

NHSBT BOARD

24 NOVEMBER 2016

ODT HUB PROGRAMME – YEAR 2 BUSINESS CASE UPDATE

1. STATUS: Public**2. EXECUTIVE SUMMARY**

2.1 The Board approved the ODT Hub Programme Year 2 Business Case in May 2016. This is the second step in an incremental, multi-year ODT Hub Programme.

2.2 The Programme has delivered Year 2 Business Case benefits scheduled so far.

2.3 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; an end to “white boards” in the Duty Office for Urgent Heart listings; automated previously manual processes; and proven the original solution design assumptions.

2.4 This is also the first business-critical application held in the “Cloud”; consistent with the organisation’s 2015-2020 IT Strategic Framework.

2.5 Based on detailed planning, we are increasingly confident that Year 2 Business Case benefits are achievable. These are in three key areas:

1) Transplant List: a first live release, enabling clinicians to search for Super Urgent Liver patient records; and ending the use of daily faxes of patient lists from the Duty Office.

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; and then development of a Liver prototype.

2.6 Through continued use of transformational design and *Scaled Agile Framework* methods, these benefits are being delivered visibly and progressively.

2.7 The previously noted 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 clear plans to resolve by January 2017, but have contributed to the use of contingency funds.

2.8 The use of contingency funds will be necessary to ensure that the Programme continues to remain on-track to deliver the Year 2 Business Case benefits. The upgrade of the Oracle database to a supported version during Quarter 3 will delay the testing of the Urgent Lung product, driving a later cost to the Programme.

2.9 There are increasing risks to the ODT Hub Programme, as a result of dependencies shared with the Core Systems Modernisation Programme. The main risks are that key software products and common data models are later than planned – including the “CRM” IT platform used for our Transplant List.

2.10 To continue to be successful, progress must accelerate with these necessary enabling developments. The earlier these are resolved, the more likely we are to achieve full benefits.

2.11 The estimated cost of Year 2 activities is unchanged at £2.6m. The Programme will request the use of £0.5m contingency funds, within this overall budget.

3. ACTION REQUESTED

3.1 The Board is asked to NOTE the content of this update, including the expected expenditure of £2.6m (of which £0.5m is contingency) and the dependency on delivery of “CRM” platform preparation by the Core Systems Modernisation Programme.

4. PROGRAMME BACKGROUND

4.1 The transformation of the Duty Office into a Hub is key to ODT reaching its *Taking Organ Transplantation to 2020* strategic vision. The Duty Office, Information Services and Organ Donation and Nursing will be drawn closer together through the use of integrated systems. Those who work in donor and patient environments will be better able focus on the core of their work. Together, these developments will support the increase in donation and transplant activity in a much more controlled and effective manner.

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 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).

4.3 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 Programme was initiated in October 2015 and delivery began during January 2016. Delivery timelines were initially determined by the Platform Selection project, which procured the two key IT platforms.

4.6 In the period before the ODT Hub is fully operational, the existing Duty Office is continuing its programme of incremental improvements including: a new clinical leadership structure, Lean-based improvements to processes and tactical IT and

operating changes (including the trial of case management and eliminating manual processes). These changes are all consistent with the vision for the ODT Hub.

4.7 The proposed timetable for full delivery by 2020 is contingent on successful procurement and deployment 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. PROGRAMME ACHIEVEMENT AND PLANNING FOR 2016/17

5.1 Compared to the Year 2 business case; there have been no changes in scope to date.

5.2 The first organ Matching & Offering product is now in live use. The new Heart and Routine Lung scheme shows that it is possible to integrate new processes and the new IT platform into the existing NTxD system. Depending on the donor and recipient, at least 20 human process steps have been automated; making the process safer, simpler and more supportive.

5.3 The Year 2 Business Case contained the following plan for 2016/17:

	Q2	Q3	Q4
Transplant List	Proof of Design	Develop	Develop
Donor Referral: Central Referral Prototype	Design	Develop	Develop Prep for Live Test
Matching and Offering: Heart and Routine Lung	Transition <i>Service Starts</i>		
Matching and Offering: Urgent Lung	Develop	Transition <i>Service Starts</i>	
Matching and Offering: Liver / Intestinal		Design	Develop
Matching and Offering: Optimise Offering Process for all organs	Ongoing Improvement		

5.4 A detailed re-assessment has resulted in a revised plan, below:

	Q2	Q3	Q4
Transplant List	Proof of Design	Develop	Transition <i>Service Starts</i>
Donor Referral: Central Referral Prototype	Design	Develop	Develop Live Test

Matching and Offering: Heart and Routine Lung	Transition	<i>Service Starts</i>	
Matching and Offering: Urgent Lung	Develop	Transition	<i>Service Starts</i>
Matching and Offering: Liver		Design	Develop
Matching and Offering: Optimise Offering Process for all organs	Ongoing Improvement		

5.5 The main changes are:

1) Transplant List: an enhancement to a full, live release enabling clinicians to search for Super Urgent Liver patient records; ending the use of daily faxes of lists from the Duty Office. There is a critical dependency on the readiness of the “CRM” platform, which is being prepared by the Core Systems Modernisation Programme.

2) Donor Referral and Assessment: no change;

3) Organ Matching and Offering: live use of Heart and routine Lung solutions is now achieved. The development of an Urgent Lung solution is underway, but live release is delayed by 3 months due to the use of testing resources by the Oracle Upgrade project. Based on clinical advice, Liver development will begin as scheduled - but will be developed alone rather than in parallel with Intestinal.

5.6 Other key activities during Year 2 support the transformation required to safely transition these products into live use. These include the preparation of some key enabling IT architecture.

5.7 Key lessons learned during Year 2 to date relate to the use of Scaled Agile methods. The Programme oversaw the organisation’s first use of Scaled Agile earlier in 2016, which has been generally experienced as a positive challenge to work structures and as the enabler of faster, more customer-focused development.

5.8 The Programme has learned that, through assessment under the Scaled Agile framework, it may be more efficient to bring forward some developments to the initial delay of others. This is balanced against knowledge that the more challenging work packages must not be avoided until the end of activities.

5.9 The Programme also gained experience in using external (corporately-secured) resources, new IT platforms and stakeholder engagement. These lessons are incorporated in revised Year 2 planning and are influencing the preparation of the Year 3 Business Case.

6. CAPACITY & CAPABILITY TO DELIVER YEAR 2

6.1 The Programme has revised its detailed resource plan for Year 2 through working closely with Business Owners and supporting functions. This is available separately upon request.

6.2 The Programme has estimated that it does have the capacity and capability to deliver remaining Year 2 activities. This plan assumes that the required levels of resourcing and skills are met and that scope and priorities are controlled.

6.3 Key resource assumptions for the remainder of 2016/17 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 the Core Systems Modernisation Programme - but that key ODT Hub Programme requirements are considered through shared governance;
- An Automated Testing tool is made available – to accelerate testing, reduce dependency on manual testing and speed up delivery timelines. This also supports the ability of the Programme to work on parallel changes and enables the Programme to take on more complexity and to reduce risk likelihood.

6.4 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
- If an external resource needs to be removed, then knowledge transfer re-planning will take place.

6.5 The Board is asked to note the dependency on the Core System Modernisation Programme; notably its preparation of the “CRM” platform. This is detailed further in Section 10 (Risk).

7. IMPACT ON STAKEHOLDERS & STAFF

7.1 During the remainder of 2016-17, the overall impact for staff is expected to be safer and simpler ways of working.

7.2 Engagement and communication activities are being provided to ODT staff and external stakeholders through a communication plan. This is being activated on an activity-by-activity basis, such to Heart and Lung communities on release of changes to these allocation schemes.

7.3 The key stakeholders involved in refining the vision for the ODT Hub and a programme for its delivery in Year 3 (2017/18) are listed in an Appendix, available on request.

8. FINANCIAL COSTS

8.1 Funds of £2.6m requested will be utilised in the period between July 2016 and March 2017. This is likely to include the use of budgeted £0.5m contingency costs.

8.2 The table below provides an updated breakdown of the costs associated with delivering Year 2 activities, including contingency:

	Plan	Forecast	Variance
	£'000s	£'000s	£'000s
Non Recurrent	1,890	2,021	-131
Recurrent	173	173	0
Contingency (NR)	516	162	353
Total	2,579	2,356	223

8.3 Compared to the Year 2 Business Case forecast, additional costs of £0.7m have been identified so far, offset by reductions of £0.5m.

8.4 These costs comprise additional training to support Knowledge Transfer for internal IT staff; IT contractor costs (including those related to the impact of the Oracle Upgrade project); and additional “pre-production” environments for the BPMS IT platform:

Costs above Year 2 Business Case plan:	£'000s	Reason
Additional SQL developers	243	Instead of ODM cost (below)
Additional test manager (contractor)	155	No internal resource available
Configuration manager	97	Costs were assumed to be funded elsewhere, but later absorbed into Hub Programme
Business Analyst	65	
CRM Solution Architect	81	Late requirements
Internal - QA Ops Lead / Statistics	62	
Other: 24/7 support / Environments	92	
Total Additional Pressures	797	
Cost reductions against plan:		
ODM Developers	152	Offsets SQL costs (above)
CRM costs not incurred	136	IT platform not ready
Technical Analysts	63	Resources not required, as a result of additional costs incurred above
Solution Architect	32	
Transition Test Lead	45	
Architecture	28	
Other	48	
<i>Contingency</i>	516	
	1,020	
Net Position (under spend)	223	

8.5 The current forecast suggests a full year expenditure of £2.3m. Recognising the risks described in Section 10, the Programme recommends a forecast of £2.6m (incurring further £0.3m contingency).

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

9. GOVERNANCE & COMMUNICATION

9.1 The Programme will continue to report via a Programme Board, the ODT Change Portfolio Board and then to the NHSBT Transformation Portfolio Board. The Programme remains structured into three main components: Transformation (defining the change); Solution Design (developing the change artefacts); and Transition (embedding the change into live operations).

9.2 A review of Programme Governance has resulted in the creation of a Transformation Design Board; to better co-ordinate the various transformation workstreams. This group will also be responsible for developing the Year 3 business case.

9.3 Communications and Engagement Plan has been updated to provide direction, clarity and purpose to the communications activities during the life of the Programme. The model for communications has been revised during Year 2 and outputs from the Programme are visible. These include a range of communications materials, an overall Clinical Reference Group and a Donor Assessment Group.

9.4 During 2016/17, further Clinical Reference Group(s) will be established to provide specialist input and guidance. This will include a further Group for Liver at minimum.

9.5 The OGC Gateway process is currently employed to assess NHSBT programmes at key points in their lifecycle. However, the Programme's budget also includes a sum set aside for an independent assurance exercise during 2016/17.

10. RISKS

10.1 Programme-level risks with a mitigated risk score of 10 or above are listed below, with a focus on those with relevance during the remainder of 2016/17:

Risk Description	Impact	Likelihood	Mitigated Score	Mitigation
Cross-programme dependencies (notably CSM) change the rate of progress	4	4	16	Close engagement and planning with Core Systems Modernisation; Co-ordinated planning for CRM development in shared settings (if appropriate).
The resources required to develop and use new IT platforms are underestimated	4	3	12	More detailed plans are based on delivery experience during Year 1; Close engagement and planning across the

				Programme.
Failure to appoint the right capacity and capability to the programme	4	3	12	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.
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 stakeholder groups	4	3	12	Early communications and engagement activities; 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.
Disruption to operations	5	2	10	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.

11. CONCLUSIONS

11.1 The programme of work in Year 2 will deliver a significant second step towards the vision for an ODT Hub across three key business change areas.

11.2 Through its incremental and Agile approach, the Programme has already delivered a visible set of products that are safer, simpler and supportive. It has achieved this largely to time and budget.

11.3 The Board is asked to note the expected expenditure of £2.6m (including the expected use of £0.5m contingency). Continued success depends on the delivery of “CRM” platform preparation by the Core Systems Modernisation Programme and other enabling items.

11.4 The Programme is delivering 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, including the forthcoming Year 3 business case.

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Additional information (available on request)

- Full resource, cost and budget breakdowns;
- Communications & Engagement Plan.

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