HCSA (2022)
281-CFCA 2, HCSA Cross Functional Collaboration Award

QUINIAC MRI Procurement Team

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Entry details

Summary Overview

University College London NHS Foundation Trust, (UCLH) are working in partnership with University College London, (UCL) to establish a world leading Quantitative Neuroradiology Innovation and Adoption Centre (QUINIAC) to be located at the new Gray's Inn Road Neuroscience Centre. The Centre (Appendix 1), currently under construction and planned to open in 2024, will be a joint UCL-UCLH facility, supporting both a national specialist NHS service for clinical-neuro-MRI, and UCL's internationally leading neuroimaging research.

The QUINAC team identified the disconnect between technical innovation and clinical implementation (Appendix 2): The ambition of QUINIAC was to accelerate the development & clinical adoption of new quantitative neuroradiology tools to improve patient care by providing earlier and more certain diagnosis or treatment management decisions. To accomplish this, the Procurement team were tasked with identifying a method of integrating the developmental roadmap of industry partners into the health & academic objectives of the facility.

It was decided that the most suitable method of achieving these ambitions was to build the requirements for a 10-year collaborative partnership into the procurement of six state-of-the art clinical 3T and 7T MRI Scanners scheduled for installation. Selecting a competitive procedure with negotiation ensured that the competing internal priorities could be balanced, and the requirements developed whilst leveraging the supplier revenue opportunity.

This project involved collaboration from stakeholders across multiple organisations with expertise in multiple disciplines, working with competing priorities but all towards the same goal.

- UCL Academics & UCLH Clinical and operational staff worked collaboratively to align their requirements for both the scanners and the partnership, ideally equipment installed in 2024 would still be state-of-the-art and therefore delaying the final model decisions was preferable.
- Construction teams, building on behalf of UCL, wanted installation information as early as possible to minimise design changes associated with scanner selection impacting the construction process.
- Suppliers provided information and proposed solutions to problems throughout the procurement enabling the Clinical/Academic teams to shape their expectations for the partnership and the construction teams to finalise design decisions allowing the building programme to progress.
- Project Managers and Advisers representing UCL & UCLH helped to advise on policy, clarify requests and balance the needs of various parties.
- Legal & Commercial teams represented the interests of UCL, UCLH & the QUINIAC team helping to frame contractual commitments and maximise future commercial opportunities.
- Finance & Executive teams from UCL & UCLH assisted in navigating approval procedures spanning both organisations and provided final sign-off around decisions and compromises where necessary.
- Finally the joint Procurement team, led by UCLH, not only designed and coordinated the process to meet demands of the various stakeholders but also helped shape the outcome. A strong understanding of the vision for the centre from all perspectives enabled the procurement team to ask pertinent questions and encourage the parties to consider other approaches which could benefit the project as a whole.

This approach achieved a balance between the competing requirements outlined above and the project milestones whilst maximising value to the authorities and improving outcomes for patients.

I wish to nominate the following person (or group/organisation) for award. I understand that by submitting this nomination I declare that the information I have provided is – to the best of my knowledge – accurate and complete.	✓
Nominee	QUINIAC MRI Procurement Team at University College London Hospitals NHS Foundation Trust
Nominees Job Title	n/a
Nominees Email Address	pia.larsen@nhs.net
Nominees Organisation	UCLH
Nominees Region	London & South
Nominees Telephone No.	+447496577867

Supporting Info

Supporting Statement

Tasked with designing an approach to procure 6x MRI scanners alongside an innovative, but initially undefined, partnership with industry the UCLH Procurement team met with representatives from the UCL Institute of Neurology and UCLH Neuroradiology department along with executive teams overseeing the project. This initial meeting outlined the desired outcomes and identified potential risks, hurdles and milestones that would need to be navigated during the procurement process.

Despite being technically complex, specifying the scanners was to be simple in comparison to the partnership – whilst the QUINIAC vision was well defined, the requirements of a partner were yet to be determined. It became evident that a novel approach to the procurement would be necessary.

The building was not to be operational until 2024, however, construction was scheduled to commence in 2021 – assumptions had been made but additional information, such as Power, Structural Loading and Shielding, was being requested to finalise the design and to allow construction to progress.

The QUINIAC team reiterated their need for the facility to be a world-class centre for Neuroimaging Research and Treatment – this required consideration of the technology available currently, in 2024 and beyond. This uncertainty increased risk in multiple areas including:

- New technology being incompatible with design decisions.
- Committing to innovative technology currently at prototype stage and without regulatory approval.
- Limiting leverage over a supplier if further innovation emerges before 2024.

Supplier scoping meetings were scheduled to increase awareness, promote understanding, and gauge supplier enthusiasm for the project – this engagement highlighted additional considerations not initially apparent from the procureurs perspective enabling the process to be shaped accordingly. For example, a funding gap was highlighted between the approval envelope

and the centres ambitions with the budget based on anticipated scanner costs without consideration of the Partnership elements. Solutions would need to be found during the procurement.

Following these discussions key procurement objectives emerged:

1. The QUINIAC vision was dependent on the Industry Partner also supplying the scanners.
2. Input from potential partners would be vital in defining how the Partnership could operate in practice and surpass common supplier relationship models such as Managed Equipment Services.
3. Construction Design information could not wait until the procurement had concluded.
4. Confidence and visibility of suppliers' developmental pipeline (pre-beta site) would be vital in assessing the risks associated with purchasing technology ahead of regulatory approval.
5. Quantifiable contributions from the QUINIAC team and defined benefits of collaboration would be required by the suppliers if the project was to remain within the £28M budget.

--> Owing to the value of the requirement and these unique considerations a standard OJEU procurement would not deliver on the QUINAC vision.

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Following an options paper appraising the potential procurement solutions the decision was made to run a Competitive Procedure with Negotiation; it was felt this provided the best opportunity to address the five key objectives and meet the demands of the wide range of stakeholders.

1. The decision was made to Tender as a single Lot; tying the Partnership element to the scanner manufacturer – this ensured that future endeavours retained full flexibility over scanner hardware or software modifications necessary for research projects.

2. The procurement integrated feedback loops within the tender process. Feedback was provided to bidders after the Initial Tenders and prior to Negotiation meetings set around topics important to the various stakeholders - following negotiations Bidder specific feedback was provided along with revised specifications based on information gleaned over this period in preparation for final tenders.

   This was particularly beneficial for the Partnership; collaborative development between the Authorities & the Bidders encouraged innovative suggestions, advanced supplier thinking and enabled proposals which may otherwise have been discounted as too ambitious. The ongoing collaboration across multiple stakeholder groups led to a greater understanding of the objectives, requirements, and concerns of others, aiding collective problem solving.

3. Specific Construction related questions, included in the tender, guided the construction team on design direction and ensured supplier model options were not discounted because of construction concerns; again the feedback and negotiation meetings dedicated to these elements were key in ensuring that the build programme remained on track whilst avoiding future costly variations.

4. Concerns around the 7T development and associated timescales for regulatory approval were also addressed during negotiation sessions. Running a complex tender ourselves allowed additional information to be shared under NDA's; access to supplier's strategic intentions and developmental pipelines provided reassurances which otherwise may not have been forthcoming.

5. The negotiations identified opportunities to align strategic objectives, e.g. existing research projects utilising similar techniques which could streamline regulatory approval. These examples helped bidders understand the value of the partnership to them and therefore helped address the funding issue highlighted during the supplier scoping meetings. Further, the tendering structure allowed suppliers to compliantly offer additional benefits as part of the partnership construct.

   To further bridge the funding gap the QUINAC teams were encouraged to promote other ways by which they could offer value to the bidders, this included offers of their own time and expertise to collaborative projects, the availability

of the centre for clinical validation studies and the access to large patient groups. These offers required close oversight by legal and commercial teams who, having been involved throughout the process, were able to represent the interests of both UCLH & UCL and provide invaluable advice around issues such as Data Protection, IP and Profit sharing.

The structure of the procurement and the collaborative relationships which had developed enabled, what would normally be significant challenges, to be smoothed compared to similar instances in the past - this included the requirement for confirmed construction design details and the complex working relationship between UCL & UCLH.

The initial Construction proposal suggested fixing the design and requesting that bidders confirm the compatibility of their proposal or be excluded. This was not deemed viable as would significantly limit the market, the models which could be offered and would preclude innovative technology being installed in 2024. Working this through with Construction teams helped identify various design decisions on different critical paths – breaking these timelines down enabled a generic design to be developed for the radiation shielding design, meeting all bidders' constraints, whilst delaying other decisions until the tender had been concluded.

Secondly were the intricacies of working across academic and health institutions, each entity had their own political behaviours and divergent approaches to problem solving – regular meetings with executive teams from both institutions, led by UCLH Procurement, helped navigate these nuances and reach solutions when blockages emerged.

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The tender process concluded in April 2022 with the purchase of 5x 3T, & 1x 7T scanners, Maintenance and the Partnership being awarded to Siemens for a price ~£24M.

Teams from both UCL and UCLH have expressed their appreciation of the way the project was managed and would be very supportive of conducting future complex procurement in a similar way. Feedback has been provided further highlighting the difficulties of collaboration across multiple organisations with competing priorities and how these objectives were accomplished resulting in a "better deal than appeared possible". (Appendix 3&4)

By the time the process concluded several quantifiable benefits had emerged as a direct result of the way the procurement was structured to promote collaboration and integration between the various organisations, departments, interests, and bidders.

Immediately following award Siemens linked in with the building contractors to confirm the final design decisions – owing to the collaboration throughout the project Siemens were aware of the outstanding queries and had pre-prepared responses. With these answers the construction was able to proceed at pace in-line with their timescales.

Siemens gained an understanding of the QUINAC ambitions and recognised the benefits their future technology could bring to the centre - this led to a next generation scanner, yet to be commercially announced, being proposed to which the Construction teams provided rapid confirmation of its suitability.

The dialogue that was ingrained within the process enabled the evaluators to weigh the risk and benefits associated with the unreleased scanner through access to supplier developmental pipelines and regulatory approval schedules – this would not have been possible through a framework led procurement or without the collaborative discussions and Trust established between bidders and the QUINIAC team.

The final partnership proposal was significantly more advanced owing to much of the collaborative development being completed during the procurement and integrated into the T&C's. This collaboration was offered at zero cost to QUINIAC, contrary to indications at the beginning of the process. Siemens also understood the value of the QUINIAC team to their commercial interests and offered additional resources including PHD funding, placement of onsite Physicists and an innovation fund.

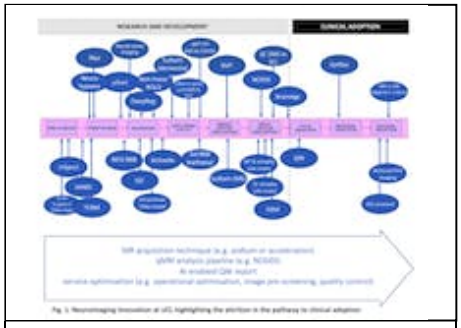
A Joint Steering Committee and an Innovation Board has already been established as part of a tripartite agreement between UCLH, UCL and Siemens (Appendix 5). These initial steps are to be the basis from which information will be shared, research direction determined and the realisation of the QUINIAC vision. The ultimate successes of QUINIAC will be measured by the

practical implementation of novel MRI Protocols into routine clinical workflows, their adoption across the wider healthcare system, and their impact on patients' lives.

Your Name	Tom Lawson
Your Job Title	Senior Procurement Business Partner
Your Email Address	tomlawson@nhs.net
Your Contact number	+447784862495
Your Organisation	UCLH NHS Trust

Log in to hcsa.awardsplatform.com to see complete entry attachments.

Appendix 1 - The... 1.3 MiB



Appendix 2 - Ne... 910 KiB

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Appendix 3 - Pro... 163 KiB

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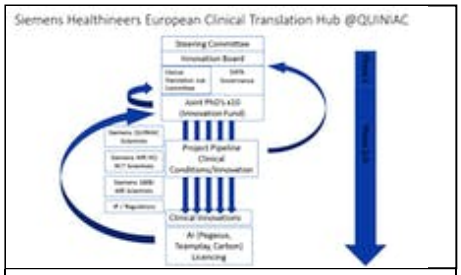
Appendix 4 - Pro... 651 KiB



Appendix 5 - Sie... 104 KiB