

NHSBT BOARD

29 MARCH 2018

ODT HUB PROGRAMME – 2018/19 BUSINESS CASE

1. STATUS: Official

2. EXECUTIVE SUMMARY

2.1 The ODT Hub Programme was initiated in 2015 to allow the organisation to meet the challenges of the Taking Organ Transplantation to 2020 strategy. A truly integrated ODT Hub service across Transplantation Support Services and Organ Donation & Nursing is essential if we are to support increasing numbers of referrals, donations, retrievals and transplants safely and efficiently.

2.2 The Board approved the vision for an incremental, multi-year ODT Hub Programme in September 2015. Since January 2016, we have made changes including: safely implementing Heart, Lung, Liver and Intestinal offering schemes on new platforms; opened the ODT Hub; centralised all organ offering; and implemented a single referral line for deceased organ donation.

2.3 The 2017/18 business case benefits have been delivered, with an expected under-spend of £0.4m that will be used to support 2018/19 developments.

2.4 In 2018/19, the Programme will continue changes within NHSBT and for our hospital partners. These will include: implementing Kidney and Pancreas organ offering scheme changes on new platforms; a digital solution to enable sharing of recipient data and immediate follow-up (HTA A & B forms); digital donor assessment forms; and tools to enable the ODT Hub to control organ offering.

2.5 The original estimates of cost made in 2015 were updated in 2017, based on experience of implementation and once IT platforms and delivery partners had been selected. The Programme continues to expect that the overall spend will be up to £10.2m (excluding VAT).

2.6 The non-recurrent cost of 2018/19 activities is estimated at £2.8m (including £0.5m contingency), plus a further £0.7m recurrent cost. There are key dependencies on the continued transfer of knowledge from IT contractors to NHSBT IT staff and the necessary enabling IT tools. There continue to be dependencies shared with the Core Systems Modernisation Programme.

2.7 This case enables us to take another significant step towards an integrated service that supports world class organ donation, transplantation and follow up in the UK; with a 24/7 operational ODT Hub at its core and renewed technology as its foundation.

3. ACTION REQUESTED

3.1 To continue transformational activities from April 2018 and deliver benefits during 2018/19, the Board is asked to APPROVE non-recurrent expenditure of £2.8m (excluding VAT and including £0.5m contingency) and recurrent expenditure of £0.7m.

4. PROGRAMME BACKGROUND

4.1 The ODT Hub Programme was initiated in 2015 to allow the organisation to meet the challenges of the Taking Organ Transplantation to 2020 strategy. A truly integrated ODT Hub service across Transplantation Support Services and Organ Donation & Nursing is essential if we are to support increasing numbers of referrals, donations, retrievals and transplants safely and efficiently.

4.2 The vision is for an ODT Hub, serving as a 24-hour operations centre for all organ donation and transplantation activity happening in the United Kingdom. It will receive referrals from UK hospitals and co-ordinate the resources that NHSBT directly controls needed to deliver a successful organ transplant (i.e. excluding ITU, theatres, surgeons).

4.3 The Board approved the vision for an incremental, multi-year ODT Hub Programme in September 2015. Delivery began in January 2016. Since that time – to time and to budget for each incremental step – we have: safely implementing Heart, Lung, Liver and Intestinal offering schemes on new platforms; opened the ODT Hub; centralised all organ offering; made Transplant List changes; and implemented a single referral line for deceased organ donation.

4.4 In the period before the vision is fully achieved, the ODT Hub will continue its programme of incremental improvements including: clinical leadership; lean-based improvements to processes; and tactical IT and operating changes. These changes are all consistent with the vision for the ODT Hub.

4.5 The proposed timetable for full delivery by 2020 is contingent on continued development of corporate IT platforms and other resources (notably ICT, Quality and Communications) being available. It is supported by – and closely aligned to – the overall IT Strategic Framework and the Core Systems Modernisation Programme.

5. DELIVERY IN 2017/18

5.1 The Board approved the ODT Hub Programme Year 2 Business Case in March 2017. This governed the period April 2017 to March 2018.

5.2 The Programme has delivered 2017/18 Business Case benefits as follows:

5.3 The milestone of the Urgent and Super Urgent Lung offering was achieved in June 2017. This has delivered significant changes including offering on a national basis, rather than by region.

5.4 Ahead of changes to the Liver pathway, a Super Urgent Liver List was delivered in August 2017. This is an immediately accessible list of the UK's most critically ill patients waiting for a liver and replaces a daily fax.

5.5 In September 2017, the ODT Hub was formally opened to coincide with the centralisation of Heart and Lung organ offering. Prior to the change, the Duty Office offered 45% of organs; the ODT Hub since began offering 85% of organs. This has enabled Specialist Nurses to spend more time caring for organ donors.

5.6 A single Organ Donor Referral Line was launched in February 2018, provided by the ODT Hub. This replaced 12 numbers with a single line (03000 20 30 40) for all deceased organ donation in the UK.

5.7 In March 2018, important Liver Offering Scheme changes were delivered. These include new scheme changes to Liver offering on the new IT platform. There is now national offering for deceased adult brain dead donors according to an advanced Transplant Benefit Score; predicted to make a substantial contribution to saving and improving more lives. Remaining organ offering was centralised at this time.

5.8 At the time of the Board update in November 2017, we expected to request £549k of contingency funds. We are now expecting to have used £166k. The £166k additional cost is mainly contractor developer days and some fixed term contractors used to cover internal vacancies. These were partly due to the Liver scheme needing more work than expected – and partly because we were unable to use internal staff where we had expected to do so (the latter issue is now mainly resolved).

5.9 The use of contingency funds enabled the Programme to deliver the Year 3 Business Case benefits as described previously:

Description	2017/18 Plan £000's	2017/18 Forecast £000's	2017/18 Variance £000's
IT - Platforms	0	0	0
Pathway Solutions	2,126	2,292	-166
Programme Management Office	232	324	-91
Business Change	236	195	41
Training & Awareness	0	0	0
Cost of Change	0	0	0
Total Non recurring	2,595	2,810	-216
Contingency	649	0	649
Total Non Recurring with Contingency	3,242	2,809	432
Recurring - IT Operations	401	215	186
Recurring - Hub Operations	160	77	83
Total Recurring Costs	561	292	269
Contingency	140	0	140
Total Recurring with Contingency	702	292	409
Total Costs	3,944	3,101	841

5.10 As at March 2018, the estimated cost of 2017/18 activities is lower than estimated in November 2017 – at £2.8m excluding VAT (where appropriate). The Programme has used £0.2m contingency funds, within this overall sum.

5.11 During the 2017/18, risks emerged to the ODT Hub Programme as a result of common IT development and technical support paths, which are shared with the Core Systems Modernisation (CSM) Programme. The main risk in 2018/19 is that key software products are later and / or more expensive than planned – notably those enabling the IT platform used for our HTA B forms and Transplant List. We will continue to work closely and plan jointly with ICT and CSM Programme colleagues.

5.12 We have acted to reduce the impact of these issues by adopting some IT enablement activities within ODT. The remaining dependencies are regression and systems integration testing and technical support services, associated with the approach to IT platform implementation.

6. SCOPE AND APPROACH IN 2018/19

6.1 The Programme's scope was set out in the ODT Hub Programme multi-year business case, which was endorsed by the Board in September 2015.

6.2 During 2018/19, the Programme will implement new Kidney and Pancreas Offering Schemes to ODT Hub organ offering platforms. This will include amendments to the Transplant List, to capture any additional recipient data. The overall Transplant List will continue to be developed, with a focus on developing digital solutions.

6.3 We will also provide simple and effective electronic solutions for completing regulatory HTA A and B forms (respectively, via DonorPath and CRM). These will enable accurate and timely collation of information that can be shared with transplant surgeons, to support increased organ utilisation whilst minimising cold ischaemia. For HTA A, this Programme will design and co-ordinate delivery of the solution; while the DonorPath Enhancement project will co-ordinate its development by a supplier.

6.4 A new donor referral and assessment module will be built within DonorPath to bring consistency to the referral process, through implementation of a standardised linear pathway. The Programme will also provide tooling and process design support for Organ Donation & Nursing to progress to regional clusters for: donor referrals, assessment, screening, staff allocation and deployment.

6.5 The Programme will also focus on developing tools in ODT Hub Operations. We will build and implement an interface that allows ODT Hub Operations to handle the increasing numbers of offers that need to be made more safely, but without significant additional staff cost.

6.6 The Programme will continue to work closely with its stakeholders to develop detailed plans for business and IT change. It will identify the key logical steps and work packages, required to achieve the overall ODT Hub vision and operating model.

6.7 Each work package will have its own project identity, but will use the governance of the Programme. The Programme will continue its use of an *Agile* approach.

6.8 The Programme continues to be structured into three main workstreams:

- **Transformation:** defines and costs the change required;
- **Solution Design:** provides the IT and other solutions;
- **Transition:** implements the change and supports its early life.

6.9 For an agreed period, both the Transition and Solution Development teams will set aside time to provide Early Life support to each product.

7. 2018/19 PROGRAMME ACTIVITIES

7.1 In 2018/19, the Programme will deliver the following business changes:

	Q1	Q2	Q3	Q4
Hub: Kidney & Pancreas Matching, Offering & Patient Management	Design	Develop	Develop	Transition
Patient (Recipient): Digital HTA – B Forms	Design	Develop	Develop	Transition
Donor: Digital HTA – A Forms	Design	Design	Develop	Transition
Donor: Referral and Assessment Tool	Design	Develop	Transition	
Hub: Task-Based & Multi Organ Offering	Design	Design	Alpha	Develop
Patient (Recipient): Transplant List Capabilities		Design	Design	Develop

7.2 Using Scaled Agile Framework methods, the *Develop* phases will produce visible products for demonstration and feedback from stakeholders. The *Transition* phases will see products delivered; prior to implementation and live use.

7.3 In support of the above business change, the Programme must continue to integrate new, NHSBT-wide IT corporate platforms.

7.4 We have validated our assumptions and choices of IT platforms, to ensure that the architecture and delivery models remain effective and deliverable.

7.5 This has included an assessment of the Customer Relationship Management (CRM) platform and the integration required to deliver the full regulatory form (HTA)

and Transplant List developments. We will continue to use this platform for future developments – while we continue to work with ICT and others to develop a more cost-effective model for platform integration.

7.6 Working closely with ICT and other colleagues, we have jointly planned that the following enabling services will be available to the Programme:

	2018/19
Cost-effective Delivery Model: For enabling IT strategic platforms and architecture (accountability: ODT & ICT)	<i>Design & deliver model</i>
Cost-effective Service & Support Model: Sustainable model for production service & support (accountability: ODT & ICT)	<i>Design & deliver service</i>
Network changes to support Service Bus: Development & production (accountability: ICT)	<i>Available for use</i>
CRM business continuity solution (accountability: ODT & ICT)	<i>Design & deliver</i>
User authentication: Internal & external (accountability: ODT & ICT)	<i>In service and support</i>
DonorPath (accountability: ODT & ICT)	<i>Design & Deliver</i>
Platform Knowledge Transfer: Continued transfer of platform architecture and development knowledge to NHSBT staff, where agreed (accountability: ICT)	<i>Delivery</i>
Telephony Integration (accountability: ODT & ICT)	<i>Design</i>

7.7 The Programme will collaborate with the Core Systems Modernisation Programme, particularly in the use of the CRM platform and around core and common data.

7.8 The Programme will develop further during 2018/19 by completing or updating a range of control, strategy and methodology documents. The overall ODT Hub Programme continues to be delivered within ODT's Change Portfolio, using recognised change methods.

8. OUTCOMES AND BENEFITS

8.1 The successful completion of **Business Change** work proposed in 2018/19 will deliver the following outcomes:

Work on:	Contributes to:
<ul style="list-style-type: none"> • Donor: <ol style="list-style-type: none"> 1) Donor Referral & Assessment tool 2) HTA A form 	Outcomes in 2018/19: <ul style="list-style-type: none"> ✓ Digitises donor assessment process ✓ Digital regulatory HTA A form, replacing basic functionality and / or paper ✓ Improved organ tracking
<ul style="list-style-type: none"> • Hub: 	Outcomes in 2018/19: <ul style="list-style-type: none"> ✓ Implements new Kidney & Pancreas Offering Schemes

1) Organ Offering Schemes 2) Organ offering tools	✓ Completes transfer of Offering Schemes to new platforms (i.e. no longer in NTxD) ✓ More controlled organ offering, supporting staff in ODT Hub Operations
• Patient (Recipient): 1) HTA B form 2) Transplant List	Outcomes in 2018/19: ✓ Digital solution for regulatory HTA B form ✓ Continued development and digitisation of Transplant List ✓ Support to new Kidney & Pancreas Offering Schemes

8.2 The above **Business Change** activities also enable Programme-wide benefits, including: increased number of donors and transplants; enhanced donation and transplantation experience; improved efficiency and increased staff and patient safety.

8.3 The successful completion of **Enabling** work proposed in 2017/18 will deliver the following outcomes:

Work on:	Contributes to:
1) ODT Hub System Integration	Outcomes in 2018/19: ✓ Cost effective integration solution between mutually-interacting software systems used by ODT Hub
2) Authentication	Outcomes in 2018/19: ✓ Manages access to IT resources
3) Telephony	Outcomes in 2018/19: ✓ Preparation for consolidated contact points for ODT Hub
4) DonorPath	Outcomes in 2018/19: ✓ Foundations of development towards an integrated view of donor activity
5) Customer Relationship Management Platform	Outcomes in 2018/19: ✓ The IT platform to enable HTA B and Transplant List developments. ✓ Service & Support of CRM-based developments

8.4 The above **Enabling** activities also contribute to a range of Programme-level benefits, including: improved efficiency, better quality audit and performance data and reduced manual data handling.

9. CAPACITY & CAPABILITY TO DELIVER IN 2018/19

9.1 The Programme has developed a detailed resource plan for 2018/19 through working closely with Business Owners and supporting functions. This is available separately upon request.

9.2 The Programme has estimated that it does have the capacity and capability to deliver 2018/19 activities. This plan assumes that the required levels of resourcing and skills are met and that scope and priorities are controlled. We will continue to

work with ICT and other partners to ensure that emerging resource needs are identified and plans developed.

9.3 Assumptions outlined about resource availability and capability have been outlined in previous business cases.

9.4 The Programme's work in 2018/19 will prepare more changes for live use in a range of settings, including with our partners outside NHSBT. The Programme will therefore be reliant on Subject Matter Expert (SME) and clinician input to ensure the changes proposed are fit for purpose. The Programme will endeavour to inform SMEs as early as possible where their involvement is required.

9.5 The Programme seeks commitment from the Board to the resources required as part of this business case.

10. FINANCIAL COSTS IN 2018/19

10.1 Funds requested will be utilised between April 2018 and March 2019.

10.2 During 2017, the Board received a detailed re-assessment of costs compared with the original estimates made in 2015. This later assessment stands. For 2018/19, this means that additional costs compared to the 2015 assessment have arisen in the area of solution development.

10.3 The table below provides a breakdown of the costs associated with delivering 2018/19 activities, excluding VAT and including contingency:

Description	2015 Plan £000's	2018/19 Plan £000's	Difference £000's
IT - Platforms	0	0	0
Pathway Solutions	340	1,585	-1,245
Programme Management Office	193	250	-58
Business Change	0	410	-410
Training & Awareness	75	0	75
Cost of Change	467	0	467
Total Non recurring	1,075	2,246	-1,172
Contingency	269	562	
Total Non Recurring with Contingency	1,342	2,807	-1,173
Recurring - IT Operations	401	401	0
Recurring - Hub Operations	160	160	0
Total Recurring Costs	561	561	0
Contingency	140	140	0
Total Recurring with Contingency	702	701	0
Total Costs	2,044	3,508	-1,173

10.4 Working closely with ICT colleagues, we will continue to deploy the plan to complete the enablement of ICT development staff in during 2018/19. This chiefly comprises continued recruitment to ICT roles in place of contractors – thereby addressing a significant cost pressure. There has been progress in this area and

some mitigation of IT platform integration costs through adoption of automated tools. However, planned costs for solution development continue to be higher than forecast in 2015 – as outlined in previous business cases.

10.5 Section 12 describes how the revised costs for 2018/19 impact on the 5-year programme plan. Funding will be sourced from the existing Organ Donation & Transplantation baseline budget.

10.6 Through detailed work and engagement, internal effort costs have been cautiously assessed at equivalent to c.5,000 days or £1.3m. A breakdown of costs and assumptions is available separately upon request.

11. FUTURE YEARS

11.1 In addition to the outcomes and benefits above, 2018/19 activities will position the Programme to deliver future activities and will provide a clear plan.

11.2 Future years' activities will include:

- Development of a Living Donor solution;
- Deployment of Transplant List capabilities, including for Follow-up;
- Optimised ODT Hub capabilities, including an integrated process for the expert assessment of donors and later mobilisation of Specialist Nurses.

11.3 Critical factors contributing to the success of the Programme in future years include:

- Developing cost-effective models for enabling IT in 2018/19;
- Continued transfer of platform architecture and development knowledge to sufficient numbers of ICT staff.

11.4 The Programme will continue with the delivery approach used in previous years, but will systematically reflect on that approach and adapt to optimise its performance.

12. IMPACT ON 5-YEAR PROGRAMME

12.1 The Board endorsed the vision and plan for a 5-year ODT Hub programme at its September 2015 meeting.

12.2 The ODT Hub Programme benefits are primarily increasing patient safety and enabling other ODT change initiatives.

12.3 The programme plan and costs were estimated before the programme was begun. A re-assessment was undertaken in 2017, taking into account:

- The Agile approach to programme delivery;
- Experience derived from activities in the period January 2016 to March 2018;
- A clearer understanding of the costs of developing on IT platforms and;
- The treatment of Value Added Tax.

12.5 The updated high-level plan is now as follows:

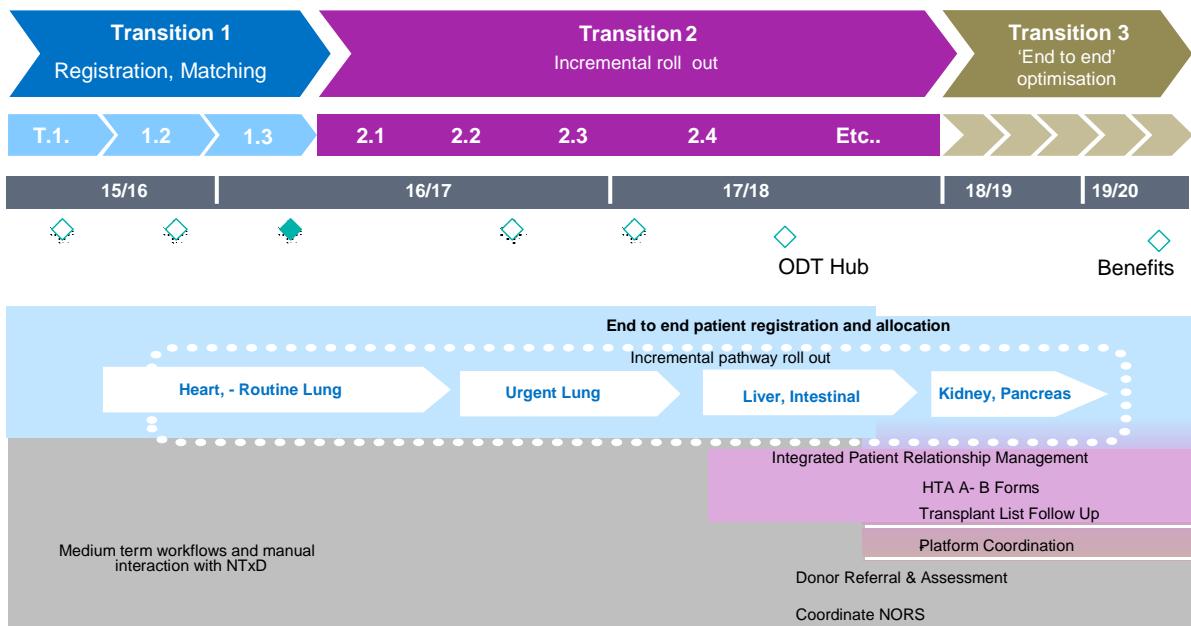


Figure 2: Programme Plan (as at March 2018)

12.5 The 2017 re-assessment of the 5-year programme's costs has not changed since. This takes into account that the 2018/19 cost is higher than that forecast in September 2015, before the programme had commenced. The preferred option remains forecast at:

Non-recurring cost:	Up to £10.2m (inc. £6.3m already approved to March 2018)
Annual recurring cost:	£0.7m
Recurring savings:	£1.6m (cost avoidance)

12.6 The forecast will be refined during 2018 to ascertain if this, and in particular non-recurring costs, remains a valid estimate to fully implement the vision by 2020. The table below restates the original business values to reflect the changes described:

Non-recurring cost £000's	2015/16	2016/17	2017/18	2018/19	2019/20	Total
Original business case	1,237	2,361	2,085	1,610	806	8,099
Amended for VAT treatment	1,031	1,968	1,738	1,342	672	6,749
Amended for additional 2017/18 costs	1,031	1,968	3,243	1,342	672	8,255
Amended for additional 2018/19 costs	1,031	1,968	3,243	2,342*	672	9,255
Assumes cost trend continues to 2019/20	1,031	1,968	3,243	2,342*	1,672	10,255

*2017/18 values will be updated once known and the balance carried into 2018/19.

13. IMPACT ON STAKEHOLDERS & STAFF IN 2018/19

13.1 During 2018/19, the overall impact for staff is expected to be safer and simpler ways of working. A programme of engagement and communication activities will be provided to ODT staff and external stakeholders through a communication plan.

13.2 The Programme will continue to bring changes to responsibilities related to: administrative tasks; completing recipient information; and organ matching and offering (for Kidney and Pancreas pathways).

13.3 The Programme is not expected, at any stage, to change responsibilities related to: donor identification; consent / authorisation; retrieval; nor implantation.

13.4 The key stakeholders involved in developing the vision for the ODT Hub and a programme for its delivery are listed in an appendix (available on request).

14. GOVERNANCE & COMMUNICATION

14.1 NHSBT's programme governance framework applies to the ODT Hub Programme. The Programme will continue to report via a Programme Board, the ODT Change Portfolio Board and then to the NHSBT Transformation Portfolio Board.

14.2 A Communications and Engagement Plan has been developed to provide direction, clarity and purpose to the communications activities during the life of the Programme. It has identified the objectives to be achieved through engagement, who the stakeholders are, and the methods / media chosen for engaging with the different stakeholder groups. This will be reviewed during 2018/19.

14.3 The model for communications has been developed during Year 2 and outputs from the Programme are visible. These include a range of communications materials and reference groups.

14.4 The OGC Gateway process was used to assess the Programme during 2017 and we will continue to develop the Programme in response to this and other reviews.

15. RISKS

15.1 Programme-level risks with a mitigated risk score of 8 or above are listed below, with a focus on those with relevance during 2019/20:

Risk Description	Impact	Likelihood	Mitigated Score	Mitigation
Cost of solution development does not reduce	4	3	12	Reviewing the plan for - and tracking the delivery of – internal fixed-term staffing; Using suppliers to enhance capability in the short term.

Risk Description	Impact	Likelihood	Mitigated Score	Mitigation
The resources required to develop and integrate new IT platforms are constrained	4	3	12	More detailed plans are based on delivery experience; Close engagement and planning on the issues of 1) integration and 2) technical support.
Failure to appoint the right capacity and capability to the programme	4	2	8	Using contractors where NHSBT skills are less mature or do not yet exist; Backfill or recruitment to allow involvement of key NHSBT staff.
Delivering transformation and existing operational services, while demand continues to grow	4	2	8	Ensuring that dedicated roles are put in place where required (funded by Programme); or otherwise backfilled. Increased front-line recruitment to ODT Hub (fixed term).
Buy-in and engagement of stakeholder groups	4	2	8	Early communications and engagement activities; Ensure involvement of key individuals to ensure communication and impact to wider groups is understood.
Disruption to operations	5	2	8	Minimum standards will be met before implementation occurs, through testing and planning; A Transition Team has been appointed to integrate changes with operations.
Cross-programme dependencies (notably CSM) impact progress	4	2	8	Engagement and planning with CSM; Co-ordinated CRM development.

Risk Description	Impact	Likelihood	Mitigated Score	Mitigation
Failure to appoint appropriate suppliers to deliver to time and budget	4	2	8	Clear statements of work; ensure any procurement requirements are clearly detailed.

16. EQUALITY, SUSTAINABILITY AND EMPLOYEE IMPACT

16.1 An updated Equality Impact Assessment will be completed during 2018/19.

16.2 This may show that the introduction of changes to some organ allocation schemes could impact positively on equality or diversity. The assessment will be developed further as the Programme evolves and engages more closely with clinicians and statisticians.

16.3 The closer co-ordination and consolidation of organ donation resources is expected to support the NHSBT sustainability agenda.

16.4 The main impact for staff will be safer, simpler, more supported ways of working. The Programme will, during 2018/19, bring changes to responsibilities related to administrative tasks and organ offering. Time-limited testing will affect: completing donor and recipient information, donor assessment, and central co-ordination of teams and resources.

17. CONCLUSIONS

17.1 The programme of work in 2018/19 will deliver a significant further step towards the vision for an ODT Hub and greater integration of services across key business change areas. It will also deliver and complete Offering Scheme changes.

17.2 Through its incremental and Agile approach, the Programme will deliver business and IT changes during 2018/19 that are safer, simpler and supportive.

17.3 The successful completion of enabling activities will also implement the IT architecture required to support business changes.

17.4 These activities deliver products that are beneficial in their own right, in accordance with ODT's clinical priorities. They will provide the basis for assessing future investment decisions, without committing NHTSB to further expenditure.

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Additional information (available on request)

- Costing and resource documentation
- Full Programme Business Case and subsequent business cases
- Target Operating Model

March 2018