscope – at local, national and international levels – more than ever before, with proposals for new rules, restrictions and incentives across a wide range of industries

Relevant developments

- **MiFID I & II**, prescribing business conduct standards in the provision of investment products and services (e.g. more transparency on algorithmic trading).
- **Basel III & Basel IV**, dealing with market risk, operational risk, credit risk, FRTB, liquidity & funding (NSFR, LCR).
- **Solvency II and Swiss Solvency Test (SST)**, used to assess the capital strength of insurance companies.
- **Anti-money laundering (AML)** and **'know your customer' (KYC)** rules that are directly related to clients.
- **FATCA** and other tax-related rules, requiring a whole set of reporting and compliance standards.
- **Outsourcing provisions**, as set out by FINMA, have been revised.

The scope of regulations and compliance rules affecting the finance sector are a cause for concern

A compliance failure can result in litigation, financial penalties, regulatory constraints and reputational damage that can affect an organisation's strategy.



Finance target operating model (FiTOM)

2

Finance target operational model (FiTOM)

Designing a new FiTOM reshapes the relationship between the finance function and the business.

FiTOM

Introduction to the FiTOM

In order for the finance function to achieve its objectives efficiently and effectively, it must ensure that its processes, systems, data architecture, organisation and people are aligned in a consistent finance target operating model.

In addition, the FiTOM should maximise the return on the investment made in finance systems and data management technology and have the flexibility, capability and capacity to respond to future business needs.

The FiTOM is a framework to enable finance, its customers and other stakeholders to understand:

- who it is,
- what it does,
- how it is organised, and
- how it operates and manages its activities.

The FiTOM provides an overview of the finance function. It is not intended to be a detailed operational manual, although it does form the basis for developing more detailed designs, including transformation blueprints.

FiTOM opportunities in the digital age

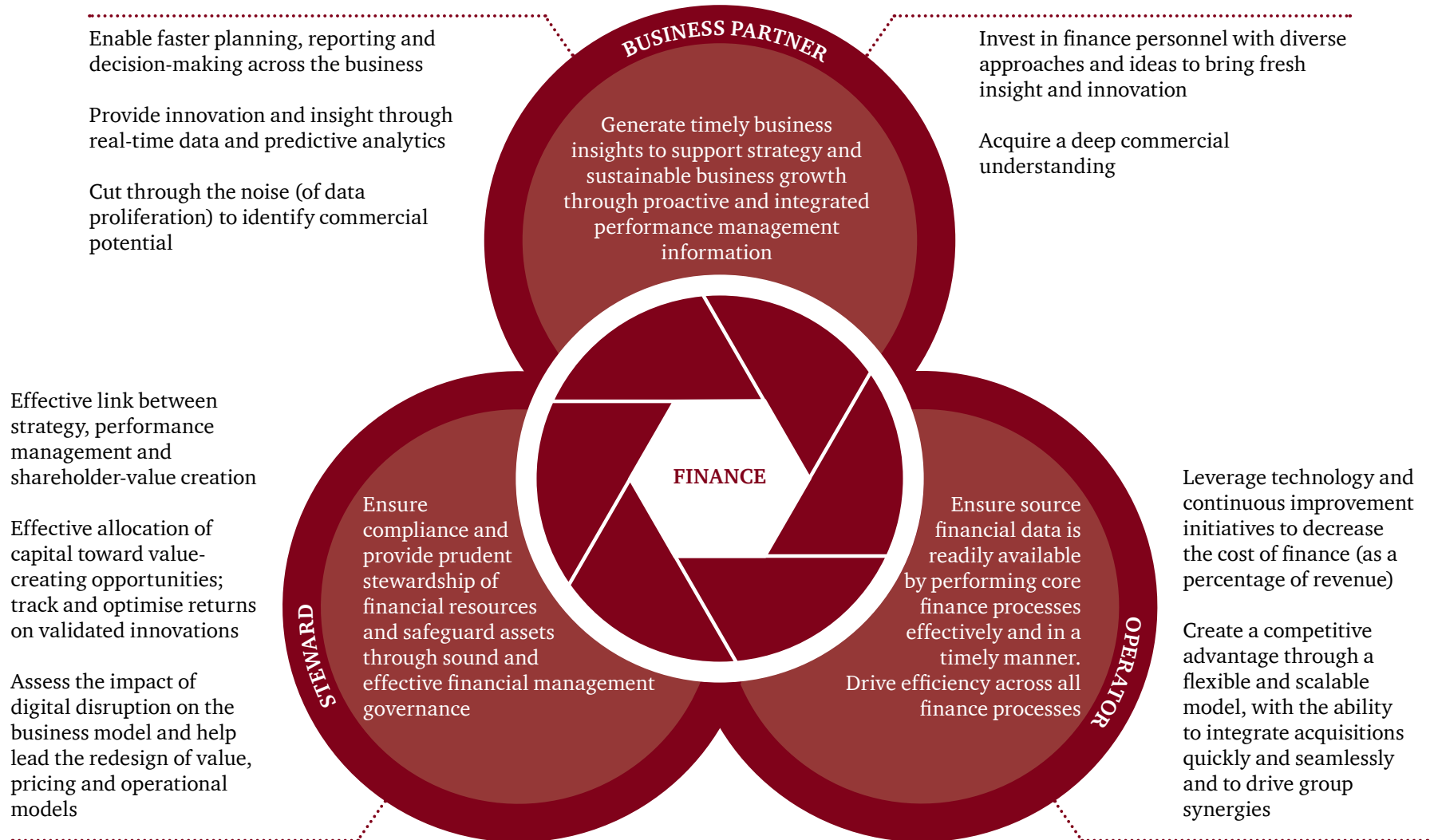
- **Effective finance processes** ensure the source financial data are readily available.
- Cutting through the noise of data proliferation helps identify **commercial potential**.
- Generation of timely **business insights** through integrated performance management information enables faster planning, reporting and decision-making.
- **Innovation and insight** is provided through real-time data and predictive analytics.
- There is an effective link between strategy and performance management, and an effective allocation of capital to **value-creating opportunities**.
- Technology and improvement initiatives are used to **decrease cost**.
- Compliance is ensured through sound and effective **financial management governance**.
- A **competitive advantage** is created through flexible and scalable models

You don't just need a digital strategy. You need a business strategy for the digital age.

Vision for the finance function

Digitisation is affecting the three roles of the finance function as business partner, steward and operator.

FiTOM

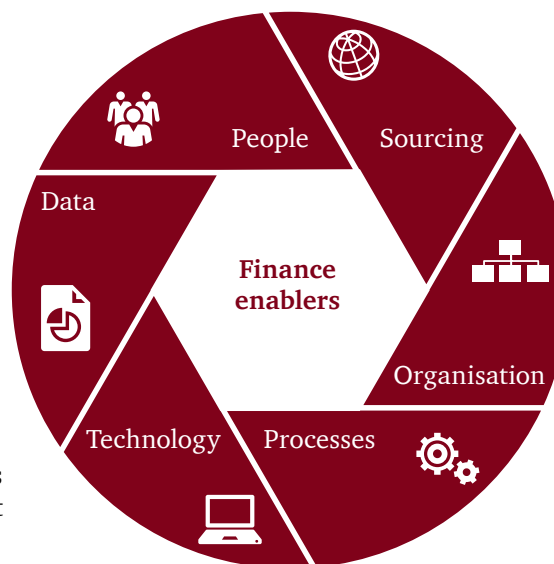


Guiding design principles for a FiTOM in a digital world

FiTOM

A FiTOM in a digital world will be affected by trends such as digital agility, ERM, automation and robotisation, outsourcing/offshoring and regulatory/compliance.

- Global source of talent
 - Training and recruitment in operational finance focused on process optimisation, issue resolution and coordination
 - Set-up and management of new competencies, e.g. 'data scientists'
 - Focus on developing strong business partners (e.g. rotation programmes, career paths)
-
- Strong data governance: finance is the 'home' of data and analytics within the organisation
 - Use of new technologies in data mining and data processing (e.g., SAP 4 HANA suite, Hadoop)
 - Common integrated data and reporting framework: Seamless integration between operational finance and commercial finance
-
- Common reporting solution with self-service tools
 - Integrated common finance system with one chart of accounts
 - Use of enabling technologies (workflows, digitisation, reconciliation, etc.)
 - Integration of big data processing technology



- Consolidation of operational finance in regional centres
 - Offshoring/outsourcing of shared-service centres
 - Leverage of low-cost countries for recurring/standardised financial planning and analysis (FP&A) activities
-
- Division of labour between 'governance', 'business partnering' and 'operational delivery'
 - Central governance for process excellence and process standardisation
 - Governance across functions (joint approach, continuous alignment)
 - Specialised centre of excellence (CoE) for expert topics
 - Business partners close to the business
-
- Standardisation of processes leveraging cloud technologies
 - Integration of RPA into process definition, wherever possible
 - Adoption of 'lean in finance' principles to streamline processes continuously
 - Embedding digital collaboration in process design and architecture

Structuring a high-impact finance function

Leading finance organisations separate the areas of operations, commercial finance (business partnering) and governance.

FiTOM

Governance

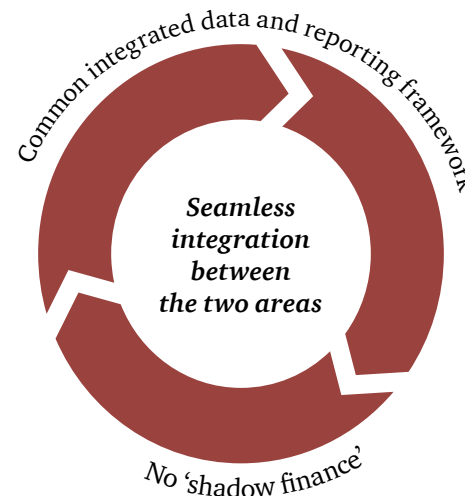
Implement capabilities to manage risks effectively and create value

- Responsible for policy, governance, controls and standards
- Define functional strategy and ensures alignment with business strategy
- Ensure governance and process effectiveness across functions

Operational finance

Execute traditional finance processes with maximum efficiency and effectiveness

- Shared-service centres and CoE, managed centrally and reporting directly to the CFO
- Standardised and streamlined processes
- Automation, electronic workflows and business process management



Commercial finance (business partnering)

Provide executives with timely, relevant and useful financial and non-financial information to drive business performance

- Dedicated and focused on serving the business
- Embedded in the business, reporting to finance
- Supported by a strong CoE

Key challenges and our point of view

3

Change is not an option – it is imperative

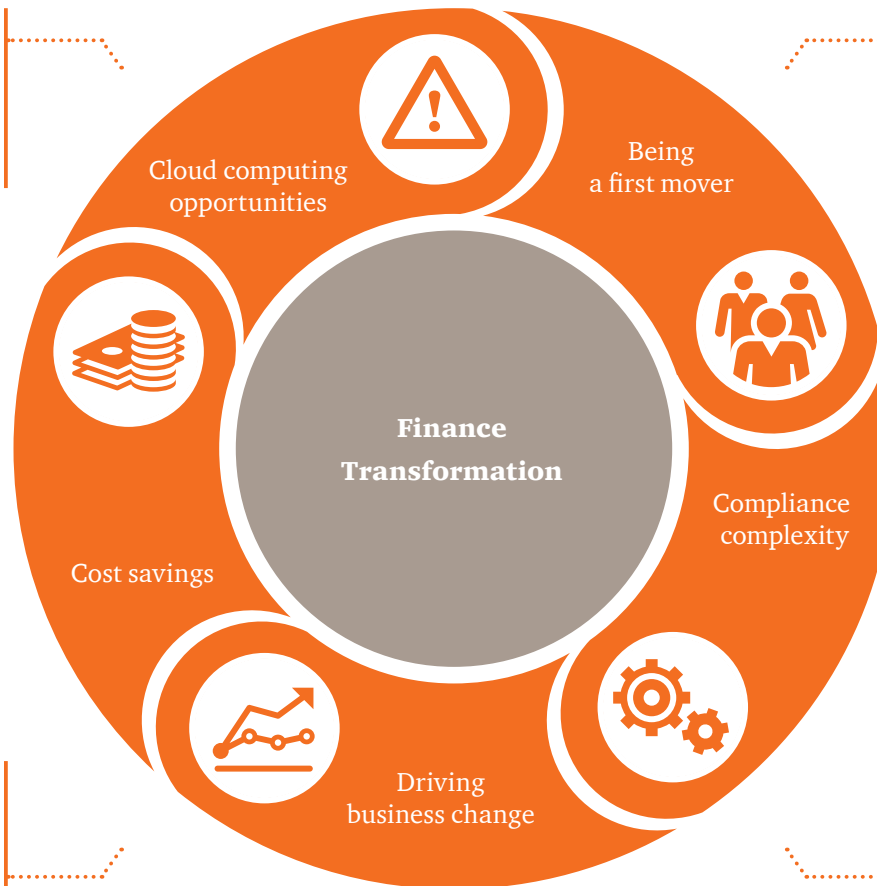
Recent technological innovations have had a major impact on ‘running the business’. FinTech, RegTech, automation, robotisation and big data are revolutionary and need to be leveraged to stay in the race.

Main drivers and opportunities for a successful transformation

New opportunities to integrate modern applications (e.g. cloud, digital, including mobile and social media) can decrease cost, time and resources spent on maintaining outdated ERP systems

As growth slows and traditional revenue streams are threatened, businesses need to reduce their cost base in order to maintain margins and provide competitively priced services

New products and services, mergers and acquisitions, and investment appraisal require finance professionals as a key business partner



Being a first mover is an opportunity to identify the extent to which these revolutionary ideas can give you a competitive advantage

A wave of new tax, financial reporting and industry-specific regulatory requirements are forcing finance functions to adapt and change

Digital agility – Digitisation is an opportunity to redefine a global strategy supported by new tools

The rapidly changing environment is posing many challenges, ranging from increasing data flows to the management of big data. But it also offers great opportunities, such as the use of the cloud.

	Key challenges	Our point of view
1	Embrace the digital revolution	The digital revolution enables companies to rethink their global strategies using new fast-moving tools. Finance functions' communications, security and data exchange will be impacted significantly and needs to be taken into account.
2	Increasing data flows require big data management	As data flows increase, Finance functions have to develop efficient tools and new ways of working to be agile. Big data management is an opportunity to monitor the budgeting process more closely and to optimise cost analysis and cost allocation.
3	Cloud computing provides major optimisation and savings opportunities	Software as a service (SaaS) and Infrastructure as a Service (IaaS) are significant growth drivers for Finance functions. The current costs of software use are optimised as they are effectively paid per user or per connection and software management is outsourced leading to additional time savings.

The evolution of Enterprise Risk Management (ERM)

ERM has the potential for real value-added when it is digitised and implemented across functions.

	Key challenges	Our point of view
1	Make the ERM function more dynamic	ERM is moving towards becoming a central function that works closely with the internal audit, internal controls, compliance and quality functions as well as with the business. Consequently, ERM has to understand the business-related risks and the business environment.
2	Board and management have to understand the link between ERM and performance	Without a global approach supported by all stakeholders, ERM cannot fulfil its potential. We can assist management in defining a global, targeted, valuable and measurable ERM approach. With our business experience, we can provide input on change communication and support during implementation.
3	Build an ERM integrated approach to gain a real value-added	During the past years, ERM implementation based on COSO frameworks was a 'hot topic'. The competitive advantage comes from an integrated approach covering ERM, internal control, internal audit and quality with the goal of setting up efficient process improvements and for synergy purposes.
4	Develop a digital-ready ERM	New digital tools implemented in daily business operations and changes in technology mean that risk managers have to be trained to identify and mitigate new risks. ERM has to become more dynamic in terms of covering several areas/functions and interlinking them.

Automation and robotisation

*Automation supports process efficiency and drives optimisation.
Robotisation has to be seen as a potential revolution in the financial services industry.*

	Key challenges	Our point of view
1	Automate your processes	Some routine process with low value-added can be automated in order to focus on more strategic ones. For instance, automatic processing of incoming invoices or automatic overdue invoice reminder should be implemented.
2	Implement internal control automation	Automation may support the internal control system and improve its efficiency. Some processes are still monitored by manual controls that are time-consuming and not 100% reliable. The target is to go from a manual detection control approach to an automatic prevent control approach. Consequently, there is an opportunity also for internal processes required to prepare evidence for external audits to be more efficient.
3	Enter the Robotisation revolution	We are probably today at the onset of the robotisation among the banking industries. Artificial intelligence enables robots to work as retail bank employees, as wealth management advisors and support high frequency trading. A clear strategy has to be defined in order to make processes as efficient as possible with a minimum of resources.
4	Threat posed from automation	Automation and artificial intelligence pose a treat. The algorithms that underpin automation, robots shape lives far more than people realise. How people navigate websites, how they interact with connected devices are all influenced by code, creating practical challenges such as ensuring machines perform human orders as intended. It also raises ethical issues such as whether the humans who write code can be trusted. Trust is an opportunity, not just a risk.

Big data and data analytics

Data and analytics enables Finance Leaders to answer more challenging questions from the business.

	Key challenges	Our point of view
1	Rapidly changing environment and big data	In today's rapidly changing environment, businesses must be proactive in identifying and understanding how to exploit their opportunities and to manage risks. However, many organisations fail to provide key business users with timely information to support decision making.
2	Business intelligence	Typical challenges under business intelligence include data quality (identifying data sources and identifying master data), data consolidation (mapping source data and joining multiple data sources), data warehousing (designing appropriate physical and virtual data stores) and reporting (aligning reporting to continuously changing business needs).
3	Business restrictions	Tools and technologies are expensive to implement and typically take a long implementation time. Implementation is difficult to achieve without the use of deep technical expertise and the right talent is hard and expensive to recruit. Nevertheless, big data is the way forward and we can help with the implementation phase.
4	Building suitable capabilities to gain competitive advantage	Building suitable capabilities to gain a competitive advantage is crucial. It is about enabling strategy and improving performance by embedding analytics in day-to-day operations, and about gaining competitive advantage by leveraging new types of data and technologies. By ensuring easy access and usability of data by rationalising and maintaining quality through strong governance will enable reliability of data to make decisions, highlight opportunities and identify risks.

Offshoring and outsourcing

As a result of automation and robotisation, several routine and low value-add processes could be insourced. Offshoring and outsourcing strategies have to be adapted to other processes.

	Key challenges	Our point of view
1	Identify the processes to be outsourced	Some core and complex processes cannot be outsourced. It is important to conduct an analysis to identify the processes that it makes sense to outsource. These mainly include processes that are simple, repetitive and low risk.
2	Analyse the impact of digitisation on outsourcing and offshoring	As a consequence of digitisation, one option might be to insource processes that were previously outsourced or offshored and to digitise them. Under such circumstances, insourcing could save both time and cost for certain processes.
3	Global implementation of digitisation	If insourcing and the digitisation of low value-add processes is successful, it could be extended to non-routine or partially value-adding processes, if the procedures are the same.
4	Regulatory requirements for offshoring and outsourcing	Regulation technology (or RegTech) has enabled the rise of a new breed of tools and platforms. Applied to regulatory-related needs, these innovations could transform the landscape by automating processes, lowering costs and increasing effectiveness.

Regulation and compliance

Regulatory requirements, such as developments relating to Basel III, Basel IV, Solvency II and the Swiss Solvency Test (SST), have to be looked at closely. RegTech opportunities should be a subject for in-depth analysis, too.

	Key challenges	Our point of view
1	Get all regulatory developments on the radar screen	The fast-growing regulatory framework requires companies to identify promptly all the updates in order to plan the corresponding changes efficiently.
2	Adopt the Basel III requirements and plan for Basel IV	Basel III requirements should be implemented on 1 January 2019 at the latest. We recommend an external review to make sure all of the legal requirements are met. On 23 November 2016, the European Commission published its first proposals for revised rules to calibrate capital and liquidity requirements. These measures are already considered as the first part of the future Basel IV regulation.
3	Adopt the Solvency II and SST requirements	Solvency II requirements are applicable as of 1 January 2016 for European companies as well as European Union subsidiaries of Swiss groups. Furthermore, semi-annually SST reporting requirements have to be complied with. We recommend that these reporting requirements are considered for companies that are thinking about digitising their reporting processes.
4	Be a first mover in the RegTech revolution	For outsourcing, the latest regulatory requirements have to be considered. FINMA has revised its outsourcing provisions to harmonise requirements for banks, securities dealers and insurance companies. Intragroup outsourcing is to be treated the same as external outsourcing in terms of monitoring. Systematically important banks must now meet additional requirements for outsourcing critical services and the rules governing the selection, instruction and control of services have been revised.

*Our comprehensive transformation
framework*

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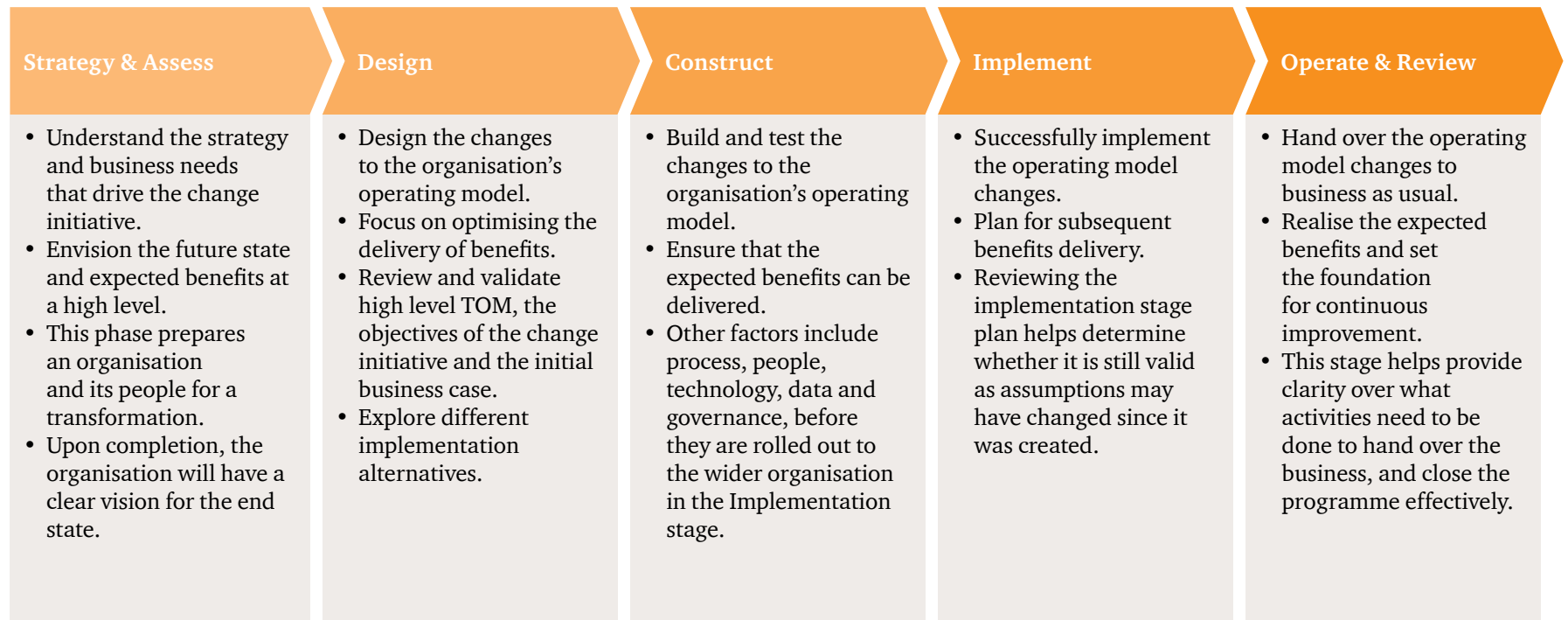
Transform – PwC’s delivery framework and methodology

Transform is our approach to delivering all aspects of a change initiative, from strategy through implementation and operation.

The Transform Framework uses the following hierarchy

- **Stages:** major intervals of a client’s change initiative; engagement scope may apply to one or span multiple stages.
- **Modules:** a distinctly related set of activities that are used to drive or deliver change.
- **Tasks:** what needs to be done to complete the work outlined in a module and to produce the desired output.
- **Steps:** clarify how to complete the task and produce the desired outputs.

The Transform Framework has five stages

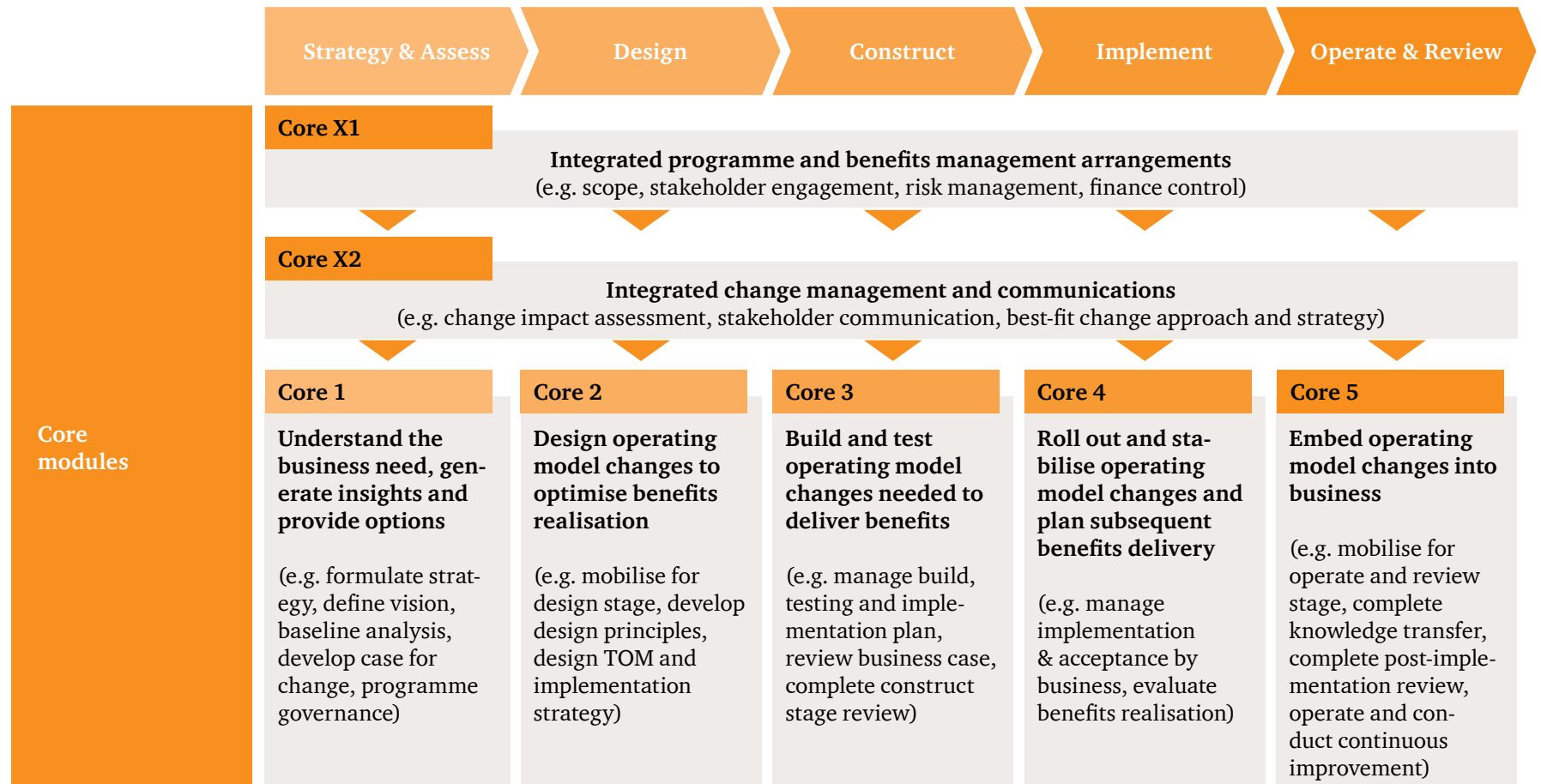


Transform – Life cycle diagram

The core modules represent a distinctly related set of activities that are used to drive or deliver change.

Core module view

Each module contains a set of tasks to be completed for the desired output and a series of steps on how to complete the tasks for the desired output. Below is an overview of the different modules involved.



How PwC can help you reach your goals

5

A broad range of services and a proven track record

We have a proven track record of delivering business and finance transformations. We look across the entire organisational set-up – focusing on strategy, structure, people, processes and technology – to help our clients make processes efficient, transform organisations and implement technologies needed to run the business.

Our differentiation

- Process-led approach – we bring knowledge of digital transformation and the underlying business approach
- Rapid opportunity identification
- Global view and detailed local insight

Capability

- PwC delivers a market-leading, system-agnostic service
- Experienced in building process automation and robotisation
- Experienced in building ERM integrated solutions and identifying insourcing/outsourcing opportunities

Deployment speed

- Implementation team can be in place rapidly
- Strong track record in various domains, such as opportunities resulting from digitisation and cloud computing
- We can help align the whole organisation to develop a suitable and agile approach

Our market position

- PwC is recognised as the **no. 1** professional services firm for **digital strategy** (Gartner).
- PwC is recognised as the **no. 1** professional services firm for **business transformation and change** (Kennedy).
- PwC has achieved **Vanguard status** (Kennedy Consulting Group 2015) in IT infrastructure transformation consulting.
- **PwC ranked Digital Operations Consulting Worldwide Leader** (IDC 2015).
- PwC has over **10,000 technology specialists globally**, with many based in our core centres of Zurich, London and New York.
- PwC enables **outstanding data processing** by providing efficient and quality infrastructure recommendations, and we have developed various **apps** to deliver value on strategic job. We also have a **data scientist team** skilled in science and computing.

We have a strong track record in

- Digital and automation
- AI and automation
- Programme management
- Cloud computing
- Financial transformation
- Target operating model design
- Big data and data analytics
- Insourcing/outsourcing

Why PwC?

PwC's focus on relationships coupled with our global network and extensive industry experience makes our services distinctive.

Focus on relationships

At PwC, our purpose is to build trust in society and solve important problems. We're a network of firms in 157 countries with more than 223,000 people who are committed to delivering quality in assurance, advisory and tax services. Within PwC Switzerland around 3,000 employees and partners in 14 locations in Switzerland and one in the Principality of Liechtenstein help to create the value organisations and individuals are looking for.

Integrated global network

With 40,700 industry-dedicated professionals worldwide, PwC has a network that enables both cross-border and regional teams. PwC's large, integrated global network of industry-dedicated resources means that PwC Advisory Services deploys the right personnel with the right background on our clients' behalf whenever and wherever they need it.

Extensive industry experience

PwC Advisory serves multinational financial institutions in the banking and capital markets, insurance, the asset management/hedge fund/private equity industry, payments and financial technology. As a result, PwC Advisory has the extensive experience needed to advise on the portfolio of business issues that affect the industry – and we apply that knowledge to our clients' individual circumstances.

Multi-disciplinary problem solving

The critical issues that financial services companies face today affect their entire business. PwC Advisory service teams include specialists in strategy, risk management, finance, regulation and technology. This allows us to provide support to executives as well as key staff management. We help address business issues from client impact to product design and from go-to-market strategy to operating practice across all dimensions of the organisation. We feel equally comfortable helping the heads of business and the heads of risk, finance, operations, and technology.

Practical insight into critical issues

In addition to working directly with clients, our practice professionals regularly produce client surveys, white papers and points of view on the critical issues that face the industry. These publications as well as the events we stage provide clients with new intelligence, perspectives and analysis on the trends that affect them.

Appendix 1 – Selected qualifications

6

Proven experience (1/5)

Process automation and blockchain project credentials.

1

Major global bank
Automating processes in the loans operations division

Summary

- PwC worked with the bank's loans operations teams operating from Chennai, India and Newcastle, USA. We identified multiple processes which were repeatable and involved significant data entry.
- FTE count was reduced by designing and building an automated system that could carry out many of these time-consuming processes.

Business problem

- About 20% of loans closers time was spent on non-value-add activities.
- The bank was unclear how to extract the maximum benefit from automation.
- Entry of significant amounts of data was performed over multiple teams and locations.
- It was unclear which processes and which amount of processes could be offshored.

Programme impact

- Applied selection criteria on four sub-processes and selected one process for automation.
- 60% increase in the amount that could be moved offshore.
- 20% potential reduction in overall headcount.

Relevance to the bank

- Automation of high-volume transactions.
- Implementation of RPA across a local and offshore organisation.
- Achieving significant savings using RPA.
- Process analysis to determine which operations can generate the greatest savings through automation.

2

Global financial services provider
Design of and transition to single operating model for finance

Summary

- PwC worked with the provider's client delivery team to provide subject matter expertise, leadership, drive and coaching.
- Established centralised shared service centre (SSC) function for all high-volume repetitive processes, as well as centres of excellence for reporting production, consolidation and actuarial analysis.
- Eliminated process variation for the submission of financial data through the automation and standardisation of processes.

Business problem

- High volume of manual processes relating to reporting, consolidation and actuarial analyses.
- Processes for submission of financial data varied across different areas of the company.
- Misaligned chart of accounts for local and group reporting.

Programme impact

- Transition to SSC in under six months for all finance transactional processes and staff.
- Alignment of reporting chart of accounts and consolidation processes.
- Roll-out of the new application to the businesses contributed to a reduction in the number of material reporting errors.

Relevance to the global finance services provider

- Automation and standardisation of processes.
- Establishment of centralised SSC functions.
- Alignment of reporting chart of accounts.

Proven experience (2/5)

RegTech and robotisation projects credentials.

3

US-based financial service provider
Response to regulatory requirements

Summary

- The client wished to respond to supervisory comments in preparation for Basel II and assess its readiness for the Internal Capital Adequacy Assessment Process (ICAAP).
- PwC developed and helped execute a detailed plan to redesign an internal capital framework, performed an ICAAP gap analysis and formalised an implementation roadmap and strategy. In doing so, PwC supported the documentation process of the new ICAAP guidelines and redesigned process flowcharts, whilst enhancing governance and accountability processes for the ICAAP decision-making process.

Business problem

- Pressure to respond to regulatory requirements and to assess current state against ICAAP readiness.
- Unclear about documentation requirements of the new ICAAP guidelines.
- Outdated process flowcharts for the entire process.

Programme impact

- Gained daily enterprise-wide view of capital adequacy and planning, improving portfolio management.
- Roadmap for addressing enterprise-wide risk and regulatory needs, business case and release strategy.
- Formalised and documented ICAAP and contingent capital planning process.
- Technology architecture initiative assessed existing technology and high-level functional requirements related to ICAAP.
- Deployed practical, consolidated stress testing framework.

Relevance to the financial services provider

- Daily enterprise-view of capital adequacy.

4

Global bank
Development of a governance model

Summary

- The client formally established a global business service (GBS) initiative and began exploring the RPA potential.
- We worked with the client to facilitate the vendor evaluation process and implement a proof of concept with two down-selected technology providers.
- Held an RPA workshop to build high-level engagement and interest across business units and address questions on product functionality, required skill sets and governance requirements.

Business problem

- Client was under increasing executive pressure to realise substantial cost savings in a short period.
- Business processes required integration across multiple applications built on multiple technologies.

Programme impact

- First proof of concept reduced cycle time by 65% with a cost savings of 54–81%. Second proof of concept reduced cycle time by 50%. POCs demonstrated real labour-cost savings and faster cycle times with automation across multiple platforms, with both a low learning curve and low development time.
- Launched a cross-functional pilot using an agile approach to propose organisational and funding model to build business case for enterprise-scale implementation.
- Developed a preliminary governance model, recommending a ‘federated’ approach.

Relevance to the bank

- Achieving significant savings using RPA.
- Experience of successfully deploying RPA in a mature client.

Proven experience (3/5)

RPA implementation and cloud computing.

5

Global bank

Automating processes in the loans operations

Summary

- The client has launched an initiative to assess the feasibility of using RPA tools across its entire workforce of 3,500 FTEs.
- PwC has been chosen as partner for this programme and will be engaged for two years. The scope of the project includes defining a new governance model and framework, conducting feasibility assessments across all processes and identifying the potential FTE savings from automation.

Business problem

- Many manual and non-streamlined processes.
- Targeting cost savings.

Programme impact

- The programme to implement RPA across various functions within the organisation is currently under way.
- The programme will also define a new governance process and framework.
- The programme will bring with it significant cost savings.

Relevance to the bank

- Reduction in FTEs owing to RPA.
- Streamlining of processes.

6

Global financial services provider

Data protection and regulatory compliance

Summary

- The client asked PwC for support to enable it to move any of its 2,000 applications to the cloud.
- The PwC Cybersecurity joined teams across the network to deliver a 58-country regulatory analysis. This covered data export restrictions, data protection, data archiving and retention, and regulation relating to the outsourcing of IT services.
- The result of the work is a regulatory requirements database for cloud that is being used by the client.

Business problem

- Global nature of the regulated financial services business.
- Different compliance and regulatory issues across various countries.
- All types of data were in scope, including sensitive personal data.
- The global financial services provider wished to utilise all possible cloud solutions in a compliant way, e.g. Private to Public, SaaS, PaaS and IaaS.

Programme impact

- The financial services provider has developed a front-end reporting tool. For each application use case, a report based on countries/data types can be produced and used to drive the notifications and approval requirements from regulators to enable each data migration to the cloud.

Relevance to financial services provider

- Clarity over use of the cloud and regulations relating to it.
- Front-end reporting tool to produce a report based on specific country and data types in relation to regulatory requirements.

Proven experience (4/5)

Target operating model and ERP implementation.

7

Global reinsurance company
Target operating model and SAP treasury implementation

Summary

- The scope of the project included payments and communication management, cash management and forecasting, financial instruments and risk management and reporting and compliance (Solvency II, IFRS, etc.).
- The first step was to design the TOM for treasury in order to clearly articulate roles and responsibilities, treasury functions and strategy.
- In the following process and system design phase, PwC designed the treasury business processes and the systems.
- The system implement phase followed this and is on-going.

Business problem

- A treasury function that struggled with costs, process inefficiencies and non-optimised performance.

Programme impact

- PwC supported the reinsurer to transform their treasury function into a 'best-in-class' organisation that focuses on achieving cost savings, process efficiency, performance optimisation and improved technology infrastructure.
- The solution is based on a treasury application and will be rolled out to more than 30 countries in three regions and with more than 30 financial services partners.

Relevance to the reinsurer

- Support in defining and designing the TOM for treasury.
- Clarity created on functions, roles and responsibilities in the treasury function.
- The future solution will bring in process efficiencies, automated payment and reconciliation processes and it will help make treasury manage cash more effectively.

8

Global financial services firm
Global ERP project

Summary

- The client needed to demonstrate the benefits of a global, harmonised ERP system over a heterogeneous ERP landscape.
- Required clearly defined ownership for income/costs at management level and successful alignment of the finance, IT and business interests.

Business problem

- Currently, the ERP landscape is heterogeneous and there are no global, standard processes for accounting and controlling.
- No clearly defined responsibilities for sales, income, costs, selected balance sheet items and KPIs at management level.
- Improvement potential in terms of finance transparency.

Programme impact

- PwC helped develop global, standard accounting and controlling processes and value flows and prepare end-to-end integrated state-of-the-art standard ERP solutions.
- PwC helped enable comprehensive transparency on financial performance, clear management accountability for value contribution as well as data traceability and reliability.
- Alignment between finance and IT, including the support of the decision process.

Relevance to potential financial services firm

- Introduction of global standard processes for accounting and controlling.
- Improvement in finance transparency.
- Alignment of standards with business groups.

Proven experience (5/5)

Data and Analytics.

9

Leading Global Insurance Company

Design of agile analytics support for phase of transformation programme

Summary

- Analytics strategy was designed to provide agile analytics support that is both scalable and flexible across geographies and lines of businesses as well as a practical transition model for scaled implementation.
- PwC worked with the client to design agile analytics support for a phase of the global transformation model.

Business problem

- Low efficacy and efficiency of internal operations.
- The insurance company required an end-to-end analytics approach that would provide support from the design and setup of the pilot to the transition, steady-state and year-on-year improvements for the claims process.
- The approach would have to be scaled and replicated easily to extend to all products and geographies.

Programme impact

- The programme incorporated insights from behavioural economics to minimise fraud, lower pay-outs and better service of customer needs.
- Aligned analytics strategy and data architecture and technology requirements with global best practice.
- Preparation of data environment and development of prioritised models for rollout.
- Insights for eventual global development plan by supporting local pilot roll out.

Relevance to the reinsurer

- End-to-end analytics approach.
- Scalable solution for all geographies and products.
- Minimisation of fraud, lower pay-outs and better serve of customer needs.
- Alignment of analytics strategy and necessary data architecture and technology requirements with global best practice.

10

Leading Global Financial Services Firm

blah

Summary

- PwC helped build big data capabilities for a leading global financial services firm.
- PwC helped identify, prioritise and business-align big data capabilities to support the client's data driven growth programme, with focus on business requirements, technical design principles and implementation plan.

Business problem

- New data capabilities were developed for single BUs as opposed to creating common, shared capabilities. This increased cost and complexity.
- Lack of a business aligned technology roadmap to migrate and upgrade business capabilities. This limited utilisation and adoption.
- Technology organisation lacked business cohesion and required speed-to-market.
- Lack of critical skills required to manage big data related technologies.

Programme impact

- Identified synergies across near term data-related technology initiatives.
- Established common data capabilities across BUs.
- Established overall data management architecture to integrate big data and traditional data management technologies.
- Designed new business and technology engagement model to coordinate data requirements across BUs.
- Defined new technology organisation model.

Relevance to Financial Services Firm

- New synergies and common data capabilities across BUs.
- Prioritised and business-aligned big data capabilities.
- Establishment of overall data management architecture for big data integration.

Appendix 2 – Key contacts

6

Key contacts

For further information, please contact:



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Appendix 3 – Thought leadership

6

Thought Leadership

For further thought leadership, please refer to the references below.

Page preference	Reference
5	Further information at: <ul style="list-style-type: none">• Digital Finance under <https://www.youtube.com/watch?v=9aO8_bDdAOo&app=desktop>
6	Figures taken from: <ul style="list-style-type: none">• PwC's 2016 CEO Survey (https://www.pwc.com/gx/en/ceo-survey/2016/landing-page/pwc-19th-annual-global-ceo-survey.pdf)• PwC Finance Benchmark (https://www.pwc.com/ee/et/publications/pub/unlocking-potential-financial-effectiveness-benchmark-study-2013.pdf)
7	Further information at: <ul style="list-style-type: none">• Emergence of Digital Operations and Finance, Leading from the Front: Redesigning Finance for the Digital Age (http://www.pwc.com/us/en/increasing-finance-function-effectiveness/publications/pwc-digital-finance-paper.html)• Maximising Outcomes: Leveraging Oracle's Cloud for Digital Finance (http://www.pwc.com/us/en/oracle-implementation/assets/white-paper-leveraging-oracle-cloud-for-digital-finance.pdf)
8	See also: <ul style="list-style-type: none">• How ERM Programs Evolve, Building a Risk-Resilient Organisation (http://www.pwc.com/gx/en/services/advisory/consulting/risk/resilience/publications/building-a-risk-resilient-organisation.html)
9	See also: <ul style="list-style-type: none">• Robotics Process Automation in Finance (RPA); A PwC Point of View, Organise your future with robotic process automation (http://www.pwc.com/us/en/outsourcing-shared-services-centers/publications/robotics-process-automation.html)• More for less: Five steps to strategic cost reduction, Intelligent Process Automation (IPA) (http://www.pwc.com/gx/en/insurance/publications/firing-on-all-cylinders-five-steps-to-strategic-cost-reduction.pdf)
14	See also: <ul style="list-style-type: none">• PwC State of Compliance Study 2016 (http://www.pwc.com/us/en/risk-assurance/state-of-compliance-study.html)
27	See also: <ul style="list-style-type: none">• PwC – “A practitioner’s guide to Basel III and beyond” (http://www.pwc.com/gx/en/advisory-services/basel-iv/basel-iv-press-release.pdf)• PwC – “How to use RegTech and to make regulatory compliance your strategic advantage” (http://www.pwc.com/ca/en/banking-capital-markets/publications/pwc-changing-landscape-2016-12-en.pdf)

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