HSBC BANK PLC

PAYMENTS STRATEGY FORUM BLUEPRINT FOR THE FUTURE OF UK PAYMENTS

RESPONSE TO CONSULTATION DATED JULY 2017
22 SEPTEMBER 2017

COVER SUBMISSION

HSBC is grateful for the opportunity to respond to the Blueprint for the Future of UK Payments. Having supported the Payment Strategy Forum's (PSF) work since this began in 2015, it remains HSBC's desire and intention to continue to work with the Forum to enhance the payment solutions that we offer our customers. The important questions raised in this consultation allow us to provide our views in a constructive and positive way.

We are providing detailed answers to each of the questions but also wanted to provide an overall summary to highlight HSBC's overarching views on the Blueprint proposals.

Supporting the Vision for Change

HSBC remains committed to the goal of improving and enhancing the end-user experience of payments for all, and in particular to meet our customers' needs. In our response to the payment strategy document in 2016, we highlighted the need for a robust business case to determine the benefits and costs of creating a New Payments Architecture (NPA) in addition to existing structures. Since then the Forum has made considerable progress in improving many aspects of the payment systems including access to payment mechanisms, security of payments and developing important end-user needs solutions. However the need for a strong and clear business case for the NPA itself remains.

To develop the vision further we believe that there is potential to investigate the use of major developments in payment structures in recent years. The best example of this is the substantial investment in an Image Clearing System for cheque processing. This is a modern infrastructure with high capacity and resilience built to ISO 20022 standards. It is likely that there will be ways that this structure could support the proposed NPA or be utilised to deliver elements of the proposed functionality, for example batch payment requirements.

The creation of the Open Banking Platform and the standardised API structure will provide further opportunities to develop solutions to meet user needs. We would encourage a close working relationship with the Open Banking entity to ensure our solutions work in harmony with those services provided through this structure.

HSBC will continue to support and play a full part in the evaluation process and the overall work to deliver the improvements in the payment systems for end-users that the PSF and the wider payments community has identified.

Implementation plans and further areas for exploration

HSBC has reviewed proposals for the implementation of the NPA and how existing schemes will be migrated to operate on the new structure. Given the considerable timeline, commendable work has been done to try to envisage how the NPA could be implemented. Whilst we understand the cost drivers to complete the migration from existing structures to new structures as quickly as possible, we believe that the current proposals will introduce high levels of risk to resilience and integrity of payments processing. This particularly relates to the planned migration of both the Bacs and Faster Payments infrastructure alongside each other, with development and planning for the change also running in parallel. These

payment structures form the heart of the UK payment mechanisms and we consider this risk to be substantial and alternative migration proposals should be developed for these two payment systems.

As we noted in our submission in 2016 there is a huge amount of change proposed in the payments ecosystem and there is a limit to how much can be safely delivered at the same time. Going forward, the New Payment System Operator will have to consider the implementation and migration issues in a greater level of detail. Robust programme governance structures will be critical to the success of any development.

Finally in response to a number of the questions, we are proposing that in parallel with the proposed NPA, we also consider whether any of the existing industry's architecture and solutions might be used as a potentially quicker way to deliver the end-user benefits in the interests of our customers.

Development of the Cost Benefit Analysis

There are a number of areas where further clarification of elements within the Cost Benefit Analysis (CBA) supporting the NPA would be helpful. One of these is the inclusion of costs and benefits for Request to Pay and Confirmation of Payee, whereas it is likely that development will take place ahead of the delivery of the NPA. This results in the overstating of benefits and costs for these services in the new architecture.

Other areas we are highlighting for further analysis are the impacts of parallel running of payment systems during migration, the closure of existing structures and validating overall change and complexity costs.

Flexible payment mechanisms to meet user needs

HSBC has sought to comment in detail on all elements of the consultation and to highlight areas where positive suggestions can be made or challenge is needed. One area that we wish to emphasise is the importance of the Direct Debit structure to the UK payments system and the UK economy. We believe it is important that the Direct Debit system as it exists today should continue to be available and developed. It should sit alongside and be complementary to the important Request to Pay solutions being developed, which meets the needs of those customers not suited to the Direct Debit profile.

For the majority of payers and payees that use Direct Debits they are entirely happy with the way the payments are managed. For example, most customers do not want to be asked whether they wish to make the payment when their monthly mortgage payment or utility bill payment is paid. They simply want to know that the payment has been successfully made. We also recognise that there is a proportion of non-Direct Debit users and customers struggling to balance their finances, where Request to Pay can help them to budget effectively. We think it is important that there are clear statements that these two payment types will complement each other and that Direct Debit will continue to be available to meet the demand from retail and business customers.

In addition HSBC does not see a business case for a push based Direct Debit structure. This would have limited tangible user benefit and a high cost to the payments industry and our

customers. We believe Direct Debits can continue to operate on a pull basis as they do now alongside the push based Request to Pay solution proposed.

1.0 The New Payments Architecture

Question 1.1: Do you agree with our recommendation to move towards a 'push' payment mechanism for all payment types?

Yes / No - If not, please explain why.

No, we do not believe a push model to be appropriate for Direct Debits but strongly support the recommendation for all other payment types to move to push payments. Direct Debits should continue as a pull payment type.

Moving towards a push payment mechanism for single immediate or single deferred payments appears to be a logical and appropriate move, to support increasing use of real time payments. However we do not believe that changing the trusted, extensively used and reliable Direct Debit mechanism is appropriate and offers little or no benefit to users. We believe that a push and pull based model for different payment types can operate effectively as part of the new architecture.

We understand that customers want more control over their finances and make the decision on when to pay bills. This reduces the risk of an infrequent payment being debited from a customer's account, which could cause them to go overdrawn and lead to unexpected charges. It is important that we also recognise that not all customers have the time or capability to effectively manage their finances. Handing over control to the customer could cause late payments, which could be damaging to a customer's relationship with their supplier, detrimental to their credit status and have the potential of incurring charges and penalties.

The launch of Universal Credit highlights how handing over the finances from an organisation to the individual has not been successful in all cases. This emphasises the importance of making change only where the need exists to do so and providing appropriate education to support new processes. Despite any creative technical solution to deliver a push based direct debit solution, this offers limited benefits to the consumer while creating confusion for consumers and technical change and cost for government, utilities and other corporate users.

Utilising Request to Pay instead of Direct Debit requires explicit consent at an individual payment level from the originator resulting in making the payment effectively irrevocable. The Direct Debit Pull Payment method, whilst riding on the back of a similar explicit consent from an ongoing mandate, provides security to individuals in terms of fraud, malpractice or incorrect collection through the supporting indemnity. Equally many consumers welcome the certainty that their payments will be collected at the same time every month. From the perspective of corporate users the reduction in reconciliation costs that Direct Debits offer allows incentives in the form of reduced tariffs to be offered to consumers. With increased costs for companies to support a Request to Pay Direct Debit system, these incentives may be removed or additional charges passed on. The need to maintain the principle of security of payment, reduced charges and convenience for the individual, should be key principles that drive the need to retain Direct Debits in their present form.

Given the comments above, our recommendation is that Request to Pay is offered alongside the existing Direct Debit mechanism. Request to pay can be offered as an overlay service, rather than replacing Direct Debit structures. The two services are complementary to each other and offer consumer and corporate choice.

The majority of customers and businesses value the simplicity and ease with which Direct Debits work. They do not want to have to think about payments that currently flow out of their account automatically on a certain date. For example in most instances, there is no benefit in changing the way a payment to a mortgage company is collected either for the consumer or the company concerned. Should the customer begin to experience difficulties then they would contact their mortgage provider separately from the payment process.

We are also concerned that any changes to Direct Debits may impact the indemnity that underpins the payment and protects the consumer. These are well known and understood by all parties in the payment chain. Also it should be remembered that claims on Direct Debits are currently unlimited by time and value and the practicalities of this will need to be considered as legacy infrastructure closes. There is the potential to introduce other unintended customer detriments, should Direct Debits be replaced with a mechanism that does not afford the same level of consumer protection.

As outlined above, we see little end-user benefit in forcing a push based model to support existing Direct Debit structures. We should also be very clear that the scale of change required across businesses of all types, consumers, the government and PSPs, would be substantial and far reaching. If the premise is that applying the push mechanism to Direct Debit will be done in such a way as to mirror the current service then we would strongly question the purpose this serves and cannot see a business rationale for this approach. This would be at high cost to all to end up with the same mechanism that we currently have and that works effectively today.

Question 1.2: In the proposed transition approach it is expected that Third Party Service Providers including current independent software providers, bureaux and gateway providers will update their systems to enable existing payment formats to continue to operate with no or limited negative impact on the current users of services such as Direct Debit.

As a PSP or TPSP, do you agree we have identified the implications of adopting a push model adequately?

Yes / No - If not, please set out any additional impacts that need to be considered.

No, we believe there are important areas of adopting a push model that have not been considered fully, in particular the implications for Direct Debit.

As noted from our comments in response to question 1.1, we do not consider that the considerable change to existing Direct Debit structures justifies the substantial effort that would be required by all parties in the payment process. Whilst Third Party Service Providers could adapt their systems to support immediate and deferred single payments, we do not

believe there is justification to change the structures required to support push based Direct Debits.

The changes required would be disruptive. Moving payments that operate in a cycle to real time would not be easy. There would be a substantial number of non-payment systems that would be impacted such as sanctioning and risk systems, card systems and operational systems. Previous experience has told us that there are multiple supporting systems that may need to be adapted to change from current Direct Debit processing practice. We would anticipate that Third Party Service Providers would find this level of change costly and difficult to manage for their customers.

We should recognise that the costs of change will be passed from Third Party Service Providers to the PSPs and other users of their services. These costs will ultimately be reflected in the costs to end users.

One particular area of concern is that not all parties in the payments process may be able to operate in real-time. So despite the fact that Third Party Service Providers may enable central systems, some PSPs may not be able to support these services. There is a risk that the demand to operate 24 x 7 in real-time could act as a barrier to entry to some. There will also be the question whether both PSPs and TPSPs will be able to offer both payment formats concurrently. A full impact analysis is needed to understand how easy a change this will be and the potential implications of a mixed model during the transition phase.

In addition to the above there are a range of questions that need to be considered if Direct Debits were to be operated on a push based model. For example, we assume that these payments would be settled on the same day via Faster Payments, while Direct Debits are currently settled via the batch based BACS system. Therefore both parties would need to understand that accounts would be debited and credited earlier and that there would be no recall process as for BACS today. A revised retry process may also be required in support of consumers' and small businesses' single immediate payments and standing orders.

It is important to understand the potential impacts on businesses and operators of any change to Direct Debit structures. The current process for Direct Debits is universally understood with clear messaging components segregating the different types of information (including unpaid items, change of accounts and rejection of mandates). To prevent an impact to the payee, changes will be required in the payee organisation (especially on Direct Debits). Depending on the operating model and investment capital available the payee organisation would need to consider introducing Third Party Service Providers; who would effectively introduce an overhead for the payee organisation and these would be passed on to the end consumer (payer).

The payee organisation would also have to consider implications to their operating model as a result of this change. Moving to more agile (same day) payment flows would have a beneficial impact on the working capital requirements and also on client on-boarding e.g. same day notification of rejection of mandates. However, the payee organisations will need to process this data in real-time and that necessitates changes in the payee's IT systems. Large billers would have to make significant investment to modify not only the reconciliation

processes but linked processes around risk management resulting from unpaid items. The focus has to be beyond just the gateway and bureau service providers' changes but also how they integrate with the Payee organisations.

Other operational considerations include whether businesses would want to set up new accounts for Request to Pay payments alongside traditional Direct Debit payments for reconciliation purposes. Any impacts on the master billing payee list used by PSPs also need to be reviewed. Another factor to consider is the extra operational processes would be needed to manage the increased volume of push payments versus pull payments, managing the issuance of Requests to Pay messages, chasing payments, retrying payments, and reconciliation.

Question 1.3: As a potential vendor, participant or user of the NPA, are there any other design considerations that should be included in the NPA, especially with regards to considering the needs of end-users?

Yes / No - If yes, please provide a description of those areas and why they are important to explore.

Yes, we believe that other design considerations should be included in the NPA.

We have no doubt that Request to Pay, Confirmation of Payee and other overlay services will enhance the customer proposition and provide added value. We believe that it is important to look at the underlying systems needed to deliver these services and to explore the optimum approach to achieve this. We are not convinced at this stage that other viable options have been fully considered. Primarily we believe that we should fully investigate the use of Open Banking and PSD 2 layers that will be created, thereby using existing or amended payments infrastructure. This could provide benefits to customers by giving quicker delivery and using reliable proven infrastructure.

The migration to ISO 20022 provides a significantly rich format that should allow the end to end visibility of the payment chain. It will also move payments data into the payment infrastructure and should introduce safeguards that benefit both consumers and businesses. In regard to this, the rules of the NPA should consider the following key requirements:

- Identification of an Account Service Provider (ASP), a PSP and who is both.
- Clear identification of the account classification e.g. a brokerage account needs to be
 distinguished from a bank account as this highlights the KYC models adopted by the
 various parties in the chain (including ASPs and PSPs).
- Multi-party payment constructs need to be allowed to improve visibility of the chain especially when overseas bank accounts are being used for payment initiation or receipt.
- Produce a table of standard industry codes to define the purpose of payments.

The ISO framework would also allow for the exchange of information over and above the required payment flows. Some of these overlay services could result in legally admissible messages being generated that would be critical for either the payee or the payer (due to

the non-repudiation built into the message flow). The NPA should define a framework that would:

- Allow the introduction of these overlay services;
- Standardise the legal meaning of the messages within the overlay services, and
- Define the storage and reproduction requirements of these services within the user sub-community.

Care will need to be taken that clear overlay service standards are articulated, that allow ease of monitoring and screening by the regulated PSPs in the chain and do not introduce a secure messaging service that can be misused. The abuse of the Request to Pay messaging service from a fraud perspective is something that will need to be guarded against carefully. Our view is that there is a real risk of "spoofing" of the payee. This occurs when the fraudster presents a Request to Pay to the consumer instead of the real payee. This type of fraud is prevalent and increasing as real time payments become more commonplace. At present there appears little to stop this type of fraud occurring in the Request to Pay process outlined. Strong verification of Payees using the service, is one way to try to mitigate against this risk. The service will need to define how it will block bad actors and share concerns with others.

Another principal concern surrounds the proposals to enable Direct Debits to operate on a push based model. We are not convinced that moving all Direct Debits to a push model can work from a practical perspective. It will significantly increase the volume of on-line activity, potentially raising capacity issues and complicating processing.

Technically moving Direct Debits to a real-time platform would require the central infrastructure to support higher transaction processing system rates. This could risk reducing the number of central infrastructure providers able to offer services and thereby have a negative impact on competition given the increased operational costs required to operate in the new environment. An example of this was the extra capacity that had to be built by all PSPs and the central infrastructure to support faster standing orders. The infrastructure was built to support high transaction processing system rates at the peak requirement period (midnight to 6am) but with much spare capacity and under-utilisation at other times.

One of the key design considerations in the NPA must be interoperability. From an end-user point of view, customers want the security and certainty that a payment will arrive at the correct destination on time. They also want the ability to amend, stop or recall a payment if they have made a mistake. Bearing this in mind, the NPA needs to have appropriate contingency in case of system outages and downtime. The design needs to consider the new RTGS system and SWIFT, and have the ability to send and accept payment files between all payment infrastructures if required. This has always been an issue for the existing payment schemes and the NPA offers the industry the opportunity to overcome this issue.

There are a number of additional design considerations that we should ensure are reflected in the final agreed approach:

 Needs of business and corporate customers can be explored further, including the difference in cut-off times for corporate and SME customers making payments and the

- implications arising from this along with the need for enhanced data and reconciliation services.
- The PSF and industry has a real opportunity to educate consumers about the
 opportunities of using their data proactively to access better products, services and
 commercial offerings. Whilst there is a significant need to educate consumers and
 businesses about financial crime and data risks, it would be a missed opportunity if the
 potential benefits were not addressed. Otherwise, we run the risk of creating several
 new data services that are not well-used by end-users.
- It is also worth keeping in mind that the enhanced data needs of consumers are likely to be significantly less than those of larger businesses. It would be logical in the design of solutions that proportionate capabilities are built to meet the needs of users rather than moving large quantities of potentially sensitive data around unnecessarily.
- We should be mindful of the question whether all banks are required to process all payments through the central switch. If this is not the case then the value of assurance data and enhanced data services will diminish.
- For end-user overlay services, anti-money laundering, fraud and other processing solutions will still be required. Payments and other additional data will have to be provided to other downstream systems within PSPs.
- We also need to consider the potential impact of systems changes to implement the New Payments Architecture and end user solutions that impact on the customer screening and transactions monitoring systems that help to prevent financial crime.
- Capacity planning and platform protection at all levels will be required.

Question 1.4: The nature of the layering approach enables new components to be added or updated with minimal impact on components in other layers. We believe this will support greater levels of competition and innovation especially in the upper layers of the NPA. In your view, as a vendor or service provider, will layering the NPA in this way simplify access and improve your ability to compete in the UK payments market?

Yes / No - If not, please explain why.

Yes, layering gives greater clarity and will help to simplify access and open competition opportunities.

Our assessment is that the layered approach already exists in the current infrastructure. Most of the layers described in the NPA are present today. However the NPA provides clarity in terms of the architecture and distinctly differentiates the layers and will provide guidance on how to connect to each of them. The overlay services layer allows innovation to happen through APIs and providing new ways to connect with customers without having the need to change core processing.

These benefits need to be put in to the context of the parallel developments of Open Banking and PSD2, which will deliver complementary capability to the NPA. Directory services are already being created under Open Banking and overall the NPA design team should identify what is being created in Open Banking and agree how this could be used as an alternative for the provision of some services or to enhance the NPA.

We should also ask the technical question of whether it is the development of new payments platforms that have transformed payments functionality in other countries or whether it is really down to the creation and use of APIs that drive change. There are arguments to suggest that infrastructure change may not be needed, if effective and appropriate development of APIs accessible to all key parties in the payments chain are developed.

HSBC considers that it is essential that there is a co-ordinated approach to developing the different types of APIs. It is important that the NPA design team work on a common approach with Open Banking for payment APIs to be used. Without it there will be duplication and inconsistent delivery of products and services. It is also likely to be a barrier to competition as new providers have to adopt different APIs to access information from different PSPs, adding cost, resource and complexity. The benefits of such a co-ordinated approach are:

- Standard messaging
- Common security standards
- Delivery of more cost efficient solution(s)
- Facilitate new players
- Reduce variations and interpretations
- Makes fulfilment of requests easier
- Help agile development and testing

HSBC does not see significant disadvantages with this approach, which may reduce the levels of infrastructure change needed in the NPA.

With regard to the layering approach within the NPA itself, as a starting point it is critical that the core payments infrastructure is reliable, flexible in supporting different functionality and results in less change for all stakeholders. Beyond this we need to be clear that each layer cannot operate totally independently from another. For example data transfer has to take place from the overlay services layer in the case of fraud prevention. It is essential that information on the channel and device used is flowed through with the payment message to allow a PSP to authenticate the transaction.

Care will also be needed in the layering approach to protect the overall platform. There will always be a need to balance innovation against security and appropriate measures will need to be in place to ensure creators of the overlay services layer do not introduce unacceptable risk in to the payment system through effective rules and requirements.

From a corporate viewpoint, the current challenges with Direct Access to settlement functions for aspiring financial institutions and/or PSPs, introduce significant capital investment requirements. This is primarily driven by fragmentation, lack of common security standards across schemes and systems access requirements set by the PSO. Whilst significant work is underway to improve this position, layering the services and components in the NPA enables competition and allows businesses to meet their needs without having to constrain their requirements to a restrictive standard.

It is important that the layered model should allow the continuation of the direct corporate access model for businesses whereby a payer can submit directly to the scheme using compliant software. Forcing a business to employ a TPSP would introduce additional costs.

From a customer perspective layering will allow for flexibility and also help the NPA to evolve alongside consumer needs in the future. The system and layers need to be modular so that parts can be switched off when no longer relevant or developed if new regulations or innovations come into play. It is important that we are not forced to undertake a wholesale re-design again within the next ten years to meet market demands. The layering design also needs to accommodate differentiation and competition as envisaged. Layering should allow PSPs to add or modify the services within layers to offer solutions to their customers. There should be flexibility in what services they choose to develop, recognising that some services such as Confirmation of Payee will require all parties to participate to be effective. Overall the infrastructure needs to be open and easily adaptable.

Question 1.5: With the recommended centralised clearing and settlement option, as a participant or vendor who is accessing or delivering the clearing and settlement service, do you think:

a. We have reached the right conclusion in recommending this option? Yes / No - If not, please explain why.

Yes with regards to Settlement.

To reduce systemic risk, a centralised model for settlement is the best way forward. Settling in central bank money allows for financial certainty and reduces the threat of customer impact if a financial institution is at risk of insolvency. Removing the need for payment providers to interact reduces the potential for error, delay and should speed up the flow of the payments from sender to beneficiary. It will also be easier to manage operationally.

With regard to clearing we also support this as a centralised model. However it is important that this is delineated from the settlement function. The SEPA construct allows for independent clearing of transactions and fosters innovation aligned to the needs of the specific communities supporting the specific clearing provider. It also provides the participants with the ability to switch traffic to multiple providers and charge differentially based on the competitive offering.

b. The right balance of managing risk versus competition has been achieved?Yes / NoIf not, please explain why.

Yes, the centralised model for settlement manages settlement risk effectively.

The key risk addressed is around settlement risk and not around competition or operational risk. Having a single infrastructure creates a significantly high operational risk around a single point of failure. Using a hybrid model delineating clearing from settlement achieves the best balance.

Question 1.6: Do you agree with our analysis of each of the clearing and settlement deployment approaches?

Yes/No - Which is your preferred deployment approach?

Yes, we fully support the analysis that has been undertaken.

On balance HSBC would support a multi-vendor approach to clearing and settlement. However we also recognise the increased complexity of this approach. It is essential to manage the added complexity through the approach and standards synchronised across vendors.

A multi-vendor set-up within the NPSO with clear delineation of choice of direct settlement access across defined clearing nodes would work better for PSPs and they can then select their preferred clearing node(s) and providers. For example a financial institution that only offers consumer services may have limited requirements to facilitate CHAPS type payments and they can decide whether to pursue an indirect access model for CHAPS payments whilst electing to adopt direct access for lower value retail payments, such as BACS and Faster Payments.

Another argument in favour of a multi-vendor approach is that having a common net sender cap is also inefficient from a liquidity cost perspective, because of the need to support the variable needs for wholesale payments market compared to the relatively stable needs for the consumer payments market. This could give each participant the opportunity to define their net sender cap across dedicated clearing nodes, using their preferred provider or providers, to allow them to manage liquidity for wholesale and retail payment needs in different ways. It could also introduce a competitive element wherein the uncertainty around clearing costs would drive better pricing for payers.

The multi-vendor approach could:

- Spreads risk across multiple vendors.
- Reduce costs to users can be lower as there may be a choice of providers.
- Offer more choice of providers and therefore increase competition and drive down cost. There are however challenges in encouraging more service providers in this specialised area.
- Deliver more contingency options.

We recommend that PSF conducts further work to validate the optimum deployment option.

Question 1.7: As a vendor of services in any layer of the NPA, do you think that more work is required to prove any of the main concepts of NPA before embarking on the procurement process?

Yes / No - If so, please explain which areas and why.

Yes, we have identified already that the concept of a push model for Direct Debits should be reconsidered. We recommend further work in the following areas:

Resilience - Given that the NPA will operate in a similar way to a single scheme using one infrastructure, this raises the risk of creating a single point of failure, which will impact the whole payment mechanism. Careful consideration on contingency is required, including how the proposals will meet the Bank of England's resilience imperative.

Scalability - It is important to understand what the issues are in order to ensure the NPA design is scalable, agile and future-proof.

Alignment with other Payment Programmes - This particularly applies to Open Banking. There is a need to ensure that the requirements of Open Banking and other major projects are understood and reflected in the concepts of the NPA. It would be prudent to undertake a proof of concept at different points within the NPA design to ensure that the design continues to meet the agreed requirements.

Migration to new infrastructure - A key risk will be migration from the current to the new infrastructure. This approach is not clearly defined at this stage and can significantly extend the completion date and costs. More work will be required explore how the NPA will operate, how the migration will be managed for all payment types and how parallel running will be supported.

Utilising existing investments and infrastructure - The NPA will supersede the existing BACS, Faster Payments and Image Clearing System (ICS) infrastructures. The ICS ISO 20022 enabled architecture supports batch processing but can be developed to also accommodate real-time payments. It may well be possible to utilise the ICS infrastructure investment and enhance it to support other retail payment types. It would be appropriate to properly evaluate this option.

Single versus multi-vendor deployment - As identified, more work is needed in this area. It will be useful to understand the challenges of liquidity management and technological risk management inherent in a multiple vendor multiple clearing node environment. The cost implications of both approaches need to be evaluated in more detail.

2.0 Collaborative Requirements and Rules for the three End-User Solutions

For Questions 2.1 to 2.11 HSBC has provided input to some of these questions even though PSPs were not invited to answer. This is based on insight from our corporate customer relationships.

Question 2.2: Request to Pay provides visibility to payees on the intentions of a payer. Would the increased visibility benefit your business? Yes No - If so, how? PSPs not invited to respond to this question

From our customer feedback, we believe that the introduction of Request to Pay could potentially support quicker decision making and action to support the sales process and speed up the conclusion of a transaction.

The quality of reconciliation data will be key to support the delivery of real benefits. In introducing Request to Pay, it is essential that we do not create a suite of standalone push payments without an automated reconciliation mechanism. Partial payments could prove difficult to manage, particularly from a reconciliation perspective. If the issue of reconciliation is not addressed and individual transactions flow through to businesses, the impact may be an increase in transactional banking costs.

Question 2.3: Request to Pay will result in increased communication between the payee and the payer. As a payee:

a. Would the increased communication present a challenge?Yes / No – If so, how?PSP's not invited to respond to this question.

- b. What benefits could you envisage from this increased communication? PSPs not invited to respond to this question.
- c. Do you see any additional potential benefits resulting from Request to Pay other than those described?

Yes / No – If so, which ones?

PSPs not invited to respond to this gu

PSPs not invited to respond to this question

The Request to Pay solution could offer an alternative to debit or credit card payments and the costs involved. This would depend on the commercial model applied to the service. There are opportunities to automate collection processes which would be manual today under existing systems.

Using the insurance sector as an example, there could be the opportunity to deliver 'just in time' services. For many insurers there is only one engagement often when the policy is renewed annually. The Request to Pay process could increase the number of touch points for businesses with their customers.

Question 2.5: We envisage payees stipulating a payment period during which the payer will be required to make the payment. As a payee, how do you think this payment period might be applied within your organisation?

PSPs not invited to respond to this question

It is important to recognise the difference between domestic and cross border customers that businesses face and the different payment mechanisms that apply. Companies may want to align payment timescales to all customers. A clear understanding of timescales for message flows will be absolutely critical to businesses.

Question 2.10: As a payee, considering the information provided in this document,

a. What is the extent of change you think you will need to carry out internally to offer Request to Pay?

PSPs not invited to respond to this question

Change would be substantial for businesses and include changes to legal requirements, call centre management, receivables management, operational processes, treasury cashflow, IT providers (often outsourced) and new sales processes. Changes would also be needed to support internal and third party distribution channels.

Question 2.12: We have highlighted several risks and considerations relevant to the delivery of Request to Pay. As an end-user of Request to Pay:

a. Are there any risks that we have not addressed or highlighted that you would like to add?

Yes / No

Yes, the analysis has identified the majority of the main risks that need to be addressed. There are some additional areas that we also recommend for consideration:

- Care will also be needed with the introduction of Request to Pay solutions as there may
 be an impact on large corporates' current credit control practices. Request to Pay is
 aimed to provide more control for the person or business initiating the payment but
 these benefits need to be balanced against the impact for large corporates who will
 need to adapt their payment collection methods and practices in order that a customer
 electing to pay using a Request to Pay method does not then find themselves
 disadvantaged in other respects, for example through penalty or late payment fees.
- Customers may find it difficult to know if a Request to Pay message is from a genuine source. This risk is increased if there is no vetting or secure process for enrolment of parties entitled to send Request to Pay messages
- Strong and clear rules with proper oversight and enforcement will be required for enduser solutions including Request to Pay. This will be important to ensure potential

- weaknesses are not exploited by fraudsters, particularly where solutions are created in the competitive environment.
- We need to safeguard against misuse of the Request to Pay messaging service from a fraud perspective. Our view is that there is a real risk "spoofing" of the payee. Please see our comments in response to question 1.3.

To enhance the service the following practical elements should also be considered:

- Technical capability of the payment initiator to receive and respond to the initial Request to Pay submission. If the submission is non-compliant with the rules and rejections happen, then the initiator should have the capability and processes in place to handle these rejections.
- The initiator needs to apply and reconcile the response from the payer in a timely fashion.
- The initiator should also be required to support the avoidance, investigation and resolution of any service abuse or fraud.
- The initiator needs to be responsible for payer identification and authentication and adherence to security standards in their infrastructure to safeguard payer details.
- The maximum number of payment extensions should be viewed against the context of the time period rather than just the volume of deferment requests.
- We are working on the assumption that the underlying agreement between the supplier and the customer would drive the treatment of delayed payments. Careful thought is needed to consider whether common standards around the treatment of customers that request multiple payment extensions are required, without disturbing the underlying contractual foundation.
- For businesses the challenge will be to keep contact points up to date, particularly
 mobile numbers and email addresses, given the increased levels of interaction.
 Businesses will need processes to capture this information during the greater customer
 contact that Request to Pay offers users.
- The process for handling disputes, complaints and claims handling in relation to Request to Pay needs to be established at Industry level and the processes clearly defined in the rules underlying the service.

Other risk areas that should be considered include:

- There is significant risk that end-users would have minimal understanding of the potential consequences of using Request to Pay and making, for example, partial payments.
- Any changes to the contractual payment terms at the company providing the service to the customer will require a negotiation process with the payer. We should be sure that companies participating in the service are aware of the need to have a policy in place to deal with this interaction.
- If there were changes made to a customer's payments, then there would need to be clear and transparent information provided about how this change will impact the longterm affordability and cost of their product following this change. There is a risk that the customer could continue to extend the length of the debt and with it the duration and size of the total owed.
- One potential consequence is that Request to Pay becomes the default payment method for non-payers or slow-payers. Giving the responsibility to customers who are

not able to manage their financial affairs adequately, there is a risk that this could lead to increased indebtedness.

b. Are there any additional unintended consequences that we should consider?

There are a number of unintended consequences that we should seek to avoid as this service is developed:

- The analysis in the blueprint document covering incorrect payment scenarios due to customer error or scams needs to be more fully developed. There is a clear risk that new methods of fraudulent attack on customers' funds are created through this process and we need to guard against bad actors being attracted to this new service. We need to develop our understanding of how people are going to be protected from such attacks.
- We should be careful that the introduction of Request to Pay does not change the liability position for those within the payment process.

Question 2.13: We recognise that additional work needs to be done in identifying potential safeguards including liability considerations associated with Request to Pay. As an end-user of Request to Pay:

a. What are some of the potential liability concerns that you may have?

A key safeguard in managing liability considerations is for the rules governing the service to specify the maximum number of times a payee can submit a Request to Pay message to a payer.

In relation to partial payments and repayment plans, it is important that the liability and agreement remains between the payee and payer. It is not the role of the PSP to intervene in the client and supplier relationship to chase for payment or become involved in agreeing repayment plans. We understand that this is the intention and HSBC supports this position.

Clarity on how claims or disputes will be managed is essential. In a case where funds are sent to a fraudster, clear guidance is required to determine where liability falls, provided all parties have followed the correct process.

b. Would you be interested in working with the Forum to define, at a high level, the liability considerations for Request to Pay?

Yes / No – If so, please contact us as soon as convenient through the Forum website so we can get you involved.

Yes, HSBC would welcome the opportunity to participate in the process to establish the liability considerations for Request to Pay.

Question 2.14: As a PSP:

Do you currently offer real-time balance information to your clients? Yes / No

What information do you offer them? If not, what are the constraints?

Personal Customers

Whilst the balance of a customer's account will be updated as transactions reach the account, there are a variety of constraints which prevent the balance shown being a true real-time balance. This is particularly true for personal customers where card-initiated payments are undertaken, which are not debited to the account in real-time. Many transactions will be posted and reflected immediately in the customer's ledger balance and where appropriate the available balance, such as cash withdrawals, cash deposited or electronic funds received.

Pending payments (including contactless payments) are displayed on a customer's personal internet account. This gives a view of those payments which will reach the account in coming days.

Constraints today include confirmation of a payment outbound where we are only able to confirm a delivered status as we have no control on the beneficiary's account and when the payment is credited. This is particular to credit cards where funds may not be allocated straight away. Also if an outbound payment is directed for further investigation, we may not be able to confirm the payment in real-time due to the ongoing assessment required and for fear of breaching legal and regulatory requirements surrounding tipping off.

Corporate Customers

Balance information is near real-time and reflects the position on all processed transactions that impact the balance. Due to the nature of various clearings and regulatory obligations for sanctions screening, there would be impacts that will not be visible to customers. For example there is a risk that while any sanctions screening process is underway the balance information may change, impacting any decision to pay or not to pay an item.

Information that is provided to the clients contains information on the payee and payment details. Additionally, information that would aid the customer in terms of investigation (bank reference) and charges reconciliation (for subsequent billing) is provided. Constraints exist due to the industry standard formats used by each payment scheme and the type of information that the corporate customer wishes to see.

Question 2.15: We have presented two CoP response approaches (Approach 1 and Approach 2).

a. As a payer, what would be your preferred approach? Why?

HSBC supports Approach 1. We could also support Approach 2 if data protection concerns were overcome and a central database model such as Paym was utilised.

Approach 1 provides a simple, clear position for the customer to understand. As well as the definitive response confirming the intended payee, it would be important to have equally

simple responses where it has not been possible to give an unequivocal match to the payee information.

Approach 2 would raise concerns around data protection and the implications of the forthcoming GDPR requirements. To be effective this approach would need to operate through a central database model giving clear responses to the payer.

Whichever response is adopted, it is critical that the ultimate decision to pay or not to pay is taken by the customer, with the benefit of the information provided to assist them.

b. As a PSP, what would be your preferred approach? Why?

The same arguments in respect of Confirmation of Payee apply for the PSP as they do for a payer.

In respect of Confirmation of Payee, a useful additional service would be to be able to determine whether the payer has sole, joint or no authority on the account. This is important as accounts belonging to minors could be used in a fraud and if the request is to simply check for association with the account; then it defeats the purpose for the payee. The payee needs to know whether the payer has control and the ability to authorise payments from the account.

- c. As a regulator:
- i. What are the applicable considerations that must be made for each approach? PSP's not invited to respond to this question
- ii. What safeguards must be put in place for each approach? PSPs not invited to respond to this question

Question 2.16: As a PSP:

a. Would you be able to offer Confirmation of Payee as described to your customers? Yes / No

Yes, HSBC would wish to participate in this service and offer it to customers when it becomes available. The nature of the service is such that there needs to be participation in the industry from all players. If even a small number of participants do not take part then the service will be ineffective and the decisions provided to customers on whether they are paying the correct payee will not always be possible.

We believe this service meets a real need in payments and meets some of the detriments highlighted in the 2016 Payment Strategy Forum strategy. Having this tool available would help to reduce costs of managing misdirected payments and reduce the distress and inconvenience that this brings for payment users.

The service cannot be offered by one bank alone and needs a collaborative industry effort to deliver the service effectively. We believe that it is critical that the detailed analysis and

assessment of the options carried out by Payments UK on behalf of the industry in 2016 is brought in to this work. This concluded that an API based model represented the most secure, resilient and modern solution to meet the requirements of real time payment systems.

We are aware there has been recent focus on the solution offered by Paym to deliver Confirmation of Payee. This is only one of the possible solutions and was not regarded as a likely way forward from the detailed analysis completed in 2016. All options should be openly and fairly considered to get the optimum solution for the UK market and one which is sustainable in the long term.

b. What is the extent of change that you would need to carry out internally to offer Confirmation of Payee?

It is too early to give any balanced view of the effort required to deliver a Confirmation of Payee solution. The effort would be heavily dependent on the approach selected at industry and the method used to deliver that approach. No decisions have been taken on the nature and delivery of the industry service at this time.

HSBC would wish to ensure that the service is fully embedded in our payment process so that customers always have the chance to use it before making a payment through any of the channels where it is able to be delivered.

The development should be aligned with the Open banking API work that is already underway and thereby avoid re-work or duplication.

Question 2.17: The successful delivery of CoP is largely dependent on universal acceptance by all PSPs to provide payee information. As a PSP:

a. Would you participate in a CoP service?Yes / No

Yes, as noted above HSBC would intend to participate in a Confirmation of Payee service.

As well as the dependencies noted below some of the more detailed considerations include:

- Data privacy rules would have to be recognised and validated.
- PSD2 already allows for a beneficiary's details to be passed to the sender in the cases
 of non-recovery of funds, therefore we do not foresee any issue of providing payee
 information as long as the same rules were adopted by all PSPs.
- Terms and Conditions would need to be updated but with sufficient notice, this change could be incorporated in planned regular updates.
- Businesses would need to know if the service was accessible to them or whether they
 would continue to use commercial services such as Experian for their needs.

b. Are there any constraints that would hinder you providing this service? Yes / No

Yes, this would be dependent on near universal participation in the service or the investment would not be worthwhile and would not deliver the required benefits. As already identified the approach and method of delivery would need to be defined at industry level and be accepted across the payment providers.

Constraints would be determined by the information required to be validated in the Confirmation of Payee request and the need to keep the response to a simple confirmation in the vast majority of cases

Question 2.18: The NPA will fully support the functionality for PSPs to provide payment status and tracking.

a. As a PSP, what is the extent of change you think you will need to carry out internally to offer Payment Status Tracking?

It is unlikely that complete payment status tracking could be provided across the full range of payment schemes using the current payments infrastructure. Systems have not been built to support this.

We are aware of the work underway in Faster Payments to deliver a solution for this scheme alone. We have participated in discussions surrounding Faster Payments instant Single Immediate Payment (SIP) and SIP availability proposals. We have responded positively that we will be able to provide this information subject to the caveats outlined in in our response to question 2.14. With instant SIP, the delivery would always be real-time, so it would be important that the NPA could accommodate the flow of information needed. We would prefer the functionality of an instantaneous reply mechanism built into the NPA which would be sent to the Sending Bank once credited at the Beneficiary Bank.

With Faster Payments SIP availability proposals, fraud referrals would need to be considered as we would not always be able to provide certainty to the customer in real-time, if more investigation was needed.

Given the work underway in Faster Payments we would want to understand more fully how the NPA will support payment tracking and how the Faster Payments initiative will relate to this.

It should be noted that from a corporate banking perspective we offer payment tracking services to our clients but this service is currently restricted to clearing. One such example is the SWIFT scheme's Global Payments Innovation Initiative, which seeks to enhance cross border transactions. New technical standards and business rules have been agreed by a growing number of participating banks with the aim of allowing same day use of funds, transparency of fees, end to end payment tracking and richer data. We believe these goals match closely with those of the PSF Payment strategy. Extending this to tracking all payment types would be substantial change and the change effort would be a function of the low level requirements and service obligations.

b. What challenges do you see that might prevent your organisation adopting Payments Status Tracking?

See comments above in 2.18a. We would also wish to highlight the potential financial crime and fraud concerns from the availability of tracking information. Fraudsters are always keen to understand the progress and fate of payments. There are also concerns that if a transaction is delayed for potential fraud investigation and this is advised to the fraudster, that this may 'tip off' the perpetrator and breach regulatory requirements.

Question 2.19: We have highlighted several considerations relevant to the delivery of Assurance Data. As an end-user of Assurance Data:

a. Are there any risks that we have not addressed or highlighted that you would like to add?

Yes / No

Yes, the risks and mitigants highlighted are a good summary of the issues to be considered. We have identified some additional points for consideration:

- It will still be possible for customers to send misdirected payments even with a confirmation of payee service. They can still ignore or not be aware of the name of the recipient who is aligned to the particular sort code and account number. It should be recognised that Confirmation of Payee should help reduce the number of payments sent in error but will not fully eradicate the detriment.
- It will also not solve overpayments and payments that should have been cancelled.
- Payment status tracking may well be of benefit to fraudsters who will always wish to see that the payment has been sent to collect their monies and stay ahead of the authorities.
- Payment status tracking that delays the application of funds, may also inadvertently result in the 'tipping off' of fraudsters.
- With the development of services for assurance data it is important that there is a robust governance, disputes and liabilities management structure.
- We need to ensure that solutions recognise and attempt to deal with fraud emanating from social engineering or customer impersonation.
- With respect to payment tracking, the need to balance information overload for payers against the likely benefits, needs to be considered. The tendency for payers to start ignoring such messages in an always-on scenario would defeat the purpose.
- With the near 24 x 7 experience and value transfer, payers would know when the payee was in receipt of funds and the payees need to apply additional logic and due diligence when applying late payment charges. This could require payees to move to a 24 x 7 back office
- The actions incumbent on payers to reconfirm a payee needs to factor in the requirement to differentiate a payee set-up using industry provided directories of bill payers, versus those setup directly by the payer. The usage of the industry directories is a protective measure for the payers and obligations should be placed on payees subscribing to these services to keep it updated and relevant.

b. Are there any unintended consequences that we should consider?Yes / No

Please see comments under question 2.19 above. It is important to consider the question of liability in relation to the introduction of assurance data. Our opinion is that the liability position in this area is much more significance than that surrounding enhanced data.

Question 2.20: As a payer:

a. How would you use Enhanced Data?

The principal benefits would fall to corporate entities who are likely to be able to reconcile payments more quickly and easily with the benefit of additional data. HSBC would look to work with its customers to identify services which may provide benefit to them.

The service would also be of substantial benefit to various government departments who require additional data to support and reconcile payments. In particular this would allow customers to have:

- Details of invoices being paid
- Details of debit notes and / or credit notes being added to the payment
- Additional references to payments or payee references to support payer identification

We also anticipate that enhanced data would complement the Request to Pay service.

The idea of being able to scan and attach a document, such as a bill or delivery note, is a benefit and could reduce queries by allowing individuals the ability to check information first.

We believe there will also be PSPs and companies who see marketing opportunities through the use of the enhanced data capability. Consideration would need to be given to what type of information can be included, such as attachments within the payment message. It is however important to safeguard against the introduction of malware included with any additional information or attachments.

b. What enhanced data would you add to payments?

This would be part of a consultation process with customers to help define opportunities. We anticipate that improved reconciliation services would be one likely option.

Question 2.21: As a payee:

a. How would you use Enhanced Data?PSP's not invited to respond to this questionb. What Enhanced Data would you add to payments?

PSPs not invited to respond to this question

Question 2.22: Does the Enhanced Data capability as described address the detriments identified in our Strategy?

Yes / No

Yes, we believe this will address the core detriments of easier reconciliation and crediting of accounts while reducing the amount of checking and chasing for payments.

Question 2.23: Some changes will be required to enable the loading and retrieval of Enhanced Data. For example, corporates will need to modify their internal systems. As an end-user, what internal change will be needed to allow you to add and receive Enhanced Data through the NPA?

We are likely to need to make extensive changes to many downstream systems to receive and pass on the enhanced data received as part of a payment or if it is retrieved separately. The scale of changes will depend on use cases but if received with a payment, it is expected that we will need to provide all the information downstream for compliance reasons. This information flow will also need to be made available to indirect agencies, corporates and internal systems that require it, through the creation of appropriate internal and external APIs.

The enhanced payment information would need to be stored in the corporates' back office. Business will need to be redesign their existing financial and billing systems to adopt suitable message formats in the interests of accommodating the enhanced information.

Question 2.24: We have highlighted several considerations relevant to the delivery of Enhanced Data. As an end-user or Enhanced Data:

a. Are there any risks that we have not addressed or highlighted that you would like to add?

Yes / No

No, we have reviewed the risks identified from the enhanced data proposals and believe that the key risks have been captured.

b. Are there any unintended consequences that we should consider?Yes / No

Yes, enhanced data may contain information that may alter the underlying commercial terms and may lead to uncertainty in the legal position.

Question 2.25: We recognise that additional work needs to be done in identifying safeguards including liability considerations associated with Enhanced Data. As an end-user of Enhanced Data:

a. What are some of the liability concerns that you may have?

The principal drivers with regard to liability relate to the ownership and management of the data. If the data is stolen or compromised at points within the payment process, it is important that there is an agreed structure to define the liability of the parties involved. It is also important that this is clearly understood and established in rules with appropriate governance to ensure compliance.

Further work will be required to understand the risks associated with Data Protection, Data Storage and Data Ownership. A key concern is the parties that are able to use the Enhanced Data. For example, the PSP representing the payee and PSP representing the payer would naturally be able to use this Enhanced Data but one has to think carefully of allowing other parties and entities access to such data. In a scenario where third party providers are making push payments on behalf of the payee, they could argue that the payment data is about their customer and should have access to such Enhanced Data.

Uncertainty over liability in any of the end-user needs solutions will impact the levels of adoption of the respective services.

Liability arising from data processing of enhanced data needs to be considered.

b. Would you be interested in working with the Forum to define, at a high level, the various liability considerations required for Enhanced Data?

Yes / No – If so, please contact us as soon as convenient through the Forum website so we can get you involved.

Yes, HSBC will be pleased to continue to support work on liability positions for the end-user needs solutions.

3.0 Implementation Plan

Question 3.1: Are there any additional principles you think we should add or significant amendments that should be made to those already stated?

Yes / No

HSBC is very supportive of the principles outlined in the strategy document but we also recommend the addition of a costs and funding principle. There is a danger that by setting out the optimum approach, we risk losing sight of the most likely outcomes.

We note that the commentary supporting the principle to 'provide optimum benefits to stakeholders' raises the issue of cost and notes that the plan should maximise benefits at the lowest possible cost and risk. The principle itself does not explicitly set out the need expressed in the commentary. We would like to see this set out separately.

For example it would be entirely possible to retain the six key planning principles while adding a seventh which grounded the proposals to the reality of the total cost and how it can be funded.

Therefore a seventh principle could simply be:

 Deliver the NPA at a cost agreed by the industry and supported by an achievable funding model.

A further point relates to the second principle 'facilitate collaboration with industry participants in the development of solutions where appropriate'. Underneath this are some key summaries of how this will be delivered. We would like to see a fourth bullet added to cover adaptability and flexibility. This reflects the need for the delivery to be achieved in such a way as to allow the end-user needs solutions and other overlay services to evolve over time as market needs change.

Question 3.2: Are there any additional assumptions you think we should add or significant amendments that should be made to those already stated?

Yes / No

Yes, we believe that the needs of agency banks (those having indirect access to payment schemes through an Indirect Access Provider) should also be considered as part of the planning assumptions. It will be critical that their requirements are met in a realistic way as part of any transition. It will be equally important that the capability of Indirect Access Providers to resource and manage change is considered.

We would also like to see highlighted in the assumptions that the programme will develop proposals to meet the needs of vulnerable customers throughout the implementation with appropriate migration periods. Whilst there will be a general need for thorough and effective communication and education surrounding the change process, customers who are less able to manage their financial affairs may particularly struggle with any change. We

note in the assumptions that 'PSPs and TPSPs will manage end-user interfaces and propositions competitively'. Whilst we understand that changes directed by the NPSO or the programme cannot be taken in isolation, there must be a process to coordinate and agree the change agenda and how this will be presented to customers.

We would also observe from the summary of the assumptions that there will be significant costs and funding to be secured over a lengthy period to deal with the transition and parallel running that is spelt out in these assumptions, before any cost benefits can be realised. We are not certain if this has been fully reflected in the Cost Benefit Analysis.

Finally we believe that there should be a clear assumption that Request to Pay will operate alongside Direct Debit and that there is no intention to demise the Direct Debit service in favour of Request to Pay. The two services are complementary.

Question 3.3: Do you agree with the sequence of events laid out in the implementation plan?

Yes / No – If not, what approach to sequencing would you suggest?

Yes, we agree with the sequence of events laid out in the implementation but we also believe that there are some additional issues around sequencing for consideration.

Whilst the strawman implementation timeline set out in figure 3.1 (page 47) sets out the high level migration path, there is little detail at this stage on the migration approach from a technical perspective.

Should the NPA be delivered as envisaged in this implementation plan a key risk will be the length of time that the programme will take to deliver. This raises a number of associated risks to be managed:

- New functionality will be added to current infrastructure due to market, industry and regulatory demands while the NPA is being developed. This will change the scope as the programme progresses and has the potential to introduce further cost and / or delays.
- The NPA programme will have to cope with substantial changes in technology and technical capability in this period and will need to keep up to date with these developments and how they impact the initiative.
- The plan to transition to new architecture and demise legacy systems within a five year period appears very challenging. Other initiatives have shown us how complex change to payment systems is to manage. Lessons can be learnt from recently delivered initiatives such as the introduction of Faster Payments, the Image Clearing System for cheques and the Current Account Switching Service. All of these took over three years from planning to delivery and did not have the complexity or interdependencies of what is proposed through the NPA.
- Customers will be directly impacted throughout the period, creating the risk of uncertainty and confusion, unless the communication of what is planned is extremely well managed.
- To provide a consistent service to the customer, functionality will have to be provided both on the current and new infrastructure until the switch over has been fully tested

- and is ready to happen. The scale of this requirement and how it will be managed needs further work, in particular to ensure ongoing alignment between the parallel structures.
- PSPs will need to balance the impacts of other regulatory change alongside the development effort that will be required for the NPA.

One area of concern for us is the how the programme for the NPA will be managed alongside the Bank of England programme to replace the Real Time Gross Settlement (RTGS) platform. This raises the question of whether this should be done in parallel given that there will be a significant dependency for the NPA on the progress, outcome and direction of the RTGS programme. As well as requiring the same resource and testing environment amongst PSPs, if the NPA is built ahead of clarity on the RTGS, we face the potential risks of needing to re-build and regression test.

Another area of sequencing that it would be useful to demonstrate in the planning process would be when a freeze on developments on existing infrastructure would come in to effect. This is important as there are always significant demands to bring solutions to market at the earliest opportunity or for PSOs to promote their own commercial solutions. Examples of this could include Faster Payments Single Immediate Payments proposals, Request to Pay and Confirmation of Payee. Robust programme governance would be needed in this area and clear visibility of system and development freezes.

It should also be highlighted that the NPSO itself could have a major impact on sequencing and timelines, particularly in the early parts of the programme. There will be a considerable period where the NPSO is establishing its structures and mode of operation. The primary focus in this stage will be to establish the governance structures for the three payment systems that it will initially be responsible for. There is the likelihood that it will not have sufficient resources or bandwidth to focus on the NPA in sufficient detail and this may influence sequencing and timelines.

Overall we should continue to assess whether key detriments are being effectively addressed on existing architecture as technology and capabilities evolve. The rationale for investing in transitional solutions would have to be assessed on a case by case basis, however it is possible to foresee a scenario where transitional solutions would pass the cost benefit assessment, particularly if delivery of the NPA became protracted. As an industry we cannot afford to stand still and delay improvements for customers, pending full implementation of the PSF recommendations and potential longer term solutions.

Question 3.4: Do you agree with the high level timetable laid out in the implementation plan?

Yes / No – If not, what timing would you suggest?

It is too early to answer definitively yes or no to the high level timeline. Further work is required and we do not believe that the PSF and subsequently the NPSO can adopt the high level timeline as definitive at this stage. We expect the timing to be adjusted as more is understood or as changes in approach are confirmed. Overall significant further detail on

the implementation, migration plans and approach are needed before it will be possible to draw conclusions on whether the timetable set out is achievable.

We should be mindful throughout that decisions on the speed of migration will have a significant impact on costs.

Current suggestions are that two principle services (Confirmation of Payee as one of the solutions for assurance data and a Request to Pay service) may be delivered ahead of the NPA. Decisions have not yet been taken and it will be important that a clear direction is set out in the near future. The industry needs to understand whether the investment in these services ahead of delivery of the NPA will result in a double cost with throwaway development, if the solutions are not compatible as overlay services on the new structure. If the services do have to be rebuilt this would increase build complexity for all parties, introduce additional cost and have impacts on the timeline proposed.

We also note that building these services on existing infrastructure has not been reflected within the Cost Benefit Analysis (CBA) as full benefit has been claimed for the NPA. We will comment more fully on this in the CBA section of questions.

With regard to the timeline after 2021 we believe that more work is needed to look at the transition, migration and integration plans for the three inter-bank schemes. Once this is done, there will be an impact on implementation plans and the speed with which existing structures can be effectively managed.

The timeline of this duration will be susceptible to dependencies on other developments, both planned and unforeseen. In particular it is worth highlighting the importance of the Bank of England development of a new RTGS system. The Bank of England itself will have to give full commitment for what is anticipated to be a four year programme and all users will have to operate on existing structures to support the new system when it is available. It is unlikely while this is being developed that the Bank of England can accommodate the level of interaction needed with the NPA to define the important settlement elements of the structures. Technical resources in PSPs will also be an issue. This is likely therefore to have impacts on the timeline

At a more strategic level we recommend further analysis on the potential to use the Image Clearing Service infrastructure to deliver many of the requirements the NPA seeks to provide. The Image Clearing System is constructed on the latest generation of ISO20022 payments architecture, in which the industry has made a substantial investment. Our technical assessment is that there would be potential to use and develop this structure to support the development of the NPA. We believe a full analysis of this option should be pursued alongside other options to re-use existing architecture.

Question 3.5: Are there any significant potential risks that you think the implementation plan does not consider?

Yes / No – If the answer is yes, then please provide input about what they are and how we can best address them.

Yes, we believe that there are some further risks to consider. We have provided the additional points in the same format as set out in figure 3.3 (page 49) which summarises the identified risks:

- Design Scope is constantly changing due to market, industry and regulatory demands. New functionality will be demanded due to market, industry and regulatory needs while the NPA is being developed. This will change the scope as the programme progresses and add time and cost. In addition the NPA programme will have to cope with substantive changes in technology and technical capability in this period. Mitigants will be to have robust programme governance and change management principles in place and to keep up to date with technology and technical changes and how they impact the initiative.
- Design NPA as single point of failure. With the three payment systems utilising the same IT architecture and structures, the risk of failure impacting the whole payment system is greater. For example a similar implementation in Denmark had to have significant resilience built in with tertiary separate back-up sites. Disaster recovery would need to be strengthened to mitigate the risk and the extra costs and resource commitments would need to be reflected in the CBA.
- Implement **System fails to operate effectively following going live**. This may be due to the failure of components within the NPA to operate as expected, or due to an unforeseen failure. This is a real risk for users interfacing into existing systems for corporates and PSPs. The mitigants in this scenario are effective structures, resources and contingency plans where possible, to deal rapidly with failures. We would expect to see clearly articulated recovery plans defined to cover a range of failure scenarios.
- Implement Both principal electronic payment schemes (Faster Payments and Bacs) in development phase at the same time. This creates the risk of lack of availability of services. This is also a timeline issue. Mitigants are to change the current provisional timeline or to have strong programme governance to manage development plans and risks of the payment systems.
- Operation Users lose confidence in the NPA/Media attack on new structures.
 Recent collaborative implementations have required significant resource and planning, yet have not always proceeded smoothly given the complexity of change.
 The proposed NPA development carries even greater scale and complexity. It is very difficult in HSBC's view to mitigate fully the significant risks associated with the NPA introduction.
- Adopt New ongoing fraud risks are created by the NPA. Fraud attacks during
 transition have been noted but with the more open structure, this is a real risk, which
 could be damaging to the effectiveness and perception of the NPA. The attacks may
 be exploiting the improved access in different layers of the architecture or the overlay
 services as will be seen from our comments on the Request to Pay proposals.
 Mitigants will be thorough fraud risk assessment prior to delivery, remedial action to
 address loopholes and attacks and have appropriate resource to deal with issues.

Question 3.6: Do you agree with our proposed transition approach?

Yes / No – If not, please provide your reasoning.

No, there are some important aspects of the approach that it would be sensible to reconsider.

There is considerable overlap between the questions covering the transition approach, risks and timelines. With regard to the transition approach the points that we have made in our responses to questions 3.3, 3.4 and 3.5 all have relevance here.

The plans to migrate both bulk electronic payment systems (Faster Payments and Bacs) to the NPA in parallel rather that completing one migration before starting on another would introduce significant risk of service failure. The areas that we have already highlighted regarding the risk that these systems will both be in development phase at the same time ahead of the migration are important considerations in the transition approach. We believe that more work is needed here to understand the transition approach for these two schemes and to come up with proposals which the industry can consider in detail given the substantial risks involved.

We would also highlight the opportunity regarding the capabilities of the Image Clearing System to support the development of the NPA overall. This analysis should be completed prior to the procurement process for the NPA.

The other principal factor that we have already described that would impact transition planning is the dependency and overlap with the Bank of England new RTGS programme.

4.0 Cost Benefit Analysis of the NPA

Question 4.1: Are there any material quantifiable benefits that have not been included? Yes / No – If so, provide details.

No, we cannot identify any other material quantifiable benefits but we do wish to raise concerns regarding the inclusion of benefits attributed to overlay services, which are likely to be built on existing infrastructure. In particular this relates to Request to Pay and Assurance Data.

The implications of this are significant to the overall business case. Assuming that Request to Pay solutions and Assurance data services are built on existing infrastructure, it does not appear appropriate to attribute this benefit to the NPA. Of the three overlay services the only one that cannot be accommodated effectively within existing infrastructure is enhanced data. If benefits attributed to Request to Pay and Assurance data are excluded, then the benefit from 2019 to 2031 is reduced by between £3.7b and £4.5b based on the figures in the Benefits Summary in table 4.1. The loss of benefits of this scale would have a significant impact on the overall business case for the NPA.

More specifically, the benefit section assumes effective take up of the overlay services. This cannot be taken for granted given the expected costs and investment in the PSP sector that will be needed to offer a Request to Pay service. For example it took contactless cards ten years to become established in the market and so lead times may well become protracted, reducing projected benefits.

An important point to note with this analysis is that the costs and benefits are for the UK and this is not the same as the costs and benefits for individual entities or the payment industry in particular. In reality costs will fall to the industry while the benefits in the main will flow to the wider UK.

Question 4.2: Do you agree with the cost assumptions with regards to the NPA and each of the overlay services (Request to Pay, Enhanced Data, Assurance Data)?

Yes / No – If not, please state your reasons and, if possible, suggest alternatives analysis.

No, there are some additional points to help support this analysis.

End-user costs – we note that the costs are described as those attributable to PSPs, PSOs and infrastructure providers. We also propose that the impact be extended to agency bank customers using indirect access models to access the payment schemes. We believe that the costs to end-users of interfacing with the NPA should also be included. This includes small and medium sized businesses, large corporates and government. Systems, process and interfaces will change for them as they adapt to the new structures. These comments exclude the considerable work that will be required to adopt some of the overlay services such as Request to Pay.

Increased resilience costs - As noted earlier with the NPA being created as a single point of failure rather than the PSOs using three separate systems, the extra costs of resilience such as additional back up sites may need to be reflected in the CBA.

Request to Pay and Assurance Data costs - If the new functionality is built on to existing systems and the benefits are removed from the NPA CBA, then the costs can also be removed. New costs would need to be added to reflect the build and transition on to the NPA, should the new services also be built into the NPA at a later stage.

Take up of services – For overlay and direct services attributable to the NPA, the costs of slow take up by users need to be reflected or conservative assumptions adopted.

Question 4.3: Do you agree with our description of the alternative minimum upgrade? Yes / No – If not, please explain your reasoning.

No, we do not agree with the treatment of the three overlay services in the alternative minimum upgrade.

In the alternative minimum scenario we believe it is highly likely that both Confirmation of Payee, other assurance services and Request to Pay would be delivered within existing infrastructures. Solutions are already being pursued in the market to allow these services to be delivered ahead of the NPA. If the NPA was not pursued, solutions are achievable on existing architecture. The exception is enhanced data that cannot be delivered effectively on existing structures.

5.0 NPA Commercial Approach and Economic Models

Question 5.1: Does our competition framework adequately capture the types of competition that may exist in payments?

Yes / No - Please explain.

Yes, we support the competition framework as set out.

Question 5.2: Do you agree with the NPA competition categories described? If not, please explain why.

Yes / No

Yes, we support the competition categories identified in this analysis

Question 5.3: Does our framework capture the dynamic roles that NPSO may play in the market?

Yes / No

PSPs not invited to respond to this question

Question 5.4: Are there any other important criteria that we should use to assess the funding options we have identified?

Yes, in general we believe the assessment criteria for the funding options have been identified but we have one other suggestion for consideration. We believe that it would be appropriate to include in systemic risk options for contingency and how to overcome risk in case the system or elements of it fail.

Question 5.5: Do you agree with our NPA competition assessment? If not, please explain why.

Yes / No

PSPs not invited to respond to this question

Question 5.6: Do you agree with our assessment of End-User Needs Solutions? If not, please explain why.

Yes / No

We agree with the assessment of Confirmation of Payee as a market catalyst solution. We also agree with Request to Pay falling in to this category too. However we disagree with elements of the rationale which indicate that commercial solutions for Request to Pay are non-standard, lack interoperability, and cannot be used on all payment schemes. It is also becoming clear that solutions to meet the requirements of both Request to Pay and Confirmation of Payee can be delivered on existing systems.

The commercial Request to Pay solutions each offer different benefits and drawbacks in the same way as the solution proposed by the PSF. For example Pingit has found ways to make itself interoperable with limitations. Zapp (Pay by Bank) is interoperable and real time and so has the potential to be a real competitor to the PSF generic model. Zapp (Pay by Bank) has other advantages that the PSF model does not, in that it generates revenue streams for providers of the service, reduces costs to merchants and aggregates transactions in the same way as a card acquirer, to aid reconciliation of transactions for businesses. The positioning of these commercial offerings alongside the PSF generic model cannot be ignored as it will impact development of solutions, take up and attitude to funding.

Where solutions can be delivered on existing architecture for Request to Pay and Confirmation of Payee to meet the requirements as set out by the blueprint document, then the funding model and arrangements may be different than if it had been delivered on the NPA. More analysis of this will be needed once options for delivery of these solutions on existing structures are known. As noted earlier the removal of these benefits has a material impact on the CBA for the NPA.

Question 5.7: Do you agree with our list of funding stakeholders? If not, please explain why. Yes / No

Yes, we agree with the four funding stakeholders identified.

We also note that those investors external to the industry would need to have appropriate safeguards and caveats applied to any investments secured. For example it would be untenable for an external investor to have sufficient influence to sell assets or close services for cost reasons if these were critical to the payments and banking infrastructure.

Question 5.8: Are there any other significant sources of funding or types of funding instruments the NSPO could secure that have not been described? If not, please explain why. Yes / No

The commentary provides a good summary of the most realistic options that may be available for the NPSO to consider. There are always other types of funding available, which have not been covered here, such as government funding or joint ventures. In any assessment the agreed range of criteria set out in the Assessment Criteria in table 5.1 (page 65) should be used to assess suitability. The NPSO should be sure that the investor can deliver on their promises and the risk of over reliance on one or more investors is minimised, if this route is followed.

6.0 Improving Trust in Payments

Question 6.1: Do you agree with the outlined participant categories identified for the Payments Transaction Data Sharing and Data Analytics strategic solution?

Yes / No

Are there any other categories that should be considered for inclusion? Yes / No - Please explain your response.

Yes, the categories outlined in the Payments Transaction Data Sharing and Data Analytics solution appear logical. In our dialogue with the FFA UK we note that the following categories would also be worthy of inclusion:

- Financial crime prevention agencies (e.g. CIFAS)
- Financial crime prevention security solution vendors (e.g. FICO, SIRA)
- 3rd party PSPs (e.g. VocaLink or payment facilitators operating in the card acquiring ecosystem)
- Credit reference agencies (e.g. Experian, Equifax, National Hunter)

Consideration should be given towards the impact of distributed ledger payments or virtual currencies. Criminals are said to be increasingly using these new payment methods to accept and move illegally obtained funds.

Question 6.2: What is your opinion on the role non-payments industry participants should have as part of the Payments Transmission Data Sharing and Data Analytics strategic solution? (This could include Government, Law Enforcement, or others). If appropriate, please outline usage of the system, provision of data to the system, and legal considerations for participation.

Points to note in relation to the role of non-payments industry participants include:

- Prior to granting access to non-payment related participants, a clear legal basis and proportional access rights should be in place, like that of existing data sharing arrangements between government agencies and the payments sector e.g. Counter Fraud Defence Alliance pilot.
- Law enforcement agencies should have controlled access and this should be
 extended to bodies for the protection of critical national infrastructure. This would
 enable law enforcement to supplement and significantly enrich the data and
 intelligence they hold on their own systems. This could also reduce instances where
 production orders are required by law enforcement who are currently reliant on this
 time and resource consuming procedure to gain access to customer data from
 payment institutions. Law enforcement would also benefit from the proactive
 financial crime alerting capabilities the solution could offer.
- Legal and data privacy issues surrounding the solution need to be fully investigated. This is particularly important if customer data is to be shared and will be vital to understand and agree approach before decisions to proceed are taken. This can best be achieved dialogue with the Information Commissioners Office.
- The need to change existing money laundering legislation to enable the easier exchange of suspect financial crime data between payment institutions.

Question 6.3: Do you agree with the potential use cases outlined for the Payments Transaction Data Sharing and Data Analytics strategic solution?

Yes / No – If not, please provide your reasoning. Please indicate if there are other potential uses for the system that should be considered.

Yes, we agree with the potential use cases outlined. We have some additional points to consider:

- Assuming the system is able to identify patterns of activity across financial
 institutions and PSPs, it is not clear who will investigate these alerts. There is
 potential for significant delays to payments if large numbers have to be investigated.
 We need to be clear on the mechanisms and processes across participating members
 and ensure there are not unintended detrimental impacts on the wider payment
 system.
- As noted above, further work is required in understanding how compliance to data protection regimes could impact the realisation of the use cases outlined. For example, the complexities that PCI Compliance brings when scoring transactional data.
- There is also a reference to law enforcement bodies using the system, which assumes that they will have the resource and the desire to undertake this activity. As we have seen with the SAR's regime, law enforcement has not always had the required number of skilled resources to deal with the volume of reports submitted by firms. We understand that conversion ratios from alerts to SARs are generally less than 10% across the industry, so we should be clear that this structure will improve this position.
- We will need to understand how existing fraud and money laundering monitoring solutions will or could dovetail with the proposed model. Fraud alerts generally have to be real time to be effective, whereas anti money laundering transactions monitoring is not real-time and analyses customer post event and over periods of time.
- We would need to be clear on the impacts of on us traffic and whether this would cause problems to creating a true picture of activity.
- In point 6.2.6 it is noted that -participants can get feedback in near real-time. From a fraud and financial crime perspective the flow of information needs to be in real-time not near real-time.

Question 6.4: Do you agree with key principles we have outlined for the implementation of the Payments Transaction Data Sharing and Data Analytics strategic solution?

Yes, the approach outlined appears logical but there are a range of important dependencies, which include:

- The outcome of the implementation of the tactical solution including how PSPs use the new capability, how other parties utilise the capability and the benefits and costs of the new processes to use the data.
- The next level of detail to support the business case for the strategic solution.
- Establishment of the New Payment System Operator.

- Validation of the funding model approach.
- Establishing customer consent and an appropriate control mechanism over the data.
- Clarity on the exact build for the strategic solutions and development impacts on the overall payment systems and internal systems in PSPs.
- The solution should be adaptable to the changing face of financial crime (e.g. digital, crypto-currencies) and re-designs must be considered if new developments in the world of financial crime arise.

Question 6.5: Other than those already listed, what stakeholders should be consulted and engaged during the design and implementation of the Payments Transaction Data Sharing and Data Analytics strategic solution?

Other than those listed, consultation with consumer groups to demonstrate the positive work and developments that the industry is undertaking to reduce financial crime such as scams targeting vulnerable customer groups.

Question 6.6: Do you agree with the high-level timeline for the Payments Transaction Data Sharing and Data Analytics strategic solution?

Yes / No – If not, what timing would you suggest and why?

Given the uncertainty regarding the dependencies over the strategic solution the timeline looks challenging to achieve a live date of 2H 2020. It should also be remembered that the development and build is potentially alongside the development of the NPA. This can have an impact on available resource and could lead to different interfaces to payment systems than those in place today.

A clear decision on the timeline would be needed following clarity on the dependencies outlined in Question 6.4 above.

Question 6.7: Do you agree with establishment of the recommended framework for the sharing and exchanging of a core set of SME customer data overseen by a governance body?

Yes / No – If not, please explain your reasoning.

Yes, in principle we are supportive of the recommended framework for the sharing and exchange of SME customer data. This would need to be set up and governed robustly and with great care. It should also have a very clear set of rules and guidelines for usage. Considerations include:

- Care would need to be taken to ensure that any approach did not conflict or duplicate other global initiatives, and efforts should be made to work alongside or as part of these developments.
- The controls around access to and usage of the data would need to be clearly defined and established up front.
- Clear guidelines in place on validating data before sharing information.

- Segregation of the data would also be important to ensure that it was being collected and used for appropriate purposes. For example segregating identity and verification data and that likely to be used for data analytics.
- The use of this data must be strictly regulated and pre-agreed. It should be used to address financial crime and not for marketing and customer insight purposes.
- The effective sharing of data is a challenge in many sectors. KYC is only one use case
 of many and we need to be clear that in driving forwards standards that this is the
 right lead purpose.
- Standardisation in this area should aim to be solution and technology agnostic. Any framework should create the conditions necessary for market solutions to develop.
- We believe more work is needed to understand the underlying need and value for SME users.

Question 6.8: We are keen to get your input on the benefits provided by the framework. Do you agree that the focus on sharing a core set of SME customer data is beneficial for the KYC process in your organisation?

Yes / No – If not, please explain your reasoning.

Yes, in principle, sharing customer data, and providing ways of accessing and verifying data more efficiently, and to a high level of confidence, has potential benefits to both customers and the industry.

We agree that there are some significant benefits in sharing SME customer data but this data will need to meet standard KYC processes for all PSPs. For example, one bank's KYC process might not be the same as another's so the information collected on some customers might be significantly different or incomplete. This can also vary in terms of the range of information sought about the applicant and from where this data is derived and authenticated. Consideration should be given as to whether it is possible to agree an industry standard for KYC processes as a pre-requisite.

The costs and benefits to different players in the ecosystem varies significantly and this would need to be further evaluated. The process by which customer information is collected by banks as part of the KYC process also varies. This results in a wide range of differing costs and levels of complexity across PSPs, and therefore different banks will benefit from a shared core set of customer data to varying degrees. This will make any model difficult to manage.

- a. Which other business activities could be supported by / benefit from the described sharing and exchanging a core set of SME customer data?
 - In principle, any business activity requiring the SME to assert its corporate identity, and the identity of significant individuals within it (and the potential risk associated with them) could be a use case.
 - There are a number of ongoing activities relating to the prevention and detection of financial crime, both through the PSF and other stakeholders, where this would be of significant interest and potential benefit, and with which this proposal would require careful alignment and planning.

 Overall it is important to ensure that this solution is addressing the areas that cause most inefficiency/cost for SMEs.

Question 6.9: Do you agree that the topics covered by the standards will provide sufficient guidance in order to implement the data sharing framework without being too prescriptive? Yes / No – Are there additional topics you believe should be included?

Yes, we believe these are the principal areas. However the need for standardisation of data attributes goes much wider than SME KYC as a use case. Future standards work may also need to include an element of engagement with other industries to ensure that there is no duplication of standardisation effort.

We would also like to see the standards including requirements to include all bad experience that may lead others to identify fraud. There is a danger that 'in house' experiences may not be passed through to the system for fear of highlighting mistakes made within the institution.

Question 6.10: To engender trust in the sharing and exchanging of a core set of SME customer data, are there other responsibilities you would expect the governance body to have oversight over?

We consider that the core areas for the governance body to focus on have been identified but have one point to add:

The proposals refer to 'enforcing compliance'. Clarity will be needed on how the
governing body will enforce compliance and the consequences of non-compliance
for parties not sharing data. This will be one of the key areas of its responsibilities
and it must be effective.

Question 6.11: In your view, do any existing bodies (industry or other), already perform this oversight role?

Yes / No

Yes, whilst we are not aware of bodies that currently undertake this oversight, we consider that UK Finance would be a candidate to undertake this role given the considerable fraud and standards experience within the organisation.

Question 6.12: Do you think a temporary environment as described is the right approach? If not, please explain your reasoning.

Yes / No

Yes, a temporary testing environment is a sensible approach and enables us to learn about data exchange and identify the most suitable and effective methods.

Question 6.13: Are there any other key features you would expect in the temporary testing environment?

Yes / No

No, we have not identified any other key features at this stage in the process

Question 6.14: Do you agree that value-added service providers would benefit from the data sharing environment enabled by the framework?

PSPs not invited to respond to this question

Question 6.15: Are the arguments put forward compelling enough to encourage net data providers to engage?

Yes / No – If not, please provide examples of what else would be required to make them participate.

The comment that net data providers 'will be able to provide an enhanced customer experience by offering easier access to products and services from other sectors like telecommunication companies and utilities providers', raises an important point to consider. There will need to be a balance between larger Financial Institutions protecting their customer data and providing that customer data for commercial purposes.

Other factors include:

- Not all net data providers would benefit equally. This position may be addressed by recovery of costs via an effective commercial model and a functioning market in data supply.
- To counter this there are potential challenges that emerge around liability and reliance on the data shared and these are potentially exacerbated when there is a commercial contract in place.

Question 6.16: Do you see other advantages or challenges for net data consumers that were not listed above?

Yes / No – Please explain your answer.

Yes, these include:

- Risk management
- Liability concerns
- Confidence in reliance on the data provided
- Over reliance on the framework when established without other processes to fall back on.

Question 6.17: Do you agree with the high-level implementation timeline for the Trusted KYC Data Sharing solution?

Yes / No – If not, what timing would you suggest and why?

Yes, the high-level timeline is reasonable in principle but it is highly dependent on the final approach that is adopted.

As noted earlier the resources required to project manage and lead this solution may overlap with the NPA and therefore the issue of resource availability and prioritisation are likely to arise.

Question 6.18: Are there other initiatives with a similar focus that should be considered in order to deliver the Trusted KYC Data Sharing solution?

Given the ubiquity of work on data currently underway in a wide variety of sectors we think it likely that there will be areas that the industry can learn from or perhaps work with. Examples of these could include Pan-European initiatives, public sector initiatives, ISO and ICO.