PFCC

POLICE, FIRE AND CRIME COMMISSIONER FOR ESSEX

PFCC Decision Report

Please ensure all sections below are completed

Report reference number: 137/19
Classification: Not protectively marked
Title of report: Business Case for Essex Centre for Data Analytics (ECDA), Funding Proposal 2019/21
Area of County/Stakeholders affected: Essex County, Essex Police/PFCC, ECC, Essex University.
Report by : Mark Johnson **Date of report: 03/09/19** **Enquiries to: Mark Johnson 42078336**

1. Purpose of report

To present the business case for the Essex Centre for Data Analytics' (ECDA's) Funding Proposal 2019/21.

2. Recommendations

To fund the ECDA data sharing platform and shared posts, through funding agreed.

3. Benefits of Proposal

Essex Data work to date has supported applications for £3 million in funding bids based on evidence and insight.

As part of each pilot the joint datasets have identified:

- 280 households that are not known to public services where children are most likely NOT to be ready for school. This could save public services £294,840 per annum (fiscal savings associated with improved school readiness on entry to reception year age 4-5).

- 82 output areas for vulnerable children at risk of exploitation and CSE which could cost public services £718,400 per annum.
- 200 households that are predicted to escalate to high risk domestic abuse. This could result in costs incurrent by public services of £567,200 per annum (average cost per incident, fiscal, economic and social values).

Overall Essex Data has identified communities at risk of undesirable outcomes with future costs to public services. If these areas are supported with effective early intervention and prevention activities as a result of new and targeted insight, activities could result in £1,580,440 financial savings per annum from these three areas alone[1]. For future projects, there is a prioritisation approach to ensure maximum benefit and opportunity realisation in line with partners' organisational priorities. Governance is also in place across the partner organisations to ensure effective use of insight delivered to provide benefits to residents and financial savings.

Like all other Offices of Data Analytics (ODAs) it is not possible to separate out the value of the insight versus the value of the interventions. As a result, a hypothesis is made that smarter evidence based decisions as result of this insight lead to other non-financial savings. Based on the New Economies Manchester (NEM) model, it is estimated that each partner could realise up to £180,000 in non-cashable savings based on cost avoidance and time savings from the three projects listed above.

4.   Background and proposal

Over the last 4 years Essex Police, Essex County Council and the University of Essex have delivered a partnership programme named Essex Data that helps to tackle important issues earlier through smarter use of data. Essex Data has worked on four prototype concepts that have:

- Fostered a culture of data sharing for analytical purposes

- Increased the number of partners who demonstrate confidence and trust to share data, despite a nervousness created by GDPR

- Informed community initiatives and mobilised support enabling community led activity to be shaped

- Enabled commissioners to make evidence based decisions to target early intervention services in areas that need it the most

- Established a network of professions amongst partners - sharing skills and knowledge

- Raised our reputation nationally for shared use of data and analytics

As part of the Essex Vision, the partnership aims to build on the success of Essex Data by creating an Essex Centre for Data Analytics (ECDA). This will be a joint venture between Essex Police, Essex County Council and the University of Essex with the ambition to make Essex a national leader, using the power of analysis, data

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[1] These benefits are calculated using the Unit Costs Database from the New Economies Manchester model and take the average fiscal, economic and social costs for DA, CSE and school readiness to public services. The derivation of the costs and the calculations underpinning them have been quality assured by New Economy in co-operation with HM Government.

science and Artificial Intelligence (AI) to tackle key public policy / social challenges (Violence, Domestic Abuse, Mental Health and Homelessness). This will allow the partnership to continue making better use of data to improve outcomes for the people of Essex.

5. Police and Crime Plan

The bid directly relates to all of the 7 key priorities in the PFCC's Police and Crime Plan:

Priority 1 - More local, visible and accessible policing

Priority 2 - Crack down on anti-social behaviour

Priority 3 - Breaking the cycle of domestic abuse

Priority 4 - Protecting children and vulnerable people

Priority 5 - Tackle gangs and organised crime

Priority 6 - Reverse the trend in serious violence

Priority 7 - Improve safety on our roads

6. Police Operational Implications

N/A

7. Financial Implications

In order to deliver the ambitions set out by the Sponsors (Essex's Chief Constable, ECC's Chief Executive and Essex University's Vice Chancellor), the partnership needs to invest in a simple, cost effective data sharing platform that facilitates data sharing in a safe, scalable and more cost effective way. This has been integral to the Essex Data projects and will to be imperative for the success of ECDA. The contract with the exiting supplier, Predict X ends in July 2019 and has facilitated:

- The partnership loading 5-8 new data feeds per annum to date. Up to 45 datasets were loaded by the end of July 2019 containing over 2 billion data points. Up to 5TB of data loaded is estimated.
- Basic levels of access to data and data hosting (data in and out) including 'data ready for use' functionality.

The new platform should provide easy loading and storage of *all* forms of data:

- Structured (numeric/single field)
- Semi structured (text based)
- Unstructured (images, sound, censor, documents)

The platform should be able to link these data and deliver 'ready for use' functionality, as well as direct access to these data. Longevity is important and the platform must keep pace with the rapidly pace change in technology and analytics.

Finally the platform will be secure with the ability to pseudonymise data and ensure that each partner can protect their own data and control access to their data.

= Platform est £270k cost per annum

There is also a requirement to invest in core resources that lead on the set up of ECDA. These are minimum staffing levels as a starting point for ECDA and will require additional inputs from the key players. Minimum resource includes:

- X1 Head of ECDA
- X1 Communications and Engagement Manager
- X1 Project Support and Governance Officer
- X1 Data Scientist
- Implementation costs including information and data legal expertise and procurement.

= Posts est cost £225k cost per annum

TOTAL cost estimated = £495k per annum
Shared between three organisations = £165k each (full year basis)

The total PFCC commitment will be £100k in 2019/20 and then £165k per annum for a further two years, amounting to a total cost of £430k over the 3 year period. The agreed funding stream is the Operational Transformation Reserve (OTR).

8.   Legal Implications

Procurement is based on a high-risk procurement (over £164k) with a restricted tendering process, so a Pre-Qualification Questionnaire (PQQ) in advance of the main Invitation to Tender (ITT) to avoid having to deal with an overwhelmingly large number of bidders. We are investigating the option to use the G-Cloud digital framework which will be a shorter procurement process.

- The preferred approach is to procure an externally hosted and fully managed solution that provides the functionality to meet the project requirements. This type of solution will devolve the ongoing responsibility of support, maintenance and security from any one partner to the preferred supplier who will have experience in this field.
- When a preferred supplier is identified and the costs and pricing model is known the results will be presented to the Analytics Partnership Board for approval before the contract is signed.
- During the procurement cycle a working group will be set up to include representatives from the delivery team, Finance, Information Governance, Information Security and partners and reporting back to the Analytics Partnership Board. This will ensure that Procurement, Information Governance and Information Security regulations are being adhered to and that any system procured meets all partners' needs.
- The transition period will be agreed with the current supplier and new supplier (if relevant) to ensure that there is no disruption to the technology or work being carried out. We are working on the basis of a 2-3 month transition period at the end of the existing contract to ensure maximum value, however we will need to hold discussions with the current supplier to agree the details.

- The Head of Seven Forces Procurement has been consulted in this approach and is working with the Head of Analysis to ensure this approach meets the requirements of Essex Police and the PFCC.

The preferred supplier has been identified and has been put forward for consideration to the ECDA sponsors.

9.   Staffing and other resource implications

TRAINING REQUIREMENTS

There are no direct training costs with this business case. The PAU business case does cover training costs for analysts / data scientists that will work on ECDA data projects. Essex Police is also working with Essex University on the provision of training for analysts / data scientists. This training is currently provided at zero cost to Essex Police.

IT CONSIDERATIONS

No additional IT packages or equipment are required with this business case. IT colleagues have been briefed on the original ECC business case and the need for regular data provision into a cloud based platform.

10.   Equality and Diversity implications

N/A

11.   Background papers

ECDA business case

ECDA business case
FINAL PN input.doc>

Report Approval

The report will be signed off by the OPFCC Chief Executive and Treasurer, prior to review and sign off by the PFCC / DPFCC .
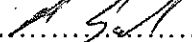
Chief Executive/M.O   Sign: ....

                                 Print: .P.Brant-Brenwod.

                                 Date: ..4 October 2019

Chief Financial Officer/Treasurer   Sign: ....

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                                 Date: ......7|10|19

Publication

Is the report for publication?   **YES** $\boxed{\text{x}}$

NO $\boxed{}$

If 'NO', please give reasons for non-publication *(state 'None' if applicable)*

~~Business Case~~

If the report is not for publication, the Chief Executive will decide if and how the public can be informed of the decision.

Redaction

If the report is for publication, is redaction required:

1. Of Decision Sheet   **YES** $\boxed{\textit{illegible}}$ **2. Of Appendix**   **YES** $\boxed{\textit{illegible}}$

NO $\boxed{\times}$ **NO** $\boxed{\times}$

If 'YES', please provide details of required redaction:

First two paragraphs of the benefits statement to be redacted.

Date redaction carried out: ....

Treasurer / Chief Executive Sign Off – for Redactions only

If redaction is required, Treasurer or Chief Executive are to sign off that redaction has been completed.

Sign: ....

Print: ....

Chief Executive/Treasurer

Date signed: ....

Decision and Final Sign Off

I agree the recommendations to this report;

Sign: ....

Print: .... R. C. HIRST ....

PFCC/Deputy PFCC

Date signed: .... 14/05/18 ....

I do not agree the recommendations to this report because;

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Sign: ....

Print: ....

PFCC/Deputy PFCC

Date signed: ....