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| | (Decision 110473) |

Cabinet

Procurement of Phase 3 of the Data Modelling Service for Thurrock Council

Wards and communities affected:	**Key Decision:**
All	Key

Report of: Councillor Gary Collins, Cabinet Member for Central Services and Councillor Sue Little, Cabinet Member for Social Services

Accountable Assistant Director: Rory Patterson, Corporate Director, Children's Services

Accountable Director: Jackie Hinchliffe, HR, OD and Transformation

This report is Public

Executive Summary

During the last 4 years, as previously agreed at Digital Board and as part of an ongoing Transformation programme, Thurrock Council has been actively working to harness the benefits of using data analytics technology to develop a predictive modelling platform. This was primarily to help identify children within Thurrock who, without early intervention, were likely to become "at risk" in the future.

Predictive modelling was, and still is, very much on the leading edge of data analytics. By using complex algorithms it is possible forecast future demand of specific services. The later the engagement point with a service; the more complex and costly the service is likely to be to deliver. By intervening earlier we can help manage demand and mitigate the risk of engaging at such late stage - thus delivering better outcomes with fewer complexities.

In June 2018 a Public Spending on Children in England: 2000 to 2020 report, commissioned by the Children's commissioner for England (Anne Longfield), has identified that Half of England's £8.6bn children's services budget is being spent on just 73,000 of the most serious cases - those in care. The rest of the money is spent on the remaining 11.7 million children, says the Institute for Fiscal Studies. In the report, the Children's Commissioner for England states that:

"While every child should receive the support they need, the economic and social costs of this current strategy are unsustainable. The cost to the state is

ultimately greater than it should be and the cost to those vulnerable children missing out on support will last a lifetime."

"Every day we are seeing the consequences of helping children too late - in pressures on the family courts system, special schools and the care system, and in the spiralling numbers of school exclusions and the consequent increase in younger and younger children linked to violent street gangs".

"Children do not arrive in extreme need overnight and many could be prevented from getting to that point if we helped them sooner in a more effective way".

"We are, in effect, attempting to manage and contain crisis in children's lives after allowing it to escalate".

This timely report proves that Thurrock Council is at the forefront of using advanced data analytics to transform its service delivery models and create the most optimum and effective outcomes for Thurrock's children/residents.

Around 3 years ago, and as a result of a successful initial pilot using historical Council data, we implemented a children's risk stratification model that supports the Early Offer of Help for families (Phase 1) who would be engaged via the MHCLG sponsored Troubled Families programme. The model uses pseudonymised data collected from primarily council data sources to identify children at higher risk of statutory interventions (higher risk families being offered early help services). This latterly evolved into the Troubled Families programme being part of the Brighter Futures Programme.

During the early part of Phase 1, the data analytics system identified >50% of the families that have now attached to the Troubled Families programme. Data Analytics are now responsible for identifying 100% of Thurrock's TF attachments.

Building upon the success of Phase 1, further enhancements (Phase 2) were introduced in 2017 which focussed primarily on expanding the cohort of data sources in order to deliver proactive alerting, into the MASH operation, of Children at high risk of entering Safeguarding services. Professionals are then able to use this information to make informed decisions on what further action to take.

Although not yet fully implemented we are already seeing >80% accuracy with predicting children who are likely to enter the Safeguarding/complex needs system within the 9 months following the point when data extracts are analysed. This output is also being used to support the Children's Service Review programme that is currently underway.

The next phase planned to run from 2018 – 2020 (Phase 3) takes the Council's Transformation Programme to a completely new level by not only continuing to enhance the support and delivery of the Brighter Futures

programme (which includes the MHCLG sponsored Troubled Families initiative) but also introduces three new critical areas of data analytics:

- Homelessness prevention
- ASB profiling
- Informed debt collections

Such wider use of Data Analytics is fundamental to service transformation across multiple services and will be a major contributor to the review of Business Intelligence functions across the Council.

Currently the contract for the Data Analytics Service is held with Xantura Ltd who have performed well in all aspects of service delivery.

Over the life of the project the projected total capital cost of £1.14m (including phase 3) is expected to be at least offset by additional grant income. This arises from the attachment of families through the MHCLG programme for troubled families and the Council has already received grant income of £0.94m from this following the work complete in phases 1 and 2. A further amount of up to £2m is expected in phase 3 and hence the project is expected to be at least cost neutral.

This spend is budgeted for within the capital programme.

The capital costs are charged to revenue over a life of 10 years and hence the maximum revenue charge in a single year would be £0.065m for the Capex plus the annual licencing costs.

A further £0.05m revenue saving is expected through efficiencies gained within the business intelligence function as a result of improved data analytics.

Other significant, but as yet unquantified, efficiency savings are expected as data intelligence increases further and business processes are re-engineered as a result of output from Phase 3 of the data analytics project. This project is also positively impacting the current cross-cutting Service Review programme.

1. **Recommendation(s) – Cabinet is requested to:**

1.1 **Agree to proceed to procurement for Phase 3 of the Data Analytics Service as set out in this report.**

1.2 **Approve delegated authority to award the contract to the Director of HR, OD and Transformation in consultation with the Portfolio Holder for Central Services.**

2. **Introduction and Background**

2.1   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 make sure that functions are discharged having regard to the need to safeguard and promote the welfare of children.

2.2   The Act also states that they must make arrangements to promote co-operation 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:

1.   physical and mental health and emotional well-being ('be healthy')
2.   protection from harm and neglect ('stay safe')
3.   education, training and recreation ('enjoy and achieve')
4.   the contribution made by them to society ('make a positive contribution')
5.   social and economic well-being ('achieve economic well-being')

2.3   The Early Help Profiling System (EHPS) uses data from multi-agency sources to identify children that are showing an increasing pattern of alerting features. The model provides a secure system to push information to safeguarding professionals – generating alerts for high risk children that are not already in the safeguarding system but where it is likely that maltreatment is either already occurring or is likely to occur in the near future.

2.4   The professional will use this information 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.

2.5   Phase 1 of the Data Analytics project was developed to deliver early offers of help to Troubled Families which latterly forms part of the Brighter Futures Programme.

2.6   Phase 2 of the Data Analytics project delivers proactive notifications of children at risk together with allowing professionals the ability to verify referral risk and take more appropriate and targeted action.

2.7   Phase 3 will continue to deliver the ongoing benefits of Phases 1 and 2 utilising the perpetually improving data streams. Over and above the enhancements to Phases 1 and 2, Phase 3 offers further analytical modelling that supports the Council's key objectives to combat ASB, Homelessness and proactively support our most vulnerable residents.

2.8   All phases of the Data Analytics project unequivocally align to the Council's Transformational themes and Service Design principles embedded throughout all Service Reviews for positively influencing Demand Management through early intervention and intelligence.

3.   Issues, Options and Analysis of Options

3.1   Thurrock Council and Xantura Ltd. have been working in partnership for the last four years to build a robust pseudonymised data flow between various internal and external partners – currently there are 39 active data streams and a further 14 under various stages of positive engagement.

3.2   Each established data stream has been through our Information Governance and GDPR compliance processes and Information Sharing Agreements are in place with each provider.

3.3   With the requirement to move the service on to the next phase, the two options for procurement are set out below:

3.4   **Option 1**

3.4.1   The Council could proceed with a full tender for Phase 3 (the predicted spend is above the EU threshold for Services).

3.4.2   This would be a lengthy process, taking approximately six months as officers would need to unpick development to date in order to accurately specify the future requirements. Potentially the project may need to be paused whilst this exercise was underway.

3.4.3   Should an alternative supplier win the bid, this risks undoing the last four years' worth of data capture and modelling already in place, or at least significant delay and additional cost.

3.4.4   Appointment of a new supplier would also bring the need to re-establish new data sharing agreements with the current 39 data streams. Data modelling and testing would also need to be restarted. Both elements generate significant risk to even maintaining the status quo.

3.4.5   Additionally, there are significant risks of failing to deliver the final two years of the MHCLG's Troubled Families initiative (with a potential loss of up to £2m to the Council).

3.5   **Option 2**

3.5.1   The Council could award the Phase 3 contract through the Crown Commercial Services RM1059 framework. This is a Public Contracts Regulations 2015 compliant public purchasing framework open and available for Local Authorities to use. A number of suppliers are in place, including Xantura Ltd (working through the Bramble Hub), who can provide services from which Thurrock Council can choose the most suitable.

3.5.2   Using this framework will be a much quicker process than running a full tender. Officers can assess suitability against the criteria and either carry out a mini competition (where more than one supplier is able to meet the

requirement) or select a direct award if only one has the relevant skills/experience/development capacity.

3.6 Recommendation

3.6.1 For the reasons set out above, it is recommended that the procurement is progressed through the Crown Commercial Services RM1059 Framework. This is the quickest option and will allow the Council to select the most suitable supplier from a very niche market that includes the incumbent, Xantura Ltd.

4. Reasons for Recommendation

4.1 This report is presented to Cabinet as the cost of implementing Phase 3 over a further 2 years will bring the total projected spend (6 years overall duration) to £1.14M with annual operational licencing costs of circa £190k. Cabinet is therefore asked to approve this award as a key decision.

5. Consultation (including Overview and Scrutiny, if applicable)

5.1 Stakeholders that are involved in the current service delivery include:

- Children's Service
- Adults Services
- Housing Services
- Revenues and Benefits
- Community Safety
- Public Health
- YOS
- Essex Police
- Thurrock CCG
- NELFT
- EPUT

5.2 Progression of phase 3 will include further stakeholder engagement where necessary.

6. Impact on corporate policies, priorities, performance and community impact

6.1 This project will deliver/ positively contribute to the delivery of the objectives of all three of the Council's visions and priorities:

- People – a borough where people of all ages are proud to work and play, live and stay.

- Specifically through early identification of children at risk.

- Place – a heritage-rich borough which is ambitious for its future
  - Specifically through proactive identification of vulnerable residents.

- Prosperity – a borough which enables everyone to achieve their aspirations
  - Specifically through early identification of troubled families that will benefit from early offers of help.

6.2 Other benefits include:
- Greater accuracy of profiling ASB activity by correlating it to specific unrelated events that, in isolation, may never be identified as events that trigger ASB incidents.
- Further longer term analysis of such data may ultimately be able to assist families avoid potential Homelessness.
- Such further analysis will allow us to identify, earlier, those residents that may be mentally, physically or financially vulnerable. Giving us an opportunity to determine and implement our most appropriate support mechanisms as sensitively and timely as possible.

7. Implications

7.1 Financial

Implications verified by: **Jonathan Wilson & Dammy Adewole**

Chief Accountant & Management Accountant

Financial implications are clearly set out in the body of the report.

7.2 Legal

Implications verified by: **Kevin Molloy**

Solicitor

Purchasing through a public framework, such as those managed by the Crown Commercial Services, is a compliant method of procurement for services valued above the EU threshold. The RM1059 Framework is currently operational and includes suitable suppliers providing data analytics services.

Officers have the option of a direct award or mini-competition in order to select the most suitable supplier to meet service requirements.

The project manager will keep Legal informed throughout the process in order to ensure compliance and correct contract execution.

7.3   **Diversity and Equality**

Implications verified by: **Natalie Warren**

Strategic Lead – Community Development and Equality

Although there are no direct implications arising from this report, adoption of the systems will enable a more targeted approach to supporting vulnerable residents

7.4   **Other implications** (where significant) – i.e. Staff, Health, Sustainability, Crime and Disorder)

Implications verified by: **Michelle Cunningham**

Community Safety

The introduction of ASB analytics in Phase 3 of this project will contribute to the Council's duty to deliver on Section 17 of the Crime and Disorder ACT 1998 and safeguarding of children by reducing crime and anti-social behaviour throughout Thurrock through the correlation of isolated, possibly unrelated, lifestyle events that may ultimately lead to proactive intervention being offered to individuals or families.

8.   **Background papers used in preparing the report** (including their location on the Council's website or identification whether any are exempt or protected by copyright):

- None

9.   **Appendices to the report**

- Appendix 1 - Procurement Stage 1 Form

Report Author:

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