

CABINET

11 December 2018

Title: Procurement of Data Analytics and Predictive Modelling for Children's, Homelessness and Adult Services	
Report of the Cabinet Member for Social Care and Health Integration	
Open Report	For Decision
Wards Affected: All	Key Decision: No
Report Author: Mark Fowler – Director Community Solutions	Contact Details: E-mail: Mark.Fowler@lbbd.gov.uk
Accountable Director: Mark Fowler – Director Community Solutions	
Accountable Strategic Leadership Director: Claire Symonds – Chief Operating Officer	
Summary: The purpose of this report is to seek Cabinet agreement for the procurement of EY Xantura data analytics and predictive modelling for children's, homelessness and adult's services. The report is seeking agreement to allow a direct call-off from an open framework, as permitted by the Public Contract Regulations 2015. The frameworks being considered are the G-Cloud 10 framework and the Eastern Shires Purchasing Organisation (ESPO) framework. It also seeks authorisation for the final direct contract award decision to be made by the Chief Operating Officer, in conjunction with the Director of Law and Governance and Cabinet Member for Social Care and Health Integration. The contract award decision report will confirm the contractual term and chosen framework.	
Recommendation(s) The Cabinet is recommended to: (i) Agree that the Council proceeds with the procurement of a contract for data analytics and predictive modelling for children's, homelessness and adult's services in accordance with the strategy set out in the report; (ii) Authorise the Chief Operating Officer, in consultation with the Cabinet Member for Social Care and Health Integration and the Director of Law and Governance, to determine the final procurement route, conduct the procurement and award and enter into the contract and all other necessary or ancillary agreements with the provider, in accordance with the strategy set out in the report; and	

- (iii) Note the approach proposed for an initial mobilisation and scoping phase, aimed at providing additional assurance and validation on expected benefits prior to commencement of the full contract.

Reason(s)

Data and insights about current and future demand and costs on services is critical to supporting the delivery of our commitments to residents as set out in the borough manifesto and corporate plan. Data and insight is required to help identify, prioritise and target the right services, interventions and support to address problems early and before they escalate. This will help enable improved outcomes for residents, while ensuring services offer value for money.

1. Introduction and Background

- 1.1 Community Solutions aims to *help people to help themselves*. The service plays a vital role in bringing the borough vision of *no one left behind* to life.
- 1.2 Community Solutions is at the forefront of council activity to enable and deliver social responsibility -evidence of our new approach to work differently with residents and empowering them to change their lives. The service acts as the front door for all people-based services, identifying the root cause of a person's or family's problems and helping to resolve those problems before they escalate. Community Solutions will help tackle the wicked and complex challenges facing the borough, such as our high rates of domestic violence, homelessness and unemployment.
- 1.3 Community Solutions aims to:
- **Foster resilience and independence:** a new relationship with residents based upon helping them to help themselves
 - **Resolve early:** targeted support to address the root cause of issues early and prevent expensive intervention
 - **Reduce demand:** realising savings through reduction in need for more costly and intensive interventions
 - **Generate savings:** £5m predicted savings by 2020/21 achieved through reduced demand, more efficient working and better use of assets.
- 1.4 To enable Community Solutions to meet these objectives, the service, in conjunction with children's and adult's care and support, needs to:
- Better understand how and why demand flows through the system
 - Identify those cases, citizens and households most at risk of presenting as homeless, or requiring costly safeguarding or children's and adult's interventions
 - Understand the support/services that are most effective in preventing, reducing and delaying costly intervention
 - Optimise resources so they are focused on highest risk and the interventions that are most effective.

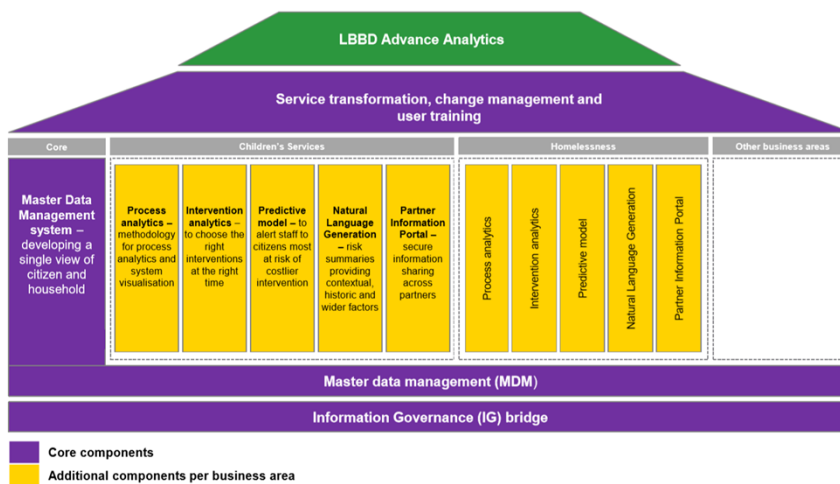
2. Proposed Procurement Strategy

2.1 Outline specification of the works, goods or services being procured

2.1.1 The EYXantura service consists of the development and deployment of data analytics and predictive demand models for children’s social care (including early help), homelessness and adult social care as outlined above, with component parts consisting of:

- Master data management (MDM) and single view of the citizen and household
- Predictive analytics and demand models for children’s and homelessness
- Partner information portal – to support information sharing across agencies
- Natural language generator – to provide decision support tools such as risk summaries to professionals to aid decision-making
- Business change support

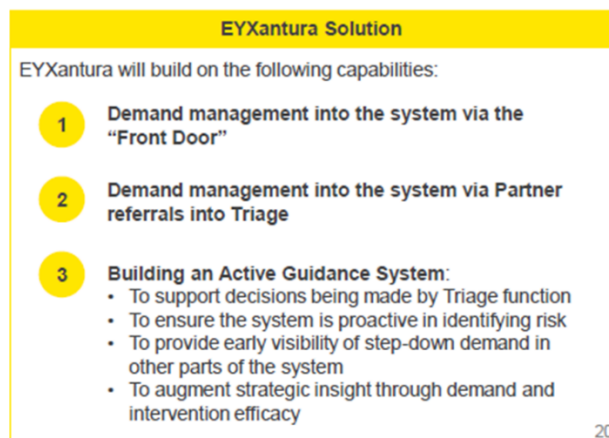
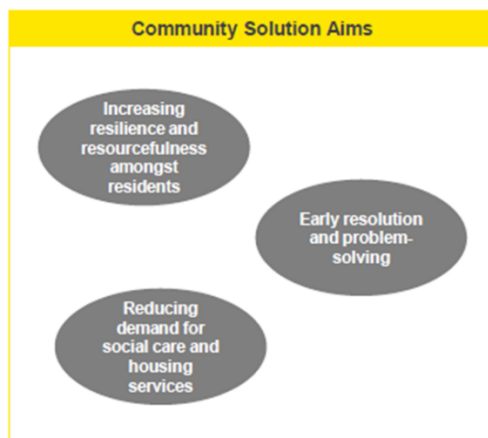
- i. Corporate strategy review to understand local priorities
- ii. Deployment of predictive analytics capability in targeted areas: Children’s and Homelessness prevention
- iii. Scoping of future adults model
- iv. Transformation roadmap and evaluation of future opportunities



Leveraging LBBD Advanced Analytics capacity:

- LBBD has an established advanced analytics capability, we will work with you in a blended team to ensure we are complimenting and building on your existing initiatives to accelerate benefits realisation
- Our approach will provide you with the technological infrastructure to further advance existing capability
- The deployment model will supply pseudonymised matched data exports to LBBD Advanced Analytics team
- This supply would be supported by/ subject to specific Data Sharing Protocols being agreed with data owners
- Our implementation approach will provide the opportunity for LBBD to trial and scope their own models on our infrastructure

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- 2.1.3 EYXantura has been identified as a unique provider in the market, offering a comprehensive corporate solution that uses data insights and predictive analytics to improve decision making, support future commissioning decisions, target resources more effectively and transform services for children and families.
- 2.1.4 EYXantura works in partnership with the London Ventures innovation programme, sponsored by Capital Ambition. The programme focusses on identifying solutions to support London councils meet financial challenges and improve outcomes for residents.
- 2.1.5 EYXantura's approach to predictive analytics in local government stems from the London Ventures programme where they have worked to build an Early Help Profiling System which identifies children most at risk of safeguarding. This model is now built and operational across a number of London local authorities and is supporting services to understand what more data driven decision-making means as part of service transformation. This forms a core part of the service to the council
- 2.1.6 The principles and architecture of the model built for Children's services has applicability for other services which experience volatile and costly demand such as Housing and Temporary Accommodation and these areas also form a core part of the service to the council.
- 2.1.7 Unlike competitors, they offer a complete end to end solution that includes a combination of technical infrastructure, information governance processes, predictive data models and decision support tools which support wider transformation initiatives as well as continued commitment post implementation.
- 2.1.8 In addition, EYXantura are well placed to support the delivery and business change necessary to optimize the benefits of the system and to support the council to ensure data and insights are used to drive decision making, manage demand and deliver efficiencies.
- 2.1.9 To ensure future development and implementation work can be delivered in time and benefits realisation is maximised for the forthcoming financial year, we are proposing to run a three-month pre-mobilisation design phase.
- 2.1.10 The purpose of this phase will also be to ensure the ambition and delivery approach to achieve outcomes and wider council outcomes is widely shared and understood across the council.

2.2 **Estimated Contract Value, including the value of any uplift or extension period**

- 2.2.1 The total contract value over an initial four years is £1,025m. The breakdown of costs profiled annually is summarised below:

Elements	year 1 £(000)	year 2 £(000)	year 3 £(000)	year 4 £(000)	year 5 £(000)	Total 5 year (000)
Master Data Management	100	50	50	50	50	300
Children's	150	100	50	50	50	400
Housing	125	100	50	50	50	375
Adults	50	50	50	50	50	250
Discount	-100					-100
Total cost	325	300	200	200	200	1225

2.3 Duration of the contract, including any options for extension

2.3.1 The preferred route to market set out in this report is an open framework. At the time of writing this report, a decision is pending on the term of the contract award – either a four-year term or a five-year term. A final decision will be taken alongside final decision on whether to procure via G-Cloud 10 or alternative suitable framework (ESPO framework). Cabinet are asked to authorise that final decision on procurement path is devolved to the Chief Operating Officer working with the Director of Law and Governance and Cabinet Member for Social Care and Health Integration

2.4 **Is the contract subject to (a) the (EU) Public Contracts Regulations 2015 or (b) Concession Contracts Regulations 2016? If Yes to (a) and contract is for services, are the services for social, health, education or other services subject to the Light Touch Regime?**

2.4.1 Yes

2.5 Recommended procurement procedure and reasons for the recommendation

2.5.1 This report seeks Cabinet authorisation for the Chief Operating Officer to make the final direct award decision. The recommended procurement route is through the G-Cloud 10 Marketplace or alternative suitable framework such as ESPO.

2.5.2 The recommended approach, pending final decision is via direct award on a 2+1+1 (4-year basis)

2.5.3 This approach maximises the commercial benefits to the council of a 4-year commercial deal, including acceptance from the supplier of terms of the 4 year agreement

2.5.4 The G-Cloud 10 marketplace and ESPO are common frameworks for procurement and aim to reduce the cost and time of procurement by enabling councils to purchase direct.

2.6 The contract delivery methodology and documentation to be adopted

2.6.1 The terms of contract and delivery methodology will be set out in the contract award decision report.

2.7 **Outcomes, savings and efficiencies expected as a consequence of awarding the proposed contract**

This will enable the following anticipated benefits and service enhancements:

- **Informed and targeted interventions** – having a single view of a household or individual will allow frontline staff to select the most appropriate and effective course of action on a case-by-case basis
- **Reduce demand for social care and housing services, generating savings** – the combined effect of better targeted interventions and the predictive element of early identification of those at risk, should prevent problems from deepening and ultimately requiring costly crisis support
- **Improve resident outcomes** – all of the above will improve resident outcomes and quality of life by preventing the escalation of need. We will be able to more effectively help people help themselves.
- **Savings** - support potential savings case of £1.2m by year 3 with potential £1.2m annually thereafter. The savings case for adult social care will be defined in the 3-month scoping phase
- **Interventions and commissioning** – improve understanding and evidence about which interventions realise the greatest impact, in order to inform commissioning decisions about what services provide greatest value and benefit
- **Access to multi-agency data** - giving the ability to generate chronologies for households and individuals allowing better decision making by our practitioners and a full understanding of the needs and services engaged by the household

2.8 **Criteria against which the tenderers are to be selected and contract is to be awarded**

2.8.1 Not applicable

2.9 **How the procurement will address and implement the Council's Social Value policies**

2.9.1 **Social responsibility.** Community Solutions is at the forefront of council activity to enable and deliver social responsibility -evidence of our new approach to work differently with residents and empowering them to change their lives. The service acts as the front door for all people-based services, identifying the root cause of a person's or family's problems and helping to resolve those problems before they escalate. Community Solutions will help tackle the wicked and complex challenges facing the borough, such as our high rates of domestic violence, homelessness and unemployment.

2.9.2 **Growing together – inclusive growth.** The service will help ensure more people are enabled or supported to maintain a home, a job, an income and general well-being – key pillars to leading healthy, safe and fulfilled lives – a key council priority. In doing so, the service directly contributes to improving access and take up of employment, jobs, education – helping to ensure growth is inclusive.

2.9.2 **Encouraging civic pride.** Community Solutions also recognises and is working closely with community and voluntary organisations and local people through many initiatives aimed at nurturing and supporting resilient.

2.10 **Contract Management methodology to be adopted**

2.10.1 The contract management methodology to be adopted will be confirmed in the contract award decision report.

3. **Options Appraisal**

3.1 **Option 1: do nothing** – by doing nothing, the council will continue to be unable to accurately understand how and why demand flows across children, adults and housing and therefore, limits the council's and community solutions ability to better predict future demand, optimize resource and better target early interventions to reduce, delay and prevent demand on costlier acute services. This would also put at risk delivery of significant savings.

3.2 **Option 2: alternative supplier** - this service could be tendered; however, no other providers are in the position to provide the combination of technical infrastructure, information governance model, predictive data models and natural language programming for decision support tools or as well placed to support the delivery and business change required.

3.3 **Option 3: use council resource** – council resource in the form of the Insight Hub is already in use and is proposed to continue in collaboration with the provider. However, the council does not have the means to accelerate its demand modelling capability nor to make the results of this available to professional and operational staff in a format that assists them make better decisions. The technical infrastructure, information governance model, proven predictive models and decision support tools for operational staff and decision-makers will enhance the council's Insight Hub offer

4. **Waiver**

4.1 Not applicable.

5. **Consultation**

5.1 Consultation has been carried out (using a mix of individual meetings, demonstrations and meetings) with a range of key officers and council groups as part of the decision-making process underpinning this procurement strategy and proposal. This includes discussion and consideration of the business requirement for the services, the business case, the expected benefits and savings case.

- Director of Transformation
- Chief Operating Officer
- Director of People and Resilience
- Operational Commissioning Director's – Children, Adults
- Head of Commercial Services
- Head of Procurement
- Insight Hub Manager

- Community Solutions Strategy Board
- Programme Management Office
- Elevate – IT and Transformation Leads

5.2 The proposals in this report have been considered and endorsed by the Community Solutions Strategy Board and the Procurement Board.

6. Corporate Procurement

Implications completed by: Euan Beales, Head of Procurement

6.1 The report outlines that the preferred route to market is an open framework. The recommended framework is G-Cloud 10. It is noted that the final approval will be conducted by the Chief Operating Officer once a formal decision has been made in reference to the term.

6.2 From a governance view, the use of an open pre-procured framework complies with the Councils contract rules and EU legislation. At this point I agree with recommendations as set out in the report as to using an open framework as the route to market, and the decision will be ratified by the production of an Award report to outline that the decision had been an informed one, and this will also outline the outcome of the contract term, so I can see no reason not to approve the recommendations as set out in the report.

7. Financial Implications

Implications completed by: Chris Randall – Interim Finance Accountant for Transformation

7.1 There currently exists a budgetary provision of £550k within Community Solutions (Transformation) Capital IT funding to cover most of the first two years of the EY Xantura costs. The balance is to be funded from the savings identified by EY Xantura themselves.

7.2 Specific conditions relating to the contractual delivery to be set out in the contract award report will look to safeguard council funds, including annual review.

8. Legal Implications

Implications completed by: Kayleigh Eaton – Senior Contracts and Procurement Solicitor

8.1 This report is seeking approval for the procurement of a data analytics and predictive modelling system for children's, homelessness and adult's services. The report is seeking approval to allow a direct call-off from the G-Cloud 10 Framework and award a contract to EY Xantura.

8.2 The Public Contract Regulations 2015 (the Regulations) permits contracting authorities to call off valid frameworks in order to procure goods, services and works, as required. In compliance with the principles of the Regulations this procurement process has to be transparent, non-discriminatory and fair. It is noted

that this framework has been procured in compliance with the Regulations and permits local authority access.

- 8.3 The requirements for competitive tendering, as contained within the Council's Contracts Rules are therefore met as Rule 5.1 (a) advises that it is not necessary for officers to embark upon a separate procurement exercise when using a Framework Agreement providing the Framework being used has been properly procured in accordance with the law and the procurement is made in line with the Framework terms and conditions.
- 8.4 The Children Act 2004 emphasises the importance of safeguarding children by stating that relevant partner agencies - which include the police, children's services authorities, Clinical Commissioning Groups and the NHS Commissioning Board - must ensure that functions are discharged having regard to the need to safeguard and promote the welfare of children.
- 8.5 The Act also states that they must make arrangements to promote cooperation between relevant partner agencies to improve the well-being of children in their area. Well-being is defined by the Act as relating to a child's:
 - a. physical and mental health and emotional well-being
 - b. protection from harm and neglect
 - c. education, training and recreation
 - d. the contribution made by them to society
 - e. social and economic well-being
- 8.6 The procurement of data analytics and predictive demand models for children's social care will identify children that are showing an increasing pattern of alerting features. The model provides a system which provides information to safeguarding professionals – generating alerts for high risk children that are not already known but where it is likely that maltreatment is either already occurring or is likely to occur in the near future.
- 8.7 The professional will use this information, alongside professional judgement to determine whether further action is required. The model aims to increase the efficiency with which multi-agency data can be collected in addition to reducing the number of safeguarding cases.
- 8.8 Human Right implications-consideration should be given to people's right to a private life, which is protected by Article 8 of the Human Rights Convention. Article 8 requires public bodies to respect the private life of an individual and any information held about them. Section 6(1) of the Human Rights act 1998 states it is unlawful for a public authority to act in a way which is incompatible with a Convention right.
- 8.9 The council must be able to justify storing or processing of any personal data. It must also meet a pressing social need in a way that's proportionate. Article 8 states: "There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others". The procurement

of data analytics and predictive demand models for children’s social care potentially has a legitimate aim of being for the protection of health and morals and economic wellbeing.

8.10 The Council will need to ensure that the storing or processing of any personal data complies with the requirements of the Data Protection Act 2018 and the General Data Protection Regulation 2016/679.

8.11 The Law and Governance Team do not see a reason why the recommendations of this report should not be approved and will be on hand to assist and advise as required.

9. Other Implications

9.1 **Risk and Risk Management** – Key risks identified at this stage are as follows.

Risk	Action
Key stakeholders are not engaged or aware of proposal	3 month pre-mobilisation phase to raise awareness and engage stakeholders. Proposal and approach agreed through Community Solutions Board and senior stakeholders
Proposal does not contribute to corporate priorities	Strategic fit and market analysis completed
Solution duplicates existing capability	Proposal is designed to build on relevant capability such as the council’s Insight Hub

9.2 **TUPE, other staffing and trade union implications** - None

9.3 **Corporate Policy and Equality Impact** - As outlined above, the service will help the Council to ensure more people are enabled or supported to maintain a home, a job, an income and general well-being – key pillars to leading healthy, safe and fulfilled lives – a key council priority. In doing so, the service directly contributes to improving access and take up of employment, jobs, education – helping to ensure growth is inclusive and sustainable.

9.4 **Safeguarding Adults and Children** – The proposed service to be procured will provide data, insights and information that will help the council and Community Solutions ensure that help and support is prioritised at the children, young people and households who are most vulnerable and at greatest risk. In doing so, it will help improve the well-being and outcomes for these children and adults, while ensuring due regards to guidance issued under the Children Act 2006 and the Care Act 2014.)

9.5 **Health Issues** – The proposed service to be procured will provide data, insights and information that will help the council and Community Solutions ensure that help and support is targeted at addressing health and well-being needs early and before they worsen and escalate.

Public Background Papers Used in the Preparation of the Report: None

List of appendices: None