

From Legacy Rails to Real-Time: Payments Then and Now

Looking back over a decade of leading payments transformation and what it takes to deliver outcomes safely in critical financial infrastructure

Author: Douglas Kilburn

Technology, Product & Transformation Leader | Financial Services – Retail Banking, Payments & Transaction Infrastructure

Contents

01

Introduction

Page 2

02

A decade on

Page 3

03

When delivery met reality

Page 4

04

What we got right, and what we underestimated

Page 7

05

What this taught me about leading delivery at scale

Page 10

06

Looking ahead: leading the next decade of payments delivery

Page 12

07

About the Author

Page 14

Introduction



A decade ago, the Australian payments industry was entering one of the more significant periods of change in its history. Real-time capability was moving from concept to delivery, data standards were being debated in earnest, regulatory expectations were tightening, and the language of platforms, ecosystems and open access was starting to replace the older vocabulary of rails and products. Most of the conversation at the time was about direction and possibility. Not yet about delivery. The bigger question was how profoundly this would change the industry, and how prepared organisations really were for what was coming.



At that point, I was leading major payments initiatives and running a practice focused on turning industry thinking and hands-on delivery experience into practical direction inside real institutions with real constraints. Not theoretical frameworks – actual programs, actual decisions, actual trade-offs. In 2017, I set out to capture where the Australian payments landscape was heading. That effort resulted in a research paper, shaped through local market insight, international perspectives, and conversations with practitioners across banks, schemes, processors and merchants. It was very much a product of its time, produced on quality paper, thick card covers, strong visual design and proper printing. An artefact designed to be read, marked up, and debated in meeting rooms. The intent was never to publish predictions for their own sake. It was to shape a clearer frame for decision making, and for the successful delivery of outcomes and benefits in organisations that would have to invest, migrate, and operate through sustained change.

The conversation then ranged widely. Platforms, richer data, API-driven integration, new operating models. We were also seeing the growing influence of FinTech and new market entrants, the rise of incubators and innovation programs, and a widening gap between the pace of startups and the ability of large institutions to keep up. In parallel, delivery itself was changing. Agile and its many variants were going mainstream, collaboration models were evolving, and organisations were adopting new tools and ways of planning, tracking and governing work at scale. The questions were not just technical. They were about sequencing, investment horizons, risk appetite, and whether established institutions could adapt their structures and ways of working quickly enough in a more open and dynamic ecosystem.

At the time, much of this still sat in the realm of design and intent. The industry was focused on architecture, platforms and possibilities. We knew delivery would be complex, but the full weight of multi-year transformation, operating model change, regulatory pressure and institutional friction had not yet been widely felt.

A decade on

That has changed. Many organisations across the industry have lived through major platform migrations, scheme and regulatory change, the adoption of faster payments, data standardisation, and the entry and scaling of a new generation of FinTech and specialist players. Many have reshaped core payment infrastructures, rethought how they partner across ecosystems, and confronted the limits of legacy governance, funding and delivery models. The central question is no longer whether transformation is necessary. It is what it actually takes to execute it, repeatedly and safely, in environments where payments are business critical and sustained instability is simply not an option.

The hardest problems were not primarily technological. The real friction sat in execution, governance and leadership.

One of the clearest lessons from this period is that the hardest problems were not primarily technological. Technology choices mattered, but they were rarely the decisive factor. The real friction sat in execution, governance and leadership. It sat in how decisions were made and sustained over long horizons, how risk was managed across increasingly complex and regulated environments, how accountability was structured, and how organisations balanced regulatory certainty with commercial pressure. In practice, outcomes were shaped far more by delivery discipline than by the elegance of any single architecture.

This article reflects on that journey. It looks back at the thinking that shaped the conversation a decade ago, what proved broadly right, and where the scale, pace and organisational complexity of change were underestimated. It also looks forward, because the next decade will not be slower or simpler.

With the rapid adoption of AI, from administrative support and decision tooling through to workflow automation and execution assistance, the pace of change is likely to increase again. The opportunity is significant, but so is the need for control, judgement and experience. Strong hands still need to be on the wheel. Clear direction, disciplined governance, and a relentless focus on outcomes and real benefits will matter more, not less. Technology and innovation will keep shifting the landscape. That is a given. The differentiator will be the ability to translate ambition into outcomes, to adapt methods without losing control, and to deliver change in a way that strengthens rather than destabilises the institutions and ecosystems that depend on these platforms every day. That is harder than it sounds.

When delivery met reality

The move from design and intent into delivery did not arrive as a single, clean handover. It unfolded over time, as organisations began to translate architectural direction into programs that would run for years, not quarters. What had looked coherent in strategy decks quickly revealed itself to be something else entirely in practice. Modernising platforms, aligning to regulatory expectations, adopting faster payments, embedding richer data, rationalising vendors, and reshaping operating models were all individually logical. Doing them together, in live environments that could not afford instability or reputational damage, turned delivery into a test of institutional stamina as much as technical capability. In several programs, that pressure was visible week by week, not just at cutover.

For many organisations, platform migration became the centre of gravity. Core acquiring platforms, payment switches, settlement engines, and the surrounding risk and finance systems were often decades old, deeply customised, and embedded in everyday operations. Replacing or modernising them was never a simple transition. It meant running old and new in parallel, building complex migration and reconciliation tooling, and accepting that data quality issues, process drift, and undocumented dependencies would surface at the worst possible moments. The choice of technology mattered, but the real work was in sequencing, cutover planning, and proving that the business could continue to operate safely while change was in motion.

I saw this play out up close early in my career here. A colleague's program, same company, same office, same team, was running alongside my own work on major client payments solutions. Their program was ambitious: a bold attempt to reinvent the point-of-sale experience for Australian merchants. The concept was genuinely exciting. An open-platform, app-driven payment device that could run payments, loyalty, and custom workflows on a single secure tablet. It was announced years before it actually hit the market, and the more time it spent being refined, the more the world outside moved on. By the time it got a green light for rollout, the original schedule had slipped so far that the mindset had shifted from "test, learn, iterate" to "get it out now and sort it later." It skipped meaningful pilots and proper user acceptance testing and was pushed into a rushed nationwide deployment.

The story that came back from the program was telling. Deep into an early outage, with the team working through root-cause diagrams and network configurations, someone apparently stopped and asked: "Have we actually sat with customers who depend on accessibility features and watched them try to use this?" The answer was not reassuring. The issues were no longer about chips, software, or connectivity. They were about inclusion and dignity, things the tech itself could not solve. By the time that became clear, the program was already dealing with complaints, regulatory scrutiny, and public backlash.

When delivery met reality

Payments work rarely breaks on technical limitations. What truly tests teams is holding a bold strategic ambition together when budgets are already half-spent, timelines have contracted through months or years of delay, and real customers are depending on the system for their daily transactions.

That moment stayed with me. In payments, the hardest constraints are rarely the technical ones. The real stress comes from trying to balance a big strategic vision, a budget that is already half burned, and a schedule compressed by years of delay, all while real people are relying on the system to buy their groceries, pay their bills, and live their lives.

At the same time, regulatory change did not pause to accommodate delivery plans. While teams were building towards target architectures, new reporting obligations, scheme mandates, consumer protection requirements, and local interventions continued to arrive. In many cases, programs that began as transformation initiatives became, by necessity, compliance first. That shift altered priorities, funding profiles, and delivery timelines. It also forced difficult trade-offs. Teams had to decide what could be deferred, what had to be accelerated, and what simply had to be done twice. This was not a failure of ambition or planning. It was the reality of operating in regulated markets where the cost of being late is measured in operational and systemic risk, not just reputation.

Real-time and richer data added another layer of complexity. Moving from batch-based, message-light processing to always-on, data-rich flows was not simply a change in rails. It reshaped fraud models, customer service processes, liquidity management, exception handling, and even how outages were defined and communicated. ISO 20022 was often described as a data upgrade. In delivery, it behaved much more like an operating model change with a data component. Systems that had previously been loosely coupled now had to agree on meaning, structure, and timing. The work was less about mapping fields and more about aligning institutions around shared definitions of risk, status, and value.

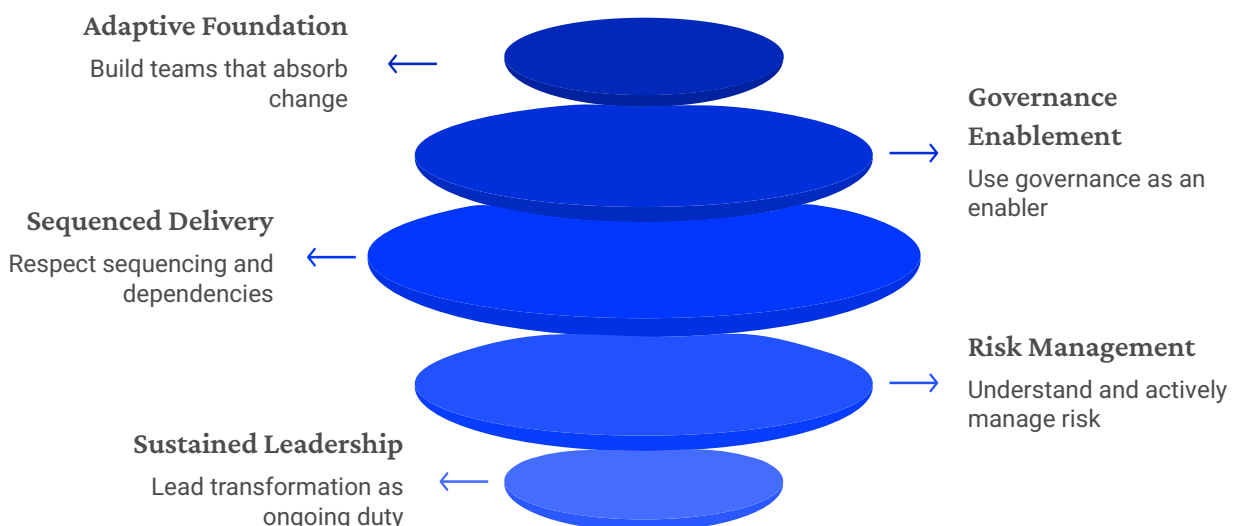
As delivery progressed, vendor ecosystems expanded rather than simplified. Few large organisations had the luxury of a single strategic partner. Core platforms, gateways, scheme services, cloud providers, data tools, and specialist compliance solutions all had a role to play. Each came with its own roadmap, release cadence, commercial constraints, and integration patterns. Delivery became an exercise in orchestration. Governance forums were not there to slow things down. They existed to create a single version of the truth about dependencies, cutover windows, and risk exposure. Without that discipline, teams quickly found themselves optimising locally while increasing systemic fragility.

When delivery met reality

Execution also exposed the limits of existing organisational design. Many institutions entered these programs with structures optimised for steady-state operations, not sustained transformation. Decision rights were often unclear, funding cycles were annual while delivery horizons were multi-year, and accountability was split across product, technology, risk, and operations. Over time, the programs that held together invested as much in governance, operating rhythm, and leadership alignment as they did in engineering. Clear stage gates, explicit sequencing, and visible risk management were not bureaucratic overheads. They were the mechanisms that made continued progress possible without losing control.

Perhaps the most challenging dimension was institutional change itself. New platforms and standards demanded new skills, new ways of working, and a greater tolerance for transparency. Incidents became more visible. Trade-offs became more explicit. The comfort of deferring difficult decisions behind technical complexity diminished. In its place was a growing expectation that senior leaders would engage more directly with delivery reality. Not to micromanage, but to own the consequences of prioritisation, funding choices, and timing.

What became clear, year by year, was that success was less about selecting a perfect architecture and more about building organisations that could absorb continuous change without breaking. The programs that progressed treated governance as an enabler, respected sequencing, invested in dependency management, and accepted that risk cannot be eliminated, only understood and actively managed. They were led by people who recognised that transformation is not a project phase, but a sustained leadership responsibility.



What we got right, and what we underestimated

From the outside, this period may have looked like a series of technology upgrades. From the inside, it felt more like a long negotiation between ambition and reality. Delivery did not succeed or stall because the vision was wrong. It did so because organisations either could, or could not, execute with discipline over years, not quarters. That is the part of the story that rarely appears in strategy narratives, but it is the part that ultimately determines whether transformation actually lands.

Looking back to the thinking that shaped the period around 2016 to 2017, the industry's instincts were broadly sound. The direction of travel was not the hard part to see. The harder part was understanding the pace of change, the sequencing of moves, and the organisational cost of turning intent into sustained delivery. That distinction matters, because much of what proved correct was strategic, while much of what proved more difficult lived in governance, operating models, and execution reality.

In the broadest sense, we were right about platforms becoming the centre of gravity. The move away from fragmented, bespoke solutions towards fewer, more deliberate platforms was not a passing trend. It was a response to scale, resilience, and the need to change safely in complex environments. Over time, this has created clearer ownership, more predictable change windows, and a more coherent basis for investment decisions. It also shifted the conversation at executive level from individual projects to the stewardship of long-lived assets, which proved to be a healthier way to govern technology at scale.

We were also right about ecosystems. The expectation that value would increasingly be created across networks of banks, FinTechs, merchants, schemes, and specialist providers has played out in practice. The reality has been less about grand marketplaces and more about disciplined integration, clearer role definition, and a more deliberate approach to where organisations differentiate versus where they participate. Those who learned to partner while retaining control of risk and customer outcomes have been better placed to absorb ongoing change.

Real-time capability and richer data have increasingly proved to be foundational, even where benefits arrived more gradually than early business cases suggested. They reshaped customer expectations and forced changes in liquidity, fraud, and support models. The direction was right. The organisational effort required to make it safe and repeatable was consistently underestimated.

We were also correct to challenge how work was delivered. The shift towards more iterative delivery, stronger product ownership, and tighter feedback loops improved outcomes in many environments. It reduced the cost of being wrong and increased the chances of learning earlier, rather than discovering problems at the end of long delivery cycles. It did not remove the need for discipline or planning, but it did change the shape of how progress was made and how risk was surfaced.

What we got right, and what we underestimated

Where we were less accurate was in underestimating the organisational effort required to make these shifts real inside large, regulated institutions.

One program in particular brought this home for me. A few years ago I was brought in as Senior Program Director on a large-scale eCommerce acquiring program for a major fintech in Australia. From the start, it had the hallmarks of a program set up to struggle. It had been over-sold, was underfunded, and was bound by a timeline that bore little relationship to what was being built. The promise was a single, scalable acquiring platform that could handle more volume, more channels, and more complex flows than anything the business had run before. The reality was a team stretched thin, a client still figuring out what they actually needed, and a program expected to deliver in months what logically should have taken years.

The client was relatively new to the space, under-resourced, and often overwhelmed. They struggled to articulate clear outcomes, let alone partner effectively through design, build, and test cycles. That meant we spent a significant amount of time defining the problem for them, not just the solution, while still being held to their original commitments. The operating rhythm quickly became long days and late nights. Escalations, complaints, and a finger-pointing culture spread across the program. Every week brought a new bottleneck that could only be fixed by people, not by more process or more tooling.

To cut through the noise, I kept setting up war-room sessions: short, focused efforts where we would bring the right people together, clear the calendars, and push through one critical blockage at a time. We would leave knowing the next three or four steps and who owned them. Those sessions became the only place where the real work actually happened.

Adding to the complexity was a high-pressure and unpredictable leadership situation on the client side. Frequent changes of direction and sudden shifts in priority derailed progress and reset morale on a near-weekly basis. Attrition was high, people burned out, unclear on their role, or pulled into other fires. The thing that kept the program moving was the people who stayed committed even when the context kept changing.

What struck me most about that period was that nothing we were building was fundamentally new. This was not an invention of a new protocol or settlement layer. It was mostly existing technology, stitched together in a way that had to look and feel new. And yet the delivery challenge was as hard as anything I had worked on. In the end we got there, late, bruised, and exhausted, but it worked. That program reinforced something I had long suspected: in payments delivery, your most valuable asset is not the stack or the platform. It is the people who show up, stay focused, and keep moving forward when everything else is falling apart.

What we got right, and what we underestimated

Platforms, it turned out, were as much about operating models as technology. Moving from project funding to product and platform funding, from functional silos to end-to-end ownership, and from local optimisation to enterprise trade-offs proved harder and slower than many roadmaps assumed. A number of organisations built technically sound platforms but struggled to run them well, because decision rights, incentives, and accountability did not evolve at the same pace as the architecture.

Ecosystems also proved more complex to govern than early narratives suggested. Partnering at scale introduced new dependencies, new risk surfaces, and new failure modes. Contracting, assurance, and incident management had to mature, often under delivery pressure. The idea of collaboration was easier than the practice of shared accountability, particularly when issues crossed organisational boundaries in always-on environments.

Regulation remained a constant, but its interaction with modernised platforms and real-time processing was more demanding than many plans assumed. The intent to modernise was rarely in conflict with regulatory objectives, but the burden of evidence, assurance, and operational resilience increased as systems became more interconnected. Real-time processing left less room for manual controls and delayed reconciliation, which in turn raised the bar for design quality, testing, and operational readiness. Compliance was not an obstacle, but it was a forcing function that exposed weak governance and under-invested controls.

On delivery methods, experience reinforced a simple truth. Labels do not change outcomes. Teams that adopted new ceremonies without changing how decisions were made, how risks were surfaced, or how dependencies were managed saw limited benefit. The environments that improved most were those that combined iterative delivery with strong architectural intent, clear governance, and honest, timely reporting. That balance was learned through experience, and in many cases, through hard lessons.

The practical lesson from the decade is straightforward. Being right about direction is necessary, but not sufficient. The real work sits in sequencing, in governance, and in building organisations that can absorb continuous change without losing control of risk or customer outcomes. Progress came from judgement, from course correction, and from a willingness to adjust plans when reality intervened. That is not a failure of strategy. It is the craft of execution.

For leaders who carried these programs, the period has been less about tidy success stories and more about accumulating judgement. The industry did not get everything right the first time, but it did keep moving. In complex, regulated systems, that capacity to learn, adapt, and continue delivering safely is often the most important outcome of all.

What this taught me about leading delivery at scale

The last sections described what changed in payments delivery, and what the industry broadly got right and underestimated. The leadership lessons sit in the space between those two. A decade of platform modernisation, regulatory change, real-time delivery, and ecosystem integration does not just test technology choices. It tests how organisations make decisions when the work is business critical, highly regulated, always on, and tightly coupled to the stability of the financial system.

In Australian payments, with global schemes, standards, and vendors shaping local delivery, that pressure is constant. There is rarely a clean line between strategy and operations. The way delivery is led becomes the strategy in practice.



First: Governance is decision flow

Large payments programs rarely fail because teams cannot build. They fail because decisions stall across product, technology, risk, operations, and external stakeholders. Effective governance is not about more forums – it is about fewer, clearer ones. Who decides on scope, sequencing, risk acceptance, and cutover timing, with what information, and by when. Tight agendas, written decisions, visible owners, and consequences that stick. When governance works, delivery moves. When it does not, activity increases and outcomes drift.



Second: Design decisions for pace, not perfection

Schemes evolve. Regulatory guidance matures. Vendor roadmaps shift. Waiting for perfect information is often a hidden form of risk. Leaders need to create conditions where decisions are made with enough information, then deliberately revisited as facts change. Multi-year payments programs are more likely to fail through accumulated indecision than through an early call that gets corrected with discipline.



Third: Sequencing beats ambition. Every time.

Platforms, operating models, and controls move at different speeds. You cannot scale volumes before support models and controls are proven. You cannot compress years of platform and data change into a single heroic release without creating fragility somewhere else. Strong leaders spend disproportionate time arguing about what comes first, what can wait, and what must never share a critical path.

What this taught me about leading delivery at scale



Fourth: Dependency management is the real work

The delivery reality is not a neat set of workstreams. It is a web of commercial, technical, regulatory, and operational dependencies across banks, vendors, schemes, and internal teams. Many of those dependencies are shaped by global release cycles, standards bodies, and regulatory timetables outside any single organisation's control. The leadership task is not to draw the plan – it is to keep rebalancing it as those dependencies move.



Fifth: Risk changes shape

Early in programs, risk looks like architecture, funding, and regulatory interpretation. Later, it looks like cutover execution, customer impact, and operational resilience in always-on environments. Risk cannot be treated as a static register. It has to be owned, debated, and traded off in the open.



Sixth: Operating rhythm turns strategy into outcomes

Long-running payments programs live or die on cadence, not heroics. Weekly delivery reviews that actually resolve issues. Monthly governance that makes real decisions. Quarterly resets that genuinely change priorities. Senior leaders set this rhythm through what they attend, what they ask for, and what they are willing to tolerate.



Finally: Accountability must be explicit and personal

Programs do not deliver outcomes. People do. Long-running transformations are sustained by motivation, genuine care for team health, and a culture where problems are surfaced early. You can have the best governance model and the cleanest plan, but if you burn out your people or lose their trust, delivery will eventually fail. We are only as good as the people we ask to carry the change.

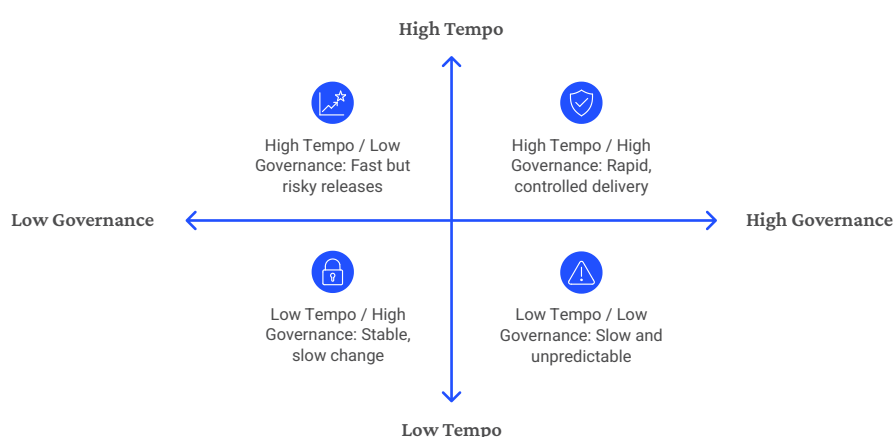
Taken together, these are not abstract leadership theories. They are the practical disciplines of delivering change in systems where failure is visible, regulated, and costly. You cannot ignore these dynamics, they are built into the environment. Organisations that succeed are not the ones with the most ambitious roadmaps. They are the ones that build decision flow, sequence ruthlessly, manage dependencies as a first-class risk, run to a steady rhythm, and hold real accountability over time.

Looking ahead: leading the next decade of payments delivery

If the last decade taught us anything, it is that payments does not reward prediction, it rewards preparation. The earlier sections described how platform modernisation, regulatory change, and ecosystem integration reshaped delivery in practice, and how often the organisational effort was underestimated. They also set out what that experience taught us about governance, sequencing, risk, operating rhythm, and accountability. The next decade is likely to bring more change in tools and techniques than most organisations experienced in the last twenty. It will not change the fact that payments remains critical infrastructure, in Australia and globally, where stability, trust, and continuity matter as much as innovation.

AI, automation, richer data platforms, and increasingly agentic workflows are rapidly becoming normal parts of the delivery landscape. They will change the speed and shape of how work gets done. They will not change the fundamentals of what it takes to run always-on, regulated platforms safely and at scale. In an environment shaped by global schemes, international standards, and cross-border vendor ecosystems, local failures are rarely local for long.

The first and most visible shift will be tempo. As automation, low-code platforms, and AI-assisted engineering reduce the cost and time of change, delivery cycles will compress further. This will be a genuine productivity gain. It will also raise expectations and increase the importance of decision flow and operating rhythm. Faster build times do not remove the need for disciplined change control. In payments, where outages are immediately visible to customers, merchants, and regulators, speed without governance is not progress. It is just faster failure.



The second shift will be in how platforms are assembled. The industry has already moved away from single-vendor answers towards orchestrated ecosystems of core platforms, scheme services, data layers, risk engines, cloud providers, and partner APIs. That pattern will deepen. For Australian institutions, delivery leadership will be less about selecting a perfect platform and more about making a complex, multi-party landscape behave in a predictable, supportable way.

Looking ahead: leading the next decade of payments delivery

Data and AI will sit at the centre of this, not as a silver bullet, but as an amplifier of both good and bad practice. Better data foundations will improve fraud detection, operational insight, capacity planning, and incident response. The leadership discipline will be deciding what not to automate, where human judgement must stay in the loop, and how to ensure accountability does not dissolve into a chain of tools and workflows. Not everything that can be accelerated should be.

Governance will evolve, not disappear. It should become lighter in ceremony and heavier in clarity. But its purpose stays the same, to enable decisions, manage risk, and keep complex systems moving in the right direction.

And there is a human dimension that technology will not remove. AI will not resolve competing priorities between growth, resilience, and cost. Automation will not negotiate trade-offs with regulators or commercial partners. If anything, the pace and interconnectedness of change will make leadership judgement more valuable, not less.

For senior executives, the practical agenda is clear. Invest in platforms and data foundations that make change safer and more observable. Use automation and AI to remove friction from delivery, not to bypass control. Be deliberate about where human judgement is required, and protect those decision points. And continue to treat payments for what it is, critical national and commercial infrastructure, not just another digital product line.

Invest in foundations

Invest in platforms and foundations that make change safer and more observable.

Automate thoughtfully

Use automation and AI to remove friction from delivery, not to bypass control.

Protect human judgement

Be deliberate where human judgement is required, protect decision points.

Treat payments as critical infrastructure

Treat payments as critical national commercial infrastructure

The next ten years will not be defined by a single technology or architecture. They will be defined by how well organisations combine new tools with proven disciplines, governance that enables decisions, sequencing that reduces risk, and leadership that owns outcomes. The tools are changing. The responsibility that comes with running payments infrastructure, in Australia and beyond, is not.

About the Author

I am a technology and transformation leader with more than twenty-five years of experience delivering complex change across financial services and regulated industries. My career has spanned retail banking, payments and transaction infrastructure, and capital markets platforms, first across international markets, and for the past twelve years here in Australia, where I have worked across those same domains with a deep focus on Australian payments infrastructure, platform modernisation, regulatory alignment, and real-time capability.

I have led large, multi-year programs spanning core platform replacement, scheme and regulatory change, data and ISO 20022 adoption, ecosystem integration, and operating model transformation. My work sits at the intersection of governance, delivery discipline, and commercial accountability, with a consistent focus on turning strategic ambition into safe, repeatable outcomes.

I write, coach and speak on payments transformation, execution at scale, governance design, and the leadership disciplines required to run critical financial infrastructure in environments where stability and trust are non-negotiable. If any of this resonates with challenges you are facing, I would be glad to connect.

Douglas Kilburn [linkedin.com/in/dougilburn](https://www.linkedin.com/in/dougilburn)

paycorepartners.io

