Warwick District Council

ICT Steering Group – Neighbourhood Services data capture exercise

Digital services so good that people prefer to use them

WARWICK DISTRICT COUNCIL

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ICT Steering Group – Data Capture

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Title
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1 Business Problem Analysis

1.1 Business Problem

Provide a summary of the core business problem, including:

Neighbourhood Services is responsible for the management of the Council's parks and open spaces, woodlands, trees, car parks, wildlife areas, sports pitches etc. At present the data relating to these areas is held in a number of formats including paper, spreadsheets, and digital, all of which are inaccurate and out of date. This is a significant problem as not only is this data used on a daily basis to respond to customer enquiries, insurance claims and service requests it is also used to form the basis of contracts let and managed by the Council.

A data capture exercise was undertaken approximately 20 years ago with the information drawn on paper plans, which subsequently were transferred into a digital format by a private company over 10 years ago. The digital information contained links to a contract management system called "Confirm" which held the site detail and measurements, although these were not consistent with the information generated by the Council's GIS.

No process was put in place to update this information and therefore over time it has become less and less accurate. When the base information was collated ready for the 2013 Grounds Maintenance Contract the team had to carry out manual measurement checks and redraw the information on paper plans as there was not sufficient time to complete a data capture exercise, therefore the measurements used were of questionable accuracy.

Since the letting of the grounds maintenance contract a part re-measure has been undertaken of certain areas at the request of the Council's grounds maintenance contractor, which has identified significant errors and resulting claims for additional payments of approximately £25k per annum.

There have also been a number of instances where areas have been maintained that are not in the Council's ownership, and areas that are owned by the Council but not included within the contract. This has implications for insurance claims and resulting financial settlements should the council be found culpable in its monitoring/maintenance arrangements.

The Council is reviewing its approach to asset management to ensure it is clear on the lifetime costs of assets and likely timescale for replacement. This information lends itself to being held geographically to aid identification, reporting and instructions to contractors rather than the current spreadsheet format.

Access to information on line is becoming more important and accurate open space data could be surfaced to enable a number of general enquiries from residents to be dealt with through self-service.

Open space information relating to grave plots in the Councils cemeteries is also required; however this is seen to be a more specialist area of work that would need to be carried out by companies that provide bereavement services ICT systems.

Housing & Property Services have also identified similar gaps in some of their data including non-adopted highway, garage sites, bus shelters, street furniture, drying areas etc. It is proposed that this data would be captured at the same time although funded through the HRA.

2 Preferred Solution

2.1 Surveying Options

Date capture can be addressed in a number of ways and to varying degrees of accuracy. The cheapest method is to use in-house resources, use existing information as a base and make manual updates over a period of time. However this can become a long drawn out process depending on competing priorities, and also leaves a doubt as to the degree of accuracy that can be achieved using non specialist staff.

Soft market testing has identified a method of data collection that combines current hard copy data, OS base maps, aerial photography and Google Street View. This builds up the open space data from these various sources but also has a questionable degree of accuracy due to limited ground survey work.

The most accurate method of capturing open space data is through ground surveys using professional surveying companies, although also the most expensive method.

2.1.1 Benefits, Goals and Measurement Criteria

Category	Benefit	Value
Financial	• When a more accurate set of data has been established the cost of the Grounds Maintenance Contract may increase or decrease, but it will at least be accurate. • More accurate data in conjunction with land ownership validation will enable insurance claims to be dealt with more effectively and help to mitigate potential claims. • Will help to avoid future contractual claims resulting from inaccurate measurements.	£Unknown at this stage Total cost to date £100k
Operational	• Will give an accurate data set on which to manage the Grounds Maintenance Contract. • Will allow speedy access to electronic information rather than having to continually search through hard copy maps. • Will avoid the need to continually reproduce inaccurate paper plans. • Will provide an accurate data set that can be displayed spatially to assist contract delivery. • Will provide an accurate and up to date data set on which to base future grounds maintenance contracts. • Gaps in current data sets can be filled as part of this process (HRA non adopted highways, drying areas, garage sites, car parks etc.	
Customer	• Will enable open space survey data to be surfaced via the Council's website to enable customers to check areas maintained by the Council and planned maintenance activities. • Additional functionality would enable customers to report issues spatially, and enable feedback to be given on work progression / completion.	
Staff	• Brings this element of the service up to date and move away from hard copy maps. • Makes the implementation of mobile working easier to achieve	

2.1.2 Digital Benefits

Description	Value
Will enable all residents to view the areas maintained by the Council and associated maintenance regimes.	
Open space survey data is used on a daily basis by most members of staff within Contract Services, and also other Service Areas including H&P and Cultural Services.	
Ability to present and manipulate data spatially.	

2.1.3 Costs and Funding Plan

Capital Costs	Amount
• Initial software purchase	£0
• Data gathering	£50k
• New hardware	£0
• Temporary additional resources	£0
Total	**£50k**
Revenue Costs	**Amount**
• Software licence costs	£0
• Support costs	£0
• Permanent additional resources to maintain/operate system/process	Use existing resources
Total	**£50k**

For both the capital and revenue amounts identified above, please indicate how the funding will be made available.

Funding Source	Amount	Notes
To be discussed	£50k	Subject to scope of the project and tender process.

2.1.4 Risks

Summarise the most apparent risks associated with the adoption of this solution.

Description	Likelihood (1 – 5)	Impact (1 – 5)	Mitigating Actions
The cost of the Council's Grounds Maintenance Contract could increase	2	3	Specifications could be amended to take account of some increases in measurements.
Data is still inaccurate after project has been completed.	1	5	If the correct method of date capture is used and the project managed effectively the likelihood of this occurring should be minimal.
The cost of data capture is greater than that anticipated.	2	3	The scope of the data capture needs to be clearly defined to avoid project creep, and additional requirements being added at the last minute.
Failure to maintain the data after the project has been completed.	1	5	Appropriate data management processes and resources to be identified as part of the project scope.

To complete this section thoroughly, it may be necessary to undertake a formal Risk Assessment. To reduce the likelihood and impact of each risk occurring, clear 'mitigating actions' should be defined.

2.1.5 Issues

Summarise the highest priority issues associated with the adoption of this solution

No.	Issue - Description
1	The ability of the data capture contractor to understand the extent of the area to be surveyed
2	The ability of the Council to validate the accuracy of the data captured in a reasonable time scale
3	The skills / time to enable the data that has been captured to be kept up to date
4	The additional task of checking land ownership data.

2.1.6 Assumptions

List the major assumptions associated with the adoption of this option.

No.	Assumption - Description
1.	This project will be funded corporately as there are no budgets set aside for data capture.

3 Implementation Approach

This section not only requires the service area to understand its business objectives, but to clearly understand the scope of the activity. In doing so, consideration should be given to the 'digital design principles'. Special consideration should be given to whether all the customer transactions for a specific process should be in scope. For example, if a process deals with 10,000 transactions annually, of which 8,000 are identified as easy to deal with, then perhaps this is sufficient for the scope of the project.

3.1 Outline Project Scope

- Carry out soft market testing with data capture companies to determine methodology and likely cost.
- Model likely data capture costs.
- Identify project resources to deliver the project.
- Produce business case and attain sign off from ICT Steering Group.
- Develop ICT technical specification to ensure the format of the data captured is compliant.
- Agree data capture needs with other Service Areas
- Develop specification which sets out the scope of the data capture required.
- Agree appropriate procurement method.
- Agree project funding.
- Let tender and award
- Contract mobilisation
- Acceptance testing of data capture
- Resolve and data capture issues
- Sign off data
- Load into GIS
- Train user/users to update
- Ongoing update of data

3.2 Service Area Resources

Please use this section to describe how the service area is going to produce the necessary capacity to deliver the project. Specific consideration should be given to:

- Project Manager - NS Service Development Officer
- Design Team – Combination of NS officers, H&P officers and ICT
- Testing - Green Space Team
- Training – GIS Manager
- System Owner - Head of Neighbourhood Services

3.3 ICT Services Resources

- Assistance will be required to prepare tender specifications, especially in regard to the format of the data to be captured and associated attribute fields, specific ICT standards/requirements and data acceptance criteria.
- Assist in the evaluation and award of tenders.
- Assist in mobilization of data capture and testing of sample data to ensure compliance with the specification.
- To transfer data captured into the relevant GIS system, and support the training of users to check the quality and accuracy of the data captured.
- To assist in the sign off of the data captured, put in place appropriate controls and back up procedures. Assist in training the users to interrogate the data, and identify the appropriate resources to ensure the data is kept up to date.