

Point of view

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empowering ideas

# Don't convert your bank to digital, start a new one.



Financial services today are like  
the Detroit car industry before the  
Japanese lean manufacturing revolution.



# Introduction

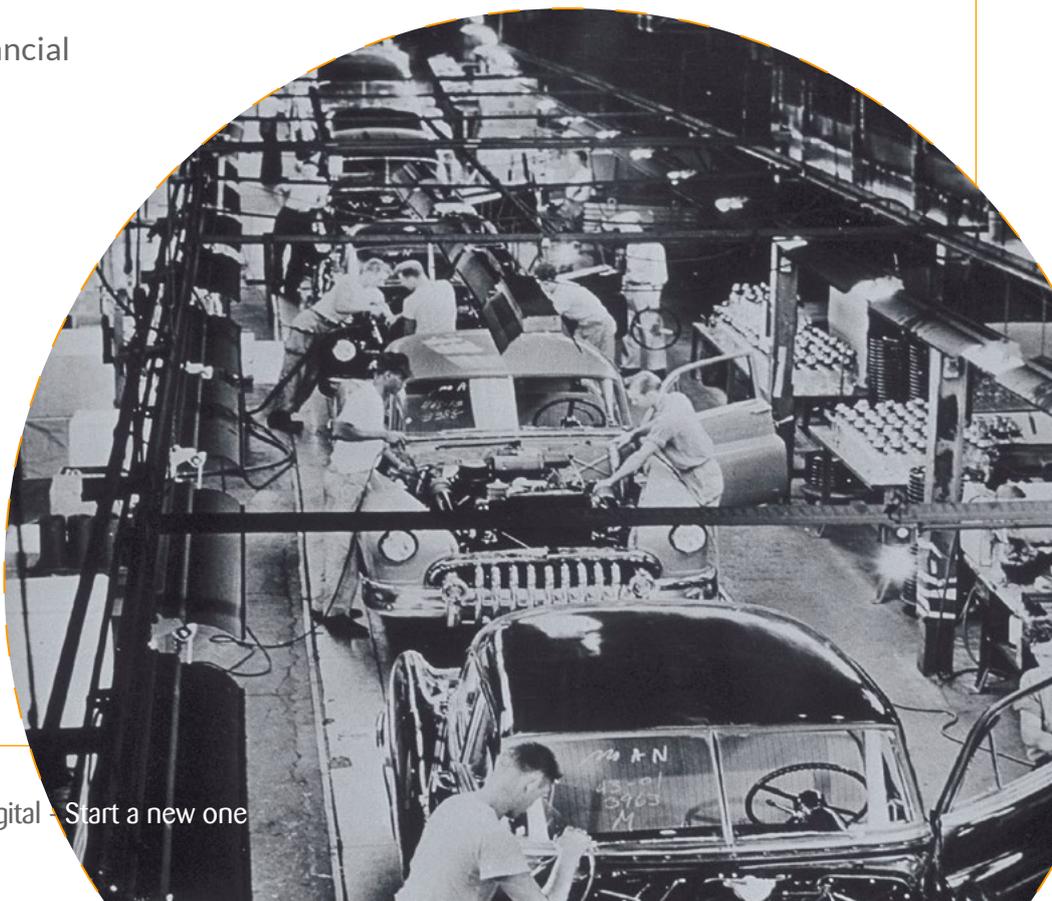
The least-worst path to turning an established bank into a digital leader is to start a new one.

Normally we recommend incremental organisational transitions, but that takes time and sustained effort over many years. Many banks have now missed that window and find that their core businesses are facing disruption from digital challengers that are using the Cloud to achieve transformational efficiencies.

## Point of view

Our clients and advisers are seeing that the most effective response to the Digital opportunity is to build the right kind of organisation separately, and then to transition business lines across - in effect, to start their own challenger. It's not easy, but the alternatives are worse. And one of the hardest parts is ensuring that the new entity is truly free from the constraints of the existing business.

From the outside, many financial institutions look like the US automotive industry just before it crashed in the 1970s. They built overpriced cars that substituted size and trim for quality.



# Introduction



## Point of view (cont'd)

Then the oil crisis hit, followed by “challenger” Japanese manufacturers - and the incumbents could not respond. Today, traditional banking is facing a world with negative interest rates and a fleet of efficient digital challengers.

Banking is now in the middle of a transition to digital that’s as radical as Lean Manufacturing was for automotive. Like Lean Manufacturing, the change is as much cultural as technological. And the Cloud that underpins this change is not just “someone else’s datacentre”, but a structurally different approach to the operating model of how a business services its customers.

This transition cannot be ignored - but your current organisation cannot get you there either, so you need to find a way through. And the way forward is to set up a new “sidecar” bank.



Rana Bhattacharya

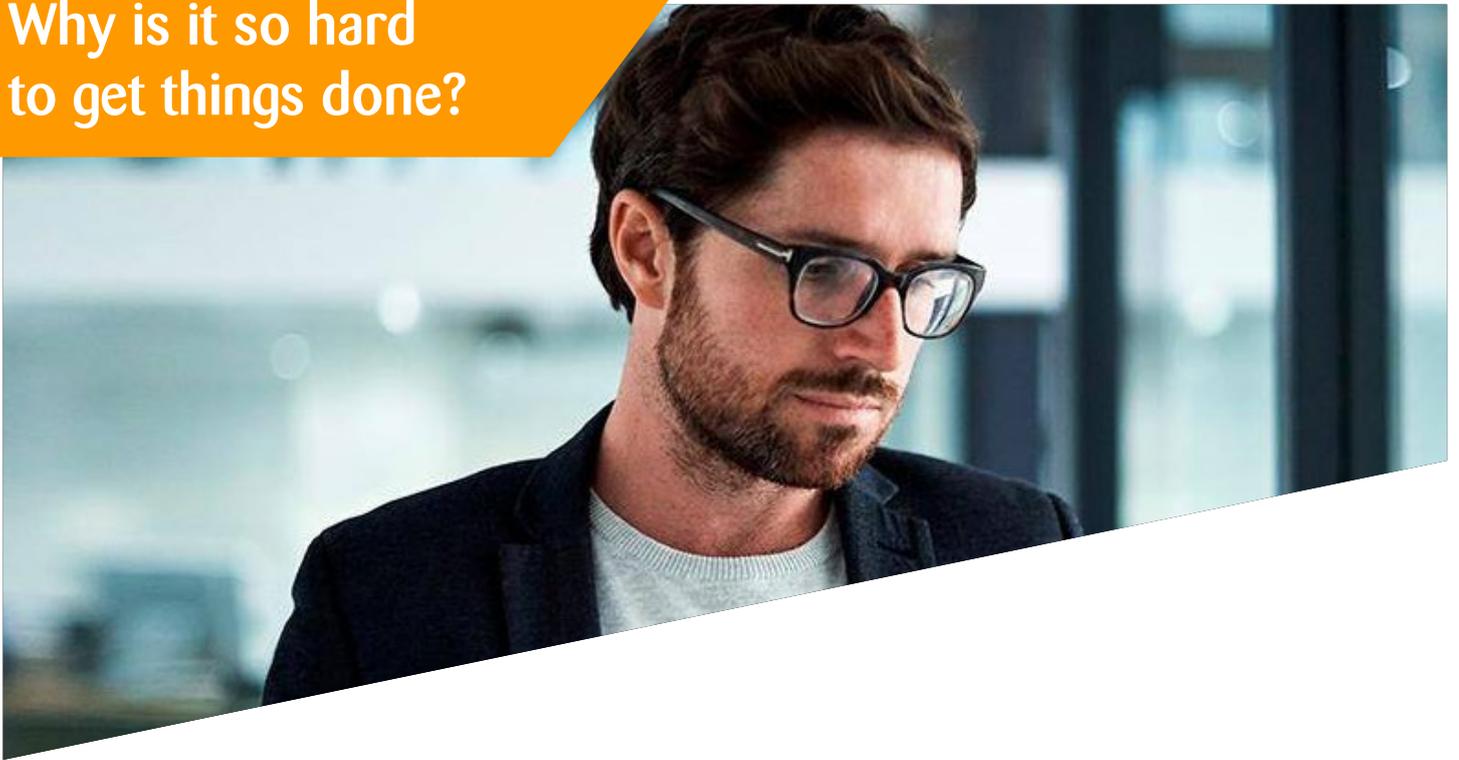
CTO, Atom bank



*At Atom bank, they reduced the lead-time for setting up a test environment from 42 weeks to 1 week; that kind of change transforms what a business can achieve.*



## Why is it so hard to get things done?



We know of an Engineering Director who tried to introduce Slack<sup>1</sup> into a large bank to help his distributed teams communicate better. He was summoned to a meeting with 12 people responsible for various aspects of risk, all of whom said “no”, even though not all of them knew what Slack was. These were not bad people, they were just doing their job - to avoid being the person who approved the component that let the hackers in. None of them was required to address the risk of losing revenue because the organization could not deliver functionality to customers.

<sup>1</sup> Slack is a popular chat system.  
There are good reasons for and against adopting it.

The executives in this institution, like their peers elsewhere, were frustrated with the performance of its IT. They wanted more features at lower cost; but their global organization required 46 signatures to sign off a system change from code-complete to live. In another project, this organisation had more people working on the presentation to the board than developing the software.

No one appeared to have a plan, apart from moving work to low-cost locations where, as an executive from another organization put it, “At least I don’t get what I want for less money.”



# Traditional organisations cannot respond to their customers



*A crisis is the end of an illusion.*<sup>2</sup>

The pandemic is testing our infrastructure to its limits. It has forced many companies to break their assumptions about how they need to operate, with significant rewards for the most effective – and significant losses for others. Above all, it has shown that the defining capability for success is responsiveness to change, at least for those not in a furloughed industry.

Unfortunately, as we saw in the opening example, institutions have, for historic reasons, created all the necessary procedures to ‘run the bank’. This has left banks today with huge technical and organizational barriers to being responsive: from both inflexible custom and packaged systems, to functional silos with conflicting targets.

This combination of technical and organisational barriers means that the customer’s needs often go unanswered.

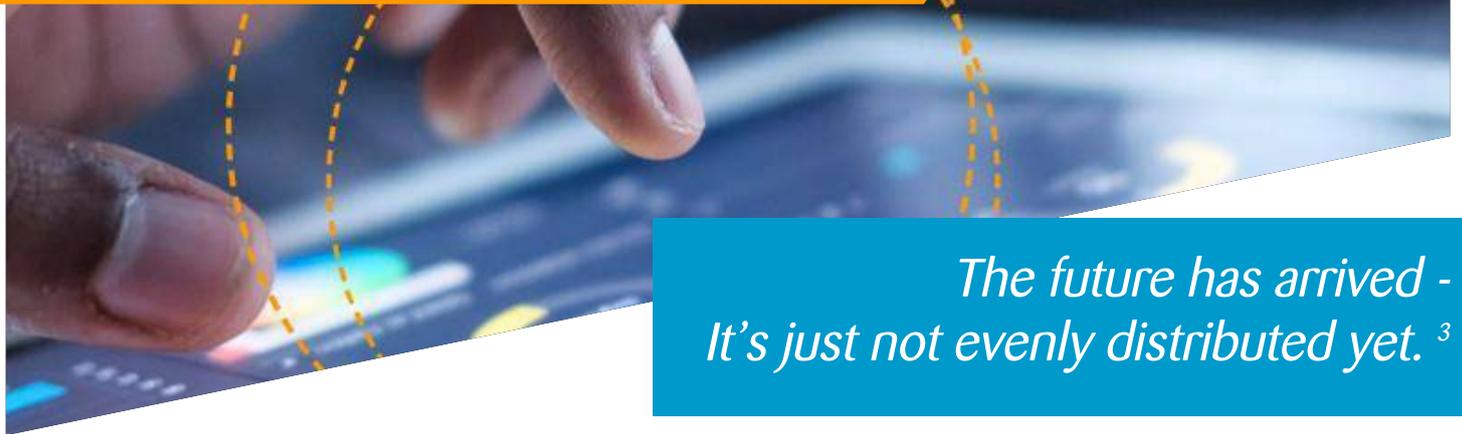
Worse, these organisations are also “flying blind” because much of the data they need to really understand their customers is buried in multiple closed systems with incompatible formats. Reconciling customer data is an endless drain on the organisation and unlikely to be timely. They are also flying blind internally because, despite escalating process and sign-offs, they don’t have good insight into what their development organisations are doing—or could be capable of.

Burdened with high costs and inflexible structure, traditional IT cannot respond to new circumstances or develop new products quickly enough.

<sup>2</sup> Gerry Weinberg, “The Secrets of Consulting”

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# Technical effectiveness is a foundation for commercial effectiveness



*The future has arrived -  
It's just not evenly distributed yet.* <sup>3</sup>

Luckily, we already know what an effective organisation looks like. Over multiple years, the DORA reports<sup>4</sup> showed that organisations with high-performing software delivery also perform better on their commercial goals - and that these top performers are accelerating away from the pack. The essential characteristics of these high-performing organisations like Starling bank in the UK are empirical: frequent, safe delivery of new features, and tight feedback loops to understand and adjust to the results.

None of this is new. Significant businesses, with security and transactional requirements as strict as any bank, have been operating this way for a couple of decades - that's where the DORA data comes from. Multiple challenger banks, while still relatively small, have shown that it is possible to run a licensed bank using an engineering-led approach, and that even highly regulated banks can run with much lower Cost-to-Income ratios and move quickly.

Every banking executive wants to see this kind of cost reduction and service responsiveness, so how can they build on the experience of those who have done so successfully? The path is clear: create a separate organisation aligned to the new situation and grow the new business incrementally.

That alignment is as much cultural as technical, pushing decision-making to the most qualified people, guided by data and rethinking the risk approach that limits potential for change in your existing bank.

## Next generation banking architecture

### Traditional Banks and Building Societies



Traditional banks continue to be constrained by 'accidental' complexity across legacy IT architecture driving cost and inefficiency into the operating model. Incremental improvements can only go so far.

**Cost: Income target -55%**

### Challenger and Neo Banks



New competitors are emerging supported by architectures capable of driving lower cost, faster and more flexible operating models.

**Cost: Income target -30%**

<sup>3</sup> Attributed to William Gibson, <http://quoteinvestigator.com/2012/01/24/future-has-arrived/>

<sup>4</sup> <https://www.devops-research.com/research.html#reports>

# It's too late to convert the existing organisation



As an industry we have finally begun to accept that the most effective approaches to delivery are incremental. With very few exceptions, sudden switchovers are too risky. Too many companies have had embarrassing public failures because they tried to do a weekend transition and missed, most recently the TSB.<sup>5</sup>

## *The second-best time to plant a tree is now.*

One approach is to steadily improve the existing organisation, chipping away at the friction that makes delivery so difficult. Over the long-term this can be remarkably effective and has the advantages that it retains important institutional knowledge and makes the best of the many excellent (but frustrated) staff we have found

<sup>5</sup> Report from the TSB IT failure <https://www.tsb.co.uk/news-releases/slaughter-and-may/slaughter-and-may-report.pdf>

in even the most traditional organisations. It requires long-term commitment from the highest levels in the organisation - high enough to break down those silos.

Unfortunately, this option has expired. Restructuring the organisation should have started ten years ago. Now the challenger banks have established themselves, and many other older players are spinning up their digital offerings, so digital laggards need to adopt a more radical approach. Those batch mainframes with their logjam of satellite systems and processes are still the immovable core of the business. There is no location in the world that is “low-cost” enough to make this sustainable.

The situation now requires more urgent action to establish a presence in the digital world. It's still not a good idea to attempt to rebuild an entire bank at once, so we recommend an alternative approach, transforming incrementally in “vertical slices”.

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# Start with a digital organisation and transition across



An increasingly common approach is for established lenders to create a new “sidecar” digital bank. They start with a single product to get established, then grow it to absorb more products and customers from the main bank. We’ve seen this process work, having helped Standard Chartered use exactly this model to build Mox<sup>6</sup>, their digital-first challenger bank.

Atom Bank<sup>7</sup> followed a similar process to transition from its original solution. Initially they used a package to get to market quickly before moving to their own implementation, allowing them to become more flexible and responsive. Atom launched a new product first and then transferred their existing products one at a time, moving customers in tranches to reduce risk. The new cloud-native implementation allows finer-grained control over where functionality is delivered compared to their previous closed solution.

**‘Porting the customer documents between systems took less effort to complete than just getting approval would have taken in a traditional institution.’**

Building a parallel service is the best route for established companies to make the digital transition, because it allows a dedicated organization to focus on delivering in the new environment and it provides a transition path for the rest of the organization. This new business has clear goals and the organisational flexibility to find its own way to the most appropriate solutions.

Without the organisational friction of your established business, it can focus on being responsive to its customers.

This isn’t for the faint hearted however, because these are large, complex organisations and spinning up a parallel service requires significant investment. This is an attempt to recover from decades of under-investment or mis-investment. It does, however, follow every experienced engineer’s heuristic, known as “Gall’s law”:

**‘A complex system that works is invariably found to have evolved from a simple system that worked. A complex system designed from scratch never works and cannot be patched up to make it work. You have to start over with a working simple system.’<sup>9</sup>**

Meanwhile, the “safe”, business-as-usual alternatives look worse. We’ve seen proposals for mitigation programmes that cost more than a brand-new digital initiative, because they have to work around decades of accumulated complexity rather than addressing it head on.

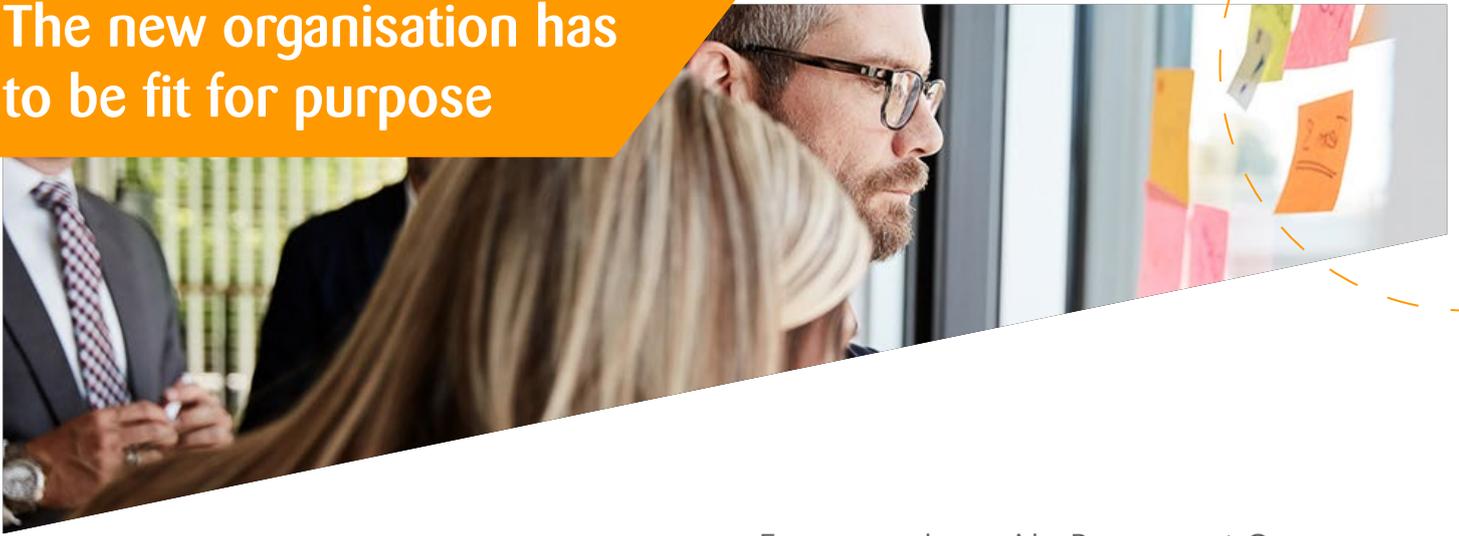
Setting up a new institution reduces risk but, given the scale of overhauling a bank, there are still many issues to address. There has to be a plan to migrate away from the existing systems that will be supported through to completion. And you will need buy-in from your staff, who have seen previous digital initiatives come and go. Starting small allows your organisation to grow its capability to transition systems and to accelerate the process as it gains experience.

<sup>6</sup> <https://mox.com/>

<sup>7</sup> <https://www.atombank.co.uk>

<sup>9</sup> [https://en.wikipedia.org/wiki/John\\_Gall\\_\(author\)#Gall's\\_law](https://en.wikipedia.org/wiki/John_Gall_(author)#Gall's_law)

# The new organisation has to be fit for purpose



The biggest risk we see with digital transformations remains what we might call the “parasite bank”. The spin-off has all the appearances of a clean start but it’s still deeply attached to the parent bank. The new organisation sinks under the overhead of carrying the old corporate culture and practices and, despite following “best practice”, fails to deliver.

We know of several such projects which were undermined by the culture of the parent institution, because “best practice” is different in the digital world. This turns out not to be unique to banking, a 2002 Harvard report showed that the performance of Xerox spin-offs was inversely proportional to Xerox’s level of involvement.<sup>10</sup>

This is not to say that a spin-off should drop all controls in a bid for speed – there are regulators to satisfy after all. Controls need to be understood and implemented in a new context. Without that alignment, as the opening story shows, no one can get anything done.

<sup>10</sup> <https://www.sciencedirect.com/science/article/abs/pii/S0048733302000173>

For an example, consider Procurement. Gregor Hohpe wrote about how it changes in the Cloud world<sup>11</sup>. With traditional procurement, the goal is to find something that does what’s required and then stick to it. This needs a lengthy process, including a checklist of all possible features, that locks in a long-term contract to avoid being gouged by the vendor once the product is established. It’s optimised for the day the product is installed, not for continuous change.

In a Cloud world, rigid contracts are a problem because the organisation’s needs will be changing constantly, and prices are more likely to fall than to rise. What we *do* want is protection against services being dropped prematurely or someone accidentally running up a large bill.

A spin-off bank cannot expect traditional procurement people to suddenly change, because that’s asking them to break their employment rules. The answer has to be to change the rules, and *that* requires a separate organisation answerable to its own targets.

<sup>11</sup> <https://architectelevator.com/book/cloudstrategy/>

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# Cloud-native is fundamental to successful digital companies

We know of more than one company that reconfigures its systems every night to meet different needs, allowing significant reductions in operational costs. Similarly, a well-designed system can scale dynamically to meet performance or resilience targets, only requiring spending on the infrastructure that's actually in use. Cloud adoption can remove much of the busywork that consumes traditional IT organisations.

There's another level of value, which is about making the most of the expensive development organisation. Staff shouldn't waste their time contending over scarce resources, like a test environment, to do their job, instead it should be provisioned on demand. With transparent pricing, the team itself can make informed decisions about whether that extra environment is worth it, rather than negotiating with a different silo. At Atom bank, for example, they reduced the lead-time for setting up a test environment from 42 weeks to 1 week; that kind of change transforms what a business can achieve.

But the most interesting value of the Cloud comes from allowing a company to decompose its systems. Then it can focus its precious effort on the features that make it unique, delegating its commodity services to Internet resources.

Nowadays, there are many companies in the Fintech market providing specialised services, each of which is focussed on a particular pain point such as compliance or payments. These vendors are specialists in their field, which means that a bank needs very deep expertise to do a better job.

They're also accessed over defined APIs, which makes them replaceable should the need arise. Of course security is critical, but practices are increasingly standardised and, after all, AWS spends more on security than all the Tier 1 banks put together.

This is not new, this is how the fundamental infrastructure of the internet works. DNS, the service that associates internet names with machine addresses, was specified in 1983. Now everyone relies on the many providers of DNS and almost no one types in a machine address directly.

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*Atom launched a new product first and then transferred their existing product to the new platform - moving customers in tranches to reduce risk.*

[Rana Bhattacharya](#) - CTO, Atom bank

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Native Cloud adoption allows a highly productive development organisation to work closely with business stakeholders, streamlining the process so that the company can respond quickly to their customers' needs. But these benefits have to be earned, they require skill and judgement, and an organisation that is structurally aligned. This cannot be done within a traditional institution, so it has to be done separately.

# Summary

We, our clients, and our advisers are seeing organisations struggle to deliver the services that their customers want. Many of these organisations respond by focussing on cost-cutting, by finding lower-cost locations or by investing in “global frameworks” that are intended to reduce duplication. These initiatives usually produce disappointing results. What they’re missing is that the organisation *itself* is the main source of overhead and that there is a limit to how much more efficient it can be, especially in the short term.

Institutions that want the flexibility and low unit costs of the challengers need to understand how that is achieved and to adopt the supporting practices and culture. This is very difficult in an established banking organisation.

### **Sometimes you just have to start afresh.**

A viable alternative is to start one’s own challenger and gradually move the products and customers over. This is difficult but continuing with the existing approach can be worse.

Establishing and maintaining the culture and processes of an separate challenger organisation, independent of its owner, is a critical success factor.

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To learn more about the dual challenges of legacy systems and culture – and how Zühlke has helped other companies escape from this deadlock – please contact Myles Davidson at Zühlke.



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