NHS
Blood and Transplant

NHSBT BOARD

30 MARCH 2017

ODT HUB PROGRAMME – 2017/18 BUSINESS CASE

1. STATUS: Public

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. Delivery began in January 2016. Over the last 15 months – to time and to budget – we have: safely implemented new Heart and Lung Allocation Schemes on new platforms; designed built and tested a referral and assessment pilot across several regions; built a demonstration digital Transplant List and a multi Solid organ Offering prototype and made preparations for deploying Liver Allocation Schemes.

2.3 In 2017/18 the Programme will undertake more extensive change both within NHSBT and for our hospital partners. This will include: formally opening the ODT Hub in summer 2017 to coincide with central management of Heart, Lung and Liver offering; provide Liver Transplant Centres with the ability to register and maintain their waiting lists directly on the Hub platform; delivering the existing Liver Allocation Schemes (Adult, Paediatric, DBD and DCD) and the new Adult DBD Liver Allocation Scheme on the new platform for live use; designing a solution and staffing model to move referral and assessment of donors into the Hub in 2018.

2.4 The original Programme Business Case in 2015 estimated an overall spend of £6.5m (excluding VAT) across the 5 years of the Programme. This estimate was made ahead of decisions about which platforms would be used and before implementation partners had been secured, i.e. when many of the costs of securing the necessary expertise were unknown and the complexity of the development was not fully appreciated. Experience of the first years of development has indicated that the overall spend is likely to be £9-10m (excluding VAT). £2.6m of this estimate is amenable to reduction through management action.

2.5 The non-recurrent cost of 2017/18 activities is estimated at £3.2m (including £0.6m contingency), plus a further £0.1m 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 are also dependencies shared with the Core Systems Modernisation Programme, although these are fewer than previously anticipated.

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

3. ACTION REQUESTED

3.1 To continue transformational activities from April 2017 and deliver benefits during 2017/18, the Board is asked to APPROVE non-recurrent expenditure of £3.2m (excluding VAT and including £0.6m contingency) and recurrent expenditure of £0.1m.

3.2 The Board is asked to NOTE a more realistic overall cost of £9.2-10.2m (excluding VAT) for the five years of the Programme, now that we are clearer about the costs of development.

4. PROGRAMME BACKGROUND

4.1 The *Taking Organ Transplantation to 2020* strategy sets out the ambition to match world class performance in organ donation and transplantation.

4.2 Transforming the Duty Office into an ODT Hub with an extended role and improving and integrating new processes is essential if we are to support more donors and transplants safely.

4.3 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 all organ and tissue referrals from UK hospitals and control and mobilise all resources that NHSBT directly controls needed to deliver a successful organ transplant (i.e. excluding ITU, theatres, surgeons).

4.4 The overall objectives of the ODT Hub Programme to 2020 are to:

- Design and implement an integrated Service that supports world-class Organ Donation, Transplantation and Follow-up in the UK;
- with a clinically led 24/7 operational Hub at its core and;
- renewed technology as its foundation.

4.5 The benefits of the ODT Hub include:

- **Clinical:** supports increasing numbers of potential donors; enables Allocation Scheme changes that lead to fewer deaths on transplant lists; and reduces the potential for errors.
- **Safety, control and efficiency:** greater control of the donation pathway, a safer working environment for Hub staff, more efficient Specialist Nurse – Organ Donation (SN-OD) and Retrieval Team (NORS) deployment, reduced follow-up costs and reduced IT maintenance and development costs.
- **Being a better partner:** including a streamlined referral process, improved ITU / theatre utilisation, quicker clinical decision-making on the use of organs and improved experience for donor families and transplant centres.

4.6 In September 2015, the Board endorsed the approach to develop the new ODT Hub operating model in three Phases, enabled by Agile delivery methods:

- **Phase 1 (January to June 2016):** delivered Heart and routine Lung prototypes and the prototype of central donor assessment;
- **Phase 2 (to December 2018):** delivers the roll-out of these solutions to further organ pathways (Liver, Intestinal etc.), with a national and integrated approach to referral and assessment, transformation of Transplant List and Transplant Follow-up, underpinned by a new enabling IT architecture;
- **Phase 3 (to December 2020):** optimises the ODT Hub; enabling further end-to-end case management, integrated patient and hospital relationship management and enhanced nursing and retrieval team co-ordination.

4.7 The original Programme Business Case in 2015 estimated an overall spend of £6.7m (excluding VAT) across the 5 years of the Programme. This estimate was made ahead of decisions about which IT platforms would be used and before implementation partners had been secured, i.e. when many of the costs of securing the necessary expertise were unknown and the complexity of the development was not fully appreciated.

4.8 Experience of the first years of development has indicated that the overall spend is likely to be £9.2-10.2m (excluding VAT). £2.6m of this estimate is amenable to reduction through management action. Every effort will be made to achieve this reduction.

4.9 Approval for expenditure of ODT's baseline allocation is sought separately for each phase of the programme from the NHSBT Board and the UK Health Departments. The programme follows Scaled Agile implementation, so that we can slow the pace of development or change priorities to match the available resource. The Health Departments indicated approval to spend £3.2million in 2017/18 at a recent ODT Sustainable Funding Group meeting.

4.10 This business case forms part of Phase 2 and, as with future cases, is brought to the Board for separate evaluation. Each Phase delivers benefits and does not commit NHSBT to the delivery of the next.

4.11 The proposed timetable for full delivery by the end of 2020 is contingent on continued successful implementation of corporate IT platforms and corporate resources (notably ICT, Quality, HR and Communications). We have gained the required support for 2017/18 and will jointly evaluate the requirements for each next step of the Programme, to ensure it remains supported. The overall approach is supported by – and closely aligned to – the IT Strategic Framework for 2015-2020.

5. YEAR 2 DELIVERY – TO MARCH 2017

5.1 The Board approved the ODT Hub Programme Year 2 Business Case in May 2016. This governed the period July 2016 to March 2017.

5.2 The Programme has delivered Year 2 Business Case benefits in full and within budget.

5.3 The milestone of Heart and routine Lung matching and offering was achieved on 26th October 2016, within 3 weeks of the original schedule. This has delivered significant Allocation Scheme changes including offering to Super-Urgent Heart patients; an end to "white boards" in the Duty Office for Urgent Heart listings and automated previously manual processes.

5.4 This is also the first business-critical application held in the "Cloud"; consistent with the organisation's 2015-2020 IT Strategic Framework.

5.5 Year 2 Business Case benefits have been achieved in three key areas:

1) Transplant List: a first demonstration, enabling clinicians to view Super Urgent Liver patient records.
2) Donor Referral and Assessment: a second test of the donor assessment model and design work to determine the resources required for later deployment of a national model.
3) Organ Matching and Offering: live use of Heart and routine Lung solutions; development and live use of an Urgent Lung solution (scheduled for April 2017); and then development of a Liver and multi-organ offering prototype.

5.7 As noted in the Board Update paper of November 2016, the risk regarding transfer of knowledge from contractors to internal IT staff has materialised, together with a dependency on the completion of the Oracle Upgrade project. Both have contributed to the use of contingency funds.

5.8 The use of contingency funds enabled the Programme to deliver the Year 2 Business Case benefits in full. This is partly due to the upgrade of the Oracle database to a supported version during Quarter 3, which delayed the testing of the Urgent Lung product, driving a later cost to the Programme.

Description	**Plan £000's**	**Forecast £000's**	**Variance £000's**
IT Platforms	233	253	20
Pathway Solutions	980	1,104	124
Programme Management Office	254	254	0
Business Change	193	219	26
Training & Awareness	0	0	0
Cost of Change	0	0	0
Total Non-recurring	**1,660**	**1,830**	**170**
Contingency	415	228	-187
Total Non-recurring with Contingency	**2,075**	**2,058**	**-17**
Recurring - IT Licenses	173	173	0
Total Recurring Costs	**173**	**173**	**0**
Contingency	43	0	-43
Total Recurring with Contingency	**216**	**173**	**-43**
Total Costs	**2,289**	**2,230**	**-61**

5.9 The estimated cost of Year 2 activities is slightly lower than planned in November 2016, at £2.2m excluding VAT (where appropriate). The Programme has used £0.4m contingency funds, within this overall budget.

5.10 During the Year 2 period, risks emerged to the ODT Hub Programme as a result of dependencies shared with the Core Systems Modernisation (CSM) Programme. The main risk in 2017/18 is that key software products are later than the planned timings in Section 7 – notably those enabling the IT platform used for our Transplant List. Through continued close engagement and joint planning with colleagues, we are more confident that we can see a plan to deliver these.

5.11 We have acted to reduce interdependencies with the CSM Programme. Specifically, some of the "Enablement" team (and cost) have moved to ODT. The remaining dependencies are regression and systems integration testing, associated with the approach to IT platform implementation.

6. SCOPE AND APPROACH IN 2017/18

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 Year 2, the Programme reviewed its scope, key assumptions and operating models in more detail. It will now set out to design and deliver capabilities during 2017/18 that:

- ✓ Are safer and simpler;
- ✓ Reflect the core values of NHSBT and build upon the commitment, knowledge, skills of our teams;
- ✓ Enable realisation of the ambitions and initiatives laid out in *TOT 2020;*
- ✓ Progressively release more time for front-line clinicians to care for patients and families;
- ✓ Enable us to be responsive to the needs of colleagues and partners;
- ✓ Create capacity to continuously develop the service;
- ✓ Preserve equity in matching and allocation;
- ✓ Optimise timescales, resources and organ utilisation;
- ✓ Enhance accessibility and auditability;
- ✓ Can respond effectively to advances in clinical practice and Information Technology.

6.3 During 2017/18, the Programme will implement the new Liver Allocation Scheme (Adult DBD) and the existing schemes for Adult DCD, Paediatric DBD and DCD to the new ODT Hub IT platforms. This will include delivering a new Transplant List, which can be reviewed and updated directly by Liver Transplantation clinicians and captures additional recipient data.

6.4 Using the new IT platforms, Liver organ offers will be made to named individuals based on the expected survival benefit that the liver being offered will yield to that patient. Changes will also be made to implement the Scheme on a national basis, which will remove the risk of local bias and ensures greater patient

equity across the UK. Taken together, these changes are expected to reduce deaths on the Transplant List by approximately 50 per year.

6.5 Unlike earlier Heart and Lung Allocation Scheme implementations, the changes in the Liver Allocation Scheme mean that we must replicate existing Schemes for ongoing use of DCD Liver offering, while DBD Adult Liver will use the new Scheme – all on the same IT platform. Key reasons include the safety of organ offering practice in the Duty Office / ODT Hub (i.e. using one system), due to interdependencies between the Schemes for DBD and DCD and Adult and Paediatric.

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* "production line" approach.

6.8 The Programme is now structured into three main workstreams:

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

6.9 The changes required will be articulated by the Programme's **Transformation** workstream as "Features" for development via the ODT Release Train, using *Scaled Agile* methods – or for delivery through a project focused on business / clinical change. This approach will progressively deliver the Target Operating Model. Features will be associated with changes towards the ODT Hub, or IT-related enabling developments.

6.10 The **Solution Development** workstream will deliver the required IT changes. Each "Feature" will be assessed by stakeholders in an *Inspect and Adapt* workshop, prior to the next *Big Room Planning* event (which focuses on delivery planning). The ODT Release Train will then commit to delivering a set of clear objectives.

6.11 The Programme's **Transition** workstream will perform a risk assessment to prepare for change, highlighting any additional work required to ensure success and reduce risk. When a release has met the required criteria, User Acceptance Testing is undertaken and upon approval to proceed Transition will embed delivered IT and Business Change safely into the operational environment and will ensure IT services are ready to run.

6.12 For an agreed period, both the Transition and Solution Development workstreams will set aside time to provide Early Life support to each Transition Epic.

7. 2017/18 PROGRAMME ACTIVITIES

7.1 In 2017/18, the Programme will deliver the following business changes:

<table>
<tr><th></th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th></tr>
<tr><td rowspan="2">Patient:
Read-only Transplant List</td><td>Transition</td><td rowspan="2"></td><td rowspan="2"></td><td rowspan="2"></td></tr>
<tr><td>Service Starts (Super Urgent Liver)</td></tr>
<tr><td rowspan="2">Patient: Review & Update Transplant List</td><td rowspan="2">Develop</td><td rowspan="2">Develop</td><td>Transition</td><td></td></tr>
<tr><td>Service Starts (Liver)</td><td>Develop</td></tr>
<tr><td>Donor: Allocation & Deployment Tool (SNOD & NORS)</td><td>Design</td><td>Design & Test</td><td>Design & Test</td><td>Develop</td></tr>
<tr><td>Donor: Referral & Assessment Tool</td><td>Design</td><td>Design & Test</td><td>Design & Test</td><td>Develop</td></tr>
<tr><td rowspan="2">Hub: Liver, Intestinal and multi-organ matching</td><td rowspan="2">Develop</td><td rowspan="2">Develop</td><td>Transition</td><td rowspan="2">Develop</td></tr>
<tr><td>Service Starts (Liver & Intestinal)</td></tr>
<tr><td rowspan="2">Hub: Task-based organ offering</td><td rowspan="2">Develop</td><td>Transition</td><td>Transition</td><td rowspan="2">Develop</td></tr>
<tr><td>Service Starts (Heart & Lung)</td><td>Service Starts (Liver & Intestinal)</td></tr>
<tr><td>Hub: Optimise Offering Process for all organs</td><td>Develop</td><td>Launch ODT Hub</td><td colspan="2">Ongoing improvements</td></tr>
</table>

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 alternatives to deliver the Transplant List. We have confirmed that we must use this platform – without significant functional compromises – to realise the benefits and timings of the new Liver Allocation Scheme. This is due to the Scheme's requirement for additional patient data fields and regular data updates.

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

	Q1	Q2	Q3	Q4
Customer Relationship Management Platform (accountability: IT and CSM)	***In service and support***			
Extract, Transform & Load tool (accountability: IT)	***Available for use***			
Enterprise Service Bus (accountability: IT)	***In service and support***			
Authentication (accountability: IT)	***In service and support***			
Telephony integration (accountability: IT)		***In service and support***		
Donor Path and ODT Hub Integration (accountability: ODT)			**Design**	**Design**

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 2017/18 by completing or updating a range of control, strategy and methodology documents started in Year 2, including:

- Programme Definition Document including Vision Statement
- Programme Communications Plan
- Programme Roadmap
- Projects Dossier
- ODT Hub High Level Design Document
- Benefits Management Strategy and Benefits Profiles
- Target Operating Model (Blueprint)
- Target Operating Model Business Transition Strategy
- Programme Business Case (Per Financial Year)
- Hub Programme Delivery Methodology

7.9 The overall ODT Hub Programme will be delivered within ODT's Change Portfolio and adopts the use of Managing Successful Programmes (**MSP**®).

8. OUTCOMES AND BENEFITS

8.1 The successful completion of **Business Change** work proposed in 2017/18 will deliver the following outcomes:

Work on:	**Contributes to:**
1) Patient (Transplant List) • Patient search and linkage function • New recipient registration / update • Patient Management	**Outcomes in 2017/18:** ✓ Engages and prepares for roll out of Transplant List capabilities in 2017 ✓ Super-Urgent Liver List: will remove the "daily fax" from Duty Office ✓ Full Patient Management will allow Transplant Centres to undertake patient registration and update (Liver at minimum)
2) Donor • Donor Suitability Assessment • Donor Referral and Assessment • SNOD Allocation & Deployment	**Outcomes in 2017/18:** ✓ The essential learning required before implementing next steps of the ODT Hub ✓ Designs and tests future donor referral, assessment processes and technology ✓ Designs allocation and deployment processes and technology, for use in future years **Leading to:** ✓ The ODT Hub taking direct donor referrals and processing donor screening ✓ The ODT Hub providing a view of all referrals directly, or via a SNOD ✓ Referrals and screening are undertaken using a consistent and standardised process ✓ Preparations for the roll-out of an ODT Hub donor assessment service in 2018/19
3) Hub (*Organ Matching and Offering)* • Liver & Intestinal Matching • Liver & Intestinal / Multi-Organ Offering • Optimise offering process • NORS Deployment	**Outcomes in 2017/18:** ✓ Centralise manual SN-OD organ offering into ODT Hub (Q2) ✓ Liver & Intestinal matching & offering undertaken on the new IT platform from Q3 ✓ Safer, simpler offering processes ✓ Existing Liver and Intestinal (and new Adult DBD Liver) Allocation Schemes implemented from Q3 ✓ Estimates ODT Hub workload ✓ Confirms ODT Hub workforce model, including clinical expertise required ✓ Improved acceptance and decline criteria ✓ Designs resource deployment processes and technology, for use in future years

8.2 The above **Business Change** activities also enable the following Programme-wide benefits:

- Contributes towards increased number of donors and transplants
- Enhanced donation and transplantation experience
- Improved efficiency
- Increased staff and patient safety
- Improved stakeholder engagement and communications
- Better quality audit and performance data
- Reduced manual data handling
- Improved ability to respond to change

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

Work on:	**Contributes to:**
1) Extract, Transform & Load tool	**Outcomes in 2017/18:** ✓ Data being transferred from NTxD to new CRM platform for use in Transplant List
2) Enterprise Service Bus	**Outcomes in 2017/18:** ✓ A communication system between mutually-interacting software systems used by ODT Hub
3) Authentication	**Outcomes in 2017/18:** ✓ Manages access to IT resources
4) Telephony integration	**Outcomes in 2017/18:** ✓ Preparation for consolidated contact points for ODT Hub
5) Customer Relationship Management Platform	**Outcomes in 2017/18:** ✓ The IT platform to enable Transplant List developments
6) Donor Path and ODT Hub Integration	**Outcomes in 2017/18:** ✓ Design and development towards an integrated view of donor activity

8.4 The above **Enabling** activities also contribute to the following Programme-level benefits:

- Contributes towards increased number of donors and transplants
- Enhanced donation and transplantation experience
- Improved efficiency
- Increased staff and patient safety
- Better quality audit and performance data
- Reduced manual data handling
- Risk reduction

9. CAPACITY & CAPABILITY TO DELIVER IN 2017/18

9.1 The Programme has developed a detailed resource plan for 2017/18 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 2017/18 activities. This plan assumes that the required levels of resourcing and skills are met and that scope and priorities are controlled.

9.3 Key resource assumptions include:

- Where a Year 2 role is filled with a named resource, that the current incumbent continues in that role;
- Work is generally undertaken from the Stoke Gifford site;
- Changes of work priority will be subject to Programme governance and any changes to scope will need to be subject to higher governance;
- Some enabling IT architectural work is funded by IT - and that key ODT Hub Programme requirements are considered through shared governance.

9.4 We are exploring the benefits that Automated Regression Testing would offer to the Programme. Automated Regression Testing requires a range of standard testing scripts to be produced that can then be applied routinely to new code, to test its impact on the code already in live use.

9.5 This should help speed-up the Programme's delivery and thus reduce ongoing development costs, but we need to be assured that related expenditure provides value for money.

9.6 We also assumed that all resources are:

- Available at the levels and with the skills indicated;
- Managed and directed as part of the Programme.

9.7 Where an external resource is appointed to address an ongoing need, it is assumed that:

- A measurable knowledge transfer plan is in place to facilitate that knowledge transfer to an appropriate permanent member of staff within 6 months – where a permanent position is in the ICT staffing structure and;
- If an external resource needs to be removed, then the ODT Hub Programme Board will prioritise and scrutinise knowledge transfer.

9.8 The Programme's work in 2017/18 will prepare changes (such as Transplant List functions) for live use. 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.

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

9.10 The Programme also asks for continued acknowledgement of the changes in culture, style and resource allocation dictated by an Agile approach (including the separation of line and task management) and the "single instance" of shared IT platforms across NHSBT.

10. FINANCIAL COSTS IN 2017/18

10.1 Funds requested will be utilised in the period between April 2017 and March 2018.

10.2 The table below provides a breakdown of the costs associated with delivering 2017/18 activities, excluding VAT and including contingency:

Description	**Original Plan £000's**	**2017/18 Plan £000's**	**Difference £000's**
IT Platforms	0	0	0
Pathway Solutions	683	2,126*	1,444
Programme Management Office	183	232	50
Business Change	108	236	128
Training & Awareness	75	0	-75
Cost of Change	426	0	-426
Total Non-recurring	**1,474**	**2,594**	**1,120**
Contingency	263	649	386
Total Non-recurring with Contingency	**1,737**	**3,243**	**1,506**
Recurring - IT Operations	49	49	0
Recurring - Hub Operations	35	35	0
Total Recurring Costs	**105**	**84**	**0**
Contingency	21	21	0
Total Recurring with Contingency	**105**	**105**	**-1,506**
Total Costs	**1,842**	**3,348**	**1,506**

10.3 *Compared with the assessment made in 2015, additional costs have arisen in three areas within Pathway Solutions for 2017/18:

- Solution development cost (with knowledge transfer) from contractors to internal IT staff for the BPMS platform (£0.7m);
- Higher than planned costs for solution development (without knowledge transfer), using CRM developers (£0.4m) and;
- Higher than planned costs for integration testing of IT platforms (£0.4m).

10.4 Working closely with IT colleagues, we will ensure that there is a plan to complete knowledge transfer related to the Business Process Management System (BPMS) IT platform during 2017/18 – thereby addressing this cost pressure. There

may also be some opportunity to mitigate IT platform integration costs through adoption of Automated Regression Testing tools. However, until benefits are better understood, IT integration testing costs are assumed to impact in future years – as are those driven by higher than planned costs for solution development, using CRM developers.

10.5 Section 12 describes how the revised costs for 2017/18 impact on the 5-year programme plan.

10.6 Funding will be sourced from the existing Organ Donation & Transplantation baseline budget.

10.7 Through detailed work and engagement, internal effort costs have been cautiously assessed at equivalent to c.5,000 days or £1.3m.

10.8 A full breakdown of costs and assumptions is available separately upon request.

11. FUTURE YEARS

11.1 In addition to the outcomes and benefits above, 2017/18 activities will position the Programme to deliver future activities and will provide a clear plan.

11.2 Future years' activities are likely to include:

- Development of Living Donor, Kidney and Pancreas solutions;
- Deployment of Transplant List capabilities to all organ groups, including for Follow-up;
- Optimised ODT Hub capabilities, including taking and assessing donor referrals; mobilisation of SN-OD and organ retrieval teams.

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

- Development of the enabling IT architecture in 2017/18;
- Continued transfer of platform architecture and development knowledge to sufficient numbers of Enterprise Architecture and Solution Delivery staff.

11.4 The Programme expects to continue with the delivery approach used in Years 1 and 2, but will systematically reflect on that approach and adapt to optimise 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 In September 2015, the overall Programme plan was as follows:

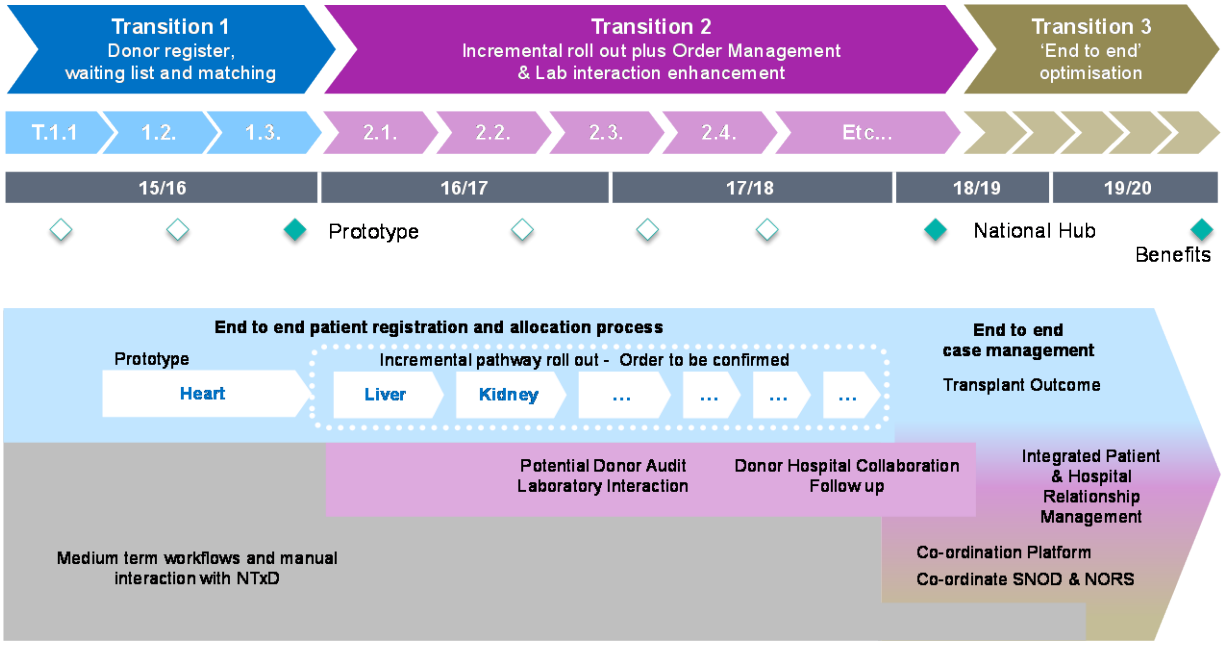

Figure 1: Programme Plan (as at September 2015)

12.4 The programme plan and cost were estimated before the programme was begun. A re-assessment has therefore been undertaken, taking into account:

- The Agile approach to programme delivery;
- Experience derived from activities in the period January 2016 to March 2017;
- A clearer understanding of the costs of developing products on the selected IT platforms and;
- The treatment of Value Added Tax.

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

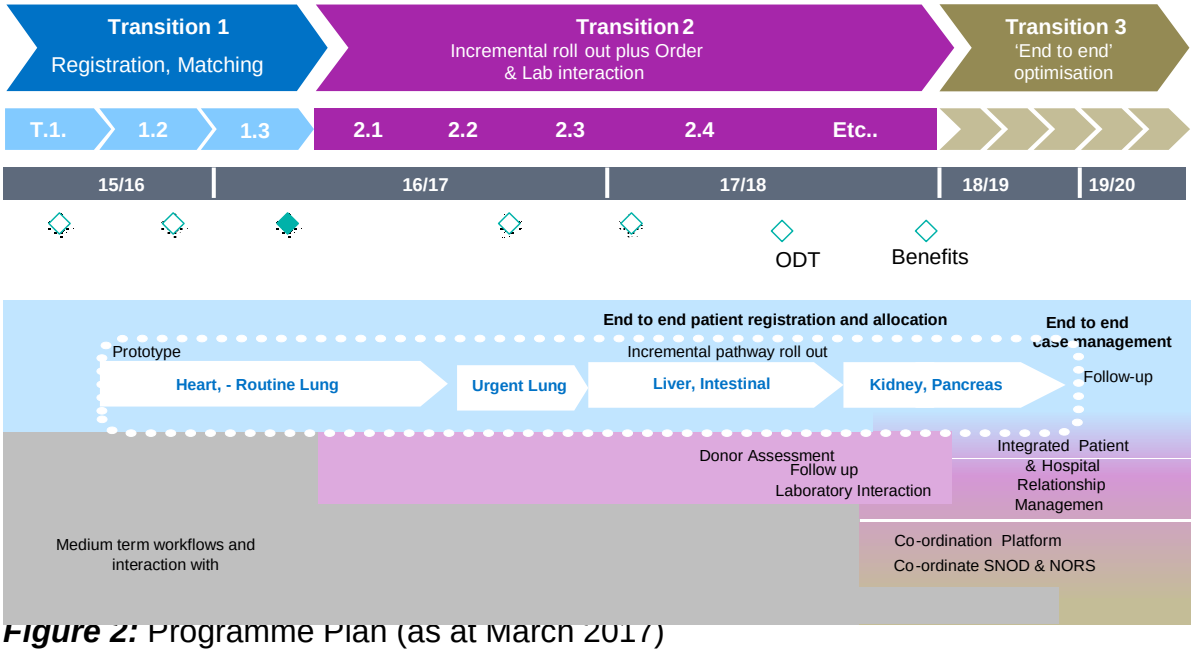

Figure 2: Programme Plan (as at March 2017)

12.6 The financial impact of the preferred option over the 3 Phases to 2020 was estimated in September 2015 at:

Non-recurring cost:	£8.1m (inc. £3.6m already approved to March 2017)
Annual recurring cost:	£0.7m (inc. £0.5m already approved to March 2017)
Recurrent savings:	£1.6m (cash releasing)

12.7 During 2016 NHSBT's VAT Advisors and Her Majesty's Customs & Revenue (HMRC) confirmed that VAT can be re-claimed on distinct items of non-recurring expenditure. The effect of the VAT ruling re-states the 2015 financial impact to:

Non-recurring cost:	£6.7m (inc. £3.1m already approved to March 2017)
Annual recurring cost:	£0.7m (inc. £0.5m already approved to March 2017)
Recurring savings:	£1.6m (cash releasing)

12.8 The main changes to the 2015 Programme Plan and financial forecast incorporate the following:

- Earlier delivery of the Lung Allocation Scheme, set against later delivery of other organ groups (£0);
- Later availability of the CRM platform, delaying the delivery of Transplant List functionality into 2017 (£0);
- Higher costs of solution development; with transfer of BPMS platform knowledge from contractors to in-house IT staff (£0.7m);
- Higher costs of Solution development; without CRM platform knowledge transfer (£0.8m)
- Higher costs of IT platforms integration (£0.8m);
- The potential for a CRM-based solution for ODT resource mobilisation, rather than the platform assumption made in 2015 (up to £1m).

12.9 A high level re-assessment of the 5-year programme's costs has been undertaken. This takes into account that the 2017/18 cost is higher than that forecast in September 2015, before the programme had commenced. The preferred option is now forecast at:

Non-recurring cost:	Range of between £9.2m to £10.2m (inc. £3.1m already approved to March 2017)
Annual recurring cost:	£0.7m (inc. £0.5m already approved to March 2017)
Recurring savings:	£1.6m (cost avoidance)

12.10 The forecast will be refined during 2017 to ascertain if this, and in particular non-recurring costs, remains a valid estimate to implement the ODT Hub.

12.11 The table below restates the original business values to reflect the changes described above:

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
Assumes cost trend continues during 2018/19	1,031	1,968	3,243	2,342	672	9,255
Assumes cost trend continues during 2019/20	1,031	1,968	3,243	2,342	1,672	10,255

13. IMPACT ON STAKEHOLDERS & STAFF IN 2017/18

13.1 During 2017/18, the overall impact for staff is expected to be safer and simpler ways of working.

13.2 A programme of engagement and communication activities will be provided to ODT staff and external stakeholders through a communication plan.

13.3 During 2017/18, the Programme will bring changes to responsibilities related to:

- Administrative tasks;
- Completing recipient information (for Liver Transplantation);
- Organ matching and offering (for Heart, Lung, Liver and Intestinal pathways).

13.4 The Programme is not expected, at any stage, to change responsibilities related to:

- Donor identification;
- Consent / authorisation;
- Retrieval;
- Implantation.

13.5 The key stakeholders involved in developing the vision for the ODT Hub and a programme for its delivery in 2017/18 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 2017/18.

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, a Liver Clinical Reference Group and a Donor Assessment Group.

14.4 During 2017/18, further Clinical Reference Group(s) will be established to provide specialist input and guidance, where necessary.

14.5 The Group(s) will meet as frequently as necessary and their specific remit will be:

- ✓ Providing views, advice and feedback to the Programme Board from the communities that they represent;
- ✓ Providing specialist clinical input and acting as a guidance provider to the programme manager;
- ✓ The design, roles and responsibilities of clinical leadership in the Hub;
- ✓ The process of decision making around triage and allocation;
- ✓ Undertaking a quality assurance role in terms of checking design and policy decisions, options appraisals and reports.

14.6 The OGC Gateway process is currently employed to assess NHSBT programmes at key points in their lifecycle. The Programme was also subject to an independent assurance exercise during 2016/17.

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 2017/18:

Risk Description	Impact	Likelihood	Score	Mitigation
Knowledge transfer from external IT contractors does not take place	4	3	**12**	Ensure NHSBT staff own and lead the Programme; Developing a plan for and tracking the transfer of knowledge to ICT staff; Using suppliers to enhance capability in the short term
Delivering transformation and existing operational services	4	3	**12**	Ensuring that dedicated roles are put in place where required (funded by Programme); or otherwise backfilled
Buy-in and engagement of	4	3	**12**	Early communications and engagement activities;

stakeholder groups				Ensure involvement of key individuals to ensure communication and impact to wider groups is understood
Failure to appoint appropriate suppliers to deliver to time and budget	4	3	**12**	Clear statements of work; ensure any procurement requirements are clearly detailed, ahead of contracting.
The resources required to develop and use new IT platforms are underestimated	5	2	**10**	Detailed plans are based on delivery experience during Year 2; Close engagement and planning across the Programme.
Cross-programme dependencies (i.e. CSM) alter the rate of progress	4	2	**8**	Close engagement and planning with Core Systems Modernisation; Co-ordinated planning for CRM development in shared settings (if appropriate).
Failure to appoint the right capacity and capability to the programme	4	2	**8**	Commitment up-front to resource skills and levels; Using contractors where NHSBT skills are less mature or do not yet exist; Deployment of enough developer resources to take on changes to NTxD and to receive knowledge transfer; Backfill or recruitment to allow involvement of key NHSBT staff.
Disruption to operations	4	2	**8**	Minimum standards will be met before implementation occurs, through testing and planning; A focused Transition Team has been appointed to integrate changes with operational teams.

16. EQUALITY, SUSTAINABILITY AND EMPLOYEE IMPACT

16.1 An Equality Impact Assessment will be completed during 2017/18.

16.2 This is expected to show that the introduction of changes will not have a direct impact on equality or diversity. The assessment will be developed further as the Programme evolves and engages more closely with staff.

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 2017/18, 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 2017/18 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 important Liver Allocation Scheme changes.

17.2 Through its incremental and Agile approach, the Programme will deliver business and IT changes during 2017/18 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 NHSBT to further expenditure.

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Additional information (available on request)

- "Liver Transplantation and the ODT Hub" – a briefing paper
- Costing and resource documentation
- Full Programme Business Case; Years 1 & 2 business cases
- Target Operating Model

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