OLIVER WYMAN

THE STATE OF THE FINANCIAL SERVICES INDUSTRY 2019:

TIME TO START AGAIN

MARSH & McLENNAN COMPANIES

TIME TO START AGAIN

The State of Financial Services 2019

Dear Reader,

There is an old Irish joke about a driver in Tipperary who stops to ask a farmer how to get to Dublin. The answer comes back, “Well, I wouldn’t start from here”.

So it is with much of our financial services industry. Complex legacy infrastructure is costly and slow to adapt to changes. For an industry whose product - the movement and storage of money and the management of risk - is electronic, the processes remain far too manually intensive. Surveys regularly indicate that customers are rarely inspired by the service. The consensus is that overhauling all of this will require years of digital transformation of legacy systems and processes.

In our state of the industry report this year, we challenge that consensus, and make the case for starting again. We don’t mean new challengers or fintechs taking over. We mean giant financial services firms freeing themselves from the shackles of their legacy infrastructure and embarking on their future journeys unencumbered. That means brand new technology, entirely new organizations, and complete customer-centricity.

It also means tapping into the same flywheel momentum of growth enjoyed by the big technology industry over the last decade.

We believe the quality and low cost of new technology, the potential for dramatic change in competitiveness, the potential for reduction in conduct and cyber risk, and the scope for smooth migration all add up to making this idea compelling now.

Is this a realistic vision for the industry? Our news is that if you look carefully, you will find it is already starting to happen. To see how and where, read on…

Yours sincerely,

Ted Moynihan

Managing Partner and Global Head,
Financial Services, Oliver Wyman

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INTRODUCTION

In this year's State of Financial Services report we examine the potential for the industry to start again.

We explore the power of new – areas in the industry where new technology and businesses are having a proven impact.

We show how existing firms can deploy a greenfield approach to deliver new growth and to accelerate transformation of the existing business.

We lay out a blueprint and success factors for these initiatives, and then point to areas of emerging opportunity across all industry segments to deploy what we call the flywheel effect.

During the report we include a case study with the head of one of the most ambitious greenfield projects to date.

We conclude by pointing to the first steps in the journey – **go build!**

1. THE POWER OF NEW

Digital disruption in financial services is unevenly distributed. Some parts of the market are heavily impacted, others are less affected, and the speed at which disruption will spread is open to debate.

However, there is no denying that businesses underpinned by digital capabilities are getting traction, for instance:

- New nonbank trading businesses such as XTX have vaulted into the top five market makers in foreign exchange in just three years, with platforms that run at almost half the cost of the largest banks.
- Chinese financial services conglomerate ZhongAn has gained more than 400 million customers within four years of its launch, with technology-enabled propositions for ecosystem partners, such as micro-policies for Alibaba.
- Digital "neo-banks" are winning over the next generation of consumers in some major markets, offering customer-friendly access to finance and money management tools. South Korean digital bank Kakao attracted 6 million signups in less than a year. Monzo, Revolut, and their peers now have 2.5 million customers in the UK and are expanding from narrow category killers toward full service. Similar ventures have regulatory approval in Australia and Hong Kong. In the US, Chime has opened more than 2 million no-fee transaction accounts.
- New types of intermediaries are winning over corporates with working capital and supply-chain-finance solutions. Longstanding firm PrimeRevenue doubled volumes over the past two years, arranging more than $200 billion in trade payments. C2FO posts $1 billion per week on its working capital platform. Greensill has provided $50 billion of financing, facilitating early payments to suppliers – and in the process achieving a unicorn valuation.
- Fintech and consortium efforts have redesigned whole industry processes, from debt and equity issuance to trade finance, commercial insurance, wholesale/reinsurance placement, and more.
- Big tech players such as Amazon and Apple have taken only the first steps into what they may do in financial services.

Some of these propositions may face skepticism about whether they can scale up or get the industry adoption they need. For now, they are willing to sacrifice near-term profitability to build a business that can scale rapidly, supported by patient digital economy investors.

EXHIBIT 1: THE IMPACT OF NEW BUSINESS MODELS

NEO-BANKS

UK
CUSTOMERS WITH MONZO, REVOLUT, ATOM, STARLING, TANDEM (MILLIONS)

SOUTH KOREA
CUSTOMERS WITH KAKAO (MILLIONS)

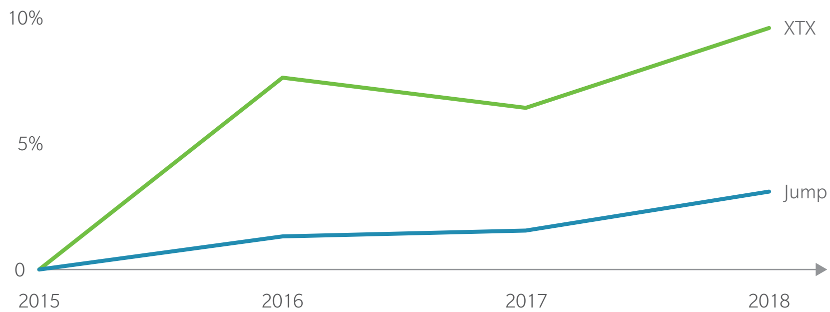
Source: Oliver Wyman Analysis; Press Releases

15% of the total banked population attracted by one of South Korea's first digital-only banks in one year

5% UK adult penetration of top digital banks

NONBANK LIQUIDITY PROVIDERS

SPOT/FORWARD MARKET SHARE



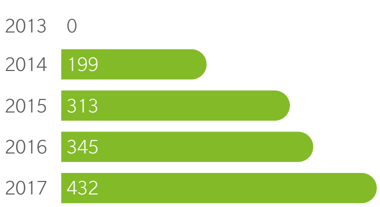
Source: Euromoney FX survey

10% share of the spot/forward market gained in three years by XTX, making it the second-largest player by share in 2018

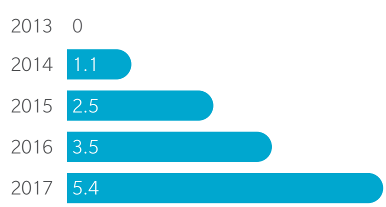
NEW P&C OFFERINGS

GROWTH OF ZHONGAN, FIRST ONLINE-ONLY INSURER IN CHINA

NUMBER OF CLIENTS
MILLIONS



NUMBER OF POLICIES SOLD
BILLIONS

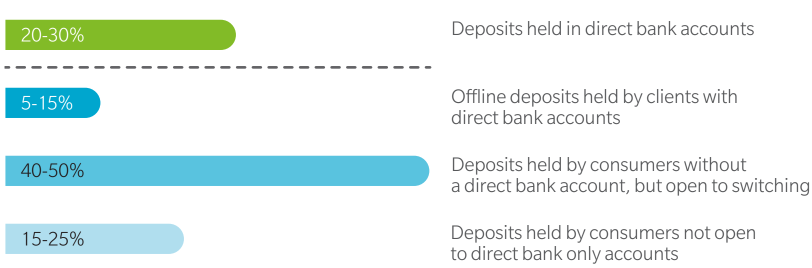


Source: Oliver Wyman Analysis; Press Releases

432 million customers gained over four years by China's first online-only insurer ZhongAn

US DIRECT BANKS

OPENNESS TO DIRECT BANKS
% OF TOTAL HOUSEHOLD DEPOSITS (MONEY MARKET/SAVINGS EXCLUDING UHNW)



Source: Oliver Wyman Rising Rate Survey

20% of US customer deposits in direct bank accounts

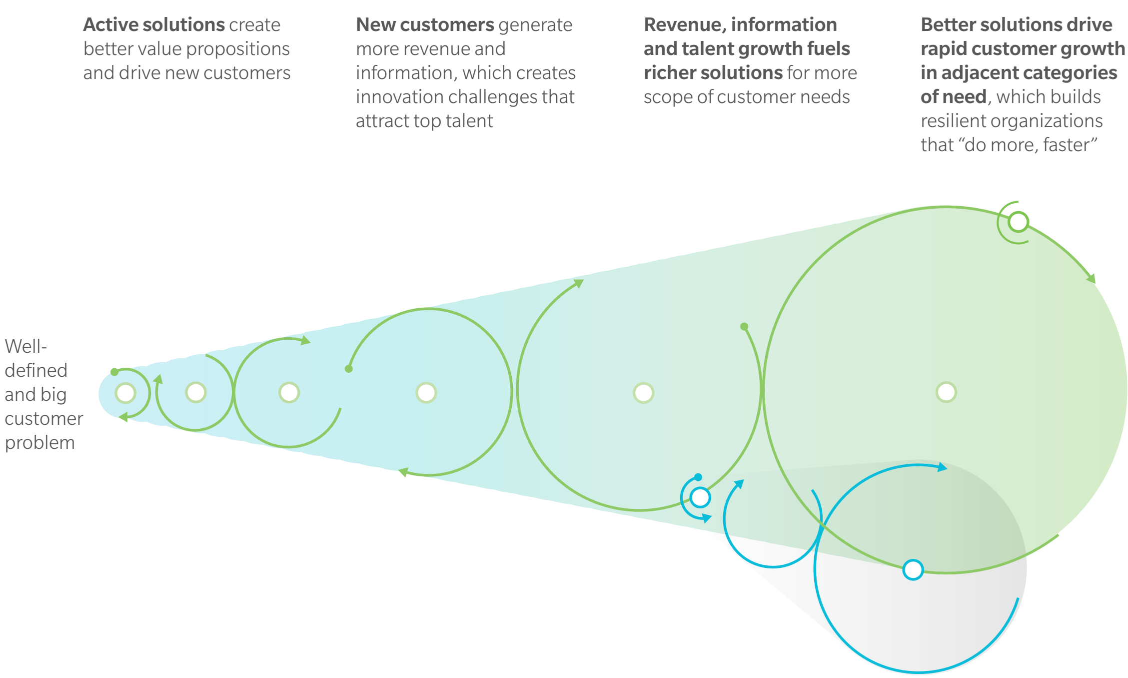
Another **50%** with the potential to switch

More interesting are the possibilities these new businesses point toward for existing firms.

First, time to market and build costs have decreased dramatically thanks to advances in cloud-based services and technology. Second, starting with a blank slate, it is possible to create businesses that are digital by design and have significantly lower run costs. Third, new business models and data-driven approaches are winning over customers.

These businesses have "flywheel momentum". They are collecting and combining data in ways that enable increasingly value-added services for customers. The data gathered from initial offerings is used to understand the customer better and create new solutions, which brings in more data. Features are launched and tested with customers rapidly. Eventually, it is difficult for competitors to even catch-up.

EXHIBIT 2: HOW FLYWHEEL MOMENTUM IS GENERATED



Source: Oliver Wyman Analysis

Imagine if you could combine what is possible in a new build with the business model advantages of an existing firm.

We call this approach greenfield.

Greenfield is a method for existing firms to build new businesses. A project starts with a specific customer need, often identified from existing customer data, in an area that is already strategically important, or to kick-start expansion. It needs to develop compelling customer solutions and evolve them quickly, using the flywheel effect.

A venture approach is taken, with investment stage-gated. The venture has freedom to operate from the rest of the organization and to deploy new technology.

A greenfield build is forced to meet the needs of surrounding stakeholders – risk management, compliance, regulators – and is not a theoretical innovation project.

Existing firms are starting to see the potential in starting from new:

- RBS Group has stood up a greenfield banking offering to support customers with personal financial management, built on a new technology stack in 12 months (see case study on page 13).
- National Australia Bank (NAB) launched QuickBiz, a fully digital unsecured lending solution. It has become a core channel for small business lending and expanded to overdrafts, equipment finance, and corporate credit cards.
- Goldman Sachs has launched Marcus in the US and Europe, allowing it to enter consumer banking.
- German insurer ERGO built Nexible as a challenger proposition to its existing auto-insurance business. Nexible has a fully digital application, management, claim, and renewal journey.

EXHIBIT 3: INTRODUCING GREENFIELD

EXISTING FIRM	DIGITAL CHALLENGER	GREENFIELD BUSINESS
Established brand	Agile and innovative	Best-of-breed technology
Customer base	Customer centric	Customer centricity
Funding	Low-cost base	Freedom to operate
Existing data	Cloud-based	Venture discipline
Perceived safety	Next generation system	
Regulatory approval	API driven	
	Micro services	

Source: Oliver Wyman Analysis

EXHIBIT 4: THE OLD VS. THE NEW

GROUP OF EXISTING BANKS		GROUP OF DIGITAL CHALLENGERS
~$150	AVERAGE COST TO ACQUIRE NEW CURRENT ACCOUNT CUSTOMERS	~$30
3	DAYS FROM APPLICATION TO CURRENT ACCOUNT FUNCTIONALITY BEING ACCESSIBLE	0
3-6 months	TIME TO LAUNCH A NEW FEATURE	2 weeks
<1,000	RETAIL BANKING CUSTOMERS PER FTE	>2,500
25%	EMPLOYEES RATING THEIR COMPANY AS A 5 STAR EMPLOYER	68%

Source: Oliver Wyman Analysis; Press Releases

2. HOW THE NEW CAN TRANSFORM THE OLD

Financial services firms are operating in a tough environment. Growth is hard to come by in developed markets, and costs are constantly being squeezed to maintain earnings.

New capabilities and approaches are required to grow businesses in the digital economy, with a differentiated management approach.

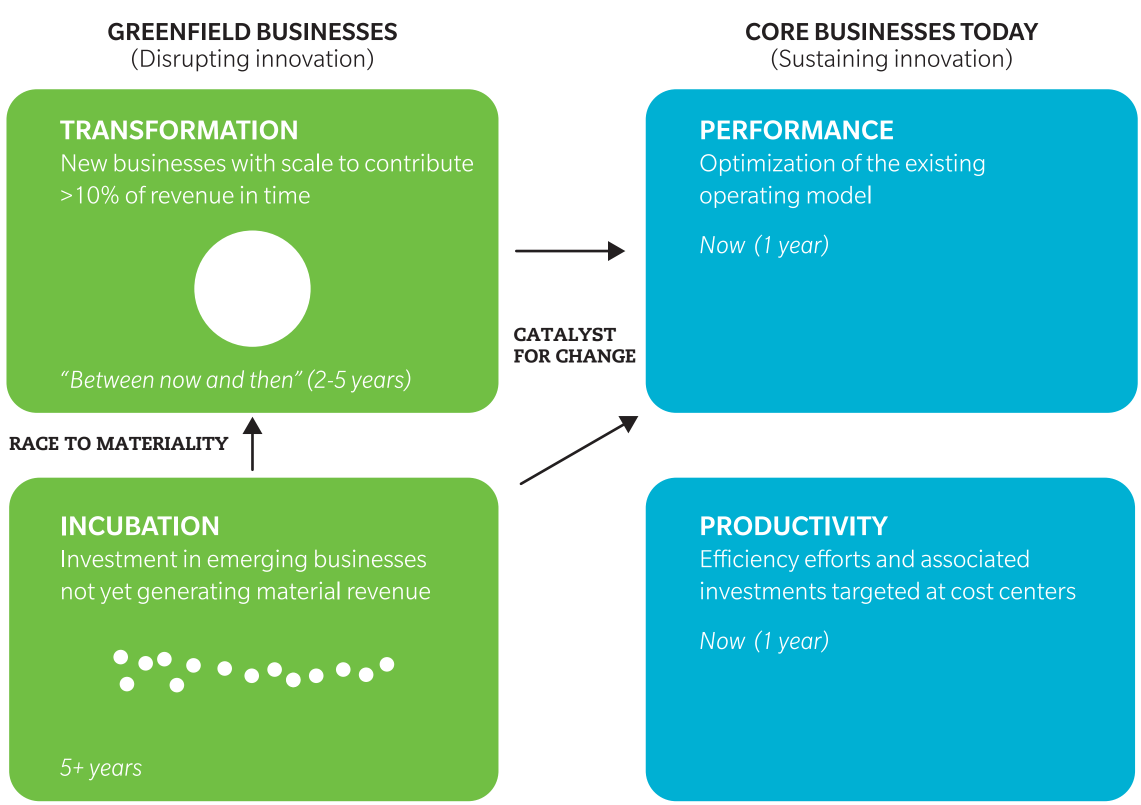
Incubation of a portfolio of investments is needed – with ruthless prioritization and a structured probe-learn-pilot approach. Efforts today in innovation can provide the impression of activity, but lack discipline, access to customers or top-down backing.

The one or at most two initiatives that stand a chance of really scaling-up – generating over 10 percent of the firm's revenue – should then become a major focus of the organization.

At the same time the performance and productivity of the core business needs to be optimized. Those businesses which are no longer going to drive growth, no matter how profitable today, need to be identified so resources can be freed up.

It is important for shareholders to see how the portfolio of investments aligns with the company strategy, both in terms of growth or addressing disruption threats. The return on each investment will be uncertain, but the funding required is stage-gated. The governance model is no longer about big multiyear budgets with fixed, micro-detailed deliverables. Investment funds are allocated with the scope to scale up the most promising ideas.

EXHIBIT 5: THE FOUR ZONE MODEL – ORGANIZING AND MANAGING FOR DISRUPTION



Source: Geoffrey A. Moore, "Zone to Win,' and Oliver Wyman collaboration

A CATALYST FOR CHANGE

Greenfield businesses accelerate change in the parent organization.

The institution's conventional wisdom gets heavily challenged during a greenfield build, something that is not always comfortable. A cadre of managers is developed with experience of building businesses not just experimenting with new technologies. Customer offerings, new business models, ways of working, and technology architecture all need to be delivered on time and to budget.

As it expands, the new, leaner operating model and data capabilities can be increasingly leveraged across the whole business.

A greenfield business improves access to external innovation. Partnerships can be established quickly, with the attraction of a real customer base, and offerings or services integrated into an open integration layer fast. This real-world testing can help prioritize what works, and surface challenges that will be faced integrating an offering into the core.

EXHIBIT 6: GREENFIELD AS A CATALYST FOR CHANGE

	AS A DISCRETE UNIT	AS A TRANSFORMATION CATALYST	AS THE FUTURE TARGET STATE
Customer	A discrete proposition that serves an identified customer need	A live platform to experiment with new innovations and generate customer feedback in an unconstrained environment	A new organization that is driven by customer needs and that can rapidly deploy changes to meet changing customer requirements
Culture	A new team which is flexible, is customer centric, can experiment, and drives delivery at pace	Proven methodologies and ways of working that can be adopted by the group	A talent magnet attracting the workforce for the future, with capabilities across technology, data science, human insights, design
Data	A streamlined, customer-centric data model designed to generate customer insight and power automated processes	Elements of the data model and insights imported back into the main business	An industrialized big data environment, which is central to driving value in the main business
Technology	A clean, modular technology architecture that is lean and resilient, a means to experiment with external providers	Discipline and best practices made a requirement for the main business where it seeks to be a service provider to the new business	A full technology architecture that can deliver an increasing range of services to the main business

Source: Oliver Wyman Analysis

GREENFIELD MIGRATION – LESSONS FROM THE POWER INDUSTRY

Enercity, a large energy provider in Germany, has worked with Oliver Wyman to launch an entirely new greenfield business.

The platform, which went live after eight months, followed the same principles now being employed in greenfield financial services projects.

It was relentlessly customer centric, providing a digital front-end solution that allows for tailored customer journeys and eliminates manual pain points in current offline solutions.

The platform was lower cost by design, offering a level of automation not achievable with legacy systems, such as integration of regulatory processes and painless sign-up procedures, as well as segment-specific messaging through digital marketing.

The platform also allowed for rapid innovation; Enercity replaced legacy systems including a commodity-data model with a generic modular platform that allows for extension of services and integration of microservices.

In the end, Enercity was able to build a highly customized business, with lower acquisition costs and churn rates, and increased customer value over the life of the relationship.

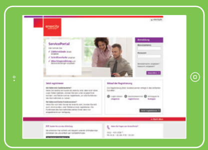
Next up: transitioning existing customers to the new platform. A large number of existing contracts are being recreated on the new platform via an extraction layer. Customers will then be transitioned to the new platform, allowing the wind-down of legacy systems.

EXHIBIT 7: GREENFIELD IN ENERGY

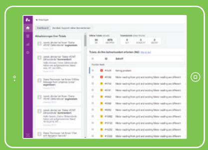
FRONT-END

LANDING PAGE

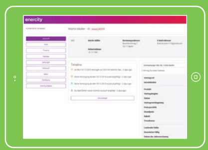
CUSTOMER PORTAL



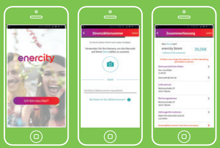
TICKETING SYSTEM



AGENT PORTAL

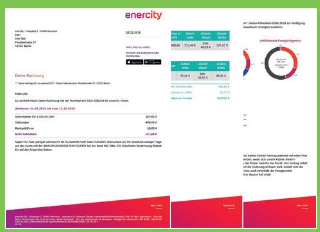


SIGN UP JOURNEY



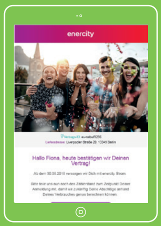
ENERGY MARKET PROCESSES

BILLING



CUSTOMER MANAGEMENT

CONTRACT CONFIRMATION



EXTERNAL SERVICES

PRICING

Source: Oliver Wyman Analysis

A FUTURE END-STATE?

Most firms share an ambition to move towards a modern technology architecture composed of an open platform on which channels and services can be easily configured. This approach uses open and standard mechanisms, allowing components to be flexibly sourced and changed, with the risks bounded.

This target architecture goes far beyond UI/UX improvements. It is fundamentally different from the current architecture of most financial services companies.

A greenfield business will be built on these target principles and provides new options for the core business in making the transition.

Customers will have the opportunity to switch to the greenfield business where services are comparable, particularly for products with frequent renewal cycles. Customers could also be incentivized to move.

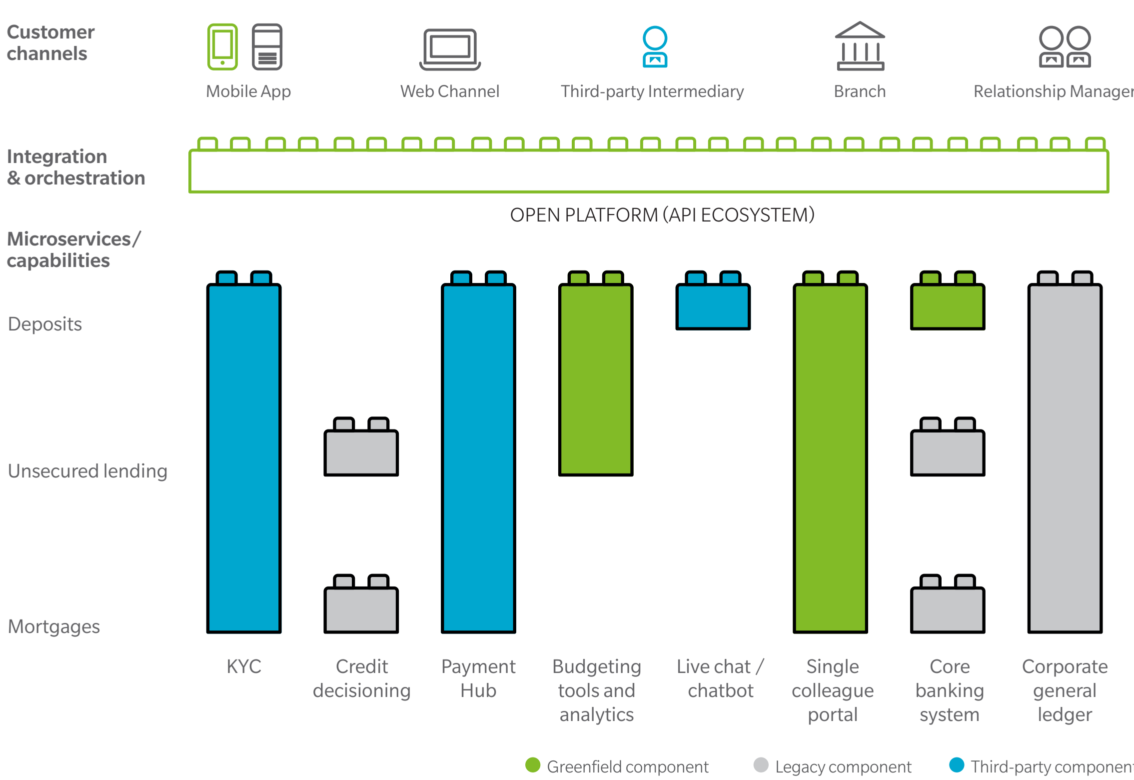
In the meantime, the legacy business will be moving towards a set of re-imagined, componentized, and self-contained services.

The open platform built by the greenfield business could act as an integration point for this legacy functionality and customer data, enabling it to service more and more customers' needs.

In a migration, reaching a fully equivalent functionality and mapping data remains a challenge. If some heritage capabilities cannot be cost-effectively transferred, a legacy platform may remain and need to be managed down. Otherwise a reduction in customer functionality may be needed to enable cost savings.

Migration onto a new, greenfield platform may require different channels or additional brands to be managed. The major advantage compared to a tech-led migration is that the greenfield platform has been tested end-to-end by new customers first, and therefore the transition risk has been reduced.

EXHIBIT 8: ILLUSTRATIVE FUTURE STATE FOR A BANK



Source: Oliver Wyman Client Project

3. THE GREENFIELD APPROACH

A greenfield business is an attempt to break free from the constraints imposed by existing systems, business models, and talent models. It is an attempt to start again.

There are critical tests across customer centricity, culture and governance, data, and technology that can highlight if an initiative is truly a greenfield build or if it is part of a more incremental digital rollout.

Experience has shown that by following a greenfield approach it is possible to build a digital banking or insurance platform that is open to customers in just 12 months, at materially lower cost than in the past. Additional features and services can then be easily bolted on over time.

Based on this approach some of the new wave of startups has been able to go to market with rudimentary banking and insurance propositions for less than $5 million. This might not account for large amounts of sweat equity, however.

Incumbent firms are going live with more robust banking and insurance offerings for between $10 million and $60 million. Whilst not a substitute, this is a small fraction of the spend on maintaining existing systems in major financial institutions.

EXHIBIT 9: GREENFIELD BUILD SUCCESS FACTORS

STARTING FROM THE CUSTOMER NEED

- Are customer needs the basis for developing value propositions?
- Is there a mandate to experiment, test, and learn with real customers?
- Is the flywheel effect activated?

DATA AND ANALYTICS AT THE CORE

- Does the data model enable customer insight, facilitate process automation, and drive value for the business?
- Are cutting edge analytics used to support a differentiated proposition?

DISTINCT CULTURE AND GOVERNANCE

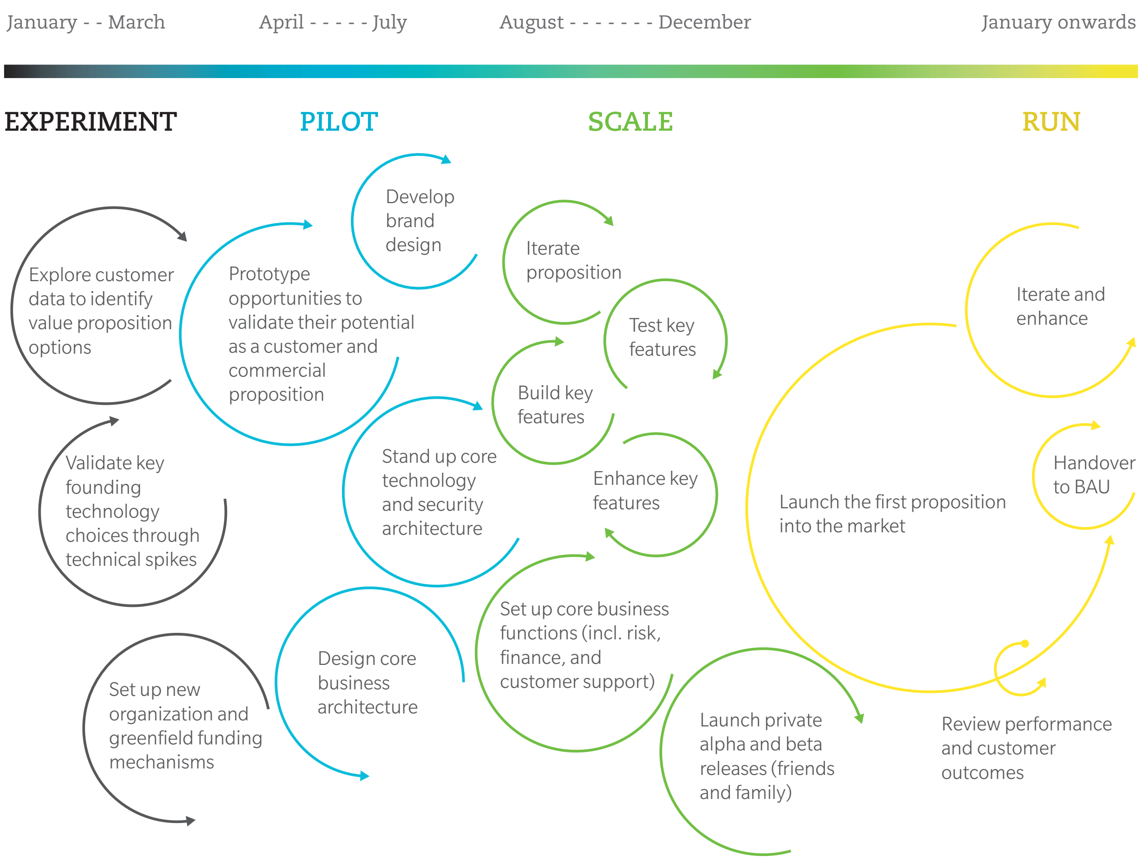
- Does the new organization promote a challenger culture, where experimentation is supported?
- Can decisions be made quickly?
- Is investment funding released based on the maturity of different initiatives and the extent to which demand is proven?

MODERN TECHNOLOGY

- Is the solution free from legacy system constraints?
- Is it being built so that it can be flexibly scaled up by using modular micro-services and APIs?

Source: Oliver Wyman Analysis

EXHIBIT 10: A YEAR IN THE LIFE OF A GREENFIELD BUILD



Source: Oliver Wyman Analysis

OLIVER WYMAN CLIENT CASE STUDY

An interview with Mark Bailie, former Group COO of Royal Bank of Scotland and current CEO of Bó

Many people in the UK have no savings. They are one misfortune away from being pushed into a debt problem from which they might struggle to return. A large proportion of consumers are either under- or over-insured.

Their financial struggles aren't being addressed by the existing financial system.

RBS concluded that its current attempts to digitize may not be enough, on their own, to address these needs. With the support of Oliver Wyman, RBS decided on taking a new path with a new offering, with a new brand, built on a new technology stack. Bó represents a new breed of financial institution – a greenfield digital bank owned by an existing incumbent.

Oliver Wyman: What started the journey that led to RBS building Bó?

Mark Bailie: When he became RBS CEO in 2014, Ross McEwan made clear we had to start putting the customer at the heart of everything we do, and become customer, rather than product, centric.

From that foundation, there have been two key enablers we've needed to help us build Bó; first, having our customer data in one place and really analyzing our customers' situations in depth. This has allowed us to see some of the issues our customers' face – and what could be done to help them.

The second enabler came from the growing potential to deliver technology and services at scale, and the rapid development of machine learning, AI, and cloud computing capacity.

When you put these together you see the potential for major changes, and opportunities. We can see a combination of customer need and the potential for highly personalized financial services.

What was the thinking behind taking a greenfield approach to the build?

We knew the kind of outcome we wanted would be a long and hard journey for an incumbent bank to deliver, with product-centric legacy infrastructure. So, for us, the question we discussed was, "how long have we got?"

If it's 10 years, you can probably transition the existing core into a truly customer-centric business, because you can do almost anything in 10 years if you're good and you can execute - and we still have a Plan A around this.

But if customers start accelerating their move toward new offerings, and you're not already operating in that market, then the downside risk is asymmetric. If you don't know the timing, and you can see the potential for a material impact, then you need to cover the risk, so long as the cost is sensible.

Greenfield lets you sidestep the challenge of legacy infrastructure and get to a truly customer-centric offering faster — it's the pragmatic solution. However, greenfield isn't a cost-free strategy. It creates other issues, which we've got to learn to manage: we will have two tech stacks, and two brands. That has taken a lot of thinking through, and in the end you have to make your choice.

How did you reach the decision to build Bó?

We didn't wake up one morning and decide, "let's build a new greenfield bank," or, "we're going to spend X, go away and come back when it's done." This was done in measured but quick, incremental steps.

We took a very small amount of money and gave ourselves three months to see if we could put together a proof of concept, using enough of the components, and make it work. Having done that, we went to the next step, to see if we could make it work in a real-time environment with live connection to payment rails. Once we got there in the time period we'd set, the next step was to put it into a production environment, and then into beta.

How much did the threat of new challenger banks motivate Bó?

So far, we don't think anyone is managing to deliver truly customer-centric financial services, and no-one's yet proven that you can disintermediate the existing banks. This has led to a relatively common response: "The challengers are never going to make any money, their business model is unsustainable."

I think that misses the point; it's still a very young sector. Customers are using the new services and capital markets are funding them. The product isn't perfect, but some customers clearly like it, which is why you can see the adoption levels increasing. Although what they're doing today isn't yet the full answer, these business models will evolve and develop over the next five years.

Greenfield lets you sidestep the challenge of legacy infrastructure and get to a truly customer-centric offering faster

What customer needs is Bó focused on?
RBS is a large bank, with just under 20 percent of the current account market in the UK. We serve everybody and are able to put together quite a detailed view of how people deal with their finances.

We know that 40 percent of working-age adults in the UK – that's just under 17 million people – have less than 100 pounds of savings. That's not just down to incomes – relationships with, and understanding of, money are also factors. So, we see a clear need for services that can help those millions of people to manage their money better, but crucially, delivered in a way they are willing to engage with.

What is the secret to building a new digital bank within a large existing bank?
For me, there are three things we have found to be most important.

Number one is having full support from the chief executive and the chairman. Unless the CEO is driving the vision, there's no point in starting, and the board needs to be willing to back the CEO. If these elements hadn't been in place, we wouldn't have started.

The second is, you have to separate it out from the core business, but still ensure the new business has Exco-level sponsorship.

The third thing, when you are a large existing bank, is that you have to build it within your existing risk appetite framework, and it must be aligned with your existing policies. You have to build these things so they can co-exist together in the long term.

How did you create the team that delivered Bó?
We started with a core group of internal people who understood the organization, and have influence, because we were going to need favors. However, the bank's wider priority remained the transformation of the core business, so we had access to relatively few of our best people.

Initially we drew heavily on external support – Oliver Wyman – to scale up technical and business management resource, especially through the early stages.

Finding people able to work in a fluid environment is hard. This became easier once we moved to launch and there was something real to point to.

How did the core bank support Bó throughout the build?
Bó is separate but still highly connected, particularly through Simon, Les, and David who run our technology, retail banking and marketing operations respectively. They are hugely important not only because of the resources they have at their fingertips, but also because they've been running large banking operations for years and have seen most of the problems before. We're not a startup, and the worst thing we could possibly do is leave behind all the advantages of incumbency.

How will Bó be positioned in relation to the RBS and NatWest portfolio?
They are all entirely separate brands. They have very distinct customer propositions. We aren't blurring the lines between them; indeed, we think they're complementary to each other. We're not sure the new challenger banks are here to replace existing banks. We think these propositions are here to complement, enhance, and embed what existing banks do.

Bó is not a product engine — it's there to genuinely get to customer need, to add richness and depth of service to existing and new customers' relationships.

How does Bó impact on group profitability?
Bó is forecast to generate attractive standalone returns. The core challenge is maintaining customer engagement in a world where the big tech firms are building powerful customer relationships, there are lots of competitors emerging, the barriers to entry are falling, and technology is ever more flexible and powerful.

Can learnings generated in Bó be taken back to RBS?
Yes, it is already happening. In a number of cases, both the core bank and Bó have selected the same suppliers for certain functions, such as for fraud monitoring. We've then been able to deploy them first in Bó's cloud-based environment, where it is faster and easier to do, and we can then decide how best to deploy them into the core environment of the main bank.

So could greenfield be a way to transform the core?
It might be. Nearly all banks have old mainframe systems. It isn't a commonly accepted view, but they are very good at what they do. They're very stable, they're very secure and they are a great system of record.

Greenfield is, perhaps, a route to extracting workloads that aren't suited to the mainframe environment, which in turn allows you to simplify the core infrastructure to make it cost effective.

This might be an alternative to what numerous banks have considered, and declined: core replacement, something a minority of banks globally have opted to do this and even fewer have delivered it on-time or on-budget.

One last question – what would your dream be for Bó in 10 years' time?
I would like to say that we helped a material number of UK adults start living more financially sustainable lives.

Thank you for your time Mark.
Thank you for all your support over the past year.

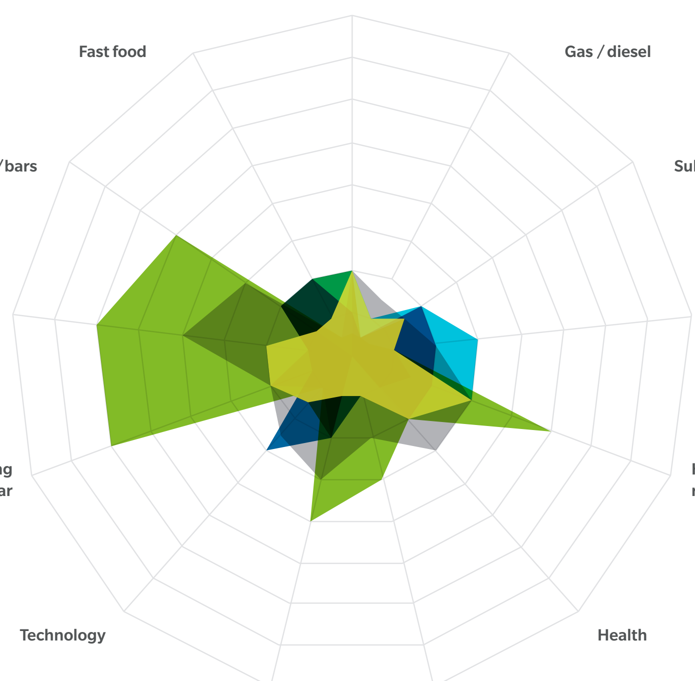
GREENFIELD SUCCESS FACTOR 1 – STARTING FROM THE CUSTOMER NEED

With a "blank sheet of paper," greenfield businesses are forced to think deeply about customer needs to attract business with economic acquisition costs. Customer feedback is vital, gathered early and via frequent customer engagement.

Freed from the volume and service expectations of the core business, and legacy technology constraints, the greenfield business can launch more innovative and frequent offerings.

By contrast, established financial services firms inevitably have entrenched existing product lines. Despite the acknowledged importance of customer centricity, it has proven difficult for product verticals to think of the customer outside of the context of their product or for horizontal innovation teams to drive customer outcomes across the competing demands of different product lines.

EXHIBIT 11: ILLUSTRATIVE CUSTOMER DATA ANALYSIS USED TO UNDERPIN A GREENFIELD PROPOSITION



SOCIALITE (SIZE: 5%)
Spending profile: Above average on most categories with spikes across clothing, vacations, and restaurants/bars
Demographic profile: Predominantly female and in 20s-30s, higher spending on luxury items, city-based

PROFESSIONAL (SIZE: 15%)
Spending profile: Above average on most categories, spikes in holidays, restaurants, and entertainment
Demographic profile: Tend to be older, higher concentration of professionals/home owners, high savings, high income

SENSIBLE SPENDER (SIZE: 15%)
Spending profile: Below average on most categories with a bias towards home
Demographic profile: Higher income, average savings, primarily parents, low spending on luxury items and eating out, higher concentration of mortgages

COLLEGE STUDENT (SIZE: 20%)
Spending profile: Below average on all categories, spending primarily on necessities, save a small spike in restaurants/bars
Demographic profile: Young, low savings and often in debt, spending concentrated to term-time, primarily spend on food/drink

TECH-SAVVY MILLENNIAL (SIZE: 20%)
Spending profile: Bias towards technology, restaurants and entertainment, lower than average across home and household goods
Demographic profile: Younger, average savings, tend to spend more on entertainment, eating out, and gadgets, higher use of mobile banking

AVERAGE SPENDER (SIZE: 25%)
Spending profile: Average across most spending categories
Demographic profile: Low savings, tend to have an average income, 60% with a family, low use of mobile banking

Source: Oliver Wyman Illustrative Output

GREENFIELD SUCCESS FACTOR 2 – DATA AND ANALYTICS AT THE CORE

Much of the value in greenfield comes from combining data assets of the existing business with improved data management and analytics capabilities in the new business.

In a legacy environment, it is extremely challenging to structure the data model to deliver the same level of insight. The range of different systems used, often overlaid by a history of inorganic acquisitions, has introduced different, inconsistent data sources into the organization, resulting in a patchwork data model that cannot be industrialized.

GREENFIELD SUCCESS FACTOR 3 – DISTINCT CULTURE AND GOVERNANCE

A greenfield project should have venture discipline. The starting point is not a request for large amounts of funding to build the "answer." The initial ask would be to work intensively on customer data to identify opportunities, make the unknown better known, and earn the right for the next level of funding. As the customer need and proposition is built out and proven, subsequent funding releases are made.

In delivery, the greenfield business then needs freedom to operate and to make decisions quickly, with the support of the entire senior executive team to deliver resources and unblock barriers. The leader of the business should have credibility and clout within the organization, often a senior leader with a proven track record. This provides legitimacy and the experience to balance inevitable conflicts.

Rapid delivery is provided by cross-functional teams, or pods, with end-to-end accountability for the design, build, and testing of features or systems. The pod structure minimizes dependencies, enables faster delivery, and limits the "blast radius" of failure. Each team needs support from a range of disciplines – business, design, technology, testing, and data science. Subject matter expertise needs to be accessible, on data privacy, risk management, and so on.

The working style is more akin to a tech giant or startup, creating a different employee proposition and attracting different talent. As a stand-alone business with its own customers and business model, the culture is also more pragmatic than internal innovation labs.

GREENFIELD SUCCESS FACTOR 4 – DEPLOYING MODERN TECHNOLOGY

Greenfield should deliver a technology platform that is scalable, has a variable cost base, enables fully digital experiences, provides flexibility to swap components out, and can be iterated to meet the needs of both customers and the business users.

This will typically be assembled from modular microservices that are integrated with APIs. These technologies are cloud-based, scalable, and generally offered as software-as-a-service (an example of this for a greenfield bank is shown below).

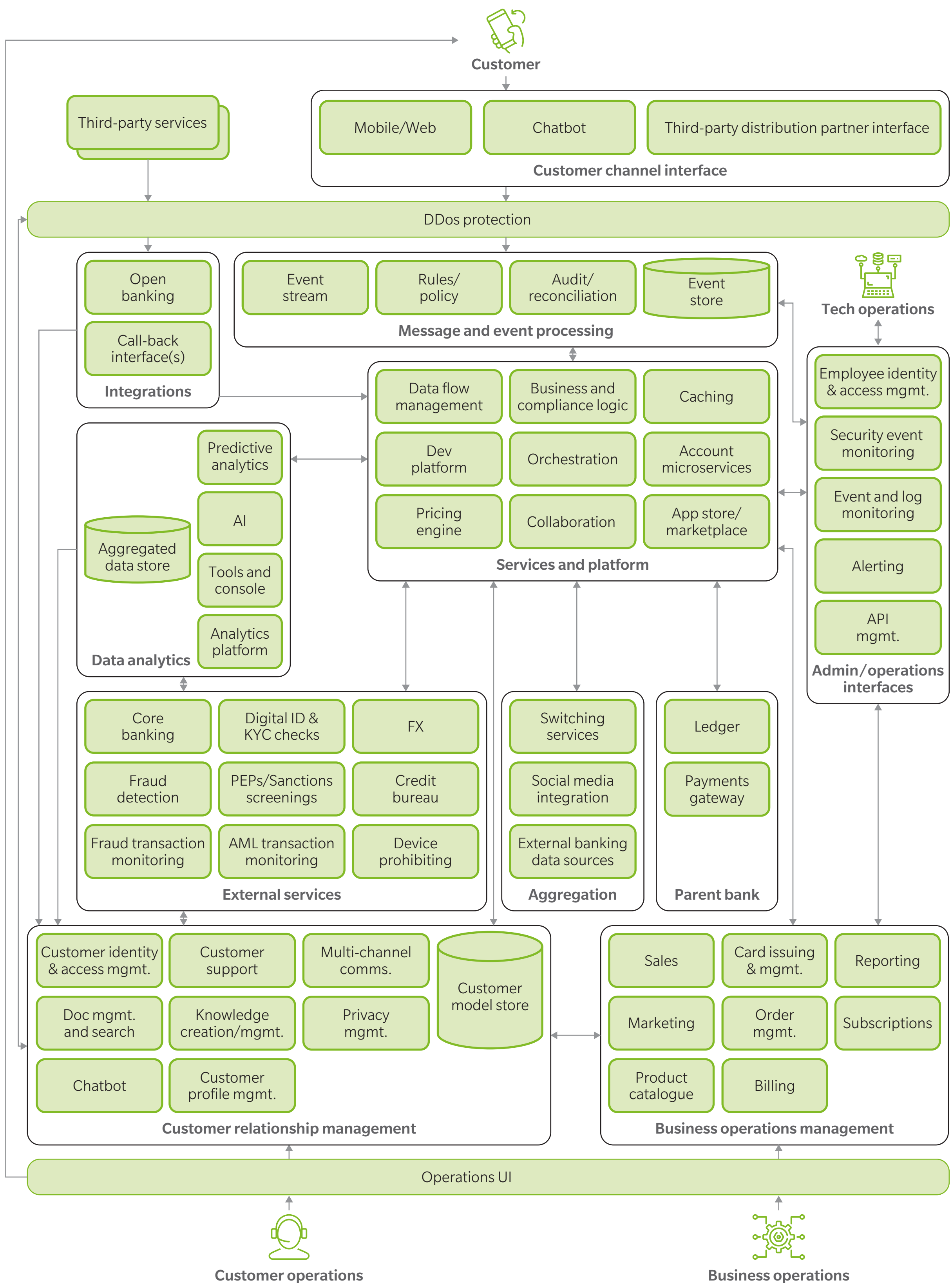
Starting with a new platform enables infrastructure and security by design, increasing operational resilience and reducing vulnerability to cyberattacks. New technology platforms remove the single-point-of-failure risk of old corporate firewalls which, when breached, allow access across the platform.

A modern, microservice architecture is walled off, with security controls between each component. As a result, the impact of a breach is localized.

A single portal can be developed to consolidate workflow, tools, and data. This enables greater efficiency and cross functional working, unlocking the talent in the workforce.

In comparison, when innovations are built on top of legacy systems, complexity escalates, there is reliance on niche skills, and release cycles are limited. While abstraction layers can help, the lead time from a promising proof of concept to a production version in the hands of real customers will still be longer than with a fresh approach.

EXHIBIT 12: A TYPICAL GREENFIELD BANK LOGICAL ARCHITECTURE



Source: Oliver Wyman Analysis

4. FLYWHEEL MOMENTUM

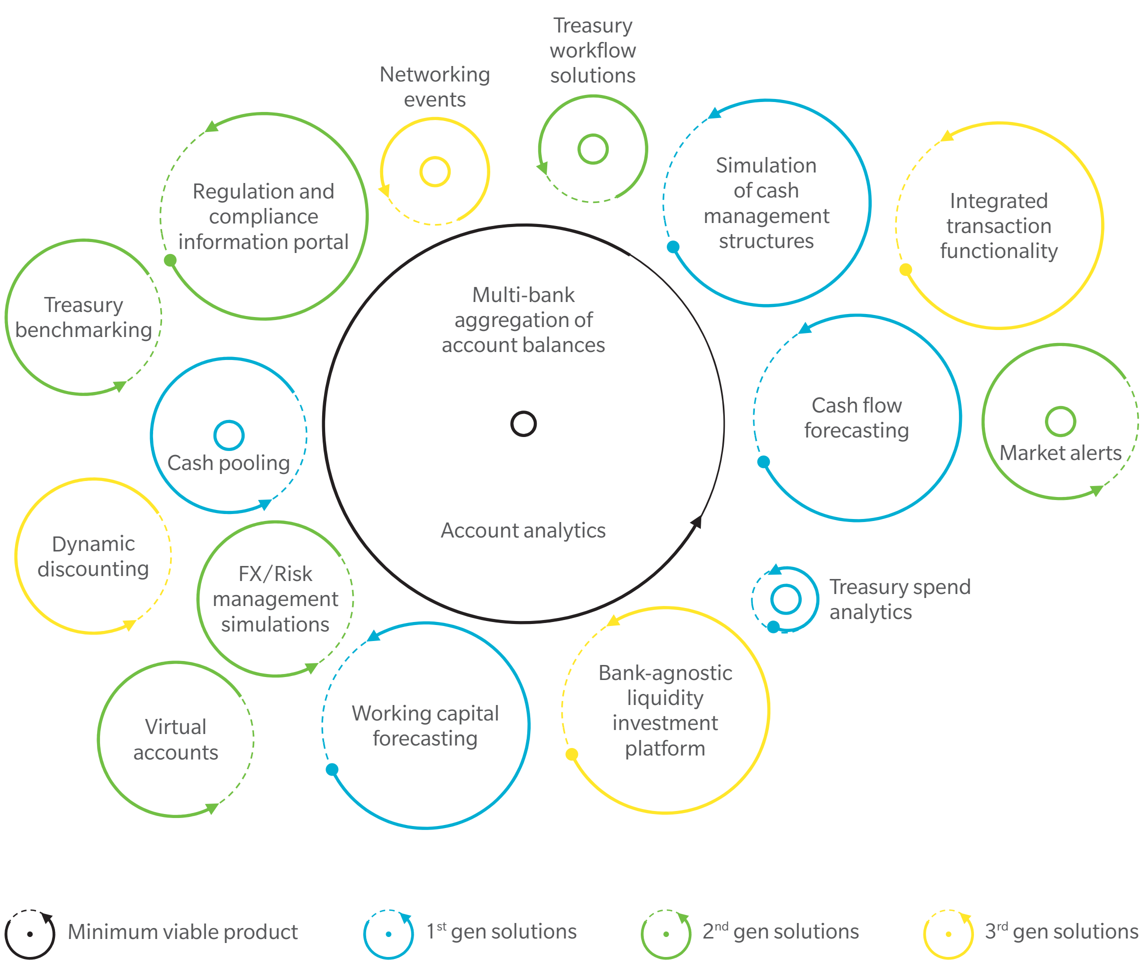
Rich seams exist across all of financial services from which new solutions can be developed and grown into greenfield businesses.

The starting point needs to be an unmet customer need or a radically lower cost approach. Initial solutions are used to create engagement, build momentum and grow – the flywheel effect described earlier.

We list below a sample of value opportunities suited to greenfield in each customer segment. Particularly in Asia, new growth is being driven by the integration of financial services into digital platforms, creating brand new types of product.

Greenfield also provides the potential to create solutions that combine different aspects of traditionally siloed services.

EXHIBIT 13: FLYWHEEL MOMENTUM IN CORPORATE BANKING



Source: Oliver Wyman Analysis

MASS MARKET INDIVIDUALS:

- Life map. Delivering highly personalized and dynamic financial guidance that is predictive and responsive to changes in the customers' circumstances.

- Integrated insurance. Allowing consumers to configure coverage, for instance, life, medical, and disability features on their terms. This requires new approaches that are extremely complex to deliver via legacy product and IT silos.

- Retirement planning. The mass market struggles to access advice around retirement planning. Expanding robo-advice offerings could be part of the solution, but currently still only address a narrow subset of customers' retirement needs. Solutions to de-accumulation are also needed.

- Personal insurance lines. The Internet of Things (IoT) has long promised to support entirely new types of insurance, including in home and contents. The processing bandwidth, speed and integration into technology ecosystems typically cannot be supported by legacy platforms, and a far lower cost base will be needed.

MASS AFFLUENT / HIGH-NET-WORTH INDIVIDUALS

- Wealth Management. The upper mass affluent/ lower HNW segment is set to see massive growth, particularly in Asia, but existing cost structures of traditional wealth management make it impossible for global firms to compete effectively despite their powerful brands. A new model to deliver access to managed assets with cross-jurisdiction offerings is needed.

SMALL AND MEDIUM-SIZED ENTERPRISES

- Small business services and tools. This is a client segment often caught between banks' retail and full-blown corporate offerings. Compelling tools for cashflow forecasting, invoicing, and payments remain a gap in many markets.

- SME trade credit insurance. The cost and hassle of accessing credit insurance often outweighs the perceived value. Tech-driven plug-in solutions at the point of invoicing can allow insurance to be bought as needed with a single click.

CORPORATE AND INSTITUTIONAL ENTERPRISES

- Corporate treasury solutions. Helping to reduce working capital requirements and processing costs for corporate treasurers with analytics-led propositions. Several non-traditional competitors, as well as incumbents, are developing greenfield solutions in this space with differing levels of urgency.

- Flow trading. The non-bank liquidity providers such as XTX, GTS, Citadel, and Virtu, have shown what is possible in FX, cash, equities and government bond trading. With a modern tech stack, clean data model, and leading-edge analytics, it is possible to be much leaner and more agile, and deliver pricing and liquidity that competes with the very largest banks.

- Climate risk management. A customer centric approach may now be possible to help companies and investors understand better both the price risks on raw materials and also climate and sustainability risks, relying on advanced analytics and external data. It can help manage those risks on an agency basis into accessible liquidity pools.

- Streamlined asset management. Fee pressure on funds is set to intensify, with the need for operating models that can deliver passive and active funds for a fraction of current costs. While third-party systems and services are becoming widespread, no one has linked together the best available front-end, risk management, and fund administration tools onto a single platform that can hold data efficiently with built-in compliance to new regulations.

EXHIBIT 14: GREENFIELD DRIVER HEATMAP

SECTOR	CUSTOMER How large is the opportunity to meet customer needs in a different way?	COMPETITION Are economics coming under strain because of new challengers, incumbent expansion and wider shifts in demand?	COSTS Can services be delivered at a substantially lower cost by designing from scratch?	TECHNOLOGY Are API enabled core platforms and microservices readily available to be leveraged?
Retail Banking	• Large percentage of the population need help in financial management • Opportunity to serve sole traders, small business owners better • Vulnerable customer groups facing challenges accessing services	• Neo banks in select markets • Regulators more disposed to new license applications • Incumbents investing heavily in digital functionality • Fintechs with specific service offerings, especially in payments	• Legacy costs of branch, ATM networks despite optimization • Limitations on process automation, pushing customers to self-service due to legacy systems • Widespread instances of customer groups cross-subsidizing others	• New cloud-based core banking platforms • Modern, API-enabled microservices across the customer lifecycle (onboarding, fraud prevention, payments hubs, front-end)
Corporate Banking	• Corporates looking to optimize their treasury processes and working capital • High all-in cost of cross-border activity • Emerging needs from changes to corporates' own business models	• Aggregators providing access to multiple providers, e.g. in FX • Potential for commerce platforms to integrate banking services • Market entry of traditional broker dealers • Banks' integration into clients' systems a major barrier to entry	• Relationship management remains a major cost, but also a requirement to win broad mandates • Sprawling systems and processes supporting highly complex large corporate activity	• Scope to plug in fintech offerings – products, analytics • Core payment/transaction banking systems highly customized
Institutional Sales & Trading	• Flow products price rather than service driven, scope to help with trading of illiquid assets • Institutions looking for help managing data, post-trade lifecycle	• Nonbanks building a major presence in liquid products • Pressure growing on tier-2 from largest global banks • Other fintechs mostly focussed on enabling banks	• Sophistication, mergers, breadth of offerings driven massive back office complexity • Potential to combine balance sheet, risk capital from cheaper sources	• Volume and complexity of different product lines mean systems highly configured • Risk management, analytics systems are often still in-house and a source of advantage
Investment Banking	• Scope to streamline customer integration • Limited use of technology to better meet customer needs to date	• New entrants generally talent-driven carveouts and specialist boutiques • New, technology-led players generally aiming to support banks	• Cost base primarily the front office staff (sales and structurers) required to provide product • Scope to increase productivity via technology and workflow tools	• New platforms developed to support end-to-end issuance
P&C Insurance	• Estimated 50% of personal and small business risks go uninsured • Internet of Things and third-party data enabling new offerings, dynamic pricing • Customer-facing processes remain frustrating, particularly finding the right coverage and claims	• Aggregator platforms strongly positioned to disintermediate insurers • Direct insurers are proliferating in some markets (China, UK, Canada) • New entrants with new models providing on-demand and context-based pricing	• Data and analytics can be employed to automate and improve services and decision making across the value chain	• Influx of investment into InsureTech, with new core platform offerings and innovative services across the value chain
Life Insurance	• Opportunity to provide better retirement guidance • Large numbers of individuals with underfunded pensions • Few compelling at-retirement and deaccumulation options • Fewer touchpoints to offer an enhanced customer experience	• Limited success of digital challengers to date • Direct to customer propositions have not gained significant traction (services remain largely intermediated by agents/brokers and via workplace marketing)	• Large volume of aging policies supported by layers of high cost legacy platforms, complex processes and manual interventions	• Emerging solutions as in P&C • New extraction layers making a transition from legacy systems more manageable for the back-book
Wealth Management	• Lack of access to cost-effective advice for affluent segment and below • Need for transparency on various layers of fees and post-cost performance	• Fintechs gaining some traction in mass affluent with robo-advisory, scope for distributor/aggregator plays • Strong relationships and institutional trust helps protect (U)HNW customer base	• Cost control a lower priority historically • Constant upgrades to meet changing regulations leading to overly complex operating models	• Most services and infrastructure developed in-house
Asset Management	• Opportunity primarily in more cost effective offerings • Challenge accessing less liquid assets	• Ongoing creation of boutique alternative providers with passive offerings • Not a major focus area for fintech	• Widespread inefficiencies in data management, infrastructure, and expenses	• Third-party solutions available across execution, risk management, and fund admin, though generally plugged into legacy infrastructure

Low Medium High

Source: Oliver Wyman Analysis; Various Company Reports and Websites

5. GO BUILD!

To drive growth in today's environment, financial services firms need to be more ambitious, get onto the front foot, and build.

With the development process getting cheaper, and the potential to reuse components across the business, the downside is small and the potential exists for transformative effects across the business.

Most important is for senior management to believe in the endeavor, to give sufficient time, support and attention, and to pro-actively drive the benefits back into the core business.

REASONS TO GET STARTED

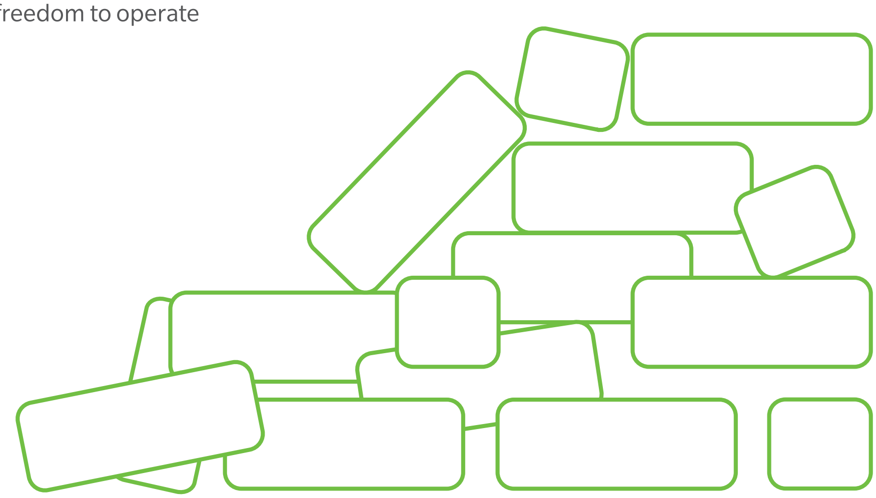
- Business lines struggling to generate new growth
- Disruptive threats going unaddressed
- Innovation efforts that are incremental or not linked to the business

WHERE TO BEGIN

- Specific unmet needs, analyzed via customer data and engagement
- Rapid development of an offering to create flywheel momentum
- A modular, scalable technology approach, with maximum use of vendors

WHAT YOU WILL NEED

- Full support of the Executive team, functions, and leading shareholders
- A senior executive to lead the charge, with a talented multi-disciplinary team
- Investment budget and a stage-gate approval process
- Willingness to grant freedom to operate



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