DOMESTIC
PAYMENT
SCHEMES
JURY **2019**

DOMESTIC PAYMENT SCHEMES INNOVATION

Choosing the right route

CONTENTS

FOREWORD

It gives me great pleasure to see John Chaplin's initiative on the Payments Jury continuing to march ahead. Domestic infrastructures like ACH, card switches and card networks, alongside international networks have played a critical role in advancing the retail payments market and financial access across countries. The need is high, particularly in developing countries, for institutions that can strengthen systems, innovate more and develop new payment solutions to advance progress in financial inclusion.

A well-functioning retail payments market is essential for the smooth functioning of the economy, economic development and public confidence in money.

Digital payments enable governments to better manage the integrity of the overall payment process in addition to enhancing the overall efficiency and effectiveness of revenue collection, as well as expenditures like public procurement and social benefit transfers. The prospects of a digital economy in many developing countries is strongly linked to advances in digital payments, cross border payments and remittances. Without digital payments there would be no Uber, no Airbnb, no Alibaba. Digital payments and interoperability are key enablers of the digital economy recognized in the Bali Fintech agenda – announced at the 2018 World Bank – IMF Annual meetings.

According to World Bank 2017 Findex data, the percentage of adults with access to transaction accounts has grown from 62% to 69% and in the developing world from 55% to 62%. This is a very strong improvement. Further, globally 52% of adults made at least one digital payment in a year, this represents around 76% of those with access. There is however an 8-percentage point difference in the case of developing countries – 44%, growing by 11 percentage points over a three year period. This is of course a very low bar and in fact there is a very strong divergence between per capita electronic transactions across countries. Nevertheless, Findex shows that there has been remarkable progress, but clearly there is long path ahead. The key factor to increasing usage is well-designed products that blend in with the social and economic lives of people, after all nobody decides to make a payment, they decide to purchase or undertake a particular economic transaction and payment is inherent to that.

Payment cards and other electronic payment instruments are amongst the first manifestation of the confluence of technology and finance. Domestic infrastructure and schemes alongside international players, among others, can become key enablers of the upcoming "FinTech" revolution. To name a few - Payment Card Switches, Schemes, Networks and ACHs have a role to play in mobile payments, leveraging the transaction data to provide actionable insights to credit institutions and enable a platform for Digital ID. We are also now entering the brave new world of APIs – in which again domestic infrastructures can play a critical role and an area where the regulators are developing regulatory approaches like the PSD2 in the Europe. In many countries we see existing retail payment infrastructures becoming API Hubs. Further, cross-border payments are gathering lot of attention from innovators, regulators and Governments alike. Improvements in domestic infrastructures can be combined with new technological approaches like APIs and DLT to create the next generation cross-border payment solutions.

The extent to which domestic retail payment infrastructures will embrace these innovations and harness them, while protecting the safety and soundness of the financial system, will be of strategic significance for retail payment infrastructures. This edition of the Payments Jury draws attention to these issues. I sincerely hope the perspectives and experiences shared in this edition inspire stakeholders to harness the potential of innovations responsibly.

Harish Natarajan

Lead, Payments and Market Infrastructures, Finance, Competitiveness and Innovation Global Practice, World Bank

RESEARCH SUMMARY

This is the latest in a series of Payments Innovation Jury reports into the prospects and strategies of domestic payment schemes. The specific focus of this 2019 report is innovation.

There are many routes that domestic schemes and switches can follow to ensure that they respond effectively to the market requirements for new payment services. The challenge is to pick the right route given the domestic market characteristics and the business model of the organisation. In innovation, as in many other aspects of running a domestic payments business, the route that works in one market may not be right for another market.

The top findings of the report are:

- It is essential for domestic scheme and switches to have an active innovation strategy for two principal reasons
  - The market demand for payment services is changing quickly
  - International competitors are investing heavily to respond to these changes.
- There is strong demand from the users of schemes and switches for innovative new services, but it is the owners of the organisation that are applying the most pressure on the management.
- There are a wide range of views on the best strategy to adopt for innovation with in-house development still the favoured option although several organisations don't see this as financially viable in the longer term. Partnering with fintechs is a strategy that is increasingly under consideration.
- More than 50% of the organisations now have more than three staff members fully allocated to innovation and several have much larger functions but one third of organisations have a model of allocating innovation responsibility to all staff rather than having dedicated personnel.
- 60% of schemes and switches have an ongoing innovation budget funded by a portion of service fees as it is becoming more widely recognised that minimising service fees leads to low innovation capability. But there are a few organisations that are still expected by their owners to achieve the impossible and innovate without any investment.
- Payments innovation is a risky activity for schemes and switches as it is for fintech. The most likely reason for failure of initiatives is that the users (mainly banks) who demanded the service then don't use it, often preferring to develop their own proprietary solution.
- The ability to facilitate easier access to domestic schemes and switches through APIs is fast becoming mainstream with only around 12% of organisations having no plans for such a strategy.
- The most promising area for innovation is the adoption of mobile technology with real-time account to account transfers also seen as very promising.

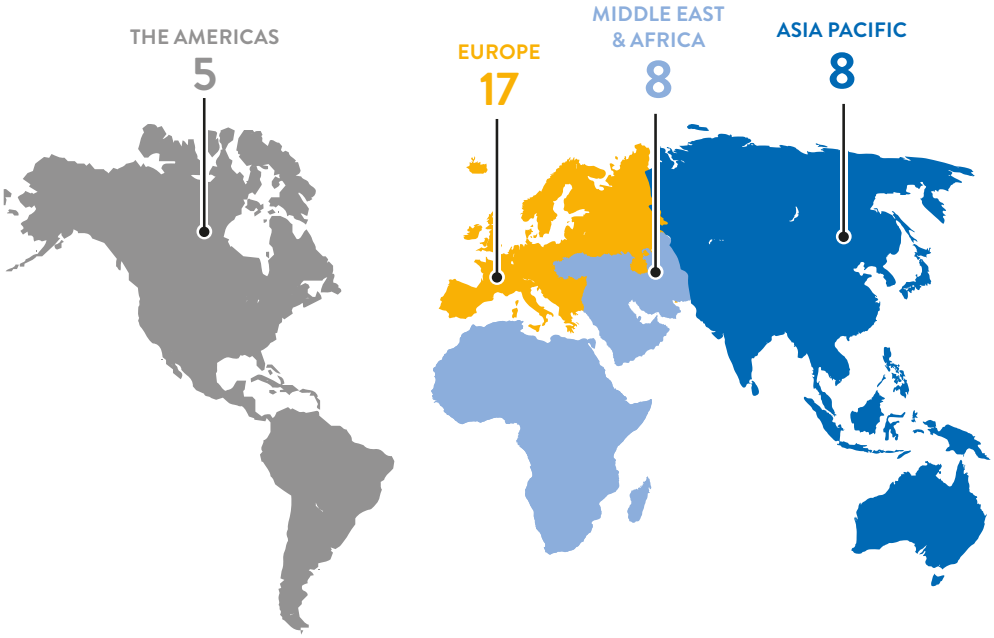
My grateful thanks go to the Jury members for contributing their opinions and time to this report.

John Chaplin
Domestic Payment Schemes Jury, October 2019

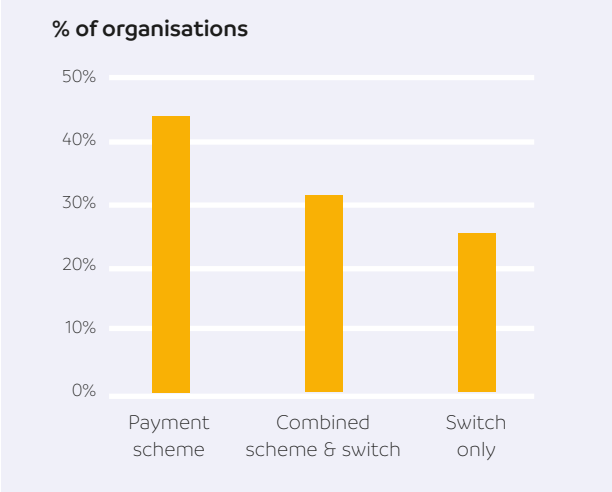
DOMESTIC PAYMENT SCHEMES JURY 2019

The 2019 Jury comprised 38 C level executives from domestic schemes and switches in five continents. The greatest number of Jury members is from Europe reflecting the reality that most European countries have long-established domestic schemes.

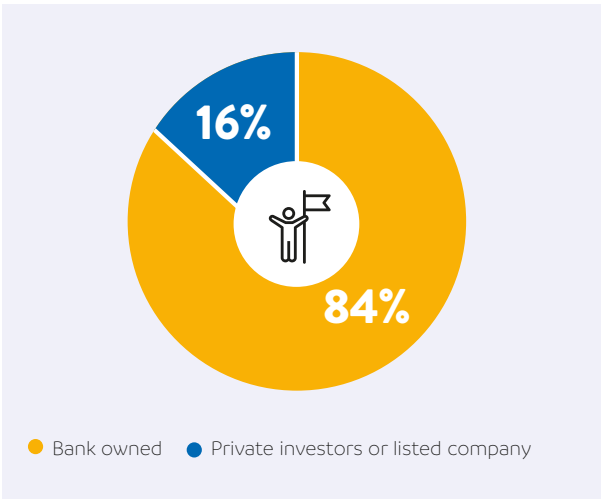
The participating organisations were a mix of pure schemes, integrated schemes & switches, and standalone switches. Europe has the greatest number of pure schemes and separate switches because of regulatory requirements. This practice has not been widely adopted in other areas of the world although there is ongoing regulatory concern in a number of markets about the bundling of scheme & switch and also whether services such as tokenisation are being used by some major international players to create 'technical lockout' and thus restrict competition.



BUSINESS MODEL OF SCHEMES & SWITCHES



SCHEME & SWITCH OWNERSHIP



The ownership model of domestic schemes and switches is gradually changing towards greater participation of external investors with 16% of organisations now no longer owned by their traditional bank members. However, ownership by banks is still by far the most common model.

DOMESTIC SCHEMES INNOVATION – MARKET CONTEXT

In the report *Domestic Payment Schemes: Building a bridge to the future*, published in 2018, great importance was attached by domestic payment schemes to the development of new services.

Essentially the feedback was that to be successful, domestic schemes needed to have an active innovation agenda and this ranked as their second highest priority.

There is pressure to innovate because the users of schemes and switches are themselves under pressure from their customers to introduce new functionality and services, and the international scheme competitors are investing heavily in this area.

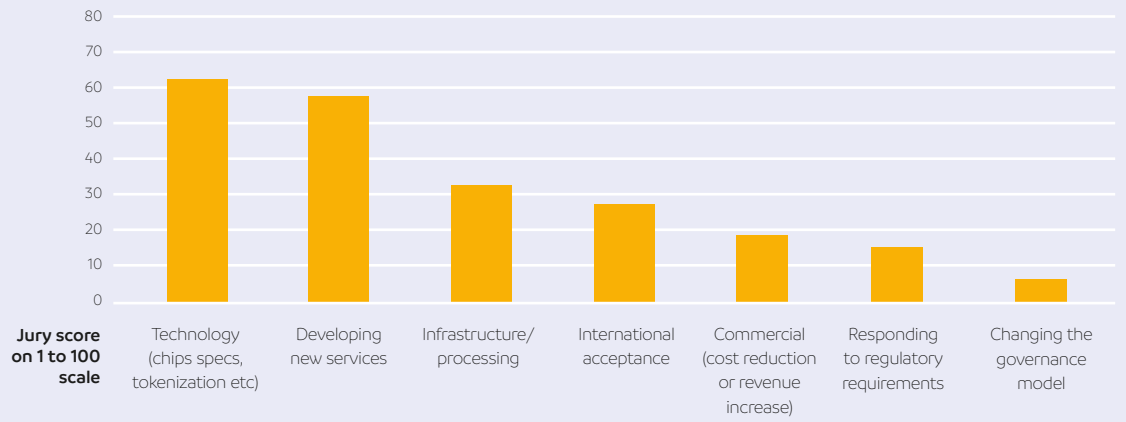
In recent months, Visa has acquired Verifi, Payworks, Rambus, Earthport, Fraedom and made significant minority investments in Klaarna and BillDesk. And in the same timeframe, Mastercard has acquired Transactis, Vyze, Etthoca, Transfast and invested in Network International and Jumia. Most recently, Mastercard's $3.2bn acquisition of many of the activities of Nets in the Nordic region has been announced and this is their largest acquisition to date.

Although domestic schemes and switches continue to enjoy substantial pricing advantages compared to the international competition, it is clear that a strategy of 'low functionality at a lower price' is high risk.

Therefore, it is imperative that all domestic schemes and switches have an innovation agenda. This report looks at the different approaches to innovation that are being followed by schemes and switches around the globe.

However, it is important not to lose sight of the reality that payment schemes are at a relatively low risk of disintermediation compared to many other players in the payments value chain.

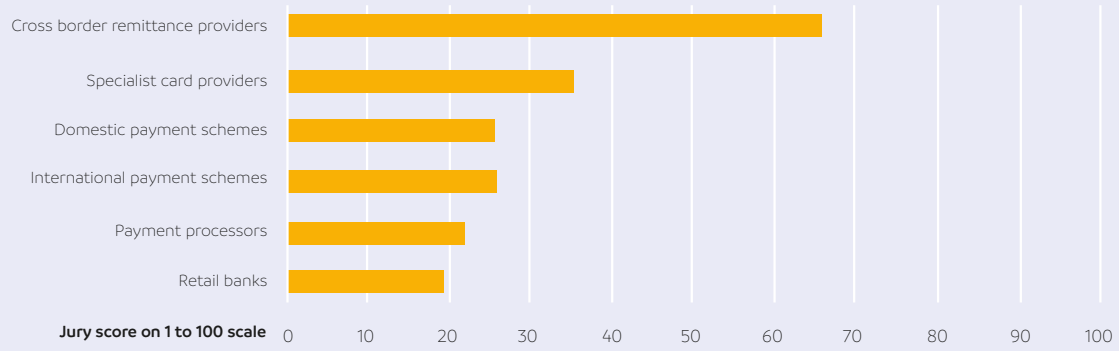
MOST IMPORTANT PRIORITIES OF DOMESTIC SCHEMES



Source: Domestic Payment Schemes: Building a bridge to the future, 2018

In May 2019, the European Payments Innovation Jury rated payment schemes (domestic and international) as being least threatened by fintechs. In many ways this not a surprise as most fintechs would not have the capability or financial resources to execute on an industry-wide strategy. Cross-border remittance providers were seen as the payment providers at most risk.

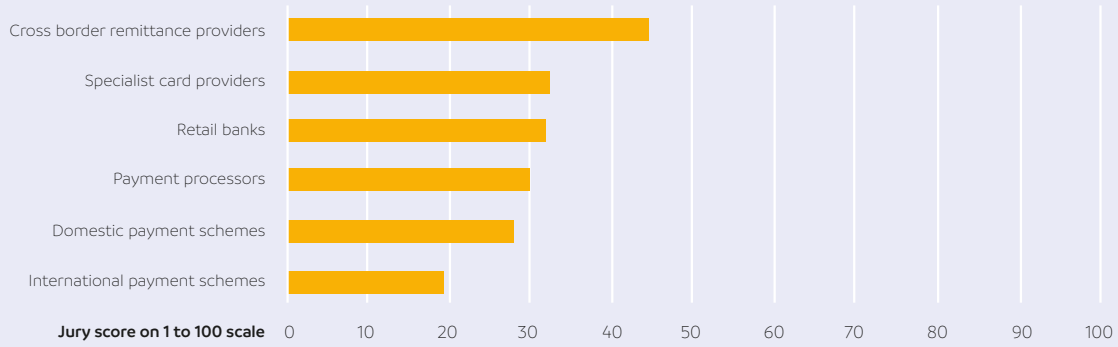
THREATS TO INCUMBENTS FROM FINTECHS



Source: Payment Innovation Killers, Money 2020 Europe 2019

When Big Tech rather than Fintech was considered, the level of threat was raised considerably because firms such as Tencent, Facebook and Google have the resources to become schemes if they so wish.

THREATS TO INCUMBENTS FROM BIGTECH



Source: Payment Innovation Killers, Money 2020 Europe 2019

However, even for BigTech, building a new payment scheme is not necessarily their main target and some of them will often prefer to ride the existing rails at least for a period.

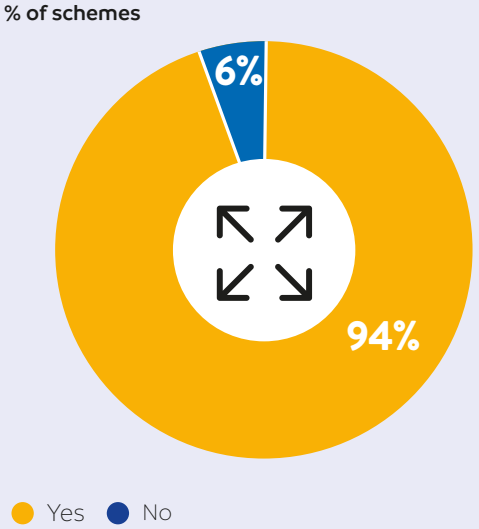
If the threat from Fintech and BigTech is not so severe, where does the main danger come from?

The answer was clearly given by the Domestic Payments Scheme Jury in 2018 when asked whether it was sensible to continue to operate a cards-only strategy. Almost all schemes (94%) considered that they had to evolve from a cards-only model to a broader payments capability.

The most immediate opportunity, and threat if ignored, was voiced as the move to a mobile-first market. Since that research was conducted, there have been significant moves in Belgium (merger of Bancontact with Payconiq) and Norway (merger of Vipps, Bankaxept and BankID) to converge card and mobile payments. And the HPS card switch in Morocco is at the heart of the evolving mobile payments ecosystem in a strategy, directed by the central bank, to ensure interoperability of card and mobile.

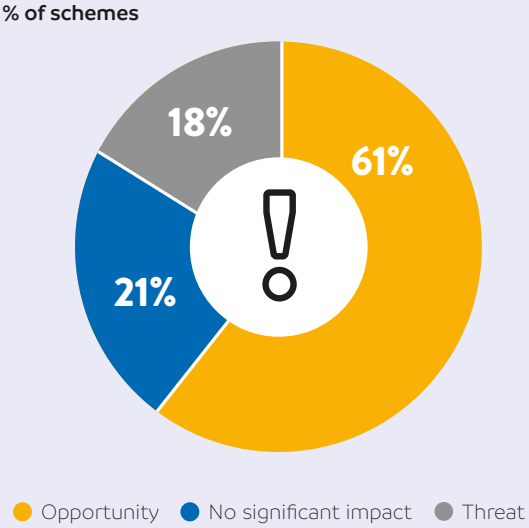
Real-time account to account transfers also must be seen as a potential threat to payment schemes that operate a cards-only model.

SHOULD DOMESTIC SCHEMES EXPAND BEYOND THE CARDS?



Source: Domestic Payment Schemes: Building a bridge to the future, 2018

IMPACT OF MOBILE-FIRST MODEL ON COMPETITIVE POSITION

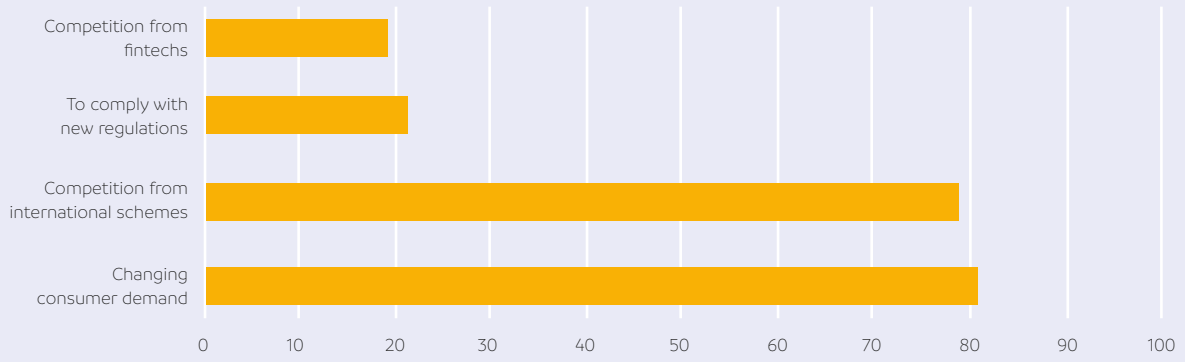


Source: Domestic Payment Schemes: Building a bridge to the future, 2018

THE NEED TO INNOVATE

The Jury was asked about the main rationale for domestic schemes and switches to have an innovation strategy.

WHY DOMESTIC SCHEMES & SWITCHES INNOVATE



Jury score: 1 to 100

In terms of the overall reasons to innovate, there are two reasons that are seen as the most important drivers. Changing consumer demand is rated highest because in the increasingly consumer driven market it can easily feel that there is no place for organisations that get left behind.

But the ability of the international schemes to respond to these changes is seen an almost equally important. Competition from fintechs and changing regulatory requirements can also be important but at a much lower level.

"The need to prioritise innovation is no longer a luxury but a must for long term survival"

"For a domestic switch, it is mandatory to innovate in order to offer new added value services requested by the local market. It satisfies bank needs, but also increase our revenues"

"Most innovation comes today from International switches. They will become local competitors and therefore local switches have to evolve fast in order to compete"

"We are lucky that our regulatory environment is currently somewhat less demanding than Europe"

"The main goal is to develop products and services that are competitive with the international schemes and fintech companies"

"For developing economies like us, card is not a product that can deliver financial inclusion. We need digital payments access at very low cost, and this is our innovation focus"

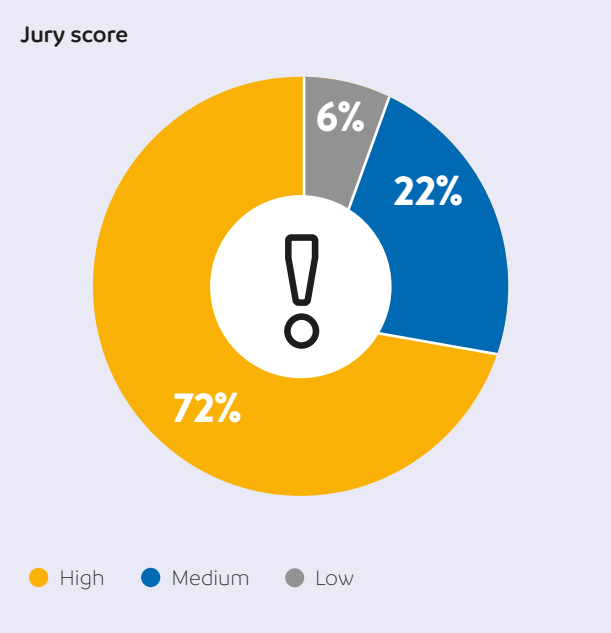
In terms of where the actual demand or pressure for new services comes from, the Jury was clear that their users (which may not be the same as their owners) are demanding new functionality. 72% of Jury members report 'high or very high' pressure from users.

"Consumers are willing to jump to more innovative products. Consumer loyalty is thinning out"

"Our bank users need new, instant, mobile and social media payments to stay relevant. The question for them is whether they go it alone, or as collective. Neither is trouble free"

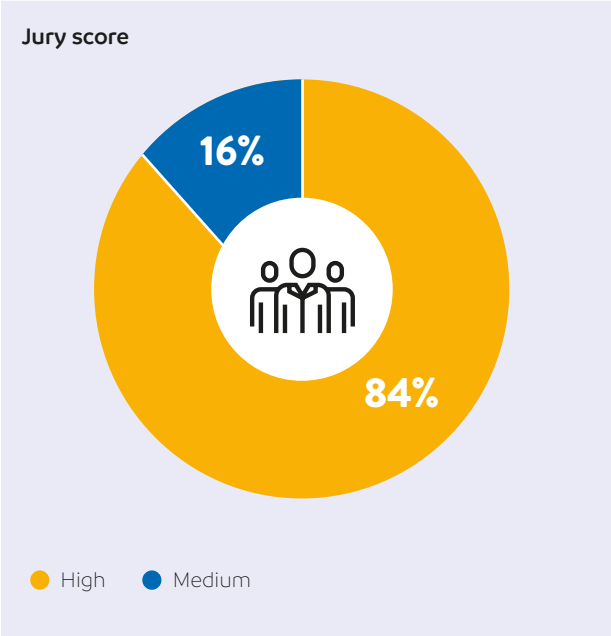
"Issuers need to maintain financial inclusion whilst bringing down costs. Acquirers need to diversify revenue streams"

DEMAND FROM USERS FOR NEW SERVICES



When the same question was asked about the importance that scheme owners/board attach to innovation, the combined score for 'high' and 'very high' was significantly greater at 84%. This shows that the owners clearly appreciate the need for their organisations to innovate and are anticipating user demand 'ahead of the curve'.

PRESSURE FROM BOARD/OWNERS FOR INNOVATION



"Our board members see innovation as a first priority of the organisation to differentiate from competitors

"Our board have mixed views and understanding of what it takes to compete and how far our business model must change"

"The Board has done its strategic thinking. Instant mobile and social payments are our future"

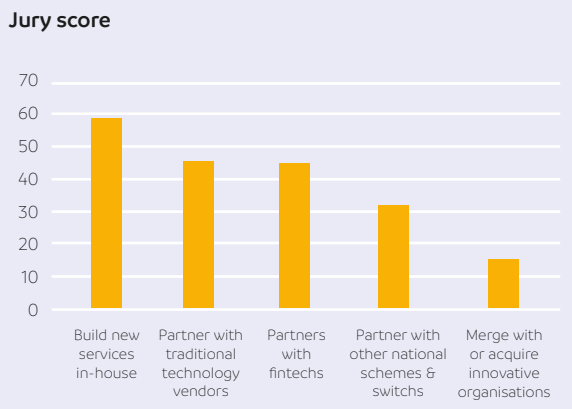
STRATEGIES FOR INNOVATION

Although there is clear agreement on the imperative to innovate, the Jury has a wide range of views on the best way to achieve this.

The highest score is for the tried and trusted approach of building new services in-house in order to better fit the solution to the market requirements. A number of organisations commented that the in-house approach provides 'best fit' and also maximum defensibility.

Most schemes and switches usually do business with traditional technology vendors because of the robustness of their solutions in high-volume situations and this resulted in a high Jury score for this strategy. However, the Jury rated partnering with fintechs to access their innovative solutions and harness their ability to reach end customers as an equally attractive strategy. It is disappointing to see that partnering with other domestic schemes and switches still only ranks as fourth out of the five options given that the 2018 report showed great potential for organisations to work together on technology and also service development.

BEST INNOVATION STRATEGY



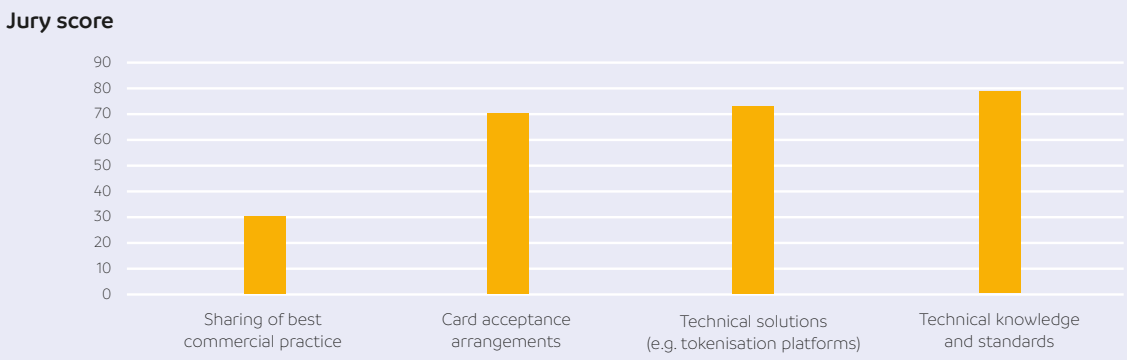
"For financial inclusion, we build in-house but for cyber security we use external providers"

"The idea is to partner with the best globally. It will be very tough going forward to build everything internally"

"As we own our technology to operate the domestic switch, we tend to prefer enhancing this by in-house activities

"Partnering gives you a much quicker way to deliver new solutions"

COOPERATION POTENTIAL BETWEEN DOMESTIC ORGANISATIONS



Source: Domestic Payment Schemes: Building a bridge to the future, 2018

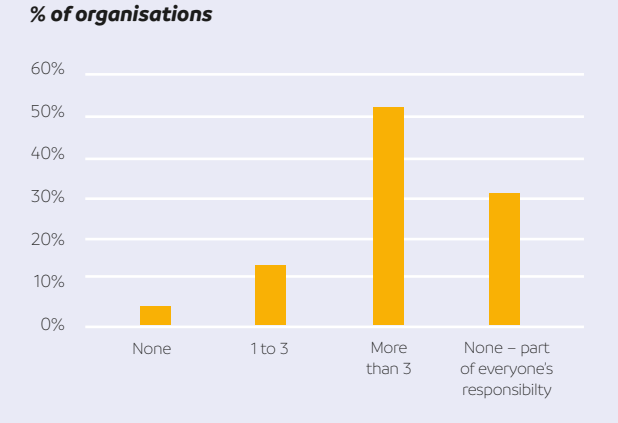
The low score for merging with or acquiring Fintechs shows that most schemes and switches see this as a step too far. However, the examples set by Bancontact in Belgium and Bankaxept in Norway of merging domestic card schemes with mobile payments companies may change this perception in future.

It is difficult to deliver an innovation strategy without people dedicated to the activity, so the Jury was asked about the level of human resource with an innovation responsibility in their own organisations.

Thankfully, there was only one organisation that now has no staff with innovation responsibilities. 53% of the organisations have more than three staff dedicated to innovation. A substantial number (31%) said that they have no specific staff allocated to innovation because it is part of everybody's overall responsibility. Given that generally domestic schemes do not have an innovative culture, it is questionable whether the approach of allocating innovation responsibilities to all employees will be effective.

The other key factor for successful innovation is to have access to sufficient investment funding.

INNOVATION STAFFING LEVELS



"Now it is becoming part of our culture where innovation comes from everybody and the best ideas go to a lab for concept development"

"We have a business team of 20 and a tech team of about 12"

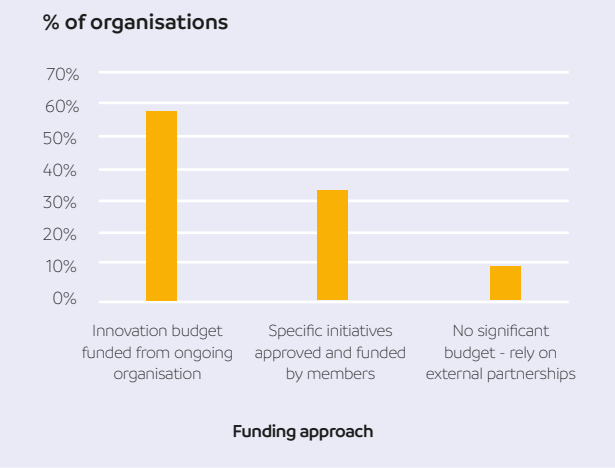
"Our Innovation Group is comprised of at least 10 people, plus many more in Product supporting innovation"

"In addition to our own staff working on innovation, we benefit from the massive efforts made by our parent company in R&D"

Encouragingly, almost 60% of the organisations are allocating money from their regular income stream for innovation. Another 30% have an agreement with their owners that budget for innovation will be allocated on a case by case basis; this is obviously less satisfactory than the situation of an ongoing innovation budget.

Worryingly, 10% of the organisations have no financial resources because their owners insist on fees being kept at a minimal level. This pushes these organisations towards partnerships, but the strategy is a recipe for disaster and must endanger their future prospects unless a change of ownership and/or business model can be achieved.

HOW INNOVATION IS FUNDED



"We have a significant innovation budget with a three year horizon, but larger initiatives need shareholder approval"

"We have created a new company for new solutions that will look for funding per project from external partners"

"We have lifted our fees to create an investment pool. Innovation relies upon delivery by the ecosystem and we use scheme fee rebates to motivate these organisations to partner"

"Our board talks a lot more about the importance of innovation, but then reality sets in when investment needs to be made"

INNOVATION FAILURE

Innovation in payments is a risky activity and success is not guaranteed. The Jury was asked to give their views on which risks are the most severe in order to have the maximum chance of mitigating them.

By a very large margin, the most significant potential point of failure is that the banks do not use the new service despite having funded its development. Banks are under pressure to differentiate themselves from their competitors and will often see an innovation from a scheme as an unwelcome levelling of the playing field.

The second most significant reason for failure is that the scheme decision making structure is not conducive to the fast pace required by payments innovation.

It was encouraging that no Jury members thought that they would run out of money for a specific innovation programme which is a major contrast to the situation for venture capital backed startups which frequently fail because of lack of funding.

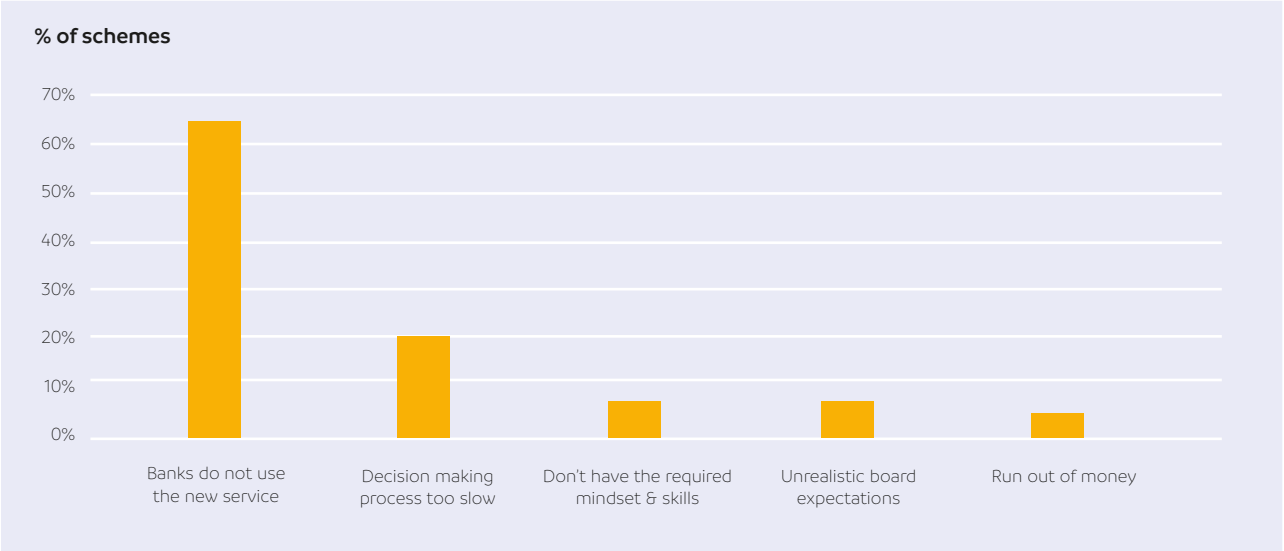
"positioning the benefits of centralised non-competitive cost sharing projects is a challenge for big banks used to an own development mind set"

"Some of the biggest banks might see the risk to their own consumer relationships from the new platforms which are being built. But the payment scheme badly needs banks as the sales channel"

"If banks do not support, we plan to have direct merchant and direct to consumer propositions"

"most likely reason for failure of an innovation initiative is to provide it too early for the market"

PRIMARY REASON WHY INNOVATION FAILS

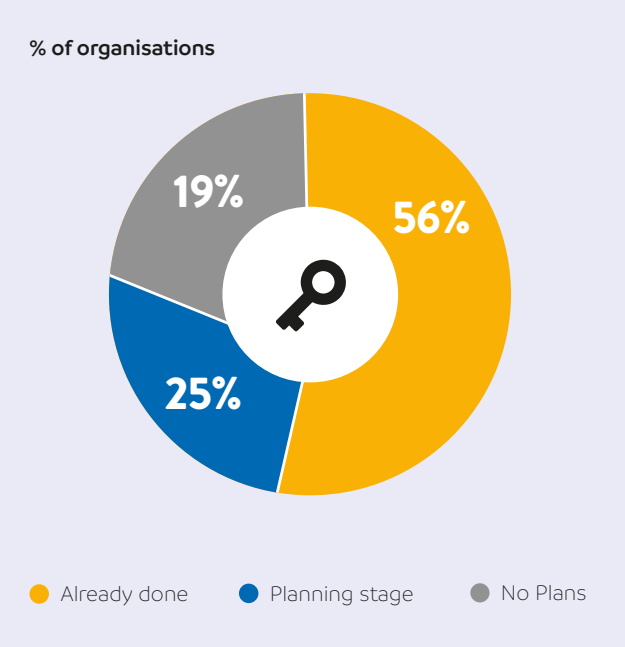


USING TECHNOLOGY TO MAKE INNOVATION EASIER

Appropriate use of technology can allow domestic schemes and switches to benefit from the innovation of others. Allowing API access to the system allows other organisations to innovate on top of the platform.

Almost 60% of organisations have already opened up their system by allowing API access which is a very strong finding and a further 25% have plans to go down this route. 19% of the organisations do not allow API access and have no plans to do so in the future. This puts them against the clear trend of the industry.

STATUS OF API ACCESS



"We are in an era of openness, and providing API to other organizations is a must"

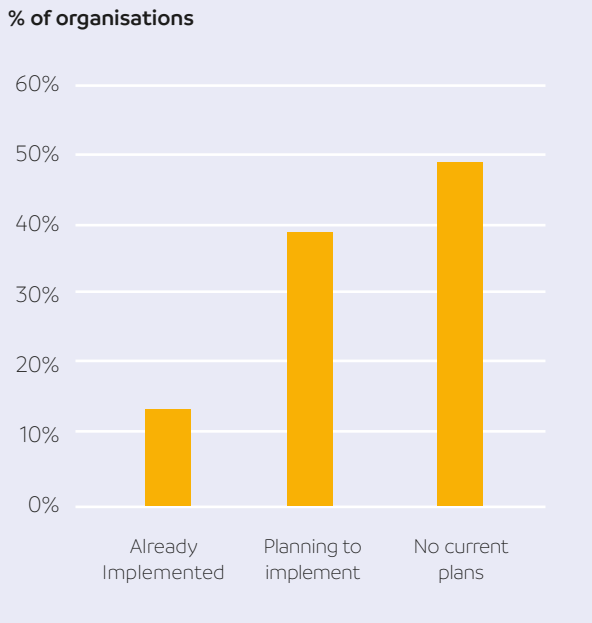
"Our scheme does not manage the APIs because the local processors do it for us"

"Done to a limited degree on legacy; but it is the core architecture of the next generation proposal"

"So far, we have dedicated APIs for bill payments and loyalty programs"

One of the key questions for domestic schemes and switches is whether to move to ISO 20022 formats to facilitate convergence of card and account to account transactions and to allow increased transaction data which can lead to new services and capabilities.

ISO 20022 MIGRATION



"Not a priority for cards. More focused on innovating in account-based payments"

"20022 is on our platform for instant account to account transfers"

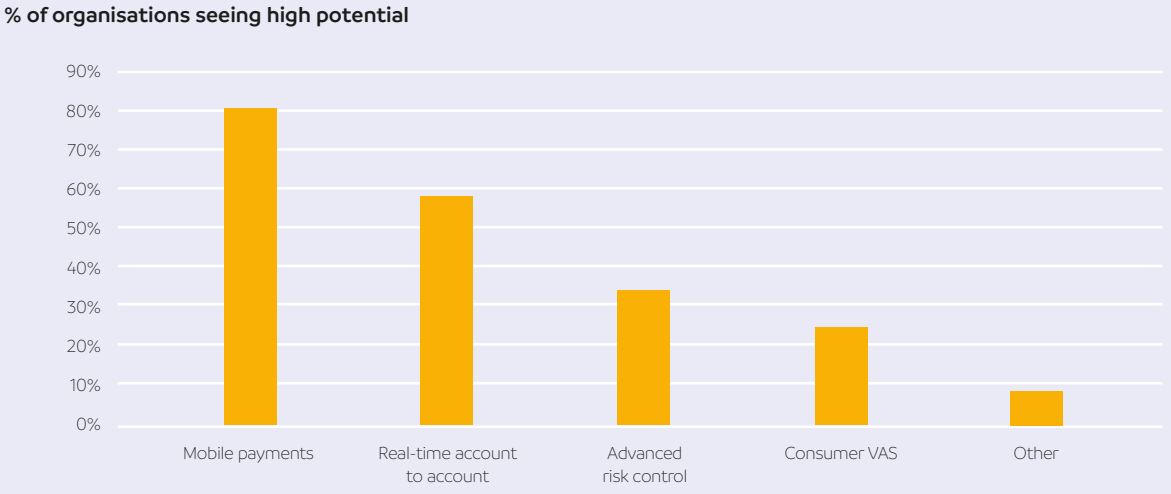
"We are still operating in ISO 8583 and are studying ISO 20022"

"We support it but it is a scheme members decision whether to migrate and when"

PROMISING AREAS FOR INNOVATION

The Jury was asked about which specific areas of payments have the most potential for innovation.

HIGH POTENTIAL AREAS FOR INNOVATION



The top-ranked area by a very large margin was mobile payments, underscoring the significance of the mergers between card schemes and mobile payment companies in Norway and Belgium.

Support for real-time account to account payments was also highly rated. For many schemes and switches, mobile payments and account to account payments are considered as a combined initiative.

There is also considerable interest in the potential for advanced risk control and consumer value added services (such as loyalty schemes and enhanced card controls).

In terms of other areas for innovation, a number were mentioned with social media payments and instalment credit receiving multiple mentions.

"We believe that e-Commerce will keep growing at double digit rates and we need to work on fraud solutions"

"Mobile support and account to account are being run together for us"

"Value-added services for retailers are a very high priority"

"We are working on Smart Data services as an independent business line and also transportation system payments"

ABOUT THE AUTHOR AND THE PAYMENTS INNOVATION JURY

John Chaplin is adviser to a number of leading payments organisations in Africa, Asia, Europe and Middle East.

He previously held senior roles at both Visa and First Data where, amongst other responsibilities, he gained experience of providing domestic switching & processing services in multiple markets. More recently he has advised domestic payments schemes and/or switches in Australia, India, Morocco, Nigeria, Norway, Turkey, UAE and Vietnam.

John is Chairman of Global Processing Services in Europe, and a board director of Interswitch in Nigeria, T-Pay in Egypt and Sentenial in Ireland. He is actively involved with African private equity as payments adviser to Helios Investment Partners.

The Payments Innovation Jury was established by John Chaplin in 2008 to collect and analyse the views of successful payments industry leaders on how innovation happens and then to share their insights for the benefit of the industry. The Payments Innovation Jury, which is a not for profit initiative, produces reports in 3 main areas:

- The Global Payments Innovation Jury, looking at consumer and B2B payments innovation across all 5 continents
- Regional Innovation Juries, so far looking at Africa and China
- Domestic Payments & Switches Juries, looking at domestic payments in a series of reports since 2013

The Jury is supported by Missive, an award-winning communications consultancy specialised in tech and fintech. Missive and its team have extensive experience across the global payments industry. Working closely with John, Missive help curate the research, source the jury and present the findings.