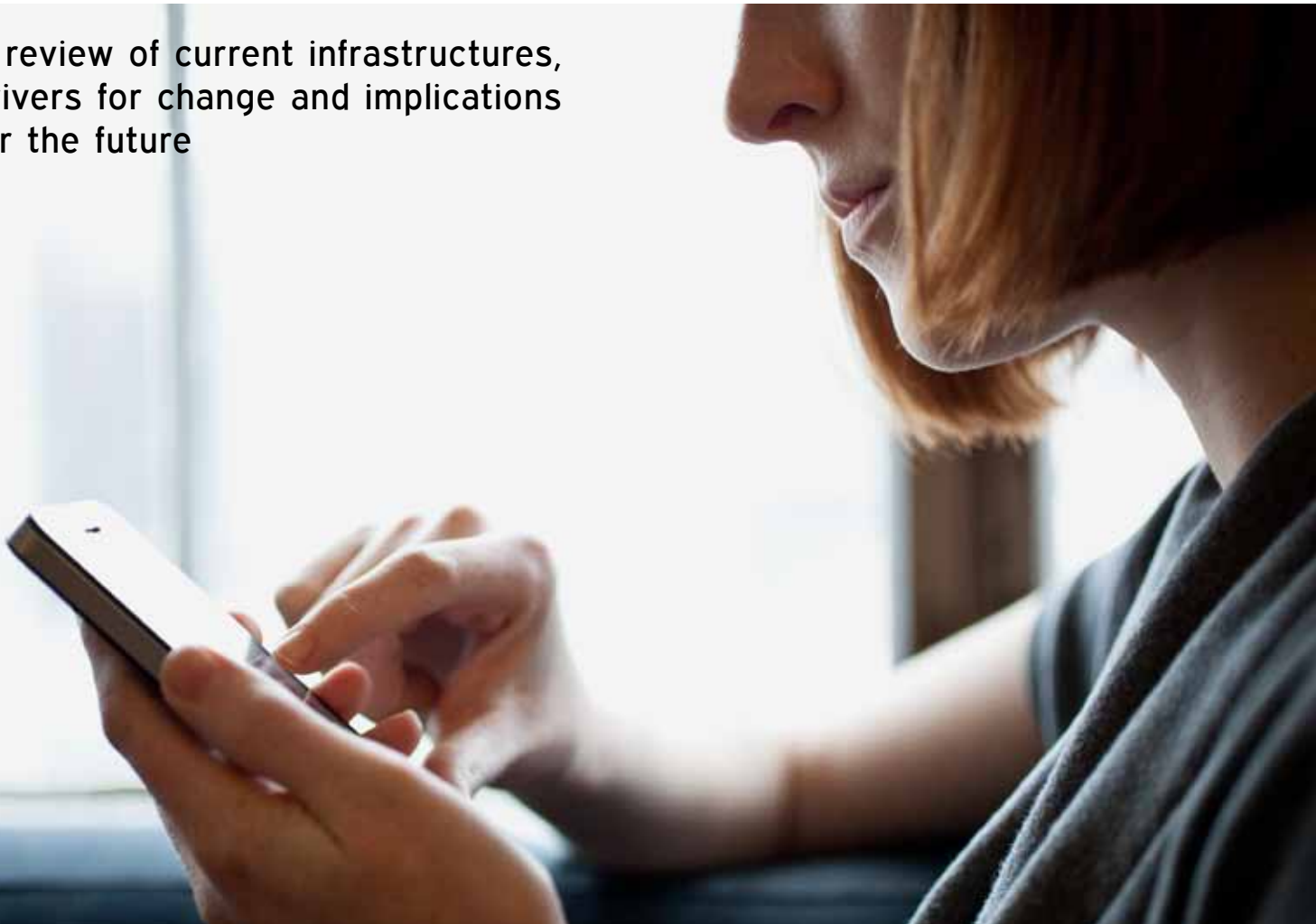




The Financial
Services Club

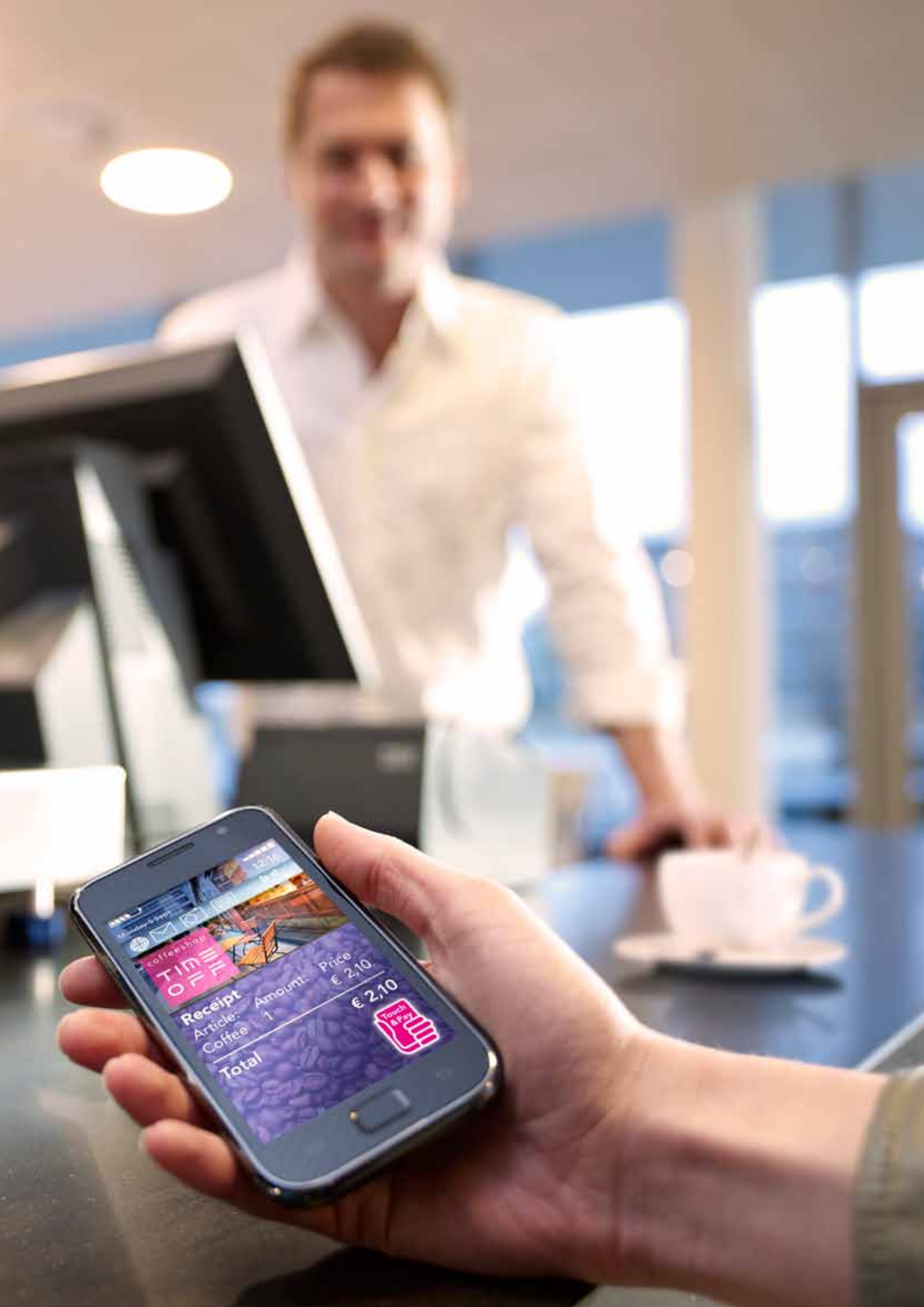
The Changing Face of Payments 2014

A review of current infrastructures,
drivers for change and implications
for the future



in collaboration with





12:16
100%
Monday & Tuesday
coffee shop
TIME OFF
Receipt
Article: Coffee
Amount: 1
Price: € 2,10
Total: € 2,10
Touch & Pay

CONTENTS

Preface.....	4
Executive Summary.....	6
What's changed in the last year?	10
Who did we survey?.....	12
Where are we today?	17
What is driving change?	21
Where are we heading?.....	27
Viewpoints.....	33
Further Reading.....	37

Preface

For the third year running the Financial Services Club ran an online survey in late 2013, in collaboration with Cognizant and VocaLink. The survey focused upon the state of the world's largest payment processing infrastructures and how market conditions are introducing changes.

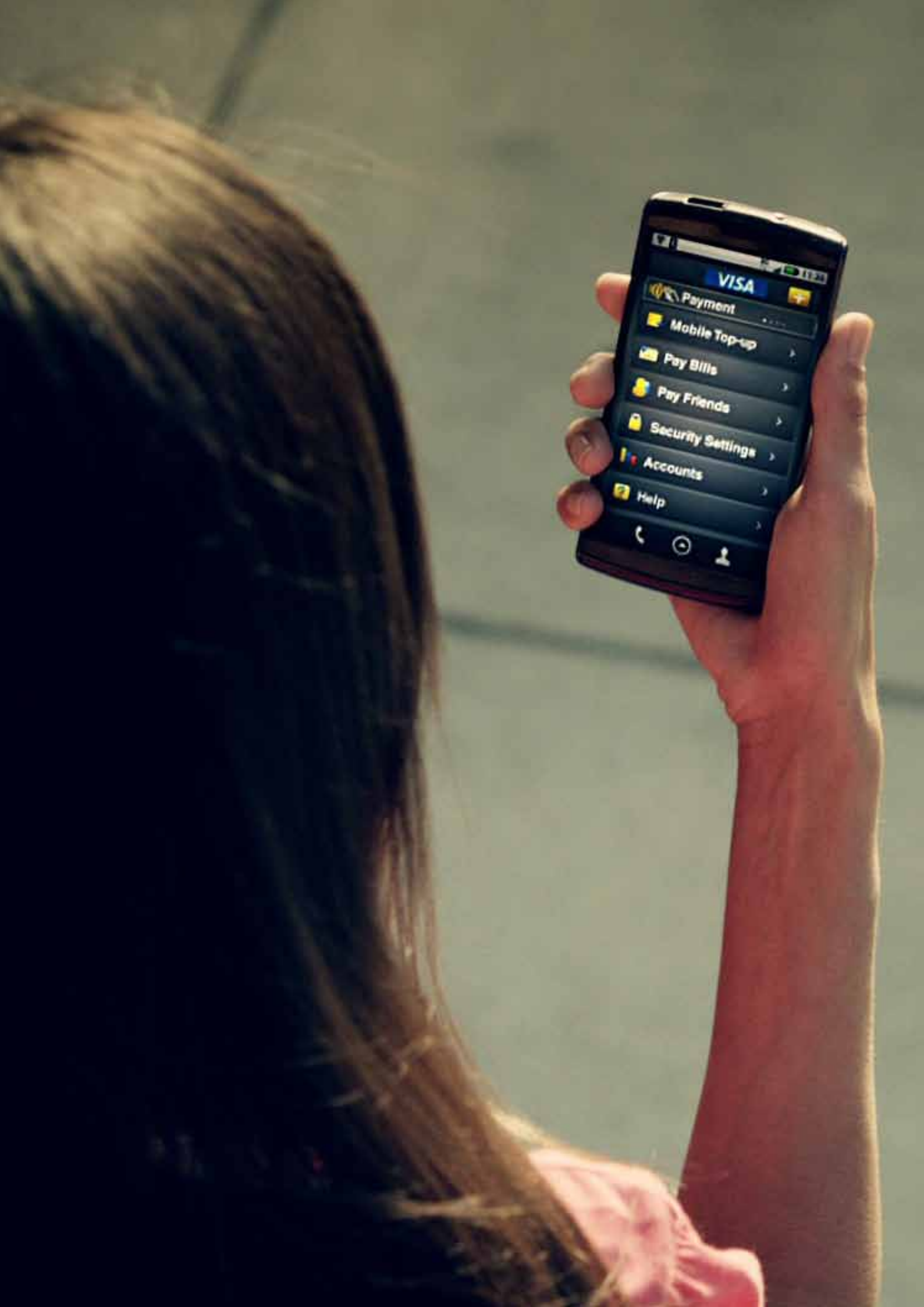
The survey was inspired by the thoughts related to the rapid changes the internet and mobile are introducing in the front end of retail payments; and the impact of real-time requirements and related changes on the back-end wholesale payments processing markets.

The results have proved interesting and build upon the last two years' surveys to validate the changing nature of payments globally. In particular, this year's report highlighted:

- the importance attached to mobile has almost doubled in importance since our first survey;
- this year has seen a significant reduction in the spending on innovation – SWIFT has seen a fall in its rating for innovation;
- a large number of respondents believe that new payment processors will have more success than incumbents;
and
- optimism about the rationalisation of payments processing infrastructures has decreased.

We trust this research prompts frank and productive discussion within the industry about how to make this transformation happen.





VISA

Payment

Mobile Top-up

Pay Bills

Pay Friends

Security Settings

Accounts

Help

Executive Summary

In late 2013, the Financial Services Club ran an online survey, in collaboration with Cognizant and VocaLink, about the nature and state of the world's largest payment processing infrastructures and whether they are fit for purpose.

The survey reviewed the areas influencing payments; the technologies that have the most impact; the ability of institutions to respond to change; the institutions that are most influential in the payments mix; and the likely trends that will most impact payments infrastructures over the next ten years.

In terms of the biggest influence, the overall view is that regulatory change to the industry is the priority right now but, long-term, this will lessen and other factors will become more pervasive, particularly innovation.

As technology is a fundamental component of processing payments, we looked at which of the technology areas have the highest priority in the retail and wholesale payments areas.

In the retail payments processing arena, where automated clearing houses (ACHs) are most likely to be involved in the central processing of payments, mobile has overtaken security as the highest priority. The importance of mobile for retail payments will continue to be tested in 2014 with the launch of inter-bank solutions. Surprisingly, with recent public, media and regulator concerns surrounding the robustness of retail payment processing at major banks, resilience is only the fourth highest priority.

Wholesale payments responses showed more divergence of views between banks and non-banks. For example, security is the highest priority for wholesale payments processing, but is emphasised more by non-banks (43%) than banks (38%).

Resilience is the second highest priority with scalability, transparency and the internet also scoring highly.

The survey showed that the key processors of payments are banks with their counterparty banks, the clearing houses, central banks and payments infrastructures such as SWIFT. The most surprising area here appeared in the lower priority sections. For example, Bitcoin was included in the survey for the first time this

**Mobile has
overtaken
security as the
highest priority**



year, in order to see whether any banks or respondents viewed this as key. No-one held virtual currencies to be of a high priority, although 11% of banks and 8% of non-banks did hail this as being of interest as a secondary priority.

Some participants are clearly innovators, especially the mobile and alternative payment scheme providers

As a corollary to this question, we asked people to provide a view of how innovative their payments providers are being in leading change in the process. Some participants are clearly trendsetters, especially the mobile and alternative payment scheme providers; whilst others are seen as both innovators and dragging their heels in the change landscape, especially the regulators, banks, ACHs and payment associations.

We see this dichotomy as a result of the fact that these organisations are pivotal to the overall pace of payments change. Expectations are high and sometimes unfulfilled.

In terms of how responsive and agile payments processors are when it comes to change, banks all believe that their systems are far less flexible than non-banks, with the biggest challenges being responding to customer and regulatory requirements. Over a quarter of banks said that they could not respond rapidly to customer and regulatory needs. In particular, regulatory change is where the banks felt most inflexible with only 1 in 5 banks ready to respond (22%) compared with 37% of non-banks.

The fact that regulatory change is where banks are most inflexible is concerning as regulation is the most influential aspect of change in core payments processing. When asked: What will be the impact on payments infrastructures of recent and impending regulatory initiatives? 87% of respondents felt that this would cause significant to major change in payments infrastructures, with 15% believing that this would cause the introduction of significant new systems. These results suggest that bank systems are straining to meet the demands of regulatory change and that investment in new systems to replace inflexible legacy will be required to meet the regulators' expectations.

The future

At the end of the survey, we explored the evolution of payments infrastructures over the next decade in depth.

Asked how many retail and wholesale payments infrastructures were in use today and how many respondents expected to exist ten years from now, the great majority of respondents consider that there are between 2-5 payment infrastructures in use now and that this will remain the case over the next 10 years. However, there was a divergence of opinion regarding consolidation and fragmentation of infrastructures. For example, although some banks see consolidation of retail and wholesale infrastructures towards just a single infrastructure, a similar number see fragmentation. Non-banks generally see an increase in infrastructures.

With the possible increase in infrastructures for retail and wholesale processing, where could this fragmentation come from and who will get the growth? The view is that most growth will be in the mobile and alternative payments space, although virtual currencies get a nod in third place for significant growth. Least growth will be with acquirers, central banks and payments associations. This is interesting as these were the three groups called out as least innovative, implying that they are constraining change in the industry.

The most likely area expected to impact payments is that mobile devices will be a mainstream option. 85% of respondents believe that mobile devices will be a mainstream option for person to person or person to business payments within the next five years, with over half of these believing this will be the case within two years.

Next most likely is that payments processing will be a key business for innovators and new entrants with 77% believing this will be the case within five years and over half of these within two years.

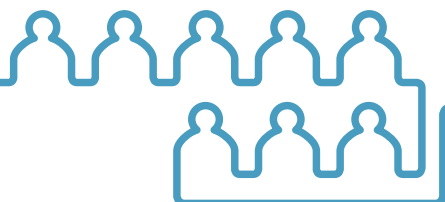
Over 62% of respondents consider that SEPA will be fully adopted across the Eurozone within the next five years, although banks had more confidence (65%) in that statement compared to non-banks (60%).

In terms of what is unlikely to occur, 70% of respondents consider that the replacement of plastic cards by mobile telephones was beyond the ten year horizon. This is surprising given mobile growth rates.

Banks felt that SWIFT or other core infrastructures being replaced was even more unlikely. 72% of banks believe that this is unlikely even ten years from now, compared with 62% of non-banks.

Our question on the likelihood of basic banking services being provided by a non-bank utility caused a divergence of views both between banks and between banks and non-banks. What is clear is that such a change would result in seismic changes in the industry.

Finally, the statement PayPal will be the largest payments processor on the planet caused a split of opinion. Although 61% of respondents felt this was unlikely in the near term, over a quarter (28%) believed this was likely to happen within the next five years.



Three key highlights



The importance attached to **mobile** has almost doubled since our last survey



Security is the highest priority for wholesale payments processing



A large number of respondents believe that **new payment processors** will have more success than incumbents

Conclusions

The impact of mobile payment developments in retail banking is far more noticeable this year, and is highlighted across the board as a key factor for change. In fact, the impact of mobile at the front end has rippled through to the demand for real-time processing in the back end retail payments infrastructures. The combined effect is a move towards immediate payments processing person-to-person.

Resilience and security are still the critical factors in payments processing, possibly at the expense of innovation. Innovation has moved down the agenda somewhat this year, particularly in the views of the community of SWIFT's contribution towards the innovation agenda, a contribution that has been significant in recent years. The perception is that this focus upon innovation has lessened over the past twelve months.

The impact of regulatory change has constrained some of our participants and this, combined with the lessening opportunities for innovation, has led to a clear view that incumbents cannot respond as easily to new customer demands as new entrants. New processors such as Holvi, alongside aggressive competition from firms such as PayPal, are providing a perception that new entrants have far greater agility than those who have been processing payments for decades.

What's changed in the last year?

Regulation reinforced as the most important driver of change

Regulation was considered highly important in our previous surveys, and the focus on regulation this year is even higher. This was perhaps not unexpected as new regulations have been announced from several different sources. Ring-fencing measures for UK and Eurozone banks may also be subject to one EU-wide package of regulations, rather than applying separate rules for UK banks and Eurozone banks. This, allied to enhanced regulatory scrutiny of payments infrastructures, is causing the financial sector to keep a real focus on regulation.

Mobile replaces security as the most important factor impacting payment processing

Security has been replaced as the top priority by mobile, with 79% of respondents now rating this as the most important factor. This is the third consecutive year that mobile has risen in importance, increasing from 48% in 2012, and 58% in 2013.

Mobile payment and alternative services providers seen as the most innovative

In this year's survey, the questions on innovative players in the payments environment were qualified as 'leading developments in the industry' or 'actively driving change'. We also decided to expand this year's scope beyond payments processors, to include mobile payment and alternative services providers.

Mobile payment and alternative services providers were ranked the most innovative, with 75% and 70%. These have replaced 2013's leaders SWIFT and MasterCard, whose ratings fell from 87% and 55% to 58% and 51% respectively, in their categories of infrastructures and card schemes. SWIFT in particular has suffered a big drop in its rating for innovation.



Reduced expectation regarding the expansion of payments infrastructures in use

The spread in the number of payment infrastructures in use remains. The majority of respondents (69%) still use between two and five infrastructures. However, the expectations of how many infrastructures will be used in the future differs considerably from last year, where 75% of the banking respondents expected they would use five or fewer infrastructures in 2022. Now 54% of participants expect to use fewer than 5 payment infrastructures.

54% of banking respondents expected to use five or fewer infrastructures in 2022, compared with 75% in our last survey

In the category 'more than ten infrastructures to be used in ten years from now' opinions have equalised across banks and non-banks.. Last year 17% of the banks expected to have more than 10 infrastructures in place, and 29% of the non-banks had this expectation. Now their score on this is almost equal with 9.5%.

So this year, it seems that optimism about the pace of rationalisation of the number of systems has decreased. On the other hand, several new infrastructures have been introduced recently and have proven successful; respondents may have the expectation that more (mobile) payment infrastructures will be launched, and will gain influence in the industry.

Reduced spending on innovation

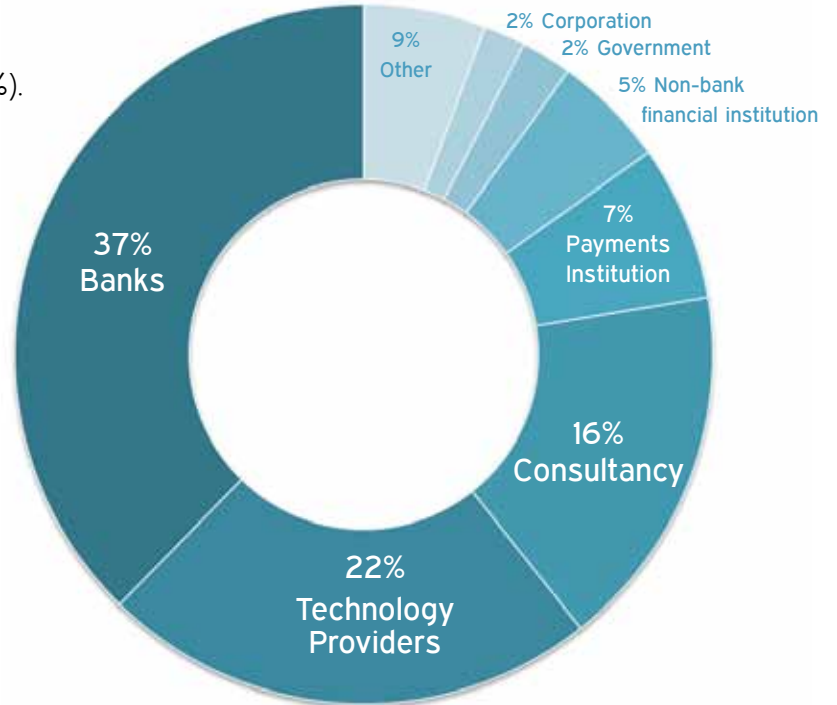
The response to change is represented by budgets. The percentage spend on regulatory change remains the highest, followed by maintenance, efficiency and innovation. Respondents spend between 20 and 30% on regulation. One particularly striking point is that spending on innovation has reduced. Last year, 43% said that up to 10% was spent on innovation. This reduced to 33% this year. The budgets have not shifted to higher spending categories. This outcome may be expected due to budgets allocated to regulation and efficiency.

New payments processors will be more successful than current incumbents

For the third consecutive year, the expectations for change in the payment ecosystem in the next decade are similar. 75% of respondents believe that ACHs will have merged, 77% believe that payment processing will be a key business for innovators, and 50% believe that cheques will no longer be used. However, opinions have changed strongly on one development. Now 82% of respondents believe that new payment processors will be more successful than current incumbents. This has risen from 53% in 2012 and 67% in 2011. This is a significant change.

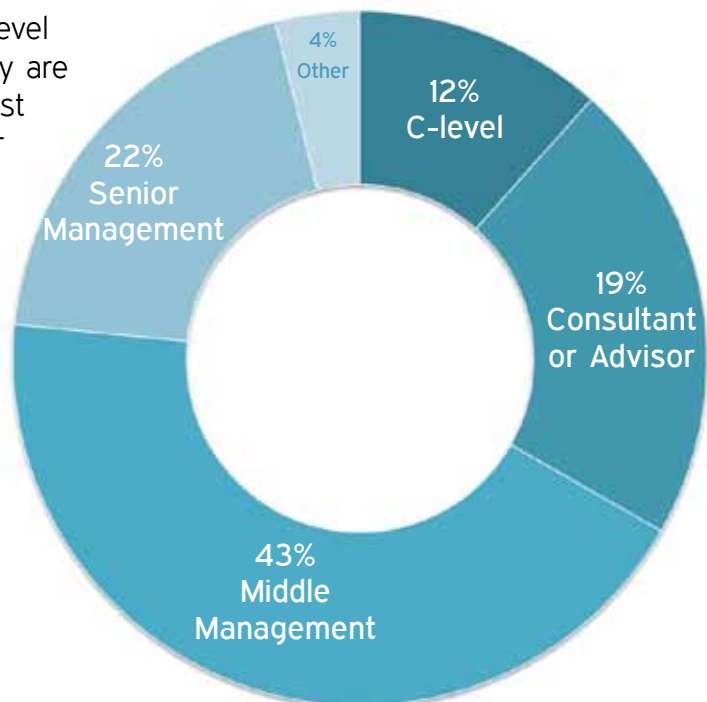
Who did we survey?

475 professionals took part in the survey mainly from banks (37%), technology providers (22%) and consultancies (16%). Non-bank financial institutions and payments processors also comprised a material part of the survey (12%).

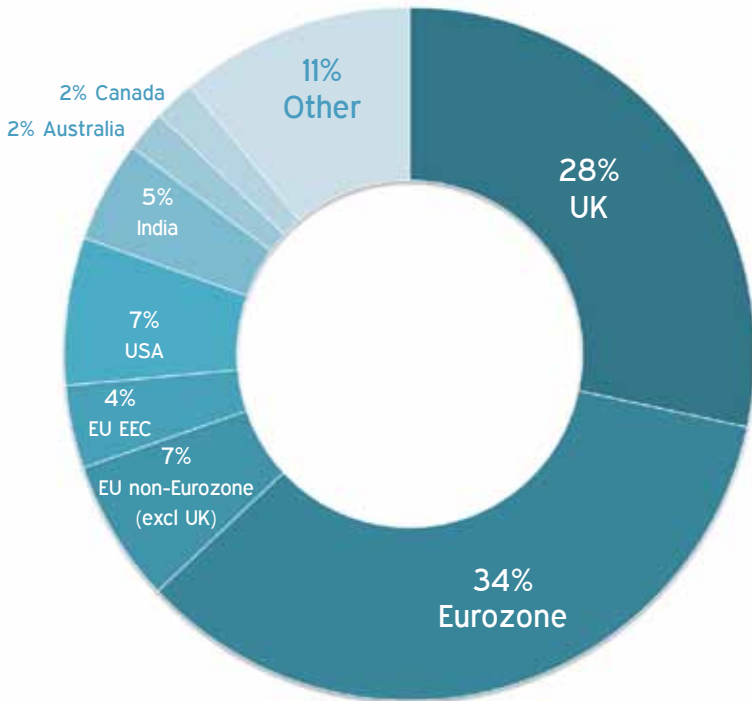


Business type of respondents

These participants represent all levels of operations and management with 12% at C-level and 22% in senior management. The majority are employed in middle management (43%), whilst consultants and advisors form another major constituency of respondents (19%).



Seniority level of respondents



In terms of geography, the participants represented a wide diversity of regions and countries, with Europe being the predominant territorial response (83% of respondents).

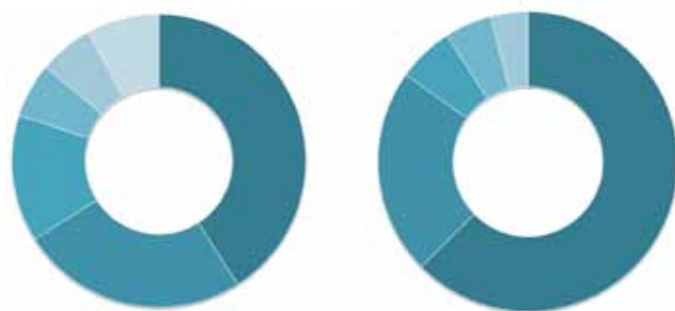
Of this number, the UK had a particularly strong representation (28%), compared with 34% last year.

Geographical spread of respondents

Budget for increasing provision of payment services

Banks

Non-banks



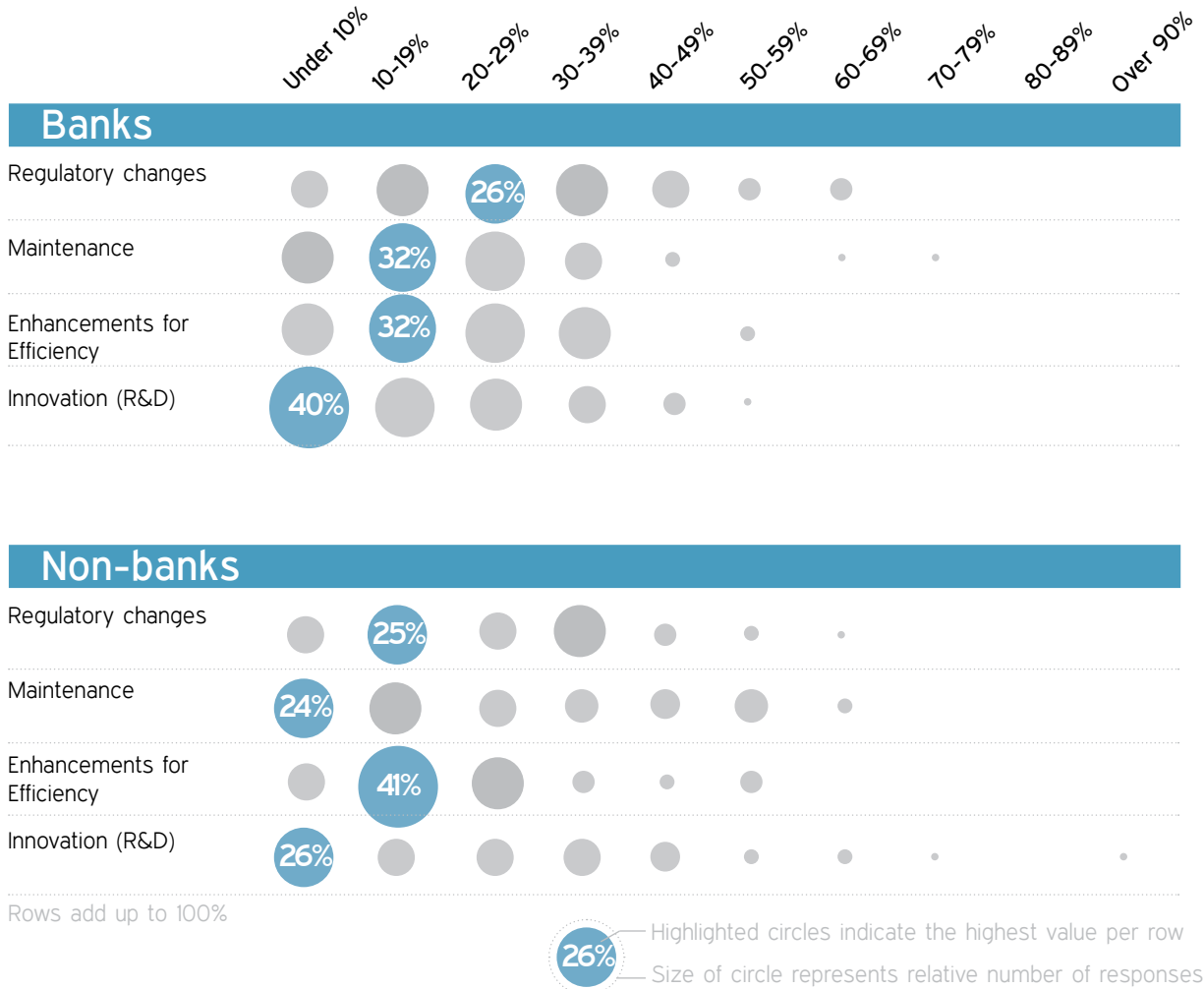
We asked for some profiling of these participants this year, and discovered that 24% of the non-bank participants *provide* payment services, whilst 23% *use and provide* such services. Bank participants *provide* (22%) or *use and provide* payments services (49%). Both banks (77%) and non-banks (49%) intend to increase their provision of payment services over the next five years.

In order to do this, some participants' organisations are spending more than £500m a year, although most have budgets of less than £10m.

In terms of how these players invest, unsurprisingly most of the investment is in regulatory change and maintenance for banks, whilst non-bank competitors are more focused upon efficiency. Interestingly, due to the nature of the new entrants in this space, some of the non-banks are spending over half of their investment upon innovation whilst only 2% of banks focus upon this area.

When asked: *Approximately what percentage of your payments spending is invested in the following areas?*¹, banks and non-bank payment processors responded as follows:

Proportion of respondents' budgets spent by area

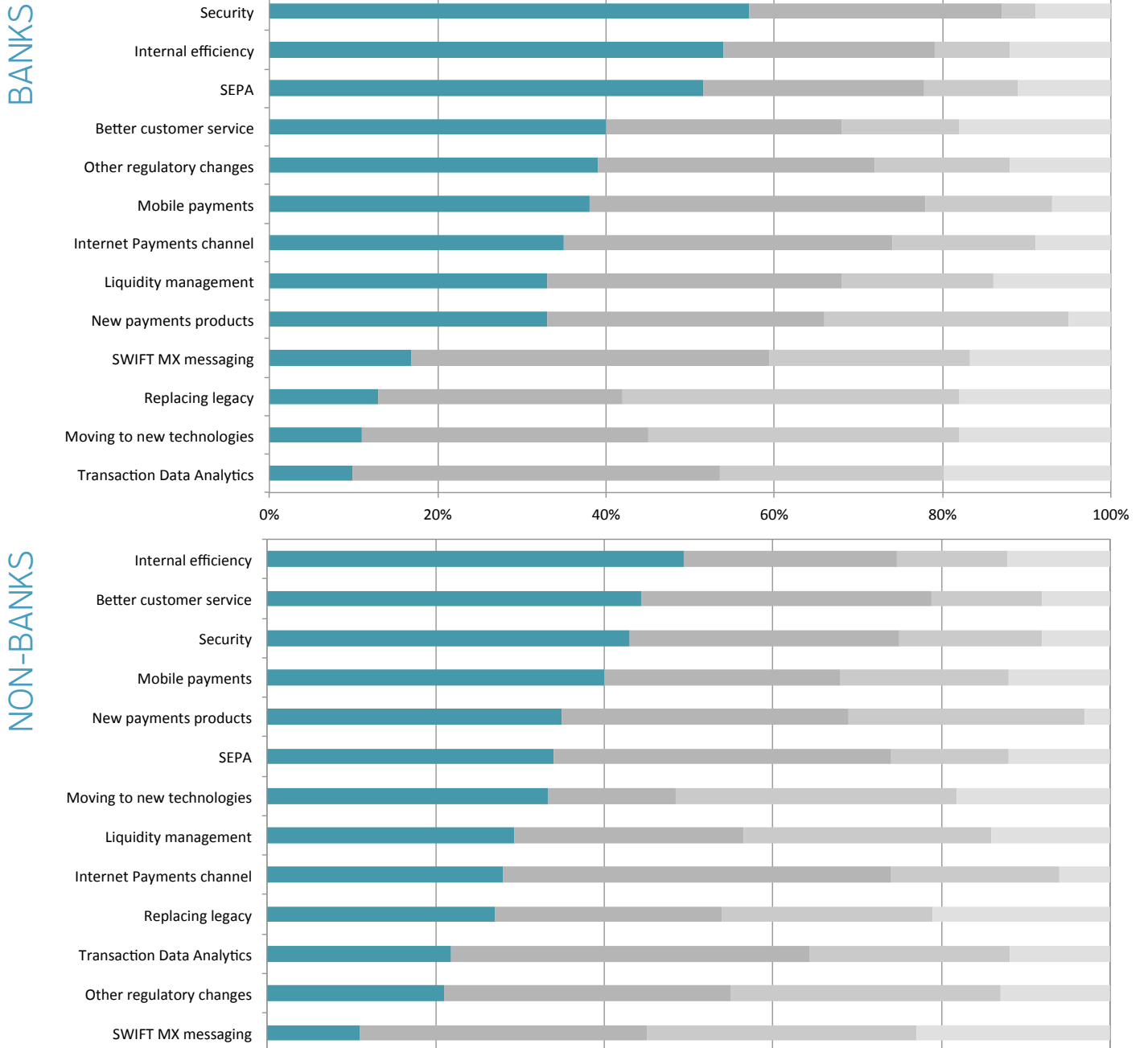


Finally, the priority areas for spending are in security, efficiency and SEPA for the bank participants; and efficiency, customer service and security for non-banks. The least priority areas are replacing legacy systems with new technologies for banks, and analysing their transaction data; whilst non-banks see SWIFT MX messaging, regulatory change and analysing transaction data as least important.

The lack of priority assigned by banks to replacing legacy systems appears inconsistent with the need to increase their responsiveness to the drivers for Payments change.

¹ Note: participants that did not process payments were asked not to respond to this question

Respondents' investment priorities:



WHERE ARE WE TODAY?



Where are we today?

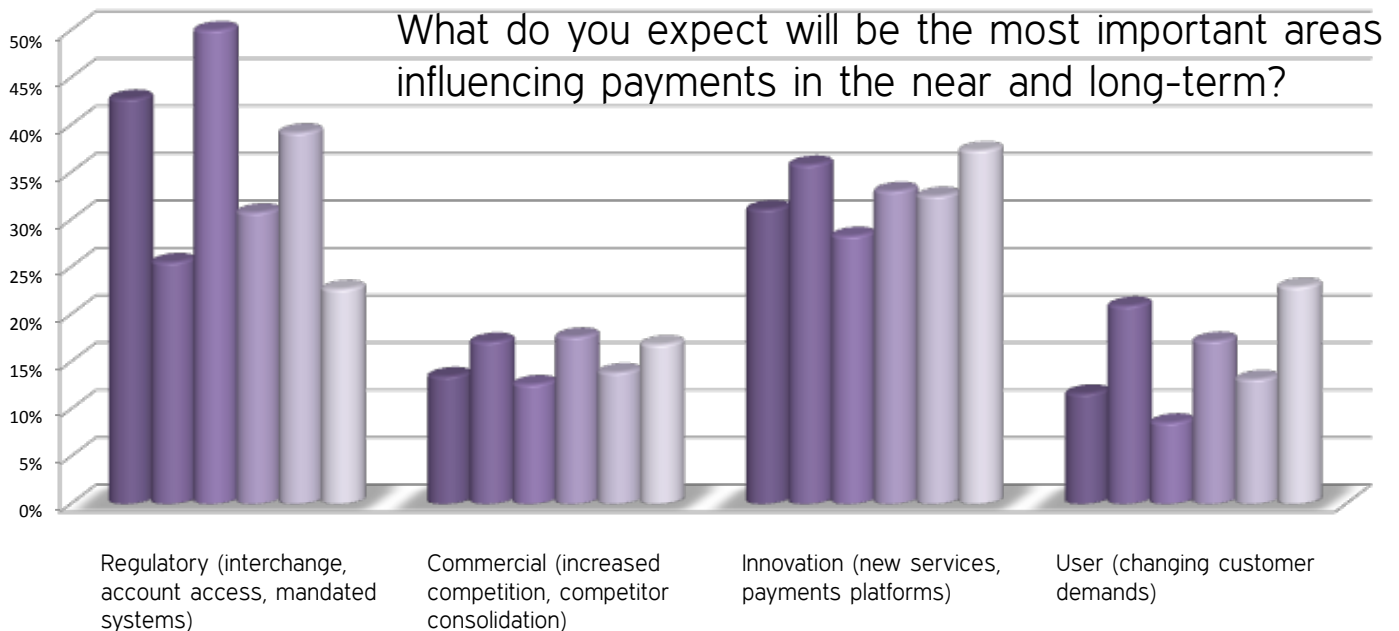
Each year we look at the things that will most impact payment strategies for banks and payment processors, and this year the overwhelming focus is on regulation.

Over 50% of banks consider this as a priority, which is unsurprising as Basel III, the Banking Union, the Bank Reform Bill, Dodd-Frank and more are all hitting the banks hard this year.

In the long-term, almost a third of banks (31%) think regulation will be an important influence but that innovation (33%) will rate higher in the future.

Interestingly, non-banks have a different view. Non-banks believe the regulation will be the most important influence in 2014 (39%), but that innovation is also nearly as important (33%). Equally, in the long-term, non-banks think that innovation (37%) will be far more of an important influence than regulation (23%). This can perhaps be expected, since innovation provides a significant opportunity for non-banks to compete.

Surprisingly, competition and customers were well behind regulation and innovation in this category for both banks and non-banks. Getting closer to customer needs and the impact of competitors seem to be areas for closer consideration.



- Short-term (all)
- Long-term (all)
- Short-term (banks)
- Long-term (banks)
- Short-term (non-banks)
- Long-term (non-banks)

The overall view is that regulatory change to the industry is the priority right now, but in the long-term, this will lessen and other factors will become more pervasive, particularly innovation. We consider that those who take a more balanced view across all of these factors will be more successful.

The most important technologies impacting payment processing

As technology is a fundamental component of processing payments, we looked at which of the following technology areas were of the highest priority for both retail and wholesale payments:

- Internet
- Mobile
- Social media
- Cloud
- Analytics
- Transparency
- Scalability
- Outsourcing
- Security
- Resilience

Obviously, there is a massive difference in focus between business to consumer retail payments processing, which is usually low value, and bank to bank or bank to business processing, where high value processing is more likely. We therefore review these segments separately.

Retail Payments Processing

In the retail payments processing arena, where the ACHs are most likely to be involved in the central processing of payments, the biggest changes are related to mobile payments and security.

Mobile scored highest amongst all participants with 34% of respondents choosing this as highest priority, 22% as second highest priority and 14% as third priority.. Banks and non-banks were similarly focused upon this.

The importance of mobile for retail payments will continue to be tested in 2014 with the launch of inter-bank solutions. Surprisingly, with recent public, media and regulator concerns surrounding the resilience of retail payment processing at major banks, resilience is only the fourth highest priority.

Security was the second highest priority area, with 29% of respondents choosing this as priority one, 20% as priority two and 19% as priority three. However, in this case there was a dichotomy between bank and non-bank views, with 32% of banks choosing this as a more important priority than the 26% non-banks. This can perhaps be explained by the greater reputational exposure that banks face from potential security breaches.

Surprisingly, none of the other areas achieved a rating higher than 10% for importance behind mobile and security. As a result, secure mobile payments processing is the most critical factor for retail payments in 2014.

Secure mobile payments processing is the most critical factor for retail payments in 2014.

Wholesale Payments Processing

The wholesale payments processing responses showed far more separation of views between banks and non-banks than with retail payments processing. For example, security is the most important priority for wholesale payments processing with 42% of respondents choosing this as their top priority. However, security as a selection is emphasised more by non-banks (43% of the vote) than banks (39%). This can be expected as banks have a large history of security policy to ensure trust with their markets and account holders and built their reputation on this. In general non-banks are younger, or even new entrants in the payments area, therefore security is perceived as more of a priority for them than for banks.

Resilience is the second highest priority with 14% of respondents identifying this as their most important. Scalability, transparency and the internet all scored similarly as the next most important factors, with banks viewing transparency of pricing and the internet as having more of an impact than non-banks.



WHAT'S DRIVING CHANGE?



What is driving change?

The survey reviewed the key processors of payments and asked participants:

"In order of priority, what are the key infrastructures you process payments through today?"

The answers proved interesting, with banks viewing counterparty banks, the clearing houses, central banks and payments infrastructures such as SWIFT as being most critical.

Unsurprisingly, non-banks viewed banks as their key payments processors, with far fewer having access to or use of clearing houses, central banks and payments infrastructures.

The most surprising areas appeared in the lower priority sections however.

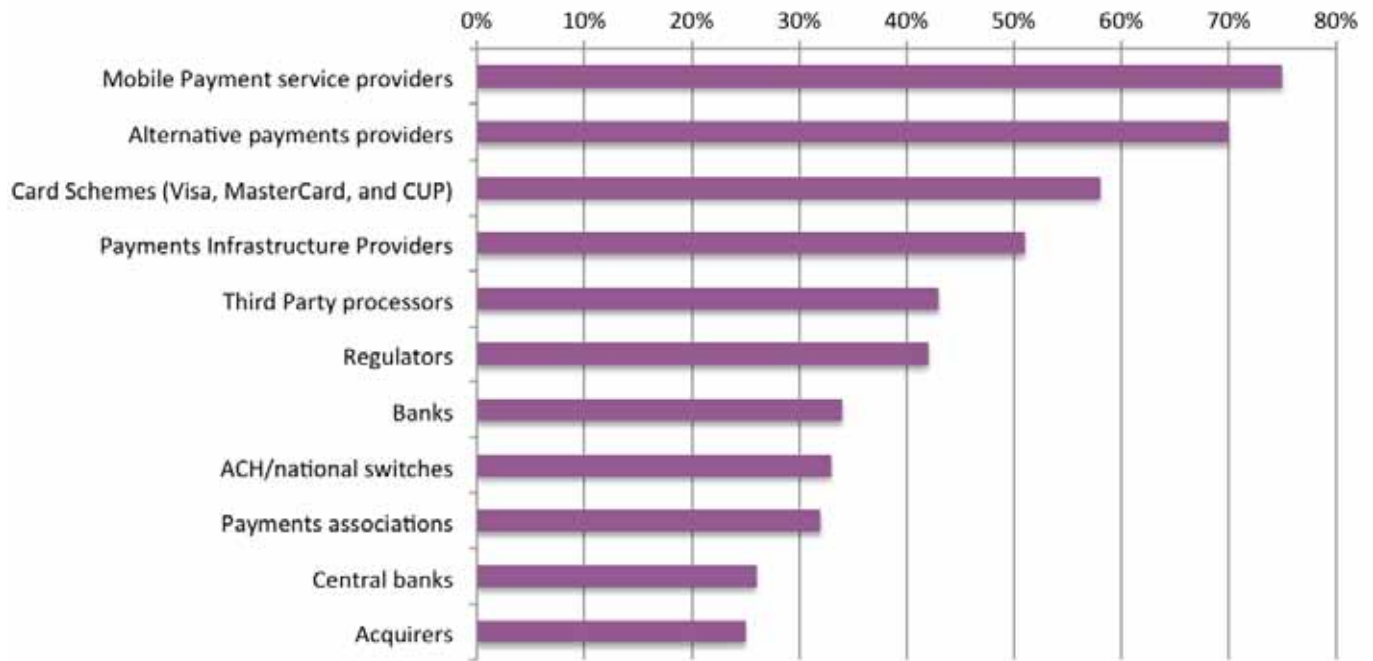
For example, banks (15%) are viewing mobile payment processors such as Square, iZettle and mPowa, as higher priority than non-banks (7%). Non-banks (16%) view alternative payment providers, such as PayPal, Yandex Money and Alipay, as more important than banks (7%). This may be a reflection of the consumer view of money – using cards and consumer processing services such as PayPal – rather than the bank and corporate view of payments, but does show a major disparity.

Intriguingly, Bitcoin was included in the survey for the first time this year, in order to see whether any banks or respondents viewed this as key. No-one held virtual currencies to be of a high priority, although 11% of banks and 8% of non-banks did hail this as being of interest as a secondary priority.

In the retail payments processing arena, where ACHs are most likely to be involved in the central processing of payments, mobile has overtaken security as the highest priority

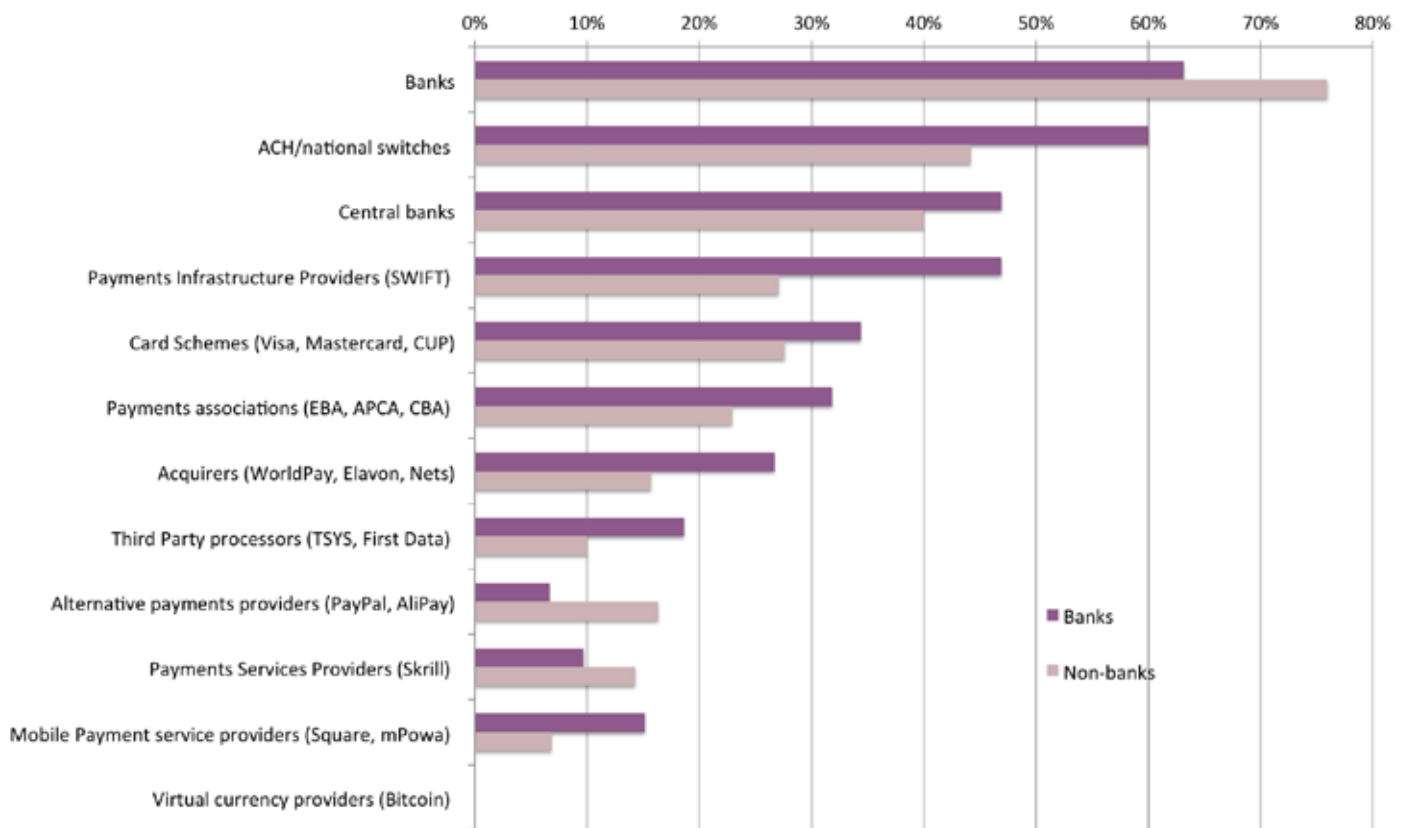
As a corollary to this question, we asked people to provide a view of how innovative their payments providers are being in leading change. Some participants are clearly innovators, especially the mobile and alternative payment scheme providers; whilst others are dragging their heels in the change landscape, especially the regulators, Banks, ACHs and payment associations.

The Change Leaders were:



In order of priority, what are the key infrastructures you process payments through today?

(selections based upon the entities being viewed as the highest priority (Priority 1))



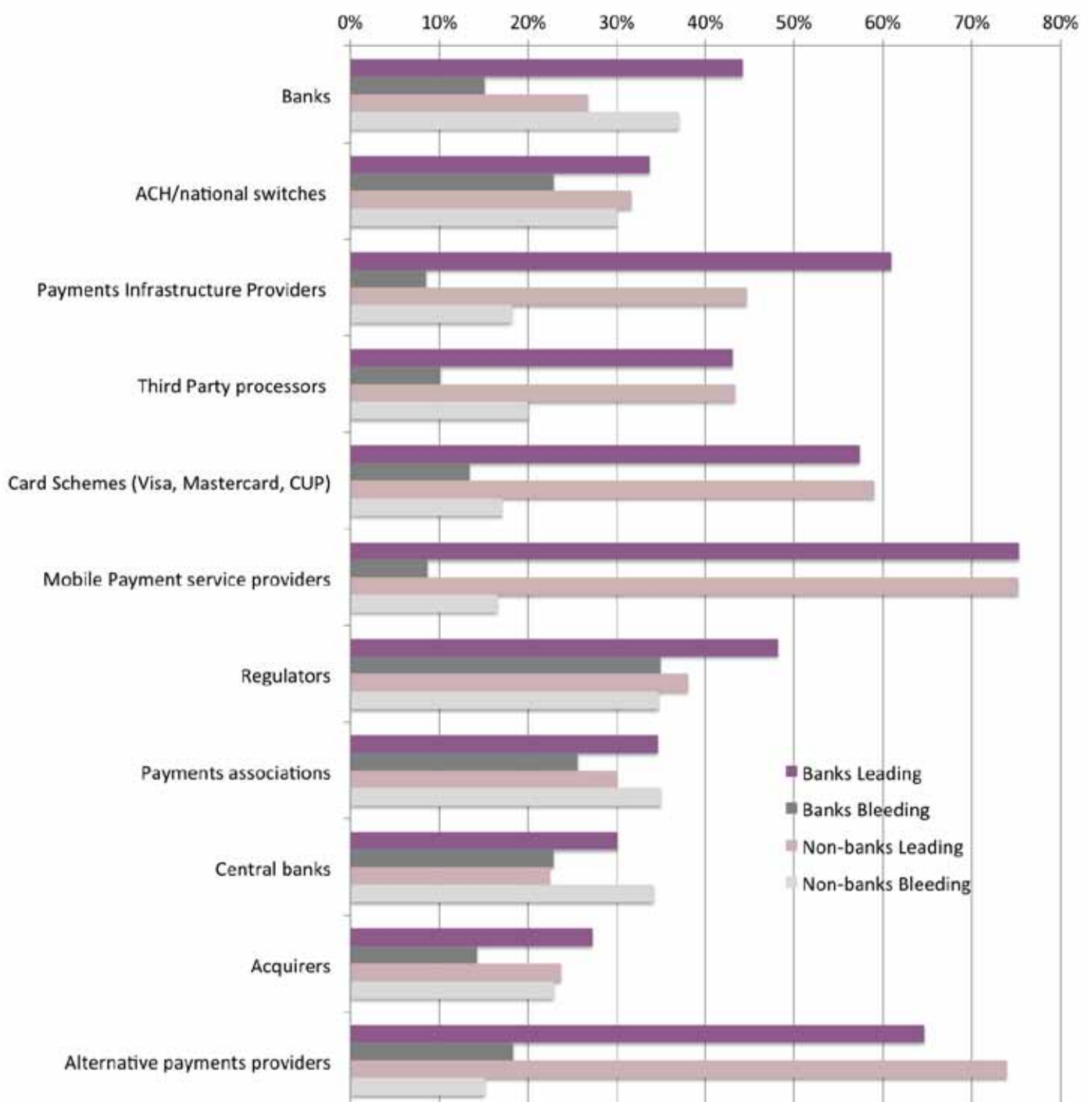
Turning to those organisations who are dragging their heels, a third of non-banks consider that Banks (37%), ACHs (30%), Payments Associations (35%) and Central Banks (34%) are in the bleeding change category although, interestingly, a similar number voted that these institutions were leading change.

Similarly, banks and non-banks consider that regulators were leading and bleeding change, with 48% of banks saying they were leading versus 35% stating they were bleeding change compared with 38% and 35% of non-banks.

We see this dichotomy (of leading versus bleeding change) as a result of the fact that these organisations are pivotal to the overall pace of payments change. Expectations are high and sometimes unfulfilled.

Please rate the following participants in the payments “ecosystem” using the description which best fits:

- **Leading** incorporates the votes of participants who selected the participant as “Leading development in the industry” or “Actively driving change”
- **Bleeding** incorporates the votes of participants who selected the participant as “Not fully fit for purpose” or “Out-of-date”



How easy is it to change?

The next section of the survey looked at how responsive and agile payments processors are when it comes to change. Change created by customer behaviours, regulations, competition and unpredictable processing volumes are all triggers for refreshment or renewal of the payments infrastructure, and the challenge is how rapidly processors can respond to such change requirements.

In this section, banks all believe that their systems are far less flexible than non-banks, with the biggest challenges being responding to customer and regulatory requirements for change.

All banks believe that their systems are far less flexible than non-banks, with over a quarter of banks stating that they cannot respond rapidly to customer and regulatory needs

Although a fifth of respondents believe that responding to customer and regulatory change is a challenge, banks were far more negative than non-banks about these challenges. Over a quarter of banks said that they could not respond rapidly to customer and regulatory needs (28% and 25% respectively compared with 16% and 19% of non-banks), whilst fewer than a third of banks felt they had the flexibility needed.

This is probably as a result of the fact that banks are facing an unprecedented pace and scale of regulatory change and are very much front and centre of its associated impact.

Unsurprisingly, regulatory change is where banks consider themselves to be most inflexible with only 22% of banks adequately ready to respond, compared with 37% of non-banks. Even more tellingly, just under a third of banks (31%) felt they could respond to customer behavioural changes, compared with the majority of non-banks (43%) who felt they did have the appropriate levels of responsiveness.

This all points to an inherent lack of flexibility in Bank payment infrastructures likely to be caused by legacy systems.

The fact that regulatory change is where banks are most inflexible is concerning as regulations are causing significant to major change in core payments processing. When asked:

"What will be the impact on payments infrastructures of recent and impending regulatory initiatives?"

87% of respondents felt that this would be significant to major change with 15% believing that this would cause the introduction of significant new systems.

These results demonstrate that bank systems are straining to meet the demands of regulatory change and that investment in new systems to replace inflexible legacy will be required to meet the regulators' expectations.

WHERE ARE WE HEADING?



Where are we heading?

We then looked at the evolution of payments infrastructures over the next decade.

First, would there be more or less infrastructure in the future?

Asked how many retail and wholesale payments infrastructures were in use today and how many respondents expected to exist ten years from now, respondents gave a view as to whether there would be consolidation and rationalisation.

The survey indicates that most respondents believe that between two and five payments infrastructures is likely, with some counter-balancing of consolidation and fragmentation the likely cause.

There was some divergence of view, and the emphasis on consolidation and fragmentation does not permeate across the markets pervasively. For example, although banks see that there will be consolidation of retail and wholesale infrastructures towards just a single infrastructure, a similar number see fragmentation. Over 12% of banks expected an increase in retail payments infrastructures, and 5% expect an increase in wholesale infrastructures.

This contrasts with non-banks however, who see an increase in infrastructures across the gamut. Over 11% anticipate that there will be more than five payments infrastructures for retail payments processing over the next decade, whilst over 8% anticipate that the number of wholesale payments infrastructures will explode above ten.

With the possible increase in infrastructures for retail and wholesale processing, where could this fragmentation come from and who will get the growth? The view is that most growth will be in the mobile and alternative payments space, although virtual currencies get a nod in third place for significant growth. Least growth will be with acquirers, central banks and payments associations. This is interesting as these were the three groups called out as least innovative, implying that they are constraining rather than leading change in the industry.



We asked our participants whether they agreed or disagreed with the following statements:

- *New payments processors will be more successful than current incumbents*
- *Payments processing will be a key business for innovators and new entrants*
- *Mobile devices will be a mainstream option for person to person or person to business payments*
- *PayPal will be the largest payments processor on the planet*
- *Cash usage will have declined to below 10% of retail transactions by value.*
- *Non card payment volumes (whether mobile or other) will be comparable to card based payments on-line*
- *Non card payment volumes (whether mobile or other) will be comparable to card based payments at the physical point of sale*
- *Cheques will no longer be used at all*
- *Plastic cards will have disappeared*
- *SEPA will be fully adopted in the euro zone*
- *The majority of retail payments will transfer value in real-time between payer and beneficiary*
- *National ACHs will be superseded by consolidated regional ACHs*
- *Core payment infrastructure systems, such as SWIFT, will have been replaced*
- *Payments will no longer be viewed as a core revenue stream by banks*
- *ISO20022 will have been implemented across domestic ACH payments*
- *Customers will be able to retain the same account number when they change banks*
- *Basic banking services will be provided by a non-bank utility company*
- *Banks will have been replaced in the payments business by non-Bank PSPs*
- *Most banks and payment institutions will have direct access to payment clearings.*
- *Payments Transaction Data Analytics will be a major source of payments-related revenue?*

If they agreed, we then asked in what timeframes they expected these changes to occur.

Interestingly the most likely area expected to occur is that:

"Mobile devices will be a mainstream option for person to person or person to business payments."

85% of respondents believe that mobile devices will be a mainstream option for person-to-person or person-to-business payments within the next five years

85% of respondents believe that the statement will be true within the next five years, with over half of these believing this will be the case within two years.

Next most likely is that:

"Payments processing will be a key business for innovators and new entrants"

with 77% considering this will be the case within five years and 39% within two years.

One of the most interesting disparities in near-term thinking relates to SEPA, the Single Euro Payments Area. Although the majority of respondents (62%) think this will be fully adopted in the Eurozone within the next five years, there is a 5% difference of opinion between the banks and non-banks. 65% of banks agreed with the statement:

"SEPA will be fully adopted in the Eurozone"

within the next two to five years, compared with 60% of non-banks.

In terms of areas for the medium-term (five to ten years out), all of the statements resonated as being likely:

- *Non card payment volumes will be comparable to card based payments at the physical POS*
- *Most banks and payment institutions will have direct access to payment clearings*
- *Basic banking services will be provided by a non-bank utility company*
- *ISO20022 will have been implemented across domestic ACH payments*
- *National ACHs will be superseded by consolidated regional ACHs*
- *Cheques will no longer be used at all*

Of these, the only one that created a disparity of view was the statement:

"Basic banking services will be provided by a non-bank utility company."

This is unsurprising in some ways, as banks believe they have a long-term future, although it was intriguing that almost a third (31%) of banks agreed this was likely within five years whilst 39% thought it unlikely within the next ten years. Intriguingly non-banks thought the opposite, with 50% stating this would happen within five years and only 27% seeing this as being a distant future.

In the UK market for example, it will be interesting to see whether or not the implementation of Industry Account Switchers will achieve the enhanced competition sought in the Retail industry. This in turn could force further regulatory changes towards account number portability, which could hasten the move to a utility for core banking services.

With regard to the most *unlikely* areas to become reality, the following statements were all regarded as being too far out to be realistic:

- *Plastic cards will have disappeared*
- *Core payment infrastructure systems, such as SWIFT, will have been replaced*
- *PayPal will be the largest payments processor on the planet*
- *Banks will have been replaced in the payments business by non-Bank PSPs*

This is interesting as cards disappearing as a result of the impact of mobile telephones and other services would appear quite likely, but over 70% of respondents considered this was beyond the ten year horizon.


Banks felt that SWIFT or other core infrastructures being replaced was even more unlikely. 72% of banks consider that this is unlikely even ten years from now, compared with 62% of non-banks.

Finally, the statement

"PayPal will be the largest payments processor on the planet"

caused a split of opinion. Although 61% of respondents felt this was unlikely in the near term, over a quarter (28%) considered this was likely to happen within the next five years.

**Optimism about the
rationalisation of payments
processing infrastructures has
decreased in this year's survey**



Regulation was considered highly important in our previous surveys, and the focus on regulation is even higher this year

VIEWPOINTS



Viewpoints

Chris Dunne, Payment Services Director, VocaLink

The world is evolving, from infrastructures to ecosystems.

We are delighted to once again sponsor this research; it provides a unique and timely insight into a rapidly changing world. This year's survey has been improved to better categorise those businesses participating in the payments infrastructure value chain as it evolves. This has seen a move away from identifying specific players such as SWIFT to one where we look at categories of players, and for good reason. First it reflects the international dimension of the survey; not all providers are relevant to all markets. More importantly, where once we expected consolidation in some areas we are actually seeing diversification. The list of categories is growing as we attempt to cater for everything from increasingly diverse point of sale devices to the networks that connect everyone in the value chain. As one element changes, for example the introduction of a real-time ACH, it creates opportunities for other elements to evolve and new businesses to emerge.

Barriers to change are progressively being reduced through enabling regulation like PSD2 in Europe and the Financial Services (Banking Reform) Act in the UK. The process of regulation, whilst highlighted by banks as the biggest driver for change (perhaps because they feel the burden falls heaviest on them) is in itself playing catch up. Non-banks are probably more on the money as they see innovation as being the biggest driver, with corresponding user behaviour more important than regulation. In our increasingly fast paced world, digital innovation is forcing regulators to play catch-up with rapid developments in the market. Hence the need for regulators to monitor innovators and ensure their activities take place in a clearly defined environment – promoting innovation, whilst protecting the customer.

New regulatory definitions then develop as a consequence. Where PSD1 gave us Payments Institutions, PSD2 will give us Payments Initiation Service providers.



Alongside this increasing diversity of players, the opinions of those who completed the survey are diverse but not incompatible.

"Payments [as a business] is changing and the role of banks, technology and new providers is being driven by consumer industry style pace of innovation", wrote one respondent, whilst another accepted that this will mean significant change to the infrastructures that have relevance to the consumer:

"I envision a payments ecosystem with players that are

Chris Dunne
Payment Services Director
VocaLink

not major players today, and diminished importance of Visa/MasterCard". Those closer to the wholesale interbank world saw a different effect, "Globalisation demands will re-emerge", wrote one respondent, whilst another saw the need for extreme rationalisation of the underlying rails: "convergence of cards and electronic payments capability with huge scale and full commoditisation". Of the mechanisms cited to support this commoditisation and improvement in wholesale capacity "real-time", "APIs" and "ISO 20022" were the most mentioned, underlining the need to have strong modern underpinnings if the demands of the digital age are to be met.

Reading between the lines, these comments seem to reflect the significant levels of thought that are going into the structure of the payments market from regulators, central banks, processors and payment associations in many countries, spurred on by the huge commercial interest in payments and the opportunity presented to improve economic efficiency by reform and investment. Another commonly used word from the respondents was "ecosystem". This reflects the world in which we now find ourselves, implying balance between collaboration and competition, evolution and growth. The challenge is to keep this balance without compromising the resilience, security and performance of the payments systems.



Tony Viridi
Vice President
Banking and Financial Services
Cognizant

Tony Viridi, Cognizant

Once again, 2013 was a challenging year for the payments industry. The public, media and regulatory spotlight was very much on the banking and payments sector following continued high-profile payment service outages and money laundering fines, allied to the implementation of new payments services to support regulatory changes such as SEPA (Single European Payments Area) and Industry Account Switching in the UK.

In 2014, moves to leverage initiatives to take forward and standardise payments processing and change the landscape are gaining momentum. Examples include:

- plans for Faster Payments solutions in the US and Australia
- proposals for account switching across the Eurozone
- new mobile payment solutions continue to leverage regional implementation experiences
- implementation of the pan-European MyBank service
- the adoption of ISO20022 standards

We are in a period of unprecedented scale and pace of change in the payments industry, driven by a potent mix of social, technological, political, competitive and regulatory drivers for change. However, it is clear that whilst regulatory forces remain key, in the long-term, innovation will become more pervasive.

The impact of regulation

Regulation remains a curate's egg for the payments industry. Industry participants are simultaneously considering the challenges of the past, present and future regulatory scenarios. Nowhere else is this challenge as clear as in the UK market. The spotlight on payments resilience, the spectre of a new payments regulatory approach under the FCA as opposed to The Payments Council, the implications of ring-fencing on bank payment systems, and the potential for account number portability, all present 'puissance' level obstacles to overcome in that market.

This survey results indicate a dichotomy in the opinions of Banks. On the one hand banks recognise that bank payments systems are straining to meet the demands of regulatory change, whilst on the other, there is limited focus on the replacement of inflexible legacy platforms.

Regulation is driving the need for improved customer on-boarding, liquidity analysis, reporting and detection processes. Transparency and cooperation with the regulators is essential. Agility and resilience through the required changes will clearly differentiate the winners from the losers.

The mobile march continues unabated

Our survey indicates that for the first time, mobile has overtaken security as the most important technology factor impacting change in the payments industry. This is consistent with the growth of the mobile channel for banking and payment services and the plethora of wallet and mobile payment and mobile commerce solutions.

The 2014 launch of Paym in the UK market will be a pivotal moment. Will the combination of social and technological changes fundamentally change the way that people exchange value, or is it all just hype? Will the death of cash be accelerated as a result? At Cognizant, we believe that the combined forces of Social, Mobile, Analytics and Cloud (the SMAC stack) are fundamentally changing the way that people work, communicate and exchange value and how companies compete. Cash will of course remain for the foreseeable future. But the next two years will most likely be a tipping point for mobile peer to peer payments and their impact on value exchange.

Big Data and Code Halos

Last year, we heralded the importance of the opportunities with Big Data. Payments organisations are now using big data and analytics to improve the customer experience, increase sales through personalisation and associated targeting, optimise pricing and reduce costs.

At Cognizant we believe that everyone has a 'code halo'. The term refers to the data that accumulates around people, devices, and organisations - a halo of code (a "virtual self"), that's robust, powerful, and rich with meaning and insight. Code Halos are important to us as individuals - most of us generate and share digital information every day, but Code Halos are also vital to future business success. An example is Amazon's Betterizer, where the rating of a product by a consumer is used by the merchant for product development, based on rating patterns. The payments industry is embracing the opportunity to leverage big data and code halos to differentiate their businesses.

The Way Ahead

The payments industry is facing very high expectations from regulators, consumers and counterparties. The challenges and opportunities are all around. The winners will be those that can navigate through the perfect storm of change and can:

- predict and steer through the regulation of the past, present and the future
- leverage innovation in a changing social, technological, political and competitive landscape
- respond to customer's expectations of an 'Apple-like' experience across payment transactions
- recognise the importance of their data assets
- build assets that deliver change at lowest cost, greatest pace and evident quality
- understand the importance of, and sustain payments resilience through that change.

Further Reading



Code Halos: How the Digital Lives of People, Things, and Organizations are Changing the Rules of Business.

Malcolm Frank, Paul Roehrig and Ben Pring, 2014. John Wiley & Sons.

<http://www.cognizant.com/code-halos>



Mobile Payments: How US Banks can Deal with Disruptive Change

<http://www.cognizant.com/InsightsWhitepapers/Mobile-Payments-How-US-Banks-Can-Deal-with-Disruptive-Change.pdf>



How Global Banks are Gearing Up to Address Emerging International Payment Processing Needs

<http://www.cognizant.com/InsightsWhitepapers/How-Global-Banks-Are-Gearing-Up-to-Address-Emerging-International-Payment-Processing-Needs.pdf>



B2B Foreign Exchange Payments Technology Enabled Opportunities for Banks

<http://www.cognizant.com/InsightsWhitepapers/B2B-Foreign-Exchange-Payments-Technology-Enabled-Opportunities-for-Banks.pdf>



Forward Looking Practices in Wealth Management

<http://www.cognizant.com/insightswhitepapers/Forward-Looking-Practices-in-Wealth-Management.pdf>





Mobile payment and alternative services providers are ranked as the most innovative this year, replacing SWIFT and Mastercard

This report was independently written by the Financial Services Club, and commissioned by Cognizant and VocaLink.

Financial Services Club

The Financial Services Club is a unique service aimed at senior executives and decision-makers from banks, insurance companies, technology firms, consultancies — any firm that is interested in understanding and planning for the future operating environment for the UK financial services markets. It allows members to network with hundreds of professionals, all sharing a common interest in the future of the industry, at more than 50 events each year held around Europe, with keynote speakers and luminaries from the industry airing their views on the future of financial services.

fsclub.co.uk | [@fsclub](https://twitter.com/fsclub)

Cognizant

Cognizant (NASDAQ: CTSI) is a leading provider of information technology, consulting, and business process outsourcing services, dedicated to helping the world's leading companies build stronger businesses. Headquartered in Teaneck, New Jersey (U.S.), Cognizant combines a passion for client satisfaction, technology innovation, deep industry and business process expertise, and a global, collaborative workforce that embodies the future of work. With over 50 delivery centers worldwide and approximately 171,400 employees as of December 31, 2013, Cognizant is a member of the NASDAQ-100, the S&P 500, the Forbes Global 2000, and the Fortune 500 and is ranked among the top performing and fastest growing companies in the world.

cognizant.com/uk | [@Cognizant](https://twitter.com/Cognizant)

VocaLink

VocaLink designs, builds and operates world-class payment systems and ATM switching platforms. We operate the UK national payments infrastructure, a national grid for payments. VocaLink's innovative, sustainable, and highly efficient payment services touch the lives of almost every person and business in the UK. Through our systems we process over 90% of UK salaries, more than 70% of household bills and almost all state benefits. VocaLink technology powers the Bacs and Direct Debit schemes as well as connecting the world's busiest network of over 65,000 ATMs through the LINK scheme. Our platforms have made it easier to make payments confidently, securely and cost effectively. Last year we processed over 10 billion UK transactions with a value of £4.9 trillion. VocaLink, with its vision and proven capability, is leading the way in payments. We provide the infrastructure for the Faster Payments Service, which helps businesses and individuals realise the value and benefit of real-time payments. VocaLink is at the forefront of mobile payments, driving a new era of ultra-convenient commerce.

vocalink.com | [@vocalink](https://twitter.com/vocalink)



**The Financial
Services Club**

Financial Services Club

11 Nelson Villas
Quex Road
Westgate-on-Sea
Kent CT8 8BN
United Kingdom



VOCALINK

VocaLink

5th Floor
60 Gresham Street
London EC2V 7BB
United Kingdom
+44 (0) 870 165 0019



Cognizant

Cognizant

1 Kingdom Street
London W2 6BD
United Kingdom
+44 (0) 20 7297 7600

©2014 Financial Services Club and Cognizant. All rights reserved.

No part of this document may be reproduced, stored in a retrieval system, transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the express written permission from the Financial Services Club. The information contained herein is subject to change without notice. All other trademarks mentioned herein are the property of their respective owners.