London Borough of Hammersmith & Fulham **CABINET MEMBER DECISION** ***7 April-16***	h&f hammersmith & fulham

BUSINESS INTELLIGENCE TECHNOLOGY UPGRADE	
Report of the Cabinet Member for Finance: Councillor Max Schmid	
Open Report	
Classification - For Decision (delete as appropriate) **Key Decision: No**	
Wards Affected: None	
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> AUTHORISED BY: ....
> **The Cabinet Member has signed this report**
> DATE: ......**7 April 2016**

1.   **EXECUTIVE SUMMARY**

1.1.   LBHF has a proven track record in delivering benefits from intelligent use of data. In excess of £3m has been delivered over the past three years in a combination of reduced cost and increased income.

1.2.   There is a large potential for Business Intelligence (BI) to enable the delivery of further benefits, both cashable and non-cashable. A modest start has been made in generating commercial income from BI and there is a desire to exploit this opportunity.

1.3. To maximise the potential of the service a review and upgrade of the technical infrastructure is required. The potential benefits of this are:

- Enabling end-user self- service and so freeing up scarce analyst capacity to focus on 'higher value' work
- Automation of repetitive tasks such as data extraction and load and so freeing up scarce analyst capacity to focus on 'higher value' work
- Provide a professional state-of-the-art platform that would add credibility when marketing services
- Deliver a secure channel to facilitate efficient collaborative working with clients and partners without spending long periods off site.

1.4. The recommended approach is a six-month phase of work to:

- Add analytical resource from the interim market and transfer workload from the existing team
- Add business change capability from within Innovation and Change Management (ICM) (already funded)
- Adjust roles in the Insight and Analysis (I & A) team within ICM to focus on development of the service
- Recruit a specialist business intelligence architect to design the technical architecture for the service, create a business case for investment in the technical solution for sign-off by appropriate governance bodies, implement the solution.

1.5. The cost of this is estimated at £91,500. This can be funded from underspend from previously approved budget for the shared service BI pilot that completed at the end of September 2015.

1.6. Failure to proceed with this work means that LBHF will not maximise the potential of its BI capability to meet internal demand and would reduce the potential commercial gain from the service.

2. RECOMMENDATIONS

That the cabinet member for finance agrees

2.1. To fund one analyst from the interim market for a period of 5 months to free analyst capacity to focus on service development. The estimated cost of this is £38,500

2.2. To fund a technical architect for five months at a cost of £53,000 to design a technical architecture for the service, develop the business case and start implementation.

2.3. To draw funding from underspend from the BI shared service pilot.

2.4. That the remaining underspend estimated at £272,500 is held, pending the delivery of a further business plan as the service develops and further income/savings are delivered.

3. REASONS FOR DECISION

3.1. LBHF has an excellent track record of delivering significant return on investment enabled by its BI service. To exploit this fully and yield significant commercial benefits a fully-fledged BI service needs to be developed from the existing I & A team.

3.2. Funding is required to provide specialist knowledge and capacity to support the development of the business case as well as to exploit existing opportunities, further enabling the achievement of the MTFS and other council priorities (effective achievement of the Council's Smarter Budgeting, the delivery plan and becoming the best council).

3.3. Failure to proceed with this work would mean that LBHF does not maximise the potential of its BI capability to respond to internal demand, deliver savings and generate commercial revenue.

4. EQUALITY IMPLICATIONS

4.1. There are no equality implications.

5. LEGAL IMPLICATIONS

5.1. There are no particular legal implications arising from this report.

Legal implications competed by Rhian Davies, Chief Solicitor.

6. FINANCIAL AND RESOURCES IMPLICATION

6.1. **Costs**

The costs associated with this proposal are summarised in the following table.

Role	No.	Day Rate/Salary	Months	Total
Technical Architect	1	£ 500	5	£ 38,500

Analyst	1	£ 350	5	£ 53,000
Total				**£ 91,500**

6.2. **Benefits**

The estimated benefits from BI that will be delivered during this period are that will be generated during the period covered by this proposal are

Project	Estimated Benefits (£000)
Freedom Passes	£150
New Homes Bonus	£100
SPD (External data)	£150
SPD (Council data)	£150
Rent Arrears	£120
Total	**£670**

The following projects will also be delivered during this period

- Worklessness and Poverty Commission – identifying key priorities for the Commission, identifying gaps in our knowledge and developing research proposals. Demographic and Business profiles developed and "deep dives" commissioned. Ongoing support to the Commission to be provided by I&A staff.
- Business Commission – yet to meet, but requesting information on businesses and the local economy. Analysis of the business survey when it has been sent out. Early profiles of key sectors (such as STEM industries completed). Ongoing support to the Commission to be provided by I&A staff.
- Smarter budgeting outcomes transformation programme – each analyst from the I&A team is a member of at least 2 of the 8 outcome teams
- Business Rates – a model to identify potential business rate fraud will be developed, tested and implemented.
- CDRP projects as a result of the Strategic Assessment process – these include a focus on victims, offending (for both youths and adults) and ASB. Prototype being developed to predict (spatially) fly tipping, noise nuisance and ASB.
- Preventing Homelessness – project to predict those households most at risk of approaching as homeless, and once they have approached, predict the outcome.
- Youth Offending – extend the On Track model to try and predict those children and young people most at risk of offending.
- Local Plan evidence base – this includes a refreshed Housing Market Assessment and a new Local Economic Assessment. Also includes an analysis of "Buy to Leave" properties.
- Iterations of the HMO model – refresh of the approach to identify potential unlicensed HMOs in the borough.

- Commercial work – it is expected that in this period the I&A team will work for two London Boroughs on a number of projects as well as support further bids.

6.3. Cabinet[1] previously approved funding of £784,000, from the Efficiency Projects Reserve, for an 18 month BI Service Pilot. This was based on developing shared service working.

6.4. The pilot is now complete and the updated financial position, and proposed use of the funding, is set out below:

Approved Budget (Cabinet April 2014)	£784,000
Less Forecast Expenditure on the Pilot	(£346,000)
Budget remaining	**£438,000**
Subsequent spend	
Consultant costs to develop options and costings for an LBHF BI model	(£35,000)
Shortfall in 2015/16 funding for the LBHF Head of BI post	(£15,000)
Four graduate attachments	(£24,000)
Budget remaining	**£364,000**
Cost of this 6 month proposal	(£91,500)
Funding Unapplied	**£272,500**

6.5. Should the proposals in this report be taken forward then an estimated £272,000 of funding will remain uncommitted. This will be held pending the follow-up business plan to be presented.

6.6. *Comments verified by Andy Lord – Head of Strategic Planning and Monitoring*

7. IMPLICATIONS FOR BUSINESS

7.1. There are no implications for business from this proposal

8. RISK MANAGEMENT

The primary risk to this work is the level and volatility of demand, both internal and external, for the time and expertise of personnel from the Insight and Analysis team who are crucial to delivery. This must be mitigated through rigorous capacity planning and close management of the project.

Iterative development mitigates the risk of waste, and helps a BI programme remain highly relevant, whilst enjoying widespread, sustainable user-adoption. BI requirements, project scope/parameters, reporting needs, data models and data sources will always be in a state of relative flux. Failing to account for these likely (or practically inevitable) changes between the

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[1] 7th April 2014

requirements gathering and implementation phase of a BI project can lead to the introduction of a solution that fails to reflect true business needs and is poorly aligned with the Councils goals. – The recommendation to fund one Analyst and a Technical Architect would in practice mitigate these risks sufficiently to satisfy both reporting and analysis necessities.

Risk Management comments verified by Michael Sloniowski, Shared Services Risk Manager telephone 020 8753 2587.

9. PROCUREMENT IMPLICATIONS

9.1.   The Council's Contract Standing Orders (CSO) requires that the Chief Officer follows the procedures set out in CSO 23.1 where the value of engaging consultants falls between £5, 000 and £100,000.

9.2.   *Implications verified/completed by: Robert Hillman, Procurement Consultant – tel. 020 8753 1538*

10. BACKGROUND PAPERS USED IN PREPARING THIS REPORT

None

Appendix 1 - Analysis

BACKGROUND

LBHF has a demonstrable, successful track record of achieving an attractive return on investment enabled by the BI capability provided through its Insight and Analysis team by for example:
- reducing waste
- reducing fraud
- enabling evidence-based policy development and decision making
- generating additional commercial income
- enabling service transformation.

Over the last three years benefits in excess £3m have been generated through a number of projects including:

- Identifying and cancelling incorrectly claimed single person discounts on council tax
- Cancelling freedom passes where the holder was no longer entitled to a pass.
- Identifying properties that were listed as empty but where there was evidence of occupancy and so enabling a claim for New Homes Bonus.

Some of the BI products used to achieve these benefits have been sold to London boroughs whose BI capability is less mature.

LBHF has received feedback that it is considered a leader within local government in its use of data to drive business decision making and initial analysis indicates that there is significant opportunity to sell a number of BI products to local authorities across the UK. LBHF wants to exploit this commercial potential. These opportunities are being pursued through individual business cases through the Commercial Revenue Board.

PROPOSAL AND ISSUES

The success of the I & A work has resulted in an unprecedented level of demand from LBHF services. Recent additions to the workload include Worklessness and Poverty Commission, Business Commission as well as supporting all 8 outcomes in the Smarter budgeting - outcomes transformation programme.

Forecasts for the first half of 2016 peak at 11 FTE indicating that there will be a significant shortfall in capacity to meet internal demand alone. This does not take into account unplanned work which represents a sizable proportion of demand on the service – whilst some of this demand can be managed, most of it is high profile work in support of members.

Contract analysts are being recruited to resource early commercial projects and graduate placements are being used to supplement the team to meet internal demand. The use of graduate placements is not sustainable in the as they are

employed on short-term contracts with short notice periods and are will be looking for longer term employment.

Developing the LBHF BI capability to better enable it to meet the increasing internal demand as well as being capable of exploiting the commercial opportunity will require:

- extra capacity to handle the increased workload

- additional skills such as sales and marketing, information governance and delivery management

- design and implementation of a technical infrastructure that takes advantage of modern software tools to automate repetitive tasks and enable end-user self-service

Upgrading the technological infrastructure has the potential to:

- enable publication of data and provide end users with interrogation capability. Increasing self-service in this way will improve efficiency and reduce workload such as Freedom of Information requests and ad hoc enquiries

- automate repetitive tasks such as production of regular reports, data extraction and load

- provide a professional, state-of-the-art platform that is seen as essential to add credibility when marketing services.

- offer a secure channel to facilitate collaborative working with clients and partners negating the need to spend protracted periods on site.

It is estimated that the efficiencies afforded by a technology upgrade will free up around 1.5 FTE from the I & A team (to be verified as part of the development of the business case). This will enable this capacity to focus on higher value activity such as more sophisticated analysis, research and development or commercial opportunities.

The operational and technical designs require additional skills and capacity in areas such as business change and technical architecture. They require significant contribution from the I & A Team, their knowledge of data and services and their technical know-how.

The work will be undertaken over a six month period following the approval of this paper after which a follow-up business plan will be produced. The key steps in the process are as follows:

Add a temporary analytical resource from the interim market to supplement the I & A team. This is essential:

- to meet ongoing demand ensure delivery of both internal and external commitments
- to free up officer time to contribute to the design of the service

Add business change capability and capacity from ICM to support existing pipeline of projects, work on developing the Target Operating Model and support the development of the business case for the technical solution.

Adjust the role of one FTE from the I & A team to provide essential input to

- technical architecture design and implementation.
- target operating model for the service.

Recruit a contract specialist business intelligence architect to design technical architecture and the proposed solution and to create the business case for the necessary investment for sign off by appropriate governance bodies. They will also lead the implementation of the solution.

The deliverables from this phase of work will be

- Technical architecture
- Technical solution
- Business case for the implementation of technical solution
- Implementation of technical tools and infrastructure.

OPTIONS AND ANALYSIS OF OPTIONS

The option to participate in a shared service has been dismissed as it doesn't fit with the LBHF strategy.

A 'do nothing' option does not address the risks inherent in the current situation due to the increase in workload. It would also result in failure to realise the significant commercial income opportunity. The current technical infrastructure is fragmented and outdated. It does not have the capability to enable automation and self-service that is built in to modern toolsets. Failure to invest would appreciably impair the Council's ability to achieve the vision of 'Best Council'.

Funding for additional analysis capability will create capacity, allowing the existing team to focus on higher value work, enabling the Council to achieve a greater level/earlier delivery of benefits, faster achievement of the Corporate Delivery plan and exploitation of some commercial opportunities without impacting on LBHF work.

Appendix 1 - Analysis

Investment in business change, information governance and technical architecture is essential to developing the service into a capability fit for maximising the commercial opportunity.