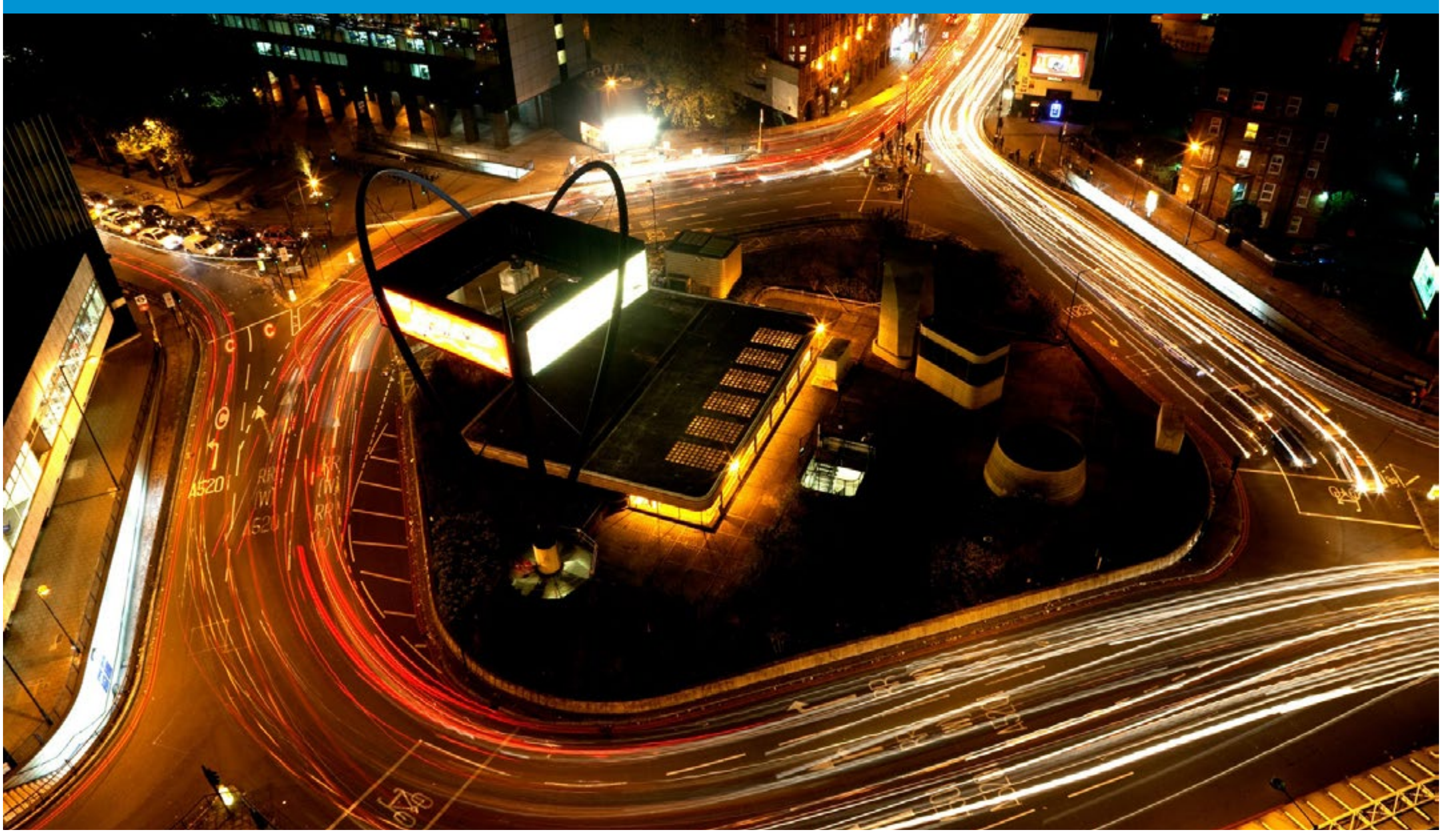
A REPORT ON FINEXTRA RESEARCH
IN ASSOCIATION WITH BSI

JULY 2016

A ROADMAP FOR FINTECH STANDARDS

FINDINGS OF FINEXTRA RESEARCH INTO THE POTENTIAL FOR STANDARDS TO SUPPORT UK FINTECH GROWTH



01
EXECUTIVE SUMMARY

The UK's fintech market is estimated to be worth around £20bn* in annual revenues, and it is the stated aim of the UK Government to further drive fintech's growth to benefit the UK's economy, financial services industry and consumers. At the same time, European regulation is pushing for more competition and more innovation in financial services. During the research period (that is, before the UK Brexit vote), participants were preoccupied with the implications of the Revised Payment Services Directive (PSD2), which will force incumbent players to share data with new entrants to underpin innovative, fintech-led financial services propositions. While the impact of a possible Brexit remains to be seen, PSD2 is still a potential driver for change, and in any case, through the efforts of the Open Banking Working Group, the UK is already attempting to front-run PSD2, encouraging all players in financial services, old and new, to share data through Open APIs to stimulate the development of innovation services for consumers and businesses.

In this context, the ability of fintechs to flourish is clearly crucial. However, there are a number of recognised barriers to fintech growth, largely resulting from the challenge of integrating new thinking, technology and business models into an industry in which operational resilience and consumer protection are paramount. While from a regulatory standpoint the UK is taking the lead on creating an environment in which fintech innovation can blossom safely, there could also be an opportunity to complement regulation with voluntary standards to provide assurance around different aspects of fintech activity – smoothing interactions between fintechs and banks, increasing consumer confidence in fintech and overall helping to further boost fintech growth in the UK.

To explore the potential for standards in fintech, the BSI (British Standards Institution) commissioned Finextra to carry out a research project to determine the drivers for possible standards creation and to identify the areas in which standards would have the most impact and the most support. The research has involved extensive outreach through workshops and one-to-one interviews, soliciting the views of 80+ experts from fintechs, banks, legal firms, industry associations, major financial technology vendors and others on the topic. The report which follows sets out the methodology applied, the findings in detail and the recommended next steps based on those findings.

*Landscaping UK Fintech, EY, Commissioned by UK Trade & Investment

> “The balance sheet question is a killer: ‘It would be a lot bigger if people like you didn’t keep asking me how big my balance sheet was.”
> A FINTECH

At a high level, the research has identified a definite appetite for standards to help drive the growth of fintech. There are some caveats. The standards should complement regulation (existing and new), and a standard cannot ‘permit’ something that regulation does not allow. There should not be unnecessary creation of new standards but rather an emphasis on investigating how existing standards can be better leveraged. There is a great deal of work already under way around many aspects of fintech standardisation, and it would be important to ensure any new work was complementary not contradictory or unnecessarily overlapping. The approach must keep things simple, and the emphasis should be on demonstrating quick results for an industry that is changing every day.

There are also some sensitivities to consider. Though this is lessening, there is still competitive tension between banks and fintechs. Not all fintechs are aiming to compete with banks – but some are. There is a residual feeling in some quarters that banks would like to keep fintechs down and that avoiding standardisation could be a way to do this. There is also a sense among fintechs that standardisation by definition stifles innovation.

On the other hand, there is a feeling among more established providers of financial technology – the fintechs working in the space before it became known as fintech – that not too much should be done for today’s start-ups because all new providers of technology to banks and for banking need to experience growing pains. Some argue that there should not be too much ‘over-compensation’ for fintechs – with others saying that, given the over-arching goal of encouraging fintech growth, this is essential, and ultimately the whole industry (and its customers) will benefit.

In short, any ongoing effort to drive standards forward in this area would need to recognise these sensitivities and balance them, by ensuring a good spread of views and expertise is involved in onward standards creation activities, and making sure that any resulting standards benefit all parties – fintechs, banks and customers (business and consumer).

> “There should be no extra bureaucracy: take underlying best practices and unify them so small players do not have to carry an extra burden”
> A FINTECH

> **“The biggest challenge for fintechs is navigating the complex decision structures in big organisations. Fintechs have quite limited working capital. It can take months to find the right decision makers, get decisions, pilot, generate cash flow – it wears them down, they run out of money, they have to go back to their investors, there’s a loss of faith”**
>
> A UK CHALLENGER BANK

It is also important to note that ‘fintech’ is a very broad church. Fintechs looking to work with banks to modernise their core infrastructures have a different set of challenges and priorities to fintechs with consumer-facing propositions, though both are important. Again, any ongoing standardisation work would need to recognise and reflect these differing requirements.

As is described in the pages that follow, the area in which there seems to be the biggest short term opportunity for standards to make a positive impact is in the procurement and onboarding processes. For fintechs, banks’ usual approach to onboarding suppliers is too onerous and slow and they run a real risk of running out of money before the process is finalised. For banks, it is too big a risk to fast track fintechs through procurement (and compliance).

The research identified a will on both sides to explore how standards could help. One possible approach would be to tailor a package of standards for fintechs, potentially complemented by new standards that would confirm a fintech met a minimum level of requirements (for example, information security, disaster recovery, data protection, corporate governance, indemnity insurance) and could progress more rapidly. This approach could also consider common contracts, SLAs and NDAs, agreements around payment schedules and testing and certification of software, among other aspects.

Some contributors to the research envisage a ‘single questionnaire’ which covers all the requirements of every bank, which could be filled in once, and would then enable a fintech to say it was ‘compliant’ with a standard/range of standards, saving duplication of effort and enabling a buyer to have increased confidence. There was a clear call from many contributors to ensure that this effort would solve more issues than it created – it should result in no additional bureaucracy for fintechs, nor any large certification costs.

> **“The whole point for fintechs is to innovate ahead of the legacy that is already in place. If you force fintechs to integrate with old systems it defeats the purpose and the only people who win will be the big established vendors.”**
>
> A FINTECH

It would be important for any standards effort in this area to be complementary to and work alongside regulation. As one contributor put it, “it’s not about lowering bank standards – it’s about making the engagement work better”. It would also be essential to secure the involvement and support of the banks. Their culture is rules and compliance driven and while a minimum standard might be relatively easy to agree upon, if banks then tailor that on a case-by-case basis, the value of standardisation could be diluted. That said, the research identified strong support for work to be done in this area, within a three to six month timeframe.

> “If you want to offer a grown up service, you have to obey grown up rules.”
>
> AN ESTABLISHED VENDOR ON THE VALIDITY OF ‘HELPING OUT’ FINTECHS

A second area of focus to come out of the research was how to better integrate fintechs into the standards and language of the financial industry – especially those coming from outside banking. Though there were voices cautioning against making life too easy for newcomers, there was certainly agreement that some of the underpinnings of the financial markets infrastructure (such as financial messaging) are opaque to new entrants, because a term in a data dictionary for ISO 20022 may mean one thing in payments and another in securities.

At a higher level, it was observed that even some standard financial services vocabulary can be a blocking factor for new entrants. The possible standards-based solutions suggested here range from a digital handbook of terms that fintechs could use to feed their systems (and themselves, presumably) to a high level data concept model unifying multiple underlying data dictionaries.

> “What we are talking about is standard behaviours. There is no need to reinvent standards, but rather we should surface existing standards and make it easier for fintechs to take advantage of them.”
>
> FINANCIAL EXPERT AT INDUSTRY ASSOCIATION

It would be important for this activity on ‘semantics’ to complement existing standards harmonisation efforts, without adding extra complication or reinventing the wheel. However, there was support for standards-based solutions to be explored in the short term and delivered in the medium term.

The third major priority to be surfaced by the research was the possibility for standards to support fintechs in providing consumer assurance. Based on a strong belief that consumer fintech propositions are being held up by consumers' uncertainty about new business models and the underlying/enabling technology and key questions such as security, the research uncovered a number of areas in which standards could potentially ease this challenge – including demonstrating fintechs' credentials, tackling the challenge of digital identity, streamlining know your customer (KYC) processes, supporting robust risk profiling methods, underpinning the sharing of data in the context of open banking, smoothing onboarding and 'offboarding' processes, and improving interactions around e-wallets and e-money.

The challenges raised in relation to this priority centred on the potential for unnecessary overlap with existing regulatory and Government work (on Know Your Customer (KYC) and Anti-Money Laundering (AML)) and existing standards (such as data protection), and the fact that in areas such as open banking, much still needs to be defined at the overall framework level, meaning that developing standards now could be premature.

That said, there were also strong arguments made for looking now at these future areas – before there is too much activity – in order to be ready with standards to offset any potential problems with mis-selling for example before they arise.

The recommended approach would therefore be to begin further investigative work into the potential for standards around consumer assurance and trust in the short term. The strongest opportunity in the short term for fintech standards may be in the areas of procurement and semantics, but as one participant put it, "the whole point of fintech is to deliver better services to the mass of consumers" – and in light of this, the consumer assurance aspect should be prioritised. Its complexity should be recognised and further time devoted to exploring the challenges and examining possible standards-based solutions, starting as soon as possible.

> "There will be a need to explain what the fintech investment advice systems are doing. When there are automated investment schemes and automated portfolios performing trading, when it comes to looking at the output there is no ontology to enable the explanation of what the systems have done. If this is not started now, the result could be massive algorithmic complexity and there will be a need for some very expensive experts should something go wrong and a mis-selling has to be explained. When B2C fintech scales to thousands of clients, we have to be ready"
>
> **A FINTECH**

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RESEARCH METHODOLOGY

It was decided that an approach based on workshops followed by a series of in-depth interviews would provide the best means to garner the views of as broad range of stakeholders as possible. Two exploratory workshops were therefore held, each bringing together an expert group representing banks, fintech start-ups and established suppliers, industry associations, legal firms, (banking and payments) standards experts and others. A brainstorm approach was used to stimulate discussion around the maximum number of issues, challenges and ideas. It was decided to dedicate one workshop to business-to-business (B2B) fintech and one to business-to-consumer (B2C), in order to break the discussion into manageable chunks and to reflect the reality of the marketplace in terms of fintechs' focuses, opportunities and challenges.

The learnings from the workshops were then discussed and evaluated in a series of telephone and face-to-face interviews with senior market practitioners. During a final validation workshop the findings from the earlier workshops and the interviews were assessed, prior to the compilation of this report.

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WORKSHOP SUMMARIES

Workshop 1 – B2B

The area around which there was most interest and consensus was procurement and onboarding. How do fintechs prove they are good companies with which to do business despite their size, early-stage revenues and lack of a track record? The discussion centred around how fintechs prove their credibility to banks – that they have a robust product, reliable data management and business practices, adequate internal controls and disaster recovery plans and sound finances, despite the fact that they are new and lack a track record – to help them "get through the door".

There was considerable support for the idea of standards in this area, which could also help the procurement teams in banks. It was recognised that procurement teams cannot risk allowing unsound start-ups through the pipe, but at the same time the fact that fintechs often cannot meet the banks' usual requirements means banks are not fully exploiting fintech – and fintech is not fulfilling its potential. Standards that show a fintech has met with a certain set of requirements or good practice would be very useful, participants suggested, especially for fintechs that do not have a background of working with banks.

Some challenges were mentioned. One would be the potential cost to the start-up of complying with such standards. Views differed as to how big a barrier cost would be, with some suggesting the cost of a standard would not appear large to a start-up and others saying in the context of a start-up's finances the cost would be prohibitive. Cost would definitely be an area of sensitivity. Another challenge identified was the danger of stifling innovation through standards. This topic came up more than once – in this context it was suggested that a fine balance would need to be struck between enabling a fintech to demonstrate its credibility and forcing it to tick boxes that minimised its power to innovate.

Another aspect of simplification that would support fintech growth raised by participants was the potential to standardise commercial documentation – such as NDAs. Fintechs are dealing with many of these, all of which are slightly different, it was suggested, costing them time and money in lawyers' fees. Could this activity – including aspects such as standard agreements around what happens to source code in the event of fintech failure – be somehow standardised?

A second priority to emerge from the first workshop was around the challenge of semantics related to data. It was pointed out that established financial services standards like ISO 20022 are supported by data elements which come from the banking world, and may not support what fintechs require from some of their business processes.

Furthermore, it was emphasised that data formats are also quite siloed by business domain within financial services – so payments players use one set of formats (for example, ISO 20022) and standards and securities players use another (for example, ISO 15022, FIX), regulatory a third (for example, LEI (ISO 17422)), FX a fourth (for example, SWIFT MT300 series) and so on. This creates a complex landscape of data formats for fintechs, especially those working across a number of different areas.

The fintechs confirmed there is a 'language barrier' – and that the reality for fintechs, especially those coming from outside banking, is that they don't understand the semantics. One participant linked this problem with the work being done around open banking APIs – highlighting the need for an agreed data format to underpin data sharing.

A discussion ensued as to whether there could be scope to adapt some work being done by BSI on smart cities to establish a data concept model that sits above a whole range of data dictionaries, so that different data dictionaries can be mapped to one set of concepts and not everything needs to fit in one dictionary. There was some interest in this from the group.

Importantly, the debate ranged again into the danger perceived by fintechs that too much standardisation could stifle innovation and that they should not be forced to integrate with existing standards for the sake of it. "The whole point for fintechs is to innovate ahead of the legacy that is already in place," said one. "If you force fintechs to integrate with old systems it defeats the purpose and the only people who win will be the big established vendors." While standards can help to accelerate innovation, there was clearly a perception among fintechs that they could hinder their freedom to innovate.

Workshop 2 – B2C

A key theme of this discussion was whether standards could help fintechs that are consumer facing to gain consumer confidence. Another was that the bank accelerators present reported that fintechs often ask for information about industry standards. There was some concern expressed about the impact on the whole industry of a high profile fintech failure – which it was felt was inevitable at some point if action is not taken. The group compared the potential damage that could be experienced by a nascent industry in the event of a high profile failure to that experienced by banks post-financial crisis.

In this context, the concept of a 'living will' for fintechs was raised – if for example a robo adviser goes bust, could a process kick in to ensure client money is safe? Could a standard be used to define the process?

Recognising people's natural caution about new things, it was asked whether some credibility could be achieved by fintechs through their adherence to a standard. This would not be a technical standard (which could risk stifling innovation) but would give assurance around types of actors and what they do. It was thought standards could be used to reassure less tech-savvy consumers about the safety of fintech models.

While it was agreed that it would be an oversimplification to "stick up a kitemark and assume it will reassure consumers", the point was also raised that today's methods of establishing whether a fintech is good or not – the reputation of the founders, the amount of funding, the amount of exposure – might not be the most solid criteria on which to base judgement. It was agreed that work needs to be done to establish what the valid credentials of a fintech would be. Again, the point was raised that standards though required should not be imposed too early, and should be light touch, to avoid impeding fintechs' ability to innovate.

There was discussion around the need for a method of uniquely identifying natural and legal people to underpin (among other things) effective AML and fraud prevention mechanisms – with calls for a standardised digital identity for consumers and businesse, stored in a medium that cannot be altered such as blockchain. This would be immutable and therefore trusted, it was felt.

This then led to a discussion around the potential for a standard process for KYC – assuming it were recognised by policy and law makers. It was pointed out that AML should be done on a case by case basis but is more often box ticking, and that standards around AML (in particularly a portable KYC/AML credential) could solve a number of fintech problems (for more information see section 6). There was agreement around this point – in the absence of a standard and portable AML/KYC, fintechs are duplicating efforts to check the identity of customers and whether they are blacklisted – which is expensive and certainly a barrier to growth.

A challenge raised was whether banks would be willing to harmonise standards among them in the AML realm. Would banks be willing to rely on the same baseline information, and trust each others' assessments of customers? It was suggested that having a minimum quality standard, upon which banks could overlay further requirements, could work – and that this model could apply in a number of areas.

Several participants commented on the need for standards to make the sharing of data (as a result of the Open Banking Working Group efforts and for PSD2) work in practice. There was a view expressed that with open banking, banks will have to allow fintechs access to data about which they will feel very protective: banks are used to protecting information about their customers' accounts, not sharing it. There is a chance this could make the banks even more risk averse, and standards could have a role in giving banks the confidence to share data to underpin new fintech-led business models.

It was also suggested that in an open banking world, there could be a role for standards to govern how data is communicated once the consumer has agreed that it can be, which led to a discussion about the importance of opt in/opt out transparency for consumers, given that opt out in particular is often not clear and clean, and opt in could often be more nuanced.

When it comes to some of the newer services fintechs (and banks) are launching into the consumer space, concerns were raised around aspects of the robo adviser model. One participants cited a challenge related to retail customer risk profiling. If the FCA were to do a 'mystery shopper' exercise, he said, they would discover that each robo adviser is profiling the same customer in a different way. Could there be a 'portable risk profile' – and could standards help here? The danger, if this is not addressed, is a future miss-selling crisis.

There were also calls for standards to help smooth the development of other emerging financial products, such as to enable interoperability between e-wallet and e-money providers (for more information, see section 6).

Workshop 3 – Validation of proposals

Standards around procurement/onboarding

There was broad agreement that a set of standards demonstrating a fintech's credibility in various ways to give potential buyers confidence – and therefore potentially enabling a speeding up of the procurement process for fintechs without the deep pockets and large legal departments of big vendors – would be useful. The participants explored the potential for standards across a number of dimensions – including demonstrating the credibility of the company. The challenge facing fintechs was well summed up as "the equivalent of, if you don't have credit, you can't get credit".

The aim of standards in this area would be to expedite a fintech's movement through the process. There were differing views about the exact nature of the pain for fintechs, with some saying it was the cost of multiple NDAs, and others saying it was the long and complex procurement process, which puts pressure on fintechs' financing, and can stifle progress even when a fintech has been effectively hired by the innovation team of a bank. These standards would it was felt be complementary to the FCA's sandbox initiative which is more about software testing than procurement.

Participants did identify a challenge around the fact that banks may accept a 'minimum standard' but then still take them further and add in their own specific extra requirements. Would there still be value in this exercise if in the end there were some elements of gold-plating? Some said yes: there was a strong interest in avoiding and eliminating duplication of effort (for example around NDAs) and there would be value in doing this even if some bank-specific requirements remained i.e. even if 80-90% of standardisation could be reached it would be a great step forward.

Regarding the levels of buy-in needed to make these standards happen, it is worth noting that there was (again) some questioning of why new fintechs should benefit from this simplification when previous generations of financial technology providers have grappled with the same challenges unaided. Other voices pointed out, however, that efforts to ease the way for fintechs were in line with the Government's aim to promote the fintech industry. There was also a discussion about how to get relevant parties – especially banks – to sign up to abide by the standards, and how they would be 'enforced', and once again the question was raised of whether banks would avoid getting involved in order not to give perceived new competitors any additional advantage. A contrary view, however, pointed out that not all fintechs are purporting to compete with banks.

There was an indication from bankers present that there is a growing recognition that banks need to adjust their risk appetite according to who they are dealing with. In other words, the banks are starting to understand that some of the requirements they impose on suppliers and partners may be unnecessarily stringent when it comes to working with new fintechs and that an alternative framework may be required to facilitate greater co-operation.

A number of participants emphasised that there should be no unnecessary creation of new standards and that an option could be for a new framework to encompass and evidence compliance with a range of relevant existing standards (in areas such as data protection, information security, etc.)

As one participant put it: “Don’t reinvent the wheel. But let’s make sure it’s a wheel.” The procurement and onboarding processes may not be fit for purpose to support fintech growth as they are. What is required may not be the creation of multiple new standards, but rather a surfacing of existing standards and assistance to fintechs in complying with them.

The group reconfirmed the value of focusing on procurement and onboarding processes, and identified it as the number one priority of the three presented.

Consumer protection, confidence and assurance
The group was overall less convinced by this priority – although it is worth noting that some key participants with a retail/consumer financial services remit did not attend the event on the day, which may have skewed the group’s view.

Nonetheless some objections to a focus on consumer standards were raised. For example, one participant observed that a number of key moving parts in this area – for example the Open Banking Working Group efforts and the Regulatory Technical Standards (RTSs) from the EBA that will underpin the implementation of PSD2 – are not yet themselves well-defined. Would this not mean that any standards developed in the near term would be jumping the gun?

The question was also raised as to whether standards will be needed in consumer fintech given that providers in this space will often be regulated. As one participant said, what would be achieved by creating new standards around data privacy, when there is regulation already? There was also a suggestion that work related to KYC for example should be left to the Government and the FCA, because they are already looking at the issue and could be more appropriate bodies to implement change in this area.

While it was pointed out that in the B2C fintech world not all fintechs will be providing regulated banking services, there was also a comment made that – unlike in the supply chain – there may not be a need to ‘over-compensate’ for fintechs in the consumer space. New entrants are using existing banking rails, paid for by the incumbent industry, and they are already getting support for better access to infrastructure – through regulator-driven initiatives to open up UK payment systems and review access requirements to level the playing field. As one participant put it, "if you want to offer a grown up service, you have to obey grown up rules".

Once again there was a clear call to reuse and/or tailor existing standards where relevant – surfacing and potentially certifying compliance with them.

The group identified this as a less immediate priority for standards than procurement/onboarding.

High-level data concept model – semantics
The nexus of this idea came from a discussion in the first workshop about the fact that fintechs feel 'shut out' from existing banking standards (such as ISO 20022 for financial messaging) because the terminology used by banks (and indeed within financial services there are differences between terminology as it is used in payments and securities for example) is not familiar to them.

During the third workshop the discussion about semantics became broader, and moved beyond the 'data dictionary' as it might be understood in an ISO 20022 context.

Participants agreed that there is a gap in fintechs' understanding of financial services vocabulary. Another emphasised the challenge for a fintech of working with banks with typically very proprietary approaches to their data.

There was a suggestion that terminology could be simplified for fintechs through a 'handbook' – or an electronic/digital source of agreed and appropriate terminology which could be used as an information source for an artificial intelligence system, for example.

However, there was also a significant discussion about how fintechs also need to take the initiative here. As one participant said, "if you were selling medical supplies to doctors, you would make sure you knew the right terms. If fintechs want to sell to banks, they need to learn the correct terminology."

The group identified this as a lesser priority for standards than procurement, but emphasised that there are some opportunities that could be tackled relatively quickly and easily, for example the concept of a handbook.

Additional barriers standards could potentially address
- The slow payment of invoices: banks treat fintechs like other suppliers, not recognising their cashflow challenges.
- Getting a bank account: a well-recognised issue for fintechs, which can lead them to bank abroad.

04

PRIORITIES AND RECOMMENDATIONS

Based on the findings of the research, Finextra recommends the following actions in relation to the priority areas identified during the project:

Procurement and onboarding processes

- A new standard covering this area should be developed and published within 6 months.
- The work should be led by a procurement expert and should convene a group of industry experts spanning banks and fintechs.

Integrating fintechs into the standards and language of the financial services industry

- A research project into the need for standards-based solutions in this area should be started immediately and report its findings to BSI within 3 months.
- The work should look at the potential benefits from a range of options including the production of a digital handbook for fintechs and a high-level data concept model unifying multiple underlying data dictionaries.
- The project team should comprise a broad representation from across the financial services industry including banks, established and start-up fintech suppliers, industry bodies, etc.

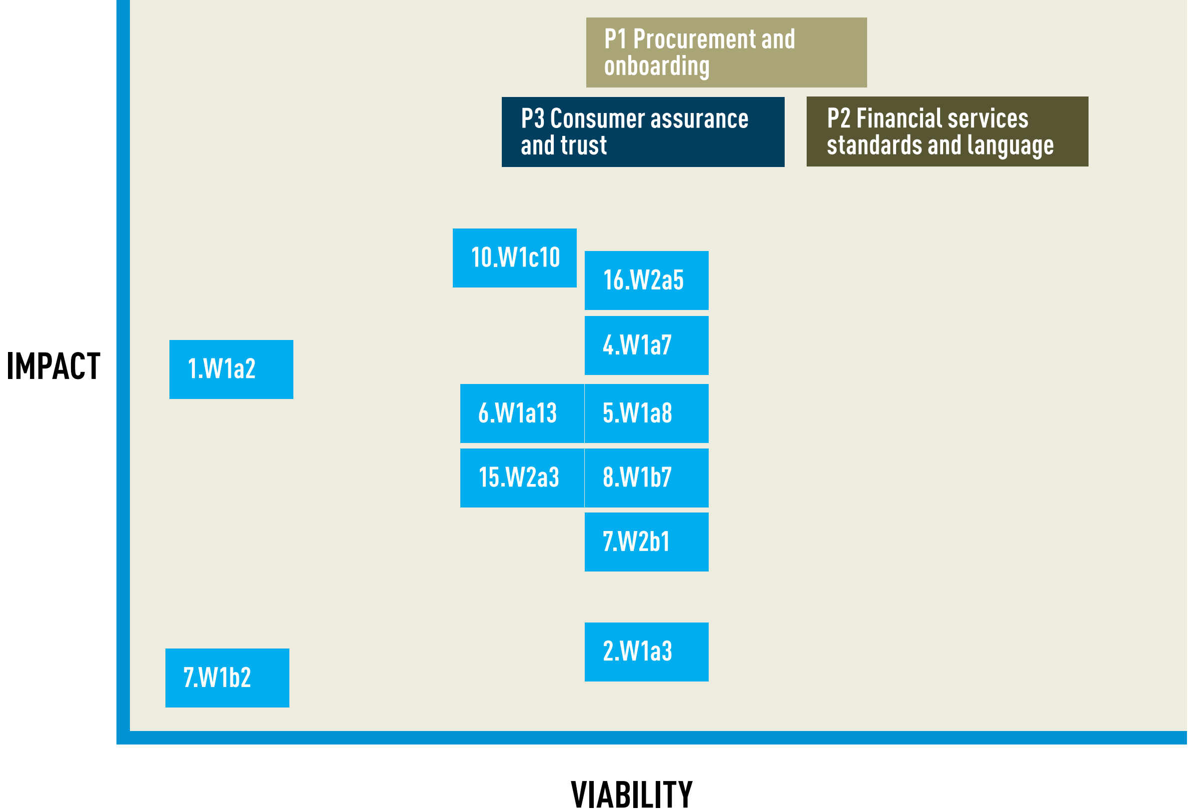
Consumer assurance and gaining trust

- Further investigation work into the potential for standards in this area should be undertaken within 6 months.
- This work should look at a number of areas in which standards could potentially ease this challenge, including: demonstrating fintechs' credentials, tackling the issue of digital identity, streamlining KYC processes, supporting robust risk profiling methods, underpinning the sharing of data in the context of open banking, smoothing onboarding and 'offboarding' processes and improving interactions around e-wallets and e-money.
- Again, it is essential that the project team comprises a broad representation from across the industry.

In terms of all the many other ideas for new standards generated through the research project, see below an infogram that both details all the ideas raised and provides an assessment of each of them based on their likely impact and viability.

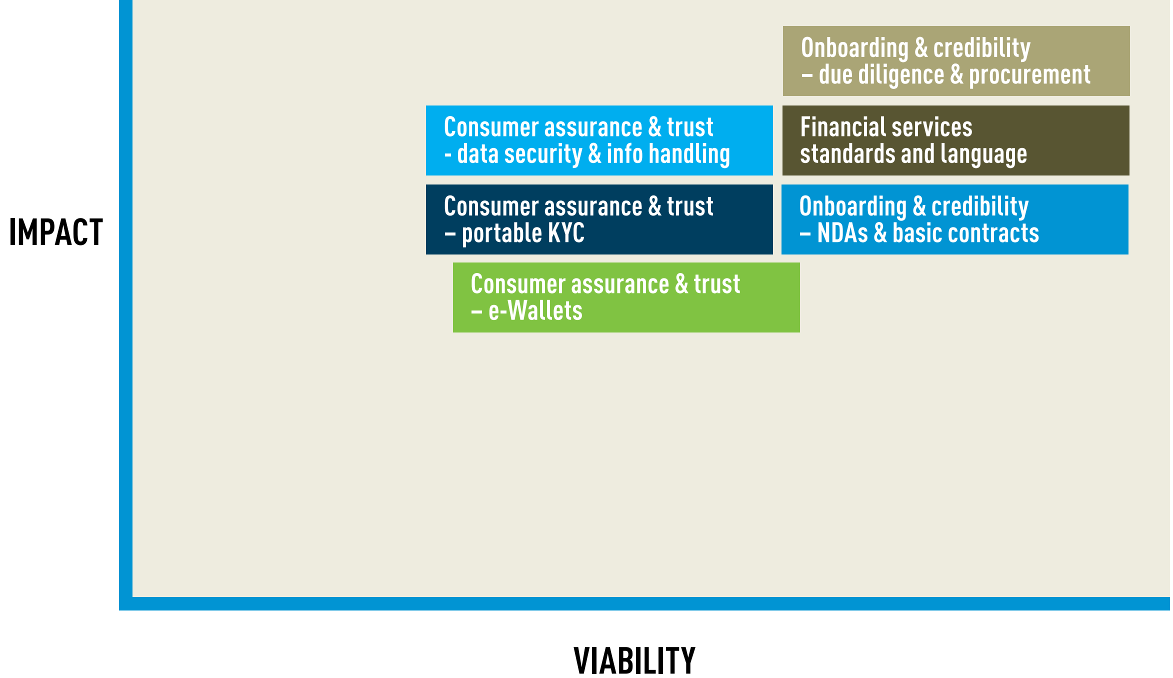
05
PROPOSED INITIAL PROGRAMME OF WORK

FIGURE 1. PROPOSED INITIAL PROGRAMME OF WORK – IDEA ASSESSMENT MATRIX
PLEASE REFER TO THE KEY FOR DETAILS OF THE PROPOSED STANDARDS



Key to the infogram:
P = priority work as detailed in [Section 6](#)
W = all ideas for new standards from Workshop One (W1xx) and Workshop Two (W2xx)
'Impact' reflects the degree to which the research suggested an activity would help accelerate growth and development of fintech. 'Viability' reflects the level of consensus around how easily the challenge could be addressed by standards.

FIGURE 2. PRIORITY WORK AREAS – IDEA ASSESSMENT MATRIX



Finextra suggests work starts immediately on all three priority work areas, with the initial output varying from standards outline development for priority one through to further investigation for priorities two and three by means of a series of focused workshops involving representatives of all key stakeholders.

06 ASSESSMENT OF STANDARDS PROPOSALS

REF	PROPOSED NEW STANDARD	IMPACT	VIABILITY
P1	Procurement and onboarding	H	H
P2	Financial services standards and language	H	H
P3	Consumer assurance and trust	H	H
1.W1a2	Could market-wide standards be developed to more easily enable start-ups to interface their products with banks/large suppliers?	M	L
2.W1a3	Could standards be developed to harmonise the conventions used across the various markets?	L	M
3.W1a5	Could standards be introduced to enable the creation of a single, 'golden source' data dictionary across the financial services industry to assist start-ups in assuring the interoperability of their products?	Part of P2	M
4.W1a7	Standards could be developed to support the transmission of transaction data independent of the payment/s to which it relates.	M	M
5.W1a8	Could standards be introduced to ensure that both the regulators and their banks/markets utilise labels backed by both a common understanding and market practice?	M	M

REF	PROPOSED NEW STANDARD	IMPACT	VIABILITY
6.W1a13	Could standards be introduced to determine what data should be passed between the bank and the alternative lender, and in what format?	M	H
7.W1b2	Are 'proprietary standards' being used by big IT suppliers as a barrier to entry for start-ups – could standards be developed to resolve this issue?	L	L
8.W1b7	Could pan-market standards be developed to enable the identification/authentication/authorisation of all parties to a transaction to be established quickly and robustly?	M	M
9.W1c2	Could standards be developed to which start-ups adhere in all the key areas of bank 'due diligence' checks; and then be independently audited to ensure their compliance to them – eg an independent 'stamp of approval' (kitemark)?	Part of P1	
10.W1c10	Could there be standards to help give banks assurance when the products of start-ups require access to the bank accounts of their customers?	H	M
11.W1e1	Could standards be developed and used to produce pan-market, basic contracts for use between banks and start-ups?	Part of P1	
12.W1e2	Could standards be developed and used to produce pan-market, basic NDA agreements for use between banks and start-ups?	Part of P1	
13. W2a1	Could standards be developed for establishing and checking the business credential of start-ups?	Part of P1	
14.W2a2	Could standards be developed covering the essential elements of consumer protection within the fintech market?	Part of P3	

REF	PROPOSED NEW STANDARD	IMPACT	VIABILITY
15.W2a3	Could standards be developed to support and assure the sharing of customer data that forms part of the Open Banking initiative?	M	M
16.W2a5	Could standards be developed to establish/ assure both how a customer should identify themselves to their bank and how the customer's bank should identify itself to its customers?	M	M
17.W2b1	Could standards ('a voluntary code of conduct') be developed to provide consumers with confidence in the corporate governance policies of fintech companies? And that an independent third-party has verified that the company concerned is adhering to its policies?	M	M
18.W2d3	Could standards be developed to provide assurance to consumers about how fintech companies will be unwound in the event of their failure? This could provide certain protections to customer funds, or clients' monies, ESCROW arrangements etc.	Part of P3	
19.W2e1	Could standards be developed to enable fintechs to establish trust with third-party banks when clients attempt to use bank counters to load funds into their e-wallets? Such standards might apply to fintech provides globally for e-wallets etc.	Part of P3	
20.W2e4	Could a standard NDA be developed for use with all the banks?	Part of P1	

07
CONCLUSION

The research has concluded that there is an appetite among key stakeholders to further explore and progress work on standards to help tackle a number of blocking factors to fintech growth in the UK. Based on the research findings as described in this paper, Finextra recommends moving forward in a timely fashion to address the three priority areas outlined above.

As emphasised previously, the importance of broad industry stakeholder contribution to the ongoing activities (from fintechs, banks, industry associations and others) cannot be underestimated. An open and consensus-driven approach to standards creation, similar to that applied by the BSI, will be essential.

In light of this, the most efficient and effective way to galvanise and secure the support of the right participants to ensure the relevance and success of any standards initiatives that ensue could be to convene a fintech standards community via which to spearhead the ongoing investigation and standards creation work.

08 APPENDIX A: WORKSHOP ATTENDEES

Attendees at first workshop – B2B – 11 February 2016

Sam Bayliss, Parliamentary Office of Science and Technology
Louise Beaumont, GLI Finance
Vishal Bhatnagar, CAST Software
Matt Ford, Pariti
Helen Ginter, Financial Conduct Authority
Sameer Gulati, Innovate Finance
Fiona Hamilton, Volante Technologies
Lauren Jones, Payments UK
Rob Leslie, Sedicii
Oisin Merrins, techUK
Andy Milner, Faster Payments Scheme
John Mitchell, sellITbetter
Lisa Moyle, techUK
Diana Paredes, Suade Labs
Mark Richardson, Industry Expert
Keith Saxton, techUK
Kimmo Soramaki, FNA Jonathan Williams, Experian
Richard Young, Bloomberg

Attendees at second workshop – B2C – 23 February 2016

Howard Allen, Payfriendz
Mitch Armstrong, ACI Worldwide
Raman Bhatia, HSBC
Mark Bradbury, Apply Financial
Andrew Churchill, Technology Strategy
Joshua Eves, Innovate Finance (secondee from the FCA)
Lucia Fahr, Barclays
Alexa Fernandez, BBVA
Drago Indjic, EFTmatic
Emmanuelle Johaadien, Momo Group
Lauren Jones, Payments UK
Sian Jones, Coinsult
Erez Mathan, GoCardless

Dr. Rajiv Mathur, SP2P
Isabelle Moeller, Biometrics Institute
Matthew Silverstone, Facebanx
Michaela Smith, CPTM
Phil Sorrell, Fintech-labs
Arun Uawithya, Time Machine Capital
Philippa Verrecchia, Innovate Finance (secondee from Hogan Lovells)
Jonathan Williams, Experian
Tanya Ziv, Lebara Money

Attendees at third workshop – validation – 28 April 2016

Marcel Bar, Investit
Robin Briggs, PayCo Financial
Lucy Hasson, RBS
Farooq Jaffrey, Kualitatem
Brendan Jones, Evolution Payments Consulting
Trevor LaFleche, Dovetail
Chris Lees, FixSpec
Mike Lewis, Penrillian
Paul McCulloch, Helm
John Mitchell, Sellitbetter
Diana Paredes, Suade
Keith Saxton, TechUK
Arun Uawithya, Time Machine Capital

Interviewees

Victor Arriola, Goldman Sachs
Simon Briskman, Field Fisher
Kevin Brown, Payments Industry Insights
Becky Clements, Metro Bank (and Chairman of the Standards Committee of Payments UK)
Daumantas Dvilinskas, Transfergo
Alexa Fernandez, BBVA
Bryan Foss, Civilised Bank
David Hesketh, TradingHub
Drago Indjic, ETFMatic
Lauren Jones, Payments UK
Rachel Kent, Hogan Lovells
Patrick Mang, HSBC
John Mitchell, sellITbetter
Keith Saxton, techUK
Luke Scanlon, Pinsent Masons
Daryl Wilkinson, DWC
Jonathan Williams, Experian

10 ABOUT

Finextra

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