



xserve

2020

Business Plan

Final Draft

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Executive Summary

In our 2019 Business Plan (BP19) we forecast that our costs to Maintain the Business (MTB) at the end of 2019/20 would be £50.6m and would reduce over the following two years of the plan.

In our BP20 Principles and Approach document we highlighted our focus areas for the coming period. We will continue to build our protection against an ever-increasing cyber security threat and have increased our MTB and Investment forecasts to reflect the increased costs in doing so. We also highlighted the issues we've faced with our ongoing operation and detailed our plans to retain expertise for the full first year of BP20, both as a protective mechanism and to expedite the automation of our processes and the transformation of our workforce.

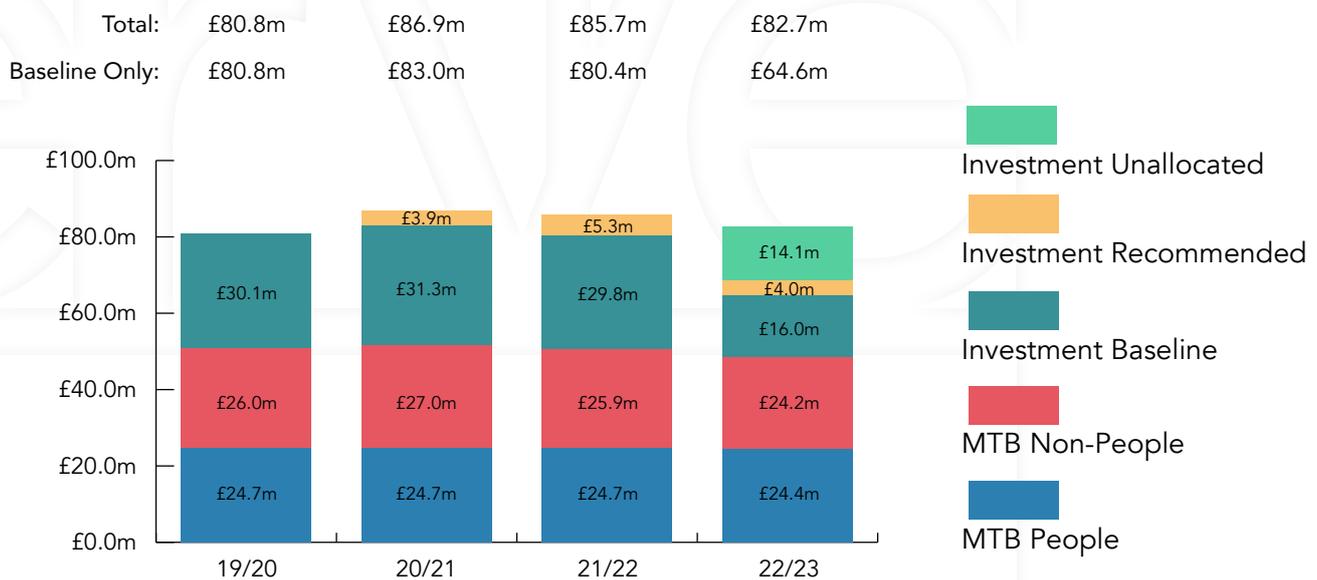
We forecast MTB costs of £50.7m at March 2020 (£0.1m higher than forecast in BP19), rising to £51.7m by March 2021, £2.9m higher than in our BP19 forecast for this date. We aim to reduce MTB costs to £48.6m (19/20 prices) by March 2023, one year later than forecast in BP19.

When looking at investment trends in our first draft we noted that there is a natural spike in first-year investment costs, followed by a decline in identified items as we move into years two and three of the plan. This is a pattern that we expect to see each year due to the nature of change horizons but is not matched by a year on year reduction in investment costs. In response to customer feedback we have therefore included values in year two (CSS contingency) and year three (unallocated investments) to forecast a more realistic investment profile that remains broadly flat over the three years of the plan.

Over the course of this year's business planning process and in response to customer feedback, we've refined each iteration, reducing cost and seeking opportunities to achieve our collective objectives outside of new investment. In the case of Information Security Alignment with NIST we've reduced the investment by £3m over the plan period and will enable customers to play a greater role in determining the solution we deliver.

In response to our customers' feedback we've taken on the challenge of driving significant market reform without additional investment; we will aim to deliver this requirement within existing MTB allocations. Against the backdrop of these significant activities, we will deliver Infrastructure General improvements at a significantly reduced cost through MTB.

Throughout the consultation process our focus has been on engaging with customers to understand the pressures they face, as well as helping them to understand the necessity of the investments being proposed. We believe that this final proposal delivers the investments that our customers and the market require, whilst recognising and mitigating the very real cost challenges that exist.



Introduction

In July 2019 we published our BP20 Principles and Approach, which marked the formal start of our annual process to engage with our customers on the strategic direction of Xoserve, and specifically to seek feedback on the initiatives we believe will deliver the greatest value during the period April 2020 to March 2023.

The publication of the first and second drafts of our 2020 Business Plan marked the next step in this process, reflecting the customer feedback we received so far and outlining in detail our financial forecasting, investment focus areas, customer engagement approach, and constituency-specific information for consideration. Recognising the challenges faced by both Transporters under the Price Control and Domestic Shippers under the Price Cap, in publishing the Business Plan final draft we have challenged ourselves even further. We've reduced our investment spend by £5.1m over the plan period.

In line with our Principles and Approach document we have categorised our investment proposals within nine focus areas that represent our priorities for the upcoming Business Plan period:

- Digitising our business and opening up our data
- Protecting against cyber security threats
- Moving our infrastructure to the cloud
- Realising our vision of Operation Excellence
- Gemini Service
- Re-shaping our business
- Customer Centricity through improved communications
- Central Switching Service Programme
- General annual customer change

As previously outlined, these nine focus areas represent our response to an uncertain and dynamic energy market outlook. However, our core business strategy and the detailed ambitions we've set under each of our strategic pillars remain unchanged during this next business planning period; you can view more information about these on our website [here](#).

Our BP20 plan provides a detailed rationale and plan for our activities in each of our nine focus areas, along with a breakdown of investment activities. We've presented financial information in line with our BP20 and our Principles and Approach, ensuring our information differentiates the purpose of our funding, provides transparency about the funding of historic initiatives, and provides a breakdown by customer constituent of their contribution to the plan.

We've also differentiated between those investments that we consider fundamental to maintaining the integrity of our services (Baseline investments) and those that we strongly recommend in order to deliver the additional value customers demand (Recommended investments). We've explained the nature of these investments and how they compare with those we proposed in BP19. In response to feedback from our first draft consultation we have included a third category of Unallocated Investments for the third year of our plan, representing the view shared by our customers that levels of investment are likely to remain relatively flat throughout the plan period.

This document and the supporting information we've provided to date represents a significant step change in our BP20 customer engagement activities, providing more information for customers earlier in our planning process.

Customer Feedback

We invited customers to respond to our second draft published on 28th October. Several Shipper and Distribution Network customers submitted formal responses. We've published a summary of the feedback we received, this can be found on our website or by clicking [here](#).

We believe that this final proposal delivers the investments that our customers and the market require, whilst recognising and mitigating the very real cost challenges that exist. We've focused our attention on priority initiatives that require investment to manage and maintain the critical services that we provide. Also, we have implemented robust internal processes to ensure all proposed initiatives have been carefully reviewed and will deliver the value for money services that customers have requested.

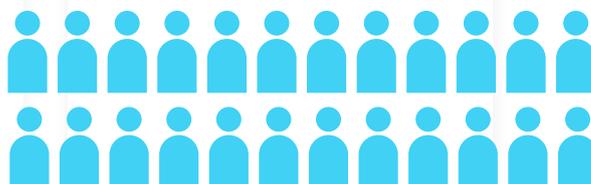
In publishing the Business Plan final draft, we have challenged ourselves even further. We've reduced our investment spend by £5.1m over the plan period.



3
Shippers

4
Gas Transporters

24



customer organisations met with us to discuss the Plan and its impact on their businesses



DSC governance meetings hosted



These allowed us to review various aspects of the Plan

Provision of Financial Information

In this section we describe the basis of our financial forecasts and how we are presenting financial information to our customers. Wherever possible we've retained the format and structure of our financial information in line with last year's plan to help customers see what's new and what's changed.

The financial information in our BP19 document was stated in 2018/19 prices. To allow a direct comparison with the values in this BP20 document we have stated all values, including BP19 values, in 2019/20 prices, inclusive of the "Consumer Prices Index including owner occupiers' housing costs" (CPIH) uplift of 2.3%. When finalising customer charges for 2020/21, in line with BP19, this year we expect to add a CPIH reflective inflationary uplift (2.0%).

In BP19 we categorised investments into three categories for Customer Change, Market Investment and Xoserve Change. This year, in line with our Principles and Approach document this categorisation has changed, to better reflect our priorities for the upcoming Business Plan period. We've also differentiated between those investments that we consider fundamental to maintaining the integrity of our services (Baseline investments) and those that we strongly recommend in order to deliver the additional value customers demand. We've explained the nature of these investments and how they compare with those we proposed in BP19.



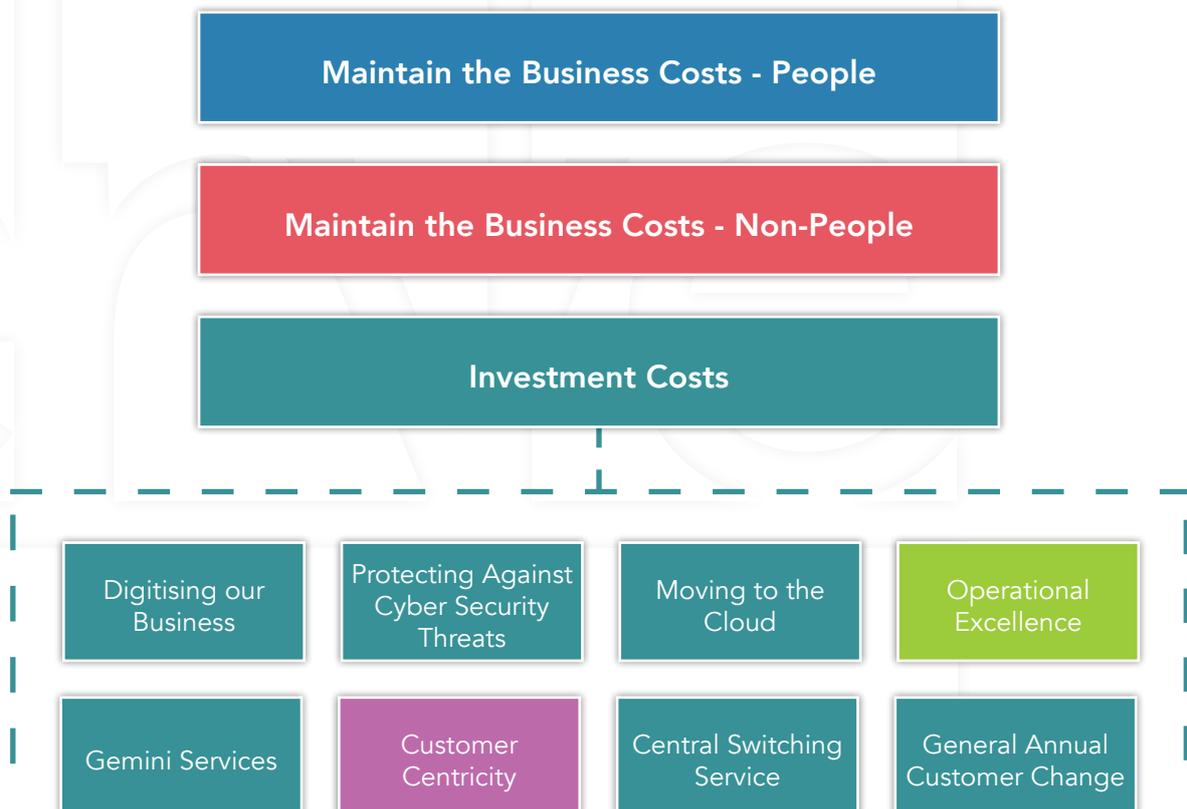
Presentation of Financial Information

As part of our continued focus on transparency and addressing our customers' feedback, we've produced financial information that's accurate and relevant to each of our customer constituents.

Our investment proposals have been gathered and proposed based on feedback received, with a view of the cost constraints that impact the majority of our customers (e.g. RIIO1 allowances, energy price caps).

We've presented information in line with the focus areas outlined in our Principles and Approach. This fulfils three purposes:

1. It differentiates between funding that:
 - a. Maintains the business, retaining the high-quality assets necessary to deliver our services. Maintain the business costs are split by people and non-people costs, following a similar approach to BP19.
 - b. Defines the investments that will help deliver change to meet customer expectation. Our investments have been split by:
 - b.i. Focus areas as specified within the Principles and Approach document
 - b.ii. Investment required to maintain our services (Baseline funding) and those that deliver additional value based on customer demand (Recommended funding).
 - b.iii. An unallocated investment for year three of the Plan that reflects the customer view that a flat level of investment across the Plan period represents a more realistic view of future investment levels.
2. It is transparent about the funding of initiatives that deliver our previously stated strategic goals and builds upon BP19 to continue investments in critical systems and solutions.
3. It provides a breakdown by customer constituent of their contribution to the plan, making a differentiation between Baseline and Recommended investment whilst highlighting previously approved Business Plan figures (from BP19). In this draft we have also included a breakdown of constituency costs for each investment.



Presentation of Financial Information

The following example table illustrates the approach we've taken to make analysis of our investment proposals as simple as possible:

- We've listed, by investment area, each potential initiative with its estimated costs over the BP20 period. Each includes information on which Customer Constituencies are funding which investment.
- We've included the Baseline or Recommended designation to enable easy understanding of cost differentiation.
- We've added a designation of Unallocated Investment for year three of the plan to reflect a flat profile of investment.
- We've included the investment amount for initiatives that were included within BP19, to enable tracking between our BP19 estimates and our cost assumptions for BP20.

		Investment Amounts (£k)					Investment Funding Split (%)			
		BP19	BP20	BP20	BP20		NTS	GDNs	IGTs	Shippers
Description	Investment Choice	2020/21	2020/21	2021/22	2022/23	Total BP20				
Big Data Platform	Recommended	£0	£630	£840	£300	£1,770	0%	0%	0%	100%
Digital	Baseline	£350	£350	£350	£350	£1,050	0%	20%	0%	80%
Data Discovery Platform (DDP)	Recommended	£600	£550	£540	£400	£1,490	0%	20%	0%	80%
TOTAL		£950	£1,530	£1,730	£1,050	£4,310				

Financial Forecasts

Total Expenditure

This chart illustrates BP20 Total Expenditure. In order to allow a direct comparison between the values in this BP20 document and the forecasts in the BP19 document (which were stated in 2018/19 prices), we have re-stated the BP19 charts in 2019/20 prices which reflect the values in our Annual Charging Statement and Pricing Schedules.

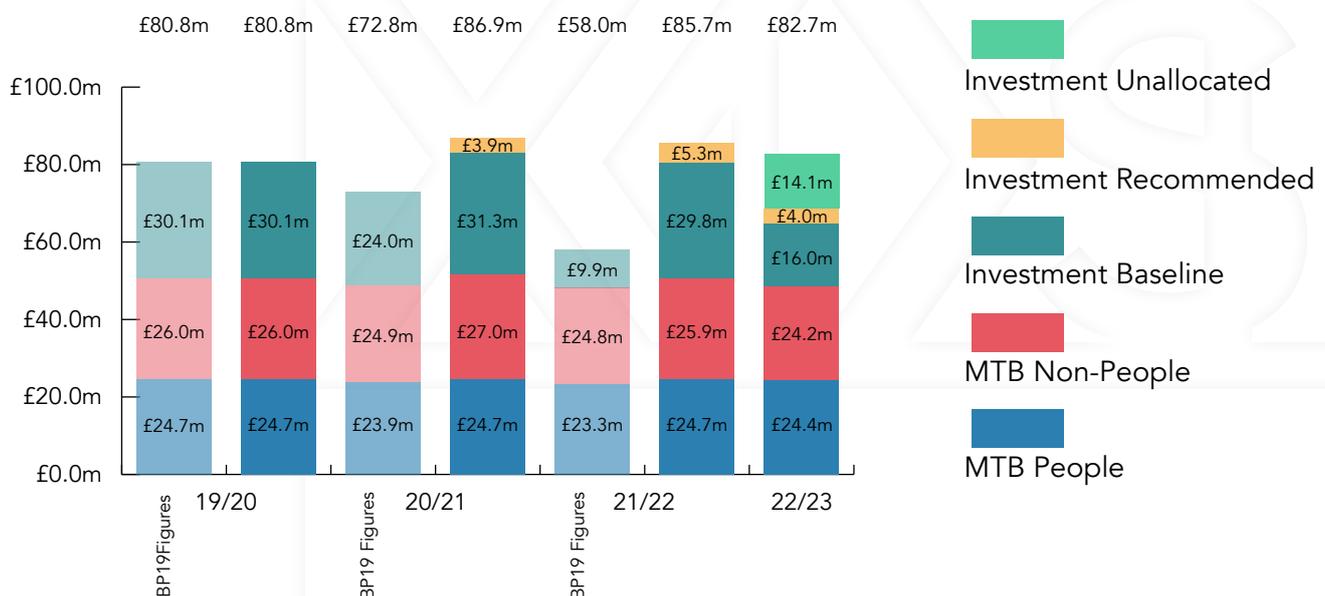
In our BP19 Business Plan we forecast that our costs to maintain the business at the end of 2019/20 would be £50.6m and would reduce over the following two years of the plan.

In our BP20 Principles and Approach document we highlighted our focus areas for the coming period. We will continue to build our protection against an ever-increasing cyber security threat and have increased our MTB and Investment forecasts to reflect the increased costs in doing so. We also highlighted the issues we've faced with our ongoing operation and detailed our plans to retain expertise for the full first year of BP20 as a protective mechanism, and to expedite the automation of our processes and the transformation of our workforce.

We therefore forecast an increase in MTB costs in the first year, rising to £51.7m by March 2021, £2.9m higher than in our BP19 forecast for this date. Reductions are forecast from 2021/22 onwards with our aim to reduce MTB costs to £48.6m (19/20 prices) achieved by March 2023, one year later than forecast in BP19.

When looking at investment trends in our first draft, we noted that there is a natural spike in first year investment costs followed by a decline in identified items as we move into years two and three of the plan. This is a pattern that we expect to see each year due to the nature of change horizons but is not matched by a year on year reduction in investment costs. In response to customer feedback we have therefore included values in year two (CSS contingency) and year three (unallocated investments) to forecast a more realistic investment profile that remains broadly flat over the three years of the plan.

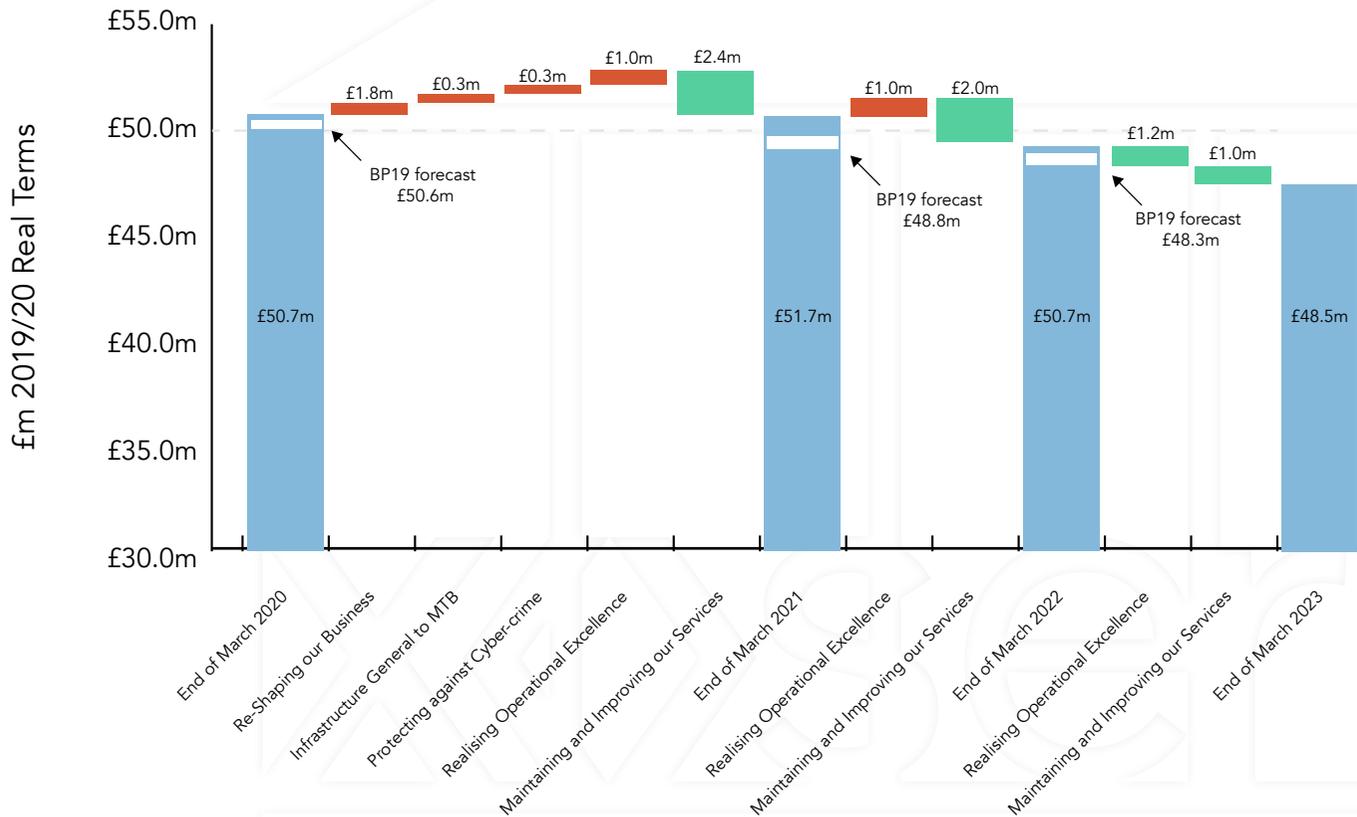
In the case of Information Security Alignment with NIST, we've reduced the investment by £3m over the plan period and will also enable customers to play a greater role in determining the solution we deliver. We will deliver Market Reform within existing MTB parameters, which results in a saving to customers of £600k over the plan period. Similarly, we will also deliver Infrastructure General activities through MTB. A reduction of 50% has been applied and therefore results in a £750k saving over the plan period.



Financial Forecasts

Maintain the Business

This is our Maintain the Business expenditure. The chart shows the year on year movements in costs from April 2020 through to March 2023 and identifies the drivers for each movement.



MTB Costs

This waterfall chart shows the breakdown of the key elements affecting MTB costs in the coming years:

- Re-shaping our Business (+£1.8m) including the continued automation of key processes and the creation of a sustainable flexible workforce.
- Infrastructure General to MTB (+£0.3m) a number of small initiatives where system upgrades or licensing provisioning may be needed (previously shown in investments).
- Cyber Security Threats (+£0.3m) increased costs in the provision of core Information Security systems, processes and personnel.
- Realising Operational Excellence (+£1.0m) reflective of the increased focus on tackling the post-Nexus issues currently impacting UK Link systems and processes.
- Maintaining and Improving our Services (-£2.4m) cost reductions primarily resulting from ongoing programmes moving infrastructure away from existing data centre hosting (Gemini, IX, EFT, shared components).

We've shown the impact of these factors on individual constituencies at the end of this document.

Re-Shaping Our Business

The technology platforms that Xoserve uses, manages and evolves were built in an age where technology was capable of assisting humans, making manual tasks easier and providing a single version of data for the industry to transact. At the turn of the century everyone talked of complete automation and the use of robots to do the jobs of humans, but the technology was not yet capable of supporting this vision. As technology has evolved, our industry has been hampered by poor quality data and inconsistent behaviours, which has continued to stand in the way of full robotic automation. As a result, the Xoserve workforce is still disproportionately geared towards people running processes that are assisted by technology, but still heavily dependent on human intervention.

Xoserve will therefore transform its workforce, embracing the latest automation techniques which are now capable of handling complex scenarios and imperfect data. We aim to free up 30% of our operations workforce between now and 2023, redeploying our people into roles focused on data quality, data profiling, technology design, digital and performance assurance. This will dramatically change the shape of our business.

Overall our underlying costs will increase in year one in order to face into delivering our vision of Operational Excellence once and

for all. Costs will then reduce by 1% year-on-year through the remainder of BP20. This modest efficiency masks a dramatic change of skills mix which is taking place underneath the aggregate headline; as well as our avoidance of an increasing cost base if we had not recognised and laid down ambitious plans to face into the challenge of our existing processes now.

We want to undertake this in a way that creates sustainable flexibility in our workforce. Large scale leaver and re-hire programmes are expensive, creating a cycle of boom and bust, leaving those with yesterday's skills stranded in a UK economy already suffering from declining levels of productivity. Xoserve intends to set an example in the Energy Sector, by creating sustainable workforce flexibility, which will enable us to reshape our skills base every few years. We will achieve this through world-class training, coaching and accreditation programmes which support our people to completely change career pathways. Such a strategy will ensure we retain the richness of our energy market knowledge and expertise, whilst ensuring we deliver on our promises to digitise our business and open up our data. This will enable us to respond to whatever demands will be placed on us in the future.

Infrastructure General to MTB

In previous iterations of the business plan, we had included £500k per year as recommended investment, totalling £1.5m over the plan period. Infrastructure General relates to investments required to sustain Xoserve-owned assets that include IX, EFT, shared components in data centres and replacement of office tools. Through our consultation process, customers questioned whether Infrastructure General should be included within the investment list or if it belonged in MTB, customers also commented on the total costs being

assigned to this initiative. We've taken this feedback on board and have moved this initiative to MTB. We have also taken up the cost challenge and committed to reduce the cost by 50%, this now makes up £750k over the plan period. We will achieve this saving by utilising more internal resources and by prioritising the planned work to only focus on critical components.

Protecting against cyber security threats

Prior to 2017, Xoserve benefited from shared security services provided by National Grid. Since our separation, Xoserve has been steadily building a security team from a standing start and building out the third-party contracts required to support our central position and its associated risk profile. MTB costs to deliver these requirements are higher than previously forecast in BP19.



Realising our vision of Operational Excellence

The first 12 months after Nexus go-live were relatively pain-free versus our collective expectation. We released all the additional headcount we held back for resolving the expected post launch problems. However, the problems were merely masked and in 2019 we have experienced major challenges with our invoicing processes.

Whilst we expect to have resolved these deep-rooted design problems before the start of this new Business Plan, we would be naive to immediately roll-off the expertise we have had to re-build this year. Instead we propose to retain this resource for the first full year of BP20, as a protective mechanism and to expedite the automation of our processes and the transformation of our workforce.



Investment Area Focus

In line with our Principles and Approach document we have categorised our investment proposals within focus areas that represent our priorities for the upcoming Business Plan period. Within each focus area, investment proposals have a 'Baseline' or 'Recommended' designation. Baseline refers to the minimum investment required to maintain Xoserve's operational integrity. Recommended refers to suggested investment topics where customers have expressed a desire for additional functionality. In Year three we have included a placeholder for Unallocated Investments, reflecting the customer feedback that a flat profile of demand and investment is more likely than the declining levels shown in our first draft.

1. Digitising our business and opening up our data

Xoserve processes and stores large volumes of system data and a small volume of consumer data. We believe there are immeasurable benefits in opening up our system data to our customers and other market participants. This needs to be done carefully, with the right security and access controls; this will necessitate investment and new skills to manage this well over time. Xoserve will likely also be required, through the regulation of our customers, to open up its data more broadly, realising the government's vision of completely open data. But at a minimum we must provide a data platform that provides our customers with self-service reports, data visualisation / exploration, machine learning and Artificial Intelligence (AI) capabilities.

Of equal importance in a world of open data is the ability for Xoserve to leverage its unique industry expertise to provide an analysis capability to its customers, already an area of increasing demand for Xoserve to realise data's true value we will need to analyse whole market data-sets, which not all participants will have the right to access. This will require whole industry datasets to be aggregated in a safe place, based on common data standards and definitions and often linked with data sources from outside the energy sector.

Last year we laid out our plans for the creation of a Data Discovery Platform (£600k in 2020/21) and in Digital (£350k in 2020/21), we plan to continue the delivery of these initiatives. In addition to the funds forecast in BP19 we also propose to invest £630k in 2020/21 (£1,770k across three years) to create a data lake accessible to all for research and advanced analytics.

We believe Xoserve must step into the space of analysis and insight because, more often than not, for the very tricky issues, our unique expertise and position in the Industry will make us the only party capable of efficiently finding answers; as has been the case in our analysis of Unidentified Gas (UIG). We will need to be able to deploy machine learning and advanced data science again and again, as we did for UIG, to an ever-broader range of questions.

We are well placed to do this and our workforce transformation, coupled with our investments in data will enable us to offer increasingly industry-wide value and insight.

Having taken customer feedback into account, we have adjusted the funding split to better reflect the utilisation of services within this investment focus area. Digital and Data Discovery Platform initiatives were 100% Shipper funded, this has moved to an 80/20 split.

		Investment Amounts (£k)				
		BP19	BP20	BP20	BP20	
Description	Investment Choice	2020/21	2020/21	2021/22	2022/23	Total BP20
Big Data Platform	Recommended	£0	£630	£840	£300	£1,770
Digital	Baseline	£350	£350	£350	£350	£1,050
Data Discovery Platform (DDP)	Recommended	£600	£550	£540	£400	£1,490
TOTAL		£950	£1,530	£1,730	£1,050	£4,310

Investment Funding Split (%)			
NTS	GDNs	IGTs	Shippers
0%	0%	0%	100%
0%	20%	0%	80%
0%	20%	0%	80%

2. Protecting Against Cyber Security Threats

The energy sector faces an ever-increasing cyber security threat. Whether relating to theft, hacking or denial of service to our vital systems, protecting ourselves and our customers against cyber threats has become a major part of what Xoserve does. The risk is only growing and Xoserve expects that the cost and effort of protecting its vital assets will only become more intense.

The security challenge is exacerbated by the open data opportunity and the reality of Xoserve sitting right in the middle of critical national infrastructure. We can only realise the benefits of open data and avoid becoming the weak link in the UK's national infrastructure through continued investment in security.

Security represents a significant additional investment for Xoserve. Prior to 2018, Xoserve benefited from shared security services provided by National Grid. Since our separation, Xoserve has been steadily building a security team from a standing start, implementing base frameworks and control standards and building out the third-party contracts required to support our central position and its associated risk profile.

Xoserve has a contractual obligation to meet certain security standards, some of our customers must meet stricter security standards. Therefore, by default we must also meet these standards as we manage our customers' data. Xoserve would like to provide assurances to customers that we are managing their data responsibly. Our investment planning will include a level of voluntary compliance with National Institute of Security and Technology (NIST) standards.

Whilst Xoserve has the option not to mirror the increasing security standard of our customers, this creates a cascade of risk which we know some of our customers are unwilling to accept. In our first draft of this Business Plan, we said that we will be selective in how we apply NIST controls, seeking to maximise our safety and security, whilst recognising the cost pressures on our customers. In response to the first draft, our customers recognized the need for investment to protect against security threats and asked for more details about our plans.



2. Protecting Against Cyber Security Threats (continued)

Our proposed security investments can be broken down into three phases:

- Phase 1** – Primarily focused on the remediation of any vulnerabilities and security deficiencies that may be identified through our on-going assessment programme. Introduction of greater visibility and detection across our enterprise estate ensuring that, along with our service providers and partners, we offer sufficient security controls to protect against cyber threats in the current and future years.
- Phase 2** – Will focus on big improvements around Critical Application Monitoring and the introduction of cryptographic controls and tooling. In addition, we will also look to overhaul and consolidate our Identity & Access Management (IDAM) solutions to aid our customers in safely and securely accessing the data and services we provide, whilst ensuring maximum flexibility and ease of use.
- Phase 3** – Building on the step improvements and reduction in risks seen via both earlier phases we will look to further enhance our security capability ensuring on-going security requirements are met as we deliver major upgrade programmes of work, moving away from traditional on-premise solutions and further into the cloud.

As a result of feedback received during the first phase of consultation on BP20, we re-phased the expenditure for NIST alignment, recommending that £2m remains in the budget for 2020/21, with £1m deferred into each of the following two years.

Furthermore, as a result of the feedback we received during the second phase of consultation on BP20, and the appetite of our customers for Information Security and Privacy investment, we have changed the requirement for implementation of NIST alignment in BP20. Instead of implementation, the focus will be on performing a maturity assessment against NIST controls to produce a cost vs benefit risk analysis. Recognising that a reduction in security investment increases the security risk profile of Xoserve and in turn our customers' risk profile, we will request approval for further spending as and when areas of high risk are identified throughout the assessment, which require immediate remediation.

The output of the maturity assessment will drive the Information Security and Privacy requirements for the following financial year and support further business cases for continual improvement and risk mitigation.

Within the BP20 1st draft, Information Security Alignment with NIST had a total allocation of £9m, with £4m in the first year of the plan, with this investment wholly funded by the Distribution Networks. Between drafts 1 and 2, we reduced the first year spend to £2m and applied the standard funding split, recognising that all customers would benefit from these changes. The changes proposed for the final draft have reduced the investment even further, removing £1m in the first year and £6m over the business plan period.

		Investment Amounts (£k)				
		BP19	BP20	BP20	BP20	
Description	Investment Choice	2020/21	2020/21	2021/22	2022/23	Total BP20
Information Security ISO27001 Compliance	Baseline	£0	£1,750	£2,000	£2,250	£6,000
Information Security Alignment with NIST	Recommended	£0	£1,000	£2,500	£2,500	£6,000
TOTAL		£0	£2,750	£4,500	£4,750	£12,000

Investment Funding Split (%)			
NTS	GDNs	IGTs	Shippers
7.2%	46.7%	1%	45.1%
7.2%	46.7%	1%	45.1%

3. Moving our infrastructure to the cloud

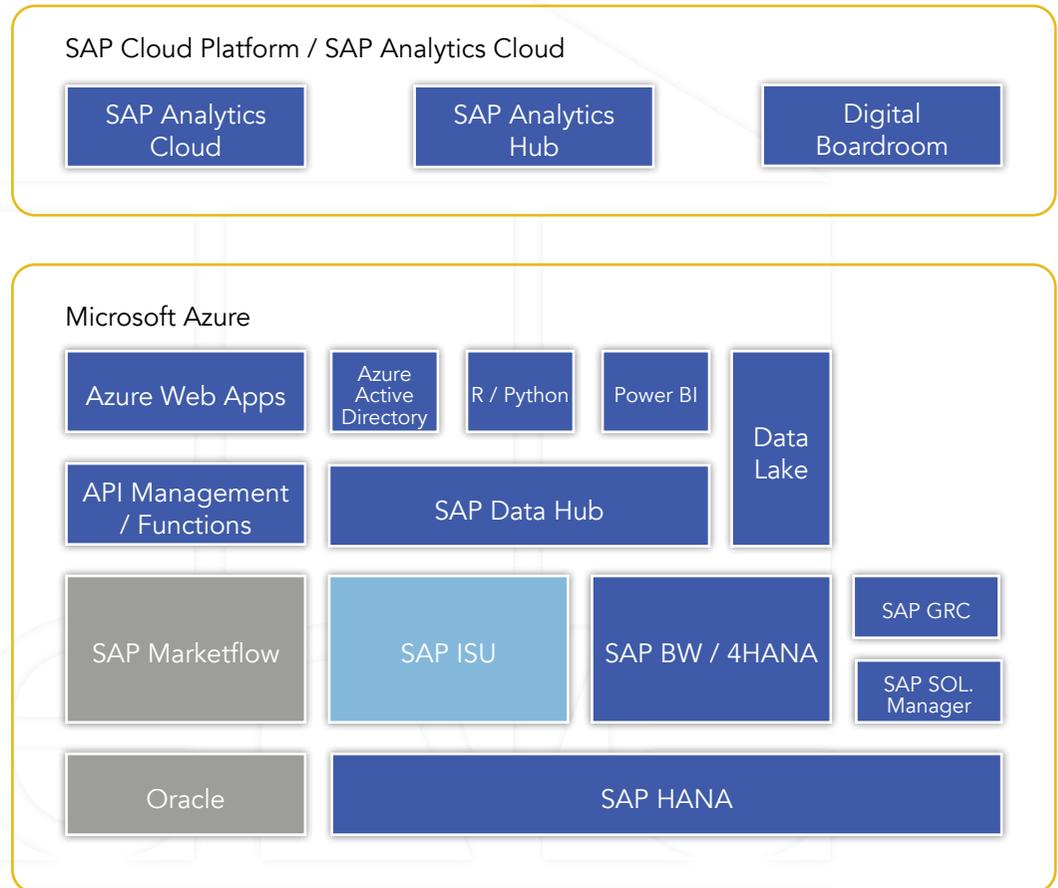
Traditional on-site data centres are becoming a thing of the past. They are inflexible and costly to run and secure. The public cloud is now the de-facto strategic choice for the majority of companies in the UK and Xoserve is no different. Moving one of the largest SAP implementations in the world to the cloud will be no small undertaking.

We intend to use this opportunity to do more than just move the infrastructure. We want to build more flexibility into UK Link, by transitioning away from the aspects of UK Link which are inflexible, onto highly scalable, super-fast and super-flexible alternatives that deliver greater choice and value to the Industry. In addition, we will take this opportunity to upgrade all of UK Link to utilise in-memory databases which will provide a platform to combine Xoserve's historical data with the raft of new real-time smart information about consumption and market behaviour, as well as ensuring we can comfortably in parallel provide real-time, self-service, advanced analytics to the industry based on very large data sets.

The key drivers for our transformation journey onto the cloud are:

- The smart meter roll-out will create exponential increases in data volumes
- Supporting and sustaining our business as SAP support for older versions ceases
- Major change programmes driving requirements which benefit from a cloud-first approach e.g. Central Switching Service (CSS) Programme and Retrospective Adjustments

UK Link will move out of our data centre and into a public cloud, giving us greater infrastructure flexibility, enhanced resilience, and the potential to increase the volume of change we deliver efficiently. It also allows for cost savings through the deployment of environments when needed, standing them down when not in use.



Proposed UK Link Architecture

3. Moving our infrastructure to the cloud (continued)

Many of the existing technologies that underpin UK Link are now being replaced or becoming obsolete in favour of the latest cloud-based alternatives.

In considering the future of UK Link it is incumbent on Xoserve to consider the benefits of technological advancements available in the market place, as well as from its existing technology vendors. In order to continue mainstream vendor support for the sector critical services it provides, Xoserve must now commence the design and delivery of a roadmap of technological change that transitions the UK Link platform from its current traditional “on premise” architecture to a cloud-based service. This will be achieved via a multi-year programme that will migrate and upgrade/transform the existing UK Link platform to ensure continuity of service for the future.

Current planning for this Business Plan assumes that this will follow the SAP roadmap, (e.g. upgrading to HANA, S4, SAP 4 Energy) and is consistent with Xoserve’s historic approach of sustaining and upgrading our platforms’ core components to ensure we reliably and safely maintain services to our customers. However, during this planning period we will actively explore and be open to alternatives to a traditional SAP-based roadmap. In BP19 we assumed that the movement of UK Link to the cloud would occur beyond the BP19 plan period (2022).

We have moved this forward significantly, triggered by events such as Class 3 Migration and now propose to begin work in 2020 starting with migration of

development tracks to support change delivery including CSS. In 2020/21 we aim to move development and test UK Link hardware to the cloud (Capacity for Change - £6m in 2020/21, £8m across three years) with the movement of the live system to follow in 2021/22 (Core Platform Migration - £6m in 2021/22, £8m across three years).

Customers have commented on the aggressive timelines that we have set ourselves and questioned whether our plan to move UK Link infrastructure to the cloud will impact the work that we must complete on CSS. We’re confident that both programmes can be managed concurrently and recognise the need to move our infrastructure to the cloud in order to deliver CSS and other major change programmes. We will endeavour to continually review both programmes and will prioritise the delivery of CSS over other initiatives.

Customers have also asked us to review the funding mix for the overall programme, stating that a blended approach should be adopted for both initiatives. We have reviewed the nature of the changes that are driving the need to increase our pre-production environments and in 2020/21 feel that these are predominantly driven by the Shipper community and are therefore suggesting that no further changes are made.

		Investment Amounts (£k)				
		BP19	BP20	BP20	BP20	
Description	Investment Choice	2020/21	2020/21	2021/22	2022/23	Total BP20
UK Link Strategic Roadmap - Capacity for Change	Baseline	£0	£6,000	£0	£2,000	£8,000
UK Link Strategic Roadmap - Core Platform Migration	Baseline	£0	£0	£6,000	£2,000	£8,000
TOTAL		£0	£6,000	£6,000	£4,000	£16,000

Investment Funding Split (%)			
NTS	GDNs	IGTs	Shippers
0%	10%	0%	90%
0%	90%	0%	10%

4. Realising our vision of Operational Excellence

We expected and planned for the worst, when UK Link went live as part of Project Nexus in 2017. Typically, new system implementations of this scale experience major operational challenges and require extensive continual development to correct design problems not caught by pre-launch testing.

Surprisingly for Xoserve and our customers, the first 12 months after Nexus go-live were relatively pain-free versus our collective expectation. However, the problems were merely masked and in 2019 we have experienced major challenges with our invoicing processes resulting in increased MTB costs as described earlier in this document and also highlighting areas for improvement.

We plan to continue our investment in Testing Tooling & Automation (increased to £200k 2020/21, £300k across three years). We need to invest in Application Performance monitoring

(£400k in 2020/21, £700k across three years), Software Asset Management (£283k in 2020/21, £593k across three years) and Service Management Transformation (£300k in 2020/21, £500k across three years) to ensure continued reliable delivery of UK Link systems and services for our customers. Infrastructure General (previously listed as an investment cost) has been reduced by 50% and added to MTB costs.

We also propose to invest in the automation of CMS processes (£200k 2020/21, £500k across three years), People Platforms Evolution (£500k 2020/21, £1.1m across three years) following the migration from National Grid; and Customer Service Centre (£300k 2020/21, £500k across three years) to redesign the customer contact experience.

		Investment Amounts (£k)				
		BP19	BP20	BP20	BP20	
Description	Investment Choice	2020/21	2020/21	2021/22	2022/23	Total BP20
Service Management Transformation	Baseline	£0	£300	£200	£0	£500
Improvements to Testing, Tooling and Automation	Recommended	£100	£200	£100	£0	£300
Application Performance Monitoring	Baseline	£0	£400	£200	£100	£700
Software Asset Management	Recommended	£0	£283	£155	£155	£593
CMS Review	Recommended	£0	£200	£300	£0	£500
People Platforms Evolution	Baseline	£0	£500	£300	£300	£1,100
Customer Service Centre	Recommended	£0	£300	£200	£0	£500
TOTAL		£100	£2,183	£1,455	£555	£4,193

Investment Funding Split (%)			
NTS	GDNs	IGTs	Shippers
7.2%	46.7%	1%	45.1%
7.2%	46.7%	1%	45.1%
7.2%	46.7%	1%	45.1%
7.2%	46.7%	1%	45.1%
0%	10%	0%	90%
7.2%	46.7%	1%	45.1%
7.2%	46.7%	1%	45.1%

5. Gemini Services

As we enter the BP20 period, we will build upon our historic support of Gemini by undertaking activities to refresh, re-platform and sustain the platform, in addition to delivering the functional change required by industry.

Given the fact that Gemini has been deployed for 15 years, we are also looking at the best long-term options for the operation of the system; this includes sustaining the current platform, but also the delivery of enhancements to provide a next generation Gemini system.

Investment in the next sustain activity and modernisation will start in 22/23, following investment to confirm health, approach and solution in 20/21 and 21/22.

		Investment Amounts (£k)					Investment Funding Split (%)			
		BP19	BP20	BP20	BP20		NTS	GDNs	IGTs	Shippers
Description	Investment Choice	2020/21	2020/21	2021/22	2022/23	Total BP20				
Re-platforming Gemini	Baseline	£1,895	£3,228	£0	£0	£3,228	100%	0%	0%	0%
Gemini Enhancements	Baseline	£2,265	£2,980	£2,980	£2,980	£8,940	100%	0%	0%	0%
Future of Gemini	Baseline	£0	£100	£2,400	£2,500	£5,000	100%	0%	0%	0%
TOTAL		£4,160	£6,308	£5,380	£5,480	£17,168				

6. Customer Centricity through improved communications

The transformation of Xoserve has seen wholesale change of the business that wasn't previously structured or positioned to support a broad customer base. From the transformation of our governance arrangements, the restructuring of our business and the creation of explicit targets and programmes to deliver customer centricity. We have made great progress – in fact we were the UK's second most improved company for customer service in 2019, exceeding our own target and almost achieving our stretch target on customer satisfaction.

However, this masks how much more there is to do, particularly around communication, which is the main area we intend to invest in during the next business planning period.

Our communication is inconsistent, immature, sometimes unreliable and frustrating for our customers. We have heard you and we intend to invest deeply in resolving and improving this critical aspect of how we operate our business.



6. Customer Centricity through improved communications (continued)

Our approach to delivering significant improvement to our customer communications is twofold:

- In the short-term (by June 2020) we will put into place improvements in our approach to how we segment and target our customers, the digital channels that we use, and the messaging style that we employ, positioning the business for future success. These fundamental changes are vital if we are to raise the bar for our customers, however, their success are wholly dependent on the long-term adoption of them, the provision of professional communications support and an organisational improvement in how we communicate. The funding that we are looking for is to embed these changes for the long term.
- In the long-term (BP20 onwards), we will introduce ongoing training and support to build the capability of our communications team and our customer-facing employees to enable them to sustainably deliver the short-term improvements we put into place.

The investment will cover ongoing training and support of our people to deliver world-class communication in a consistent and customer-focused way, supported by a professionally qualified central team.

This will mean our customers will:

- Have to spend less time trying to understand our communications, which will be more aligned to them, their organisations and their priorities.
- Have more confidence in Xoserve and our activities due to more professional and consistent communication and value-added content.
- Experience improved interactions with Xoserve, both in person and digitally from people who better understand our customers and feel empowered and engaged to support them.

We recognise that during such an intense period of cost pressure and cost scrutiny, we need to make this investment through delivering savings elsewhere. In our BP20 Principles and Approach, we outlined that we did not intend to ask for additional investment in customer centricity above the forecast in BP19. Instead we intended to get more out of the investments we have already made and in-fill capacity where we need to through efficiencies delivered via the reshaping of our workforce. On review and reflecting the continued feedback that there is much to do in this area that offers significant value to our customers, we continue to include a Recommended investment for Improvement in Customer Communications (£200k in 2020/21). We've listened to customer feedback and have reduced the investment amount by £150k over the plan period.

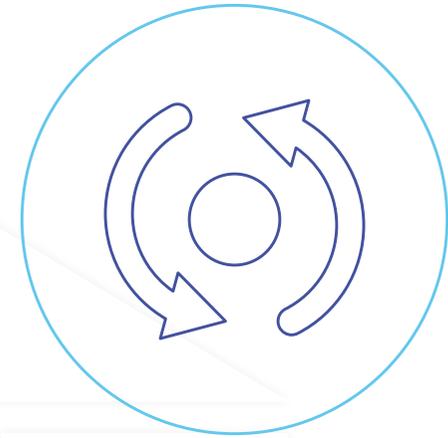
		Investment Amounts (£k)				
		BP19	BP20	BP20	BP20	
Description	Investment Choice	2020/21	2020/21	2021/22	2022/23	Total BP20
Customer Training and Education	Recommended	£163	£163	£163	£163	£489
Customer Journey Continuous Improvement	Recommended	£50	£50	£50	£50	£150
CRM	Recommended	£100	£100	£100	£100	£300
Improvement in Customer Communications	Recommended	£0	£200	£150	£100	£450
TOTAL		£313	£513	£463	£413	£1,389

Investment Funding Split (%)			
NTS	GDNs	IGTs	Shippers
7.2%	46.7%	1%	45.1%
7.2%	46.7%	1%	45.1%
7.2%	46.7%	1%	45.1%
7.2%	46.7%	1%	45.1%

7. Central Switching Service Programme

In 2017, we set out our case to Ofgem to leverage the UK Link asset to provide the Central Switching Registration Platform (CSRP), as an alternative to procuring a third party to build a new system, which would in-turn require us to artificially break apart UK Link (which already performs switching for the gas market) in order to interface with this new system. It was with great disappointment that we learnt earlier this year that we were unsuccessful in our bid to become the Central Registration Service Provider. The consequence of this loss is that we will not be able to realise the £4m to £8m reduction in charges we had previously intended to pass on to customers in BP20.

Furthermore, the consequential changes to our systems as a result of the introduction of the CSRP are significant, as we outlined in last year's Business Plan. As the largest incumbent with a vertically integrated platform, which now needs to be broken up, we have the largest amount of change to deliver within what is already a complex programme. The Programme is already experiencing delays and we are assuming a significant re-plan will be required within this business planning period. We have forecast an additional £6.8m in 2021/22 to reflect the revised delivery date of June/July 2021, with a further £5m contingency to cover further delays.



		Investment Amounts (£k)				
		BP19	BP20	BP20	BP20	
Description	Investment Choice	2020/21	2020/21	2021/22	2022/23	Total BP20
Central Switching Service	Baseline	£12,100	£12,100	£11,800	£0	£23,900
TOTAL		£12,100	£12,100	£11,800	£0	£23,900

Investment Funding Split (%)			
NTS	GDNs	IGTs	Shippers
0%	0%	0%	100%

8. General Annual Customer Change

Xoserve, at the request of its customers, maintains an annual budget for bi-annual releases of customer driven change (DSC Change Budget) and small unplanned changes to software and infrastructure. We expect the levels of customer change to follow a similar profile to previous years, although this assumption may change as we engage customers more deeply through the BP20 process. We plan to continue our investment in Non-Standard Data Items for Reporting (£110k 2020/21, £220k across three years), forecast to be required until the Data Discovery Platform is fully operational.

In addition to the funds proposed to cover major and minor release of change through the period, we have also included funding for two further initiatives.

Industry Performance Insights (£200k 2020/21, £600k across three years) will pro-actively manage industry data quality and performance issues, for example, those highlighted during meetings of the Performance Assurance Committee (PAC).

		Investment Amounts (£k)					Investment Funding Split (%)			
		BP19	BP20	BP20	BP20		NTS	GDNs	IGTs	Shippers
Description	Investment Choice	2020/21	2020/21	2021/22	2022/23	Total BP20				
DSC Change Budget	Baseline	£3,000	£3,000	£3,000	£3,000	£9,000	1.6%	20%	0.3%	78.1%
Minor Release Delivery	Baseline	£484	£484	£484	£484	£1,452	1.7%	16%	0.3%	82%
Non-Standard Data Items for Reporting	Baseline	£110	£110	£110	£0	£220	7.2%	46.7%	1%	45.1%
Unallocated Investment Pot	Baseline	£0	£0	£0	£14,100	£14,100	7.2%	46.7%	1%	45.1%
Industry Performance Insights	Recommended	£0	£200	£200	£200	£600	0%	0%	0%	100%
TOTAL		£3,594	£3,794	£3,794	£17,784	£25,372				

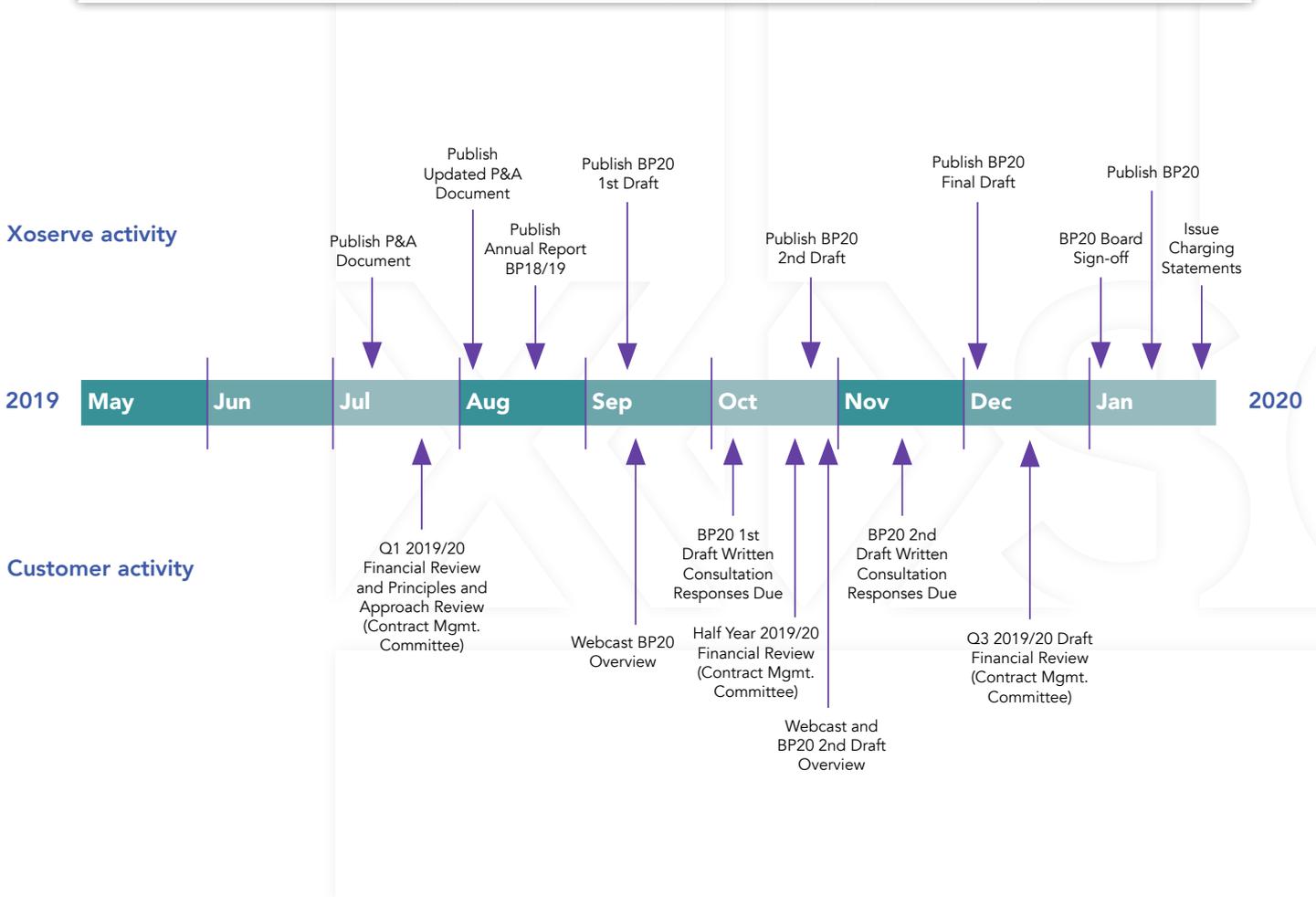
Customer Engagement

Throughout our BP20 process we have been keen to offer as many opportunities as possible for all of our customers to provide us with their feedback on the business plan. To enable this, we have been making use of three particular engagement channels:

- Publishing written consultation documents and inviting customers to respond in writing.
- Meetings with customer organisations to conduct in-depth reviews of the draft plan content and associated funding requirements to help customers understand what the draft plan means for their organisations.
- Provision of updates to customers and receipt of feedback via DSC Contract Management Committee meetings.

We have set out below a summary of the engagement phases, their timings, and the different forms of engagement that we have used.

Engagement Phase	Start	End	Duration	Status
Principles and Approach	10th Jul 2019	26th Jul 2019	2.5 weeks	Completed
Draft Plan	11th Sep 2019	11th Oct 2019	5 weeks	Completed
Updated Draft Plan	28th Oct 2019	15th Nov 2019	3 weeks	Completed
Final Draft Plan	29th Nov 2019	6th Dec 2019	1 week	Completed



Consultation Timelines

Step	Date	Action	Provider	Receiver	Deliverable
1	11th Sep 2019	Issue draft Business Plan for consultation	Xoserve	All customers	Draft Business Plan
2	18th Sep 2019	Provide feedback at the Contract Management Committee (CoMC) meeting	CoMC	Xoserve	Feedback notes and actions
3	2nd Oct 2019	Xoserve hosts webcast (Questions and Answers)	Xoserve	All customers	Webcast presentation
4	11th Oct 2019	Provide written feedback	All customers	Xoserve	Written feedback
5	23rd Oct 2019	Issue Consultation Response	Xoserve	Board	Consultation Response
6	23rd Oct 2019	Consider feedback and agree updates for draft Business Plan	Board	Xoserve	
7	28th Oct 2019	Issue updated draft Business Plan for consultation	Xoserve	All customers	Updated draft Business Plan
8	29th Oct 2019	Xoserve hosts webcast (Questions and Answers)	Xoserve	All customers	Webcast presentation
9	15th Nov 2019	Provide written feedback	All customers	Xoserve	Written feedback
10	20th Nov 2019	Issue Consultation Response	Xoserve	Board	Consultation Response
11	22nd Nov 2019	Consider feedback report and agree updates for draft Business Plan	Board	Xoserve	
12	6th Dec 2019	Issue final draft Business Plan	Xoserve	All customers	Updated draft Business Plan
13	23rd Jan 2020	Approval of final Business Plan	Board	All customers	Publish final Business Plan

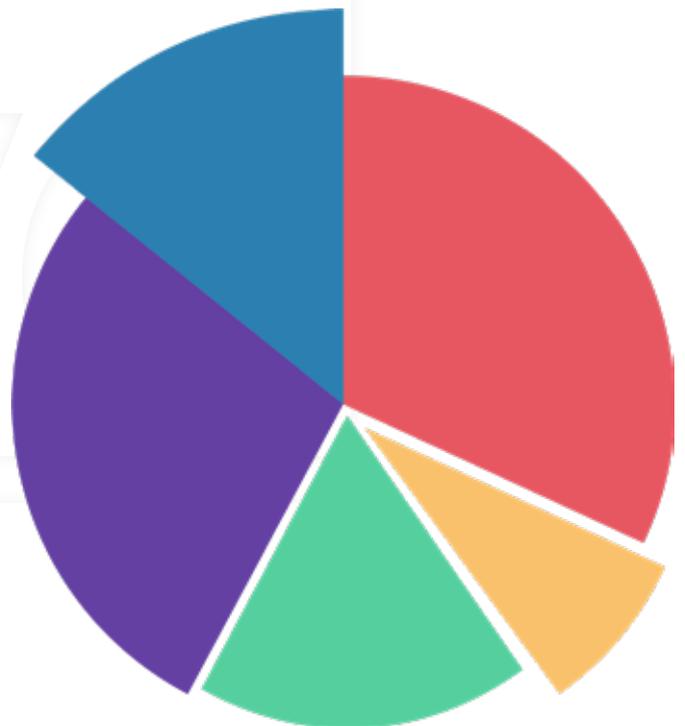
Customer Constituency Funding

The schedules of customer constituency funding reflect the ongoing application of the prevailing Central Data Service Provider (CDSP) Charging Methodology and Cost Allocation Model.

For each constituency we have provided graphs showing:

1. A view of prior and current year funding, plus three-year forecast.
2. The BP19 three-year forecast inflated by CPIH (2.3%) to show 2019/20 prices.

Within each graph we have also shown total spend including all investment topics as well as values for Baseline spend only.



Gas Distribution Networks

For our Gas Distribution Network (GDN) customers, the projected MTB expenditure for 2020/21 is forecast to increase by £1.5m from the 19/20 position. The additional costs for reshaping our business, cyber security, realising operational excellence and infrastructure general are attributed to all customer groups including GDNs. The savings associated with Maintaining and Improving our Services include a significant hosting saving for the Gemini system (c£1.0m), the costs (and therefore savings) of which are attributed to National Grid.

The investment profile for GDNs has been updated to reflect the reduced investment in Information Security Alignment with NIST. Version 2 of the business plan saw a change to the funding split, with a further reduction of £3m over the plan period. Market Reform has also been removed which results in a further £600k saving. Infrastructure General has been reduced by 50% and moved to MTB.

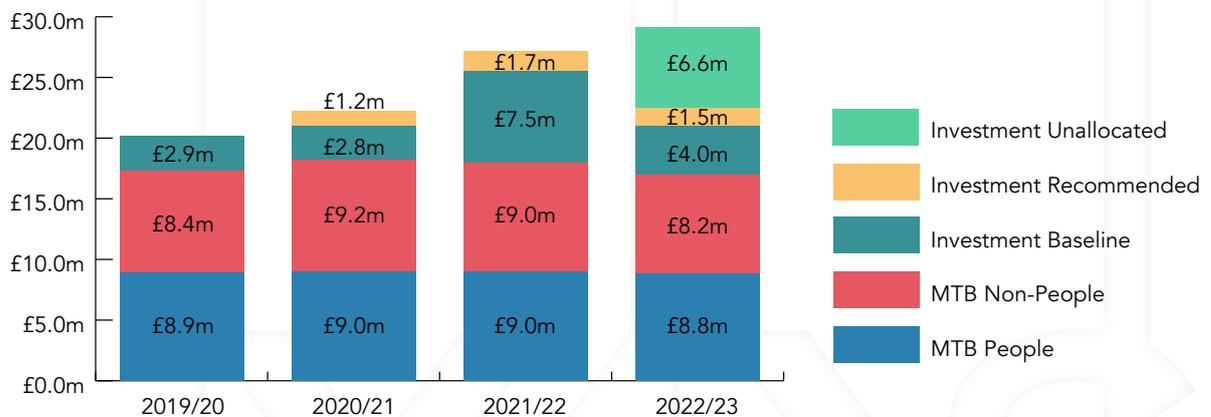
As requested, increases to DNs in this version of the plan include a change to the funding split for the DSC change budget which has led to an additional £120k of funding for the DNs within the change budget. A change to the funding mix for Digital and Data Discovery Platform has also led to an increase for DNs, equating to £180k within the first year of the plan.

When compared to BP19, for the first year of the business plan, the overall impact for our DN customers is a net increase in MTB of £1.6m and a £2.1m increase in investment spend. This has reduced from the first draft by c£4.5m recognising the DN challenge under RIIO-1 and reflecting the feedback received throughout the consultation periods.

As with our previous plan, the funding requirements are shown net of funding provided prior to the start of the Plan period for the development and delivery of a Retrospective Adjustment solution.

GDN Funding

Total:	£20.2m	£22.2m	£27.2m	£29.1m
Baseline Only:	£20.2m	£21.0m	£25.5m	£21.0m



BP19 at 19/20 Prices



IGTs

For our Independent Gas Transporter (IGT) customers, the projected MTB expenditure for 2020/21 is forecast to increase by £0.06m from the 19/20 position. The main factor contributing to this is the increased market share for IGTs which has risen from c.9% to c.10%.

The additional costs for reshaping our business, cyber security and realising operational excellence are attributed to all customer groups including IGTs. The savings associated with Maintaining and Improving our Services include a significant hosting saving for the Gemini system (c£1.0m), the costs (and therefore savings) of which are attributed to National Grid.

The investment profile for IGTs sees investment costs for 2020/21 for Baseline investment of £0.04m and Recommended investment of £0.02m, inclusive of reallocated costs for investment in Information Security Alignment with NIST. The reallocation of NIST costs is also reflected in forecasts for years two and three of the plan. In the third year of the plan a placeholder of £0.14m has also been included to reflect a flat profile of investment spend for all constituencies across the plan period.

IGT Funding



BP19 at 19/20 Prices



Shippers

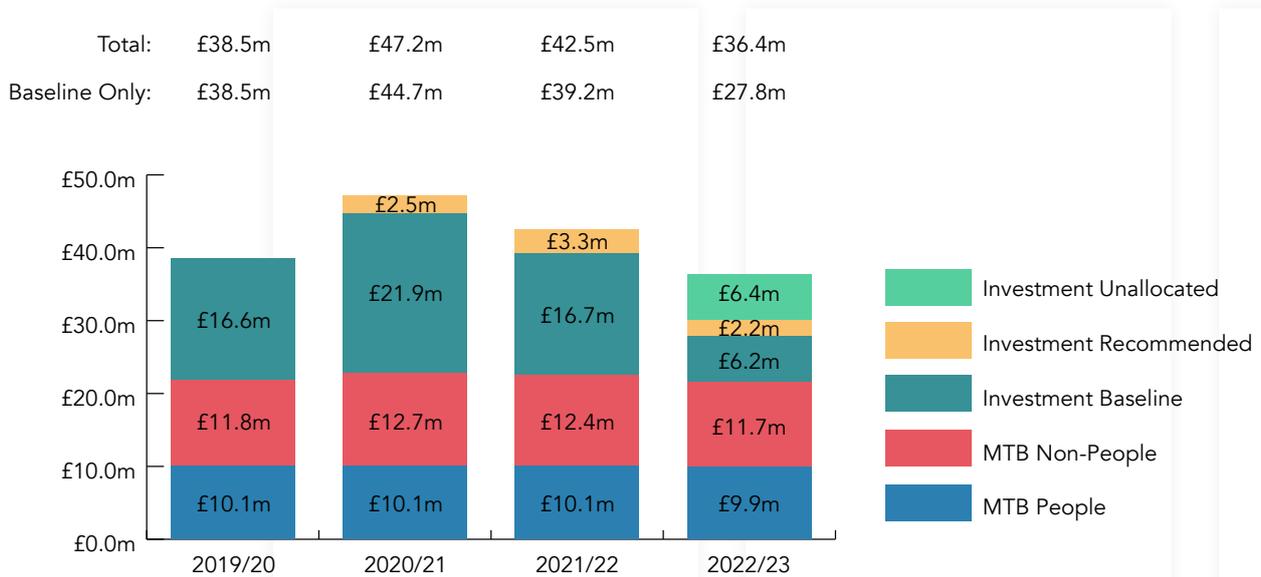
For our Shipper customers, the projected MTB expenditure for 2020/21 is forecast to increase by £1.6m from the 19/20 position. The additional costs for reshaping our business, cyber security, realising operational excellence and infrastructure general are attributed to all customer groups including GDNs. The savings associated with Maintaining and Improving our Services include a significant hosting saving for the Gemini system (c£1.0m), the costs (and therefore savings) of which are attributed to National Grid.

The investment profile for Shippers is dominated by CSS which remains at £12.1m for 2020 as forecast in BP19, but extends into 2021 (£6.8m plus £5m contingency). The Baseline investments proposed result in a further £5.7m increase from the BP19 forecast (UK Link Strategic Roadmap Capacity for Change £6.0m). This is a £200k decrease from the previous business plan iteration, the decrease is caused by a change in the funding split for Digital spend.

In the first year of the plan, the Recommended investment is now £2.5m. This is a £900k decrease from the previous business plan iteration. This decrease is caused by the removal of Market Reform, reduction in cyber security investment and the reduction and reallocation of Infrastructure General to MTB.

In the third year of the plan (2022/23) a placeholder of £6.4m for Unallocated Investment has also been included to reflect a flat profile of Investment spend for all constituencies across the plan period.

Shipper Funding



BP19 at 19/20 Prices



National Grid

For National Grid, the projected MTB expenditure for 2020/21 is forecast to reduce by £0.8m from the 19/20 position. The additional costs for reshaping our business, cyber security and realising Operational Excellence are attributed to all customer groups including National Grid. The savings associated with Maintaining and Improving our Services include a significant hosting saving for the Gemini system (c.£1.0m), the costs (and therefore savings) of which are attributed to National Grid.

The investment profile for National Grid includes the remaining costs of the Gemini Re-platforming programme, as well as investment in Gemini Enhancements and the Gemini Change Programme. There is also a small investment (£0.1m) in 2020 to begin the next phase of modernisation for the Gemini system and services. Reflective of feedback received from National Grid we have included increased investment for market driven change and enhancements, increasing investment to £2.98m per annum for the plan period.

National Grid Funding



BP19 at 19/20 Prices

