

How To....

Quantify and realise the benefits from e-Auctions

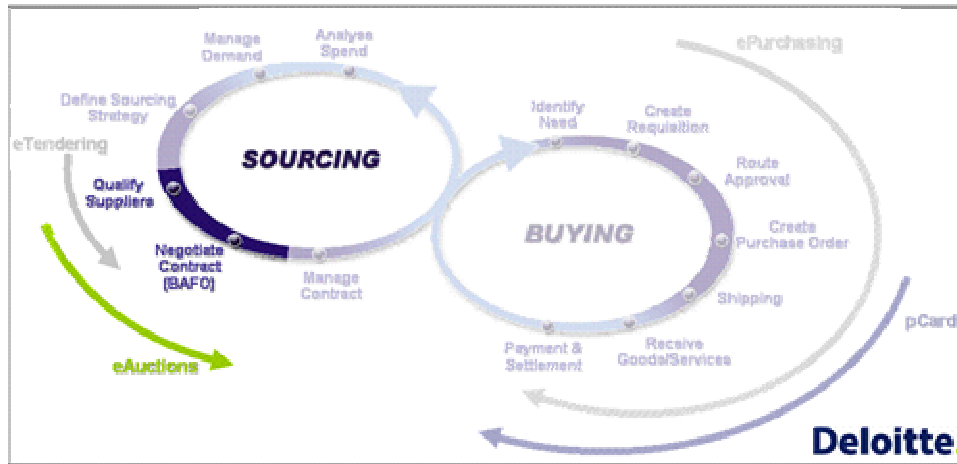
Detailed Guidance Note

National e-Procurement Project: Benefits Realisation Strand

How To..... Quantify and realise the benefits from e-Auctions

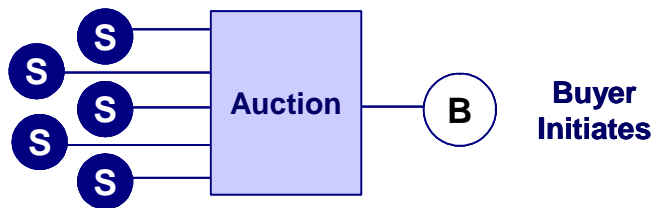
EXECUTIVE SUMMARY

What is an e-Auction?



Whilst e-auctions have a track record in the private sector and parts of the public sector, they are new to local government. Therefore, e-auctions should be carefully evaluated and procurement expertise should be available. For smaller authorities who are considering using e-auctions, arguably there would be greater benefits available and less risk if they chose to join a consortium that was using e-auctions in their tender processes.

An e-auction is a means of carrying out purchasing negotiations via the Internet.



It is a real time event that occurs online, allowing multiple suppliers in different geographic regions to place and modify bids simultaneously. Buyers can customise e-auctions to their requirements, although a typical auction would allow each supplier to view their bid position and / or the value of the lowest bid with the identity of the suppliers being withheld. e-Auctions are not necessarily based on price only – a range of factors consistent with the principle of Most Economically Advantageous Tender can be incorporated into the evaluation.

As the above diagram illustrates, an e-auction is a component of sourcing – selecting a supplier and agreeing a contract. It therefore builds on good procurement practice and is not a substitute for it. An e-auction is part of a thorough procurement process that has

How To.....

Quantify and realise the benefits from e-Auctions

understood the authority's requirements and market conditions. An e-auction is most appropriate where the specification of the goods or services can be tightly drawn. Auctions can only be applied successfully to a tightly controlled procurement process. Proper planning and controls are essential to a successful e-auction outcome. The e-auction solution may only be used for a couple of hours within a procurement cycle that may span several months.

*"In order to conduct a successful e-auction the specification must be tight, which involves a lot of clarification upstream of the price submission which otherwise would have to be conducted downstream. This allows suppliers to remove any 'factors of safety' built in due to uncertainty over contract deliverables. Prices are then reduced by a transparent price submission environment, the e-auction."
Simon Butt, National Contracts Manager, Environment Agency*

Why should I be interested?

There is increasing evidence from the private sector and wider public sector that e-auctions can deliver incremental benefits. The evidence from local government is thin, since very few authorities have undertaken an e-auction. Taking the evidence overall, e-auctions could be expected to deliver:

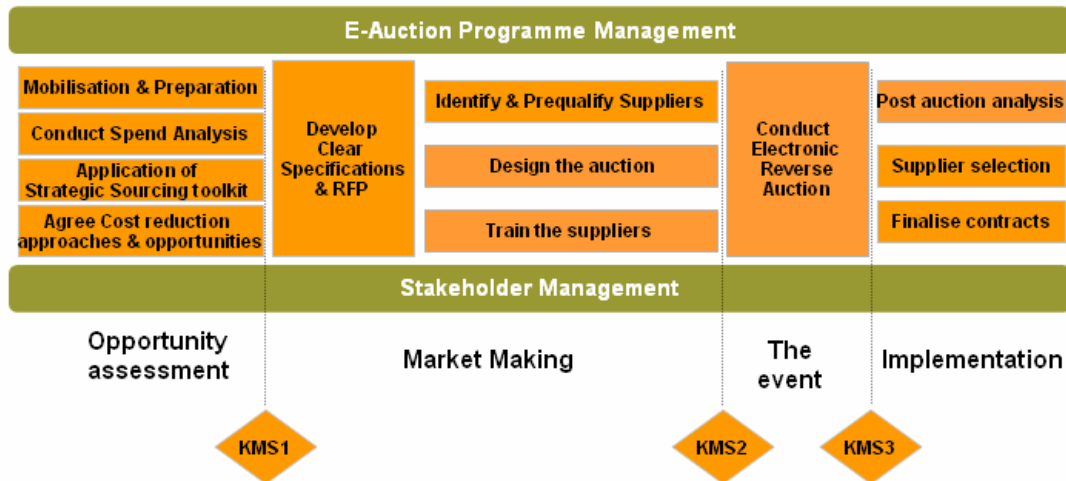
- Incremental savings in the cost of goods and services of up to 18% can be achieved by some organisations for certain commodities. For example, if an authority can achieve a saving of 5% on a commodity through e-purchasing, the use of an e-auction could increase this to 5.9%;
- Savings in process time and costs associated with the Best and Final Offer (BAFO) stage of a procurement. There is insufficient evidence to quantify this benefit;
- Valuable intangible benefits such as:
- A level playing field for suppliers by providing standardised processes and communication throughout the BAFO stage;
- Encouraging unambiguous and accurate specification which helps to crystallise the buyer's requirement and provides the necessary clarity between buyer and supplier;
- Producing a history of the BAFO process that would highlight the impartiality of the buyer's sourcing decisions. Internal audit departments see this as being advantageous, particularly if they wish to review the audit trail for the award of a particular contract. The recently adopted EC Procurement Directives emphasise transparency of award criteria.

e-Auctions can, therefore, play a role in helping an authority to make best use of the financial resources available to it – releasing incremental money to be invested in service delivery or key technology initiatives.

How To..... Quantify and realise the benefits from e-Auctions

How do I get started?

There are four key stages to an e-auction, as summarised in the following diagram:



What are the challenges?

The key challenges to driving out the benefits from e-auctions are:

- Authorities will need to invest money and time to both identify their opportunity from e-auctions and to deliver the expected benefits;
- The limited experience of running e-auctions in local government implies a degree of risk. e-Auctions may, therefore, be more appropriate for individual authorities or consortia characterised by more sophisticated procurement resources and processes;
- e-Auctions are not appropriate for all expenditure incurred by authorities. The scope of e-auctions, therefore, needs to be carefully considered;
- Contract compliance is critical – there is evidence that the actual benefits achieved from an e-auction are less than expected because usage of the contract is less than planned. Change management and management information are crucial components of delivering benefits from an e-auction.

Where can I get further information?

A detailed “How to” guidance note for e-auctions is available on the IDeA Knowledge website. This contains fuller information on the benefits available from e-auctions (including benchmarks), how to identify your benefits opportunity and how to deliver that opportunity.

In addition, other NePP guidance notes address core issues around the delivery of benefits – technology, change management and supplier adoption. These guidance notes can also be found on the IDeA Knowledge website (www.idea.gov.uk/knowledge/eprocurement/).

INTRODUCTION

This guidance note is one of a series of four, each concerned with a key component of e-procurement – e-purchasing, procurement cards, e-tendering and e-auctions.

The essence of each guidance note is to provide:

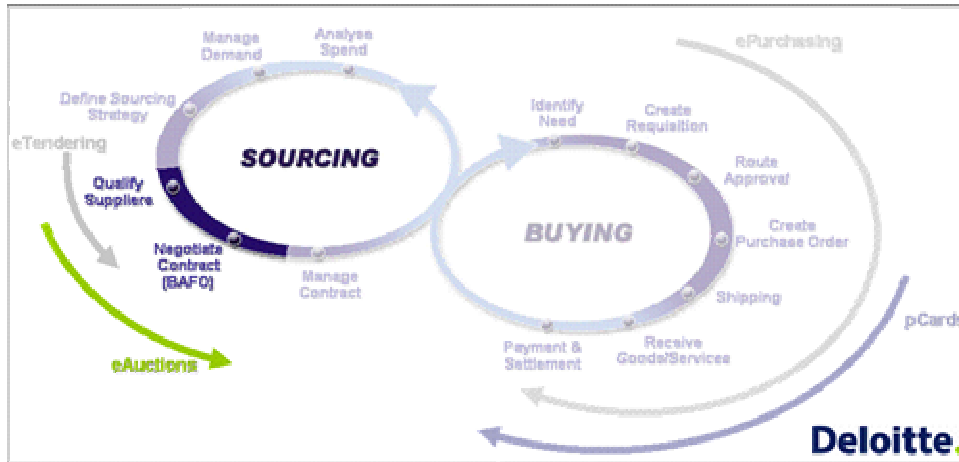
- Practical advice on how to identify and deliver benefits from e-procurement;
- Authorities with a realistic view of the tangible benefits that they should expect to attain.

The structure of this document is:

- Section 1 contains a definition of e-auctions;
- Section 2 explains how e-auctions support the implementation of good procurement practice;
- Section 3 defines the types of benefit that can be achieved through e-auctions;
- Section 4 describes how an authority should identify the benefits from e-auctions and the level of benefits that an authority should target;
- Section 5 contains a proposed approach to track the delivery of benefits;
- Section 6 summarises key learning points from organisations that have undertaken e-auctions;
- Section 7 lists the information sources that have been used to inform the preparation of this guidance note;
- Section 8 provides a reference to the template documents that authorities should use to identify their benefits from e-auctions.

How To..... Quantify and realise the benefits from e-Auctions

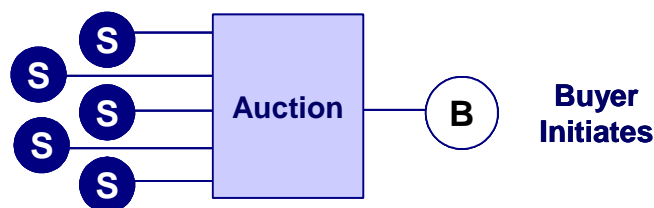
1. WHAT IS AN E-AUCTION?



Whilst e-auctions have a track record in the private sector and parts of the public sector, they are new to local government. Therefore, e-auctions should be carefully evaluated and procurement expertise should be available. Arguably, smaller authorities may initially benefit from e-auctions by joining a consortium that is already using them.

An e-auction is a means of carrying out purchasing negotiations via the Internet. The purpose of this guide is to assist local authorities to realise the benefits from using electronic auctions. It focuses on reverse auctions to buy goods and services rather than on forward auctions used by suppliers. Reverse auctions (referred to as e-auctions for the remainder of this guide) are being used by organisations to obtain significant savings. In this model the buyer initiates an auction in order to purchase goods or services from the lowest bidder who meets the specified requirements. As indicated by the diagram, an e-auction is part of a thorough procurement process that has understood the authority's requirements and market conditions.

Reverse auction



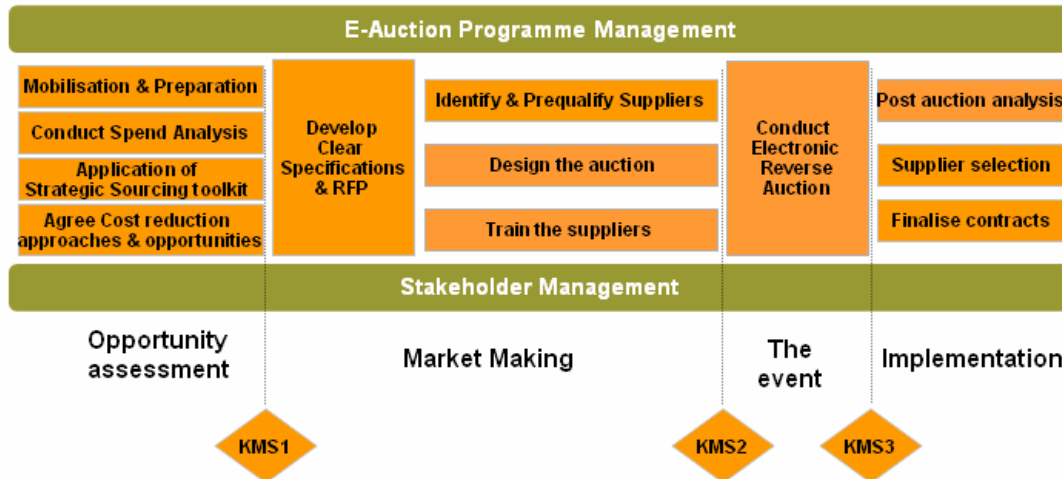
An e-auction is a real time event that occurs online, allowing multiple suppliers in different geographic regions to place and modify bids simultaneously. Buyers can customise e-auctions to their requirements, although a typical auction would allow each supplier to view

How To..... Quantify and realise the benefits from e-Auctions

their bid position and / or the value of the lowest bid with the identity of the suppliers being withheld.

The overall e-auction process comprises four key stages:

- opportunity assessment (see Section 4 for the approach);
- market making (see Section 6 for best practice guidance)
- the event (see Section 6 for best practice guidance);
- implementation (see Section 6 for best practice guidance).



There are many ways to run the event itself. The initiating authority will need to specify the preview time, bidding format, bid decrements, auction end and the award notification period. Typically auctions will last for one hour with extensions occurring as suppliers make last minute bids. The auction may compare bids based on price or some mix of factors (e.g. price, quality and number of delivery points) with an appropriate weighting mechanism. Factors other than price can also be addressed before and after the auction.

The initiating authority can observe and manage e-auctions through web-based screens. They are able to review incoming bids, resolve issues and watch bid prices decrease. Authorities may also permit other parties to observe the auction.

When bidding is finished, the market enters a “pending clear” state where the buyer chooses which supplier will be awarded the contract, based on price and non-price considerations.

An e-auction is a single component of the entire buying process; the best and final offer (BAFO) stage. Buyers still control the overall process and should perform full supplier qualification prior to the event.

Auctions are transparent and fully recorded events. They can be quick to implement, have a potentially low entry cost (in comparison to other e-procurement solutions) and they

How To.....

Quantify and realise the benefits from e-Auctions

encourage good procurement practice. They can be a first venture into e-procurement because they provide a return on investment within a shorter timeframe as compared with other e-procurement initiatives. In addition they can be run in isolation from other authority information technology programmes.

2. PROCUREMENT GOOD PRACTICE

The use of e-auctions promotes recognised procurement good practice. Whilst it does not guarantee or enforce procurement excellence, it can be a catalyst to support its introduction and continued operation. Strategic sourcing is critical to the delivery of e-auction benefits. An e-auction needs to take place in the context of good procurement practice and EU procurement rules.

2.1 Centralised procurement

Auctions held within authorities have been co-ordinated by a central department (usually the Central Procurement Unit) on behalf of the buying community. This approach leads to the development of expertise in use of such e-procurement tools which can be disseminated to the various directorates. An e-auction strategy can also encourage the use of a contracts register or database. This procurement good practice will assist with understanding current and future contractual arrangements and assist in assessing which agreements are up for renewal and could be considered for auction.

Experience suggests that benefits can be achieved through the electronic auctioning of common goods and services that are required throughout the authority. These procurement requirements lend themselves to corporate contracts co-ordinated through a centralised procurement function, reducing the number of procurements, thereby saving time and money.

2.2 Detailed specification

A detailed understanding of goods / services segments is necessary to establish which categories of spend will benefit from the additional market leverage that e-auctions can bring. For an e-auction to be a success, suppliers need to be clear on what they are bidding for. Engaging with the buying units across the authorities encourages the creation of unambiguous specifications for goods and services. This engagement will also provide more accurate analysis of expected volumes thereby minimising overspend on contracted volumes.

2.3 Demand aggregation

The use of corporate contracts co-ordinated through centralised procurement will encourage an aggregation of demand across an authority and neighbouring authorities. This will increase the monetary value of the contracts making participation in contracts of this type more attractive to the market, which may further drive down its negotiated price through increased competition.

2.4 Supplier rationalisation

The use of corporate contracts can secure a reduction in the number of suppliers and lead to lower prices. Without collaboration between officers, they are likely to be managing sets of

How To.....

Quantify and realise the benefits from e-Auctions

contracts for goods and services that other departments may also require. This creates an inefficient situation where the local authority has many different suppliers providing the same goods and services at different levels of quality and price.

2.5 Develop suppliers

The use of e-auctions develops suppliers by allowing them to view market prices during the event itself. The transparency of the auction and feedback following the decision can help suppliers to remain competitive.

3. TYPES OF BENEFITS

When describing the benefits attained from the use of auctions there is a tendency either to overestimate or to focus on the more successful examples of auctions, particularly given that many of the sources are vendors or consultancies with a vested interest in the take-up of e-auctions. The National e-Procurement Project has addressed this by validating its findings with authorities whose implementation experience has led to a clearer understanding of the levels of benefits achievable.

There are a number of benefits associated with the use of e-auctions. For the purposes of this guide, we have collated the benefits into two broad categories – tangible and intangible benefits. Tangible benefits can be quantified whereas intangible benefits are qualitative; however, both can be of equal importance to stakeholders.

3.1 Tangible Benefits

3.1.1 Reduction in cost of goods and services:

The reduction in the purchase price of the goods and / or services is the main component of a business case for the use of e-auctions. This reduction occurs from the real time competitive bidding between suppliers. This may be through improved pricing terms for spot purchase or for the duration of the contract for longer term agreements.

It is not always true that the cheapest price is the best deal. Factors other than price must also be considered such as quality, delivery, product warranty, service and specification. Whilst many e-auctions are used for price only, e-auctions can use a blended weight bidding format for combinations of these criteria to ensure that the best value is attained. Moving to a weighted bidding format increases the complexity of the bid process significantly.

One of the key reasons that organisations use auctions across a large proportion of their non-pay expenditure, is to provide comfort that market prices are obtained. Effectively, the e-auction process provides confirmation that the organisation is buying at market rates.

3.1.2 Process Efficiencies

3.1.2.1 Cycle Time Savings

Process efficiencies derive from the reduced time and resources engaged in the final stages of tendering - the BAFO stage. In this stage of complex or highly competitive contracts, significant time is spent negotiating the best price. This part of the procurement cycle can be shortened, benefiting both the supplier and the buyer.

Although authorities conducting auctions to date agree that a reduction in time spent on BAFO is realised, no overall time is saved across the whole buying process because of the additional auction education activities and the extra time spent specifying the requirements into a greater level of detail. Supplier qualification tasks also require more time earlier in the cycle. Authorities should only invite suppliers to whom they are prepared to award the contract. It is, therefore, key that qualification, sampling, general acceptance of terms and

How To.....

Quantify and realise the benefits from e-Auctions

conditions and service levels must be a precursor to the invitation - in effect, bringing them forward in the buying process.

As the experience of using e-auctions grows within local government, the level of cycle time savings should also increase. At present, research does not identify e-auction process efficiencies and hence this guide does not include achievement of cycle time savings. With increasing maturity, authorities may run several e-auctions on the same day, thereby optimising the costs of running an e-auction.

3.1.2.2 Reduction in the overhead cost of BAFO

The overhead costs of the BAFO process will be reduced. This will include fax, telephone, postage, copying, printing, stationery, courier, advertising and travel costs. This benefit is realised by both buyers and suppliers.

3.2 Intangible Benefits

3.2.1 Process Consistency

e-Auctions provide a level playing field for suppliers by providing standardised processes and communication throughout the BAFO stage. This ensures that there is no bias given to any one supplier.

A detailed specification of requirements is necessary for effective auctions. This encourages a consistent process of comparison reducing the time to review responses.

3.2.2 Increased standard of specification

As previously described, e-auctions facilitate good procurement practice by encouraging unambiguous and accurate specification. This helps to crystallise the buyer's requirements and provides the necessary clarity between buyer and supplier, so that the e-auction can focus on price.

3.2.3 Supplier inclusion

Since e-auctions are Internet-based, suppliers can make bids without being constrained by their actual location. The relative importance of this benefit depends on the procurement strategy of the authority. If the authority wishes to encourage local suppliers, this may not be so relevant.

An e-auction myth is that the suppliers need to be fully e-enabled to participate. This is not the case. Provision of Internet access can be easily arranged by suppliers that do not have a computer with an Internet connection.

If appropriate, more suppliers can participate in e-auctions, because it is easier for the buyer to manage the process. However, the increased effort in training and set up needs to be considered.

3.2.4 Increased transparency

e-Auctions produce a history of the BAFO process that highlights the impartiality of the buyer's sourcing decisions. Internal audit departments see this as being advantageous, for example if they wish to review the audit trail for the award of a particular contract.

Following the event, the auction history can be made available to all suppliers. This information will enable suppliers to assess the reasons for the award. Unsuccessful suppliers will be provided with clear feedback and can modify product, bidding and pricing strategies accordingly in order to remain competitive in future BAFO stages. This will further develop supplier relations.

The authority can also use this history to build new BAFO expectations based on past experience.

How To..... Quantify and realise the benefits from e-Auctions

4. IDENTIFICATION OF BENEFITS APPROACH

Authorities should focus on simple, key measures that predict and track the benefits attributable to the auction itself. The benefits component of a business case must not be diluted with complexity. In addition, tracking indicators that are not relevant can skew behaviour towards the measures. For this reason, the proposed **Key Performance Indicator (KPI)** is:

| Type of Benefit | KPI |
|-----------------|---|
| Cost Savings | Reduction in cost of goods and services |

As described earlier, other intangible benefits certainly exist and are important components of a business case for the use of e-auctions. Authorities that have conducted e-auctions have validated these benefits although no empirical data can be collected that can usefully demonstrate the level of benefit.

The following paragraphs set out an approach to benefits identification. The effort to work through the approach will vary depending upon availability of information and resources. However, as a guide, we suggest that the approach will require around 10-15 days over a 6 weeks elapsed time.

4.1 Predicted cost savings

Reduction in cost of goods and services

4.1.1 Step 1: Procurement Self-Assessment

The first step in understanding the level of benefit opportunity is to perform a self assessment of your authority. You can use the “Level of Benefit Opportunity – Self Assessment” document (see Section 8) to determine where your authority is located on the benefit range. The general principle is that the greater the existing degree of sophistication of procurement within an authority, the lower the potential savings that can be realised.

4.1.2 Step 2: Identify % Reduction in Cost

The cost savings benefit in the table below is expressed as a range from low to high. The “Level of Benefit Opportunity – Self Assessment” document used in Step 1, provides the tool to assess the level of benefit opportunity within this range, taking into account the sophistication of procurement within your particular authority.

How To..... Quantify and realise the benefits from e-Auctions

The table draws upon experience gained in e-auctions held in both the public and private sectors. Recognising differences in results achieved, we have grouped e-auction experience into the following expenditure categories:

- Utilities;
- Equipment and bulk orders;
- Routine;
- IT equipment and services; and
- Other services.

Goods and services in these groups have achieved a similar level of benefit from e-auctions. The table (Figure 1) contains values for the % total reduction in the cost of goods and services. This reduction has two components – a percentage due to strategic sourcing and a percentage of the savings due to the e-auction itself. As e-auctions become more prevalent, over the coming years, the categories will be extended to include more of those described in the e-purchasing guide.

| % Total Reduction = % Strategic Sourcing Saving + % eAuction Saving | | | | |
|--|-------------------------|------|------|---|
| Type of Categories | %Total Reduction | | | Note: These percentages are for the Total Reduction. This comprises Strategic Sourcing Savings and eAuction savings |
| | Low | Avg. | High | |
| Equipment and bulk orders | 10% | 19% | 29% | |
| Routine (e.g. low value stationery, cleaning materials) | 8% | 12% | 13% | |
| IT equipment and services | 5% | 17% | 36% | |
| Other Services | 7% | 19% | 41% | |

Figure 1: % Total Reduction in Cost of Goods and Services with the use of eAuctions

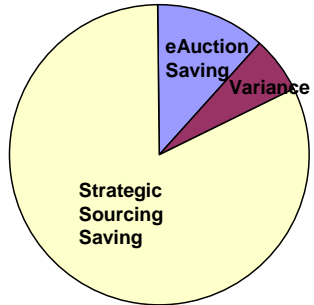
Figure 2 identifies the division of the % Total Reduction Savings identified in Figure 1, between:

- The saving attributable to strategic sourcing, and
- The saving attributable to the e-auction event itself.

How To.....

Quantify and realise the benefits from e-Auctions

Total Reduction in cost of goods/service



| | |
|---|----------|
| % Total Reduction = % Strategic Sourcing Saving + % e-Auction Saving | |
| % Strategic Sourcing Savings | 82 – 88% |
| % e-Auction Savings | 12 – 18% |

Figure 2: Split of % Total Reduction

Proposed attainable benefits have been derived from Deloitte's assignment experience, from the knowledge of pilot authorities who have supported the preparation of this guidance note and from material published by organisations active in e-procurement. We have set out a range of benefits to recognise that benefits attained will be influenced by the profile of the authority and the sophistication of its procurement – systems, processes and organisation. Note: these savings are gross – costs of the e-auction have not been included (see paragraph 6.6 below).

As with all e-procurement solutions, the level of benefit actually achieved will depend upon the level of compliance with contracts. Authorities will therefore need to adjust the level of savings indicated in the above table for the level of compliance that they expect to achieve. For example, if the e-auction indicates a saving of £100,000 per annum but compliance is expected to be 80% then the level of savings will be £80,000 per annum.

Given, the relatively low level of experience of e-auctions in local government, there is a degree of subjectivity as to the level of benefits that can be attained.

4.1.3 Step 3: Benefit identification

In order to calculate the percentage benefits given in Figure 1, the following components need to be measured:

- Reference price
- Pre-Auction price
- Offer Price.

4.1.3.1 Reference Price

In order to measure the level of benefits, it is important to understand and measure the baseline price. The **Reference Price** is therefore the price for the goods/services paid by the buyers prior to the BAFO for the new demand quantities. This is calculated from multiplying:

How To..... Quantify and realise the benefits from e-Auctions

- Unit costs of goods / services bought within previous contract or at previous prices (if no contract exists); with
- Predicted buyer demand quantities of goods / services under the new contract.

(Note: The reference price may go up from current levels due to supply market movements.)

4.1.3.2 Pre-Auction Price

The **Pre-Auction Price** is the price that would be offered following a normal sourcing and tendering process. Once a pre-auction price had been set by suppliers, authorities could close the contract at this point.

The pre-auction price is calculated by multiplying:

- Lowest unit costs of goods / services offered following tendering and prior to auction; with
- Predicted buyer demand quantities of goods / services under the new contract.

4.1.3.3 Offer Price

The **Offer Price** is the best price offered by bidders at the auction. It is calculated by multiplying:

- Lowest unit costs of goods / services during the auction; with
- Predicted buyer demand quantities of goods / services under the new contract.

4.1.4 Sourcing Savings

The level of savings that can be attributed to using procurement good practice – promoted by e-auctions - is calculated from (Figure 2):

$$\% \text{ Strategic Sourcing Savings} = \left(\frac{\text{Reference Price} - \text{Pre-Auction Price}}{\text{Reference Price}} \right) \times 100$$

Figure 3: Strategic Sourcing Savings Calculation

Part of the specification of the requirement of goods or services may involve aggregation of demand through use of corporate contracts and rationalisation of suppliers to make the overall contract worth more to a single or smaller group of suppliers.

It is important to account for this reduction in unit cost as a benefit realised from good procurement practice (i.e. strategic sourcing) separately from the reductions achieved through the use of e-auctions.

4.1.5 e-Auction Savings

The reduction in contract value from the e-auction itself can be calculated from (Figure 3):

How To..... Quantify and realise the benefits from e-Auctions

$$\text{\% Reduction in unit cost of goods/services due to eAuction event} = \frac{(\text{Pre-Auction Price} - \text{Offer Price})}{\text{Pre-Auction Price}} \times 100$$

Figure 4: Reductions due to eAuction event

As shown above, this accounts for 12-18% of the total reduction in the cost of goods and services.

4.1.6 e-Auction Example

A typical example auction would be for a paper contract with:

Reference Price = £500,000
 Pre-Auction Price = £415,000
 Offer Price = £400,000

Giving the following benefits:

Proportion of Total Reduction attributable to Strategic Sourcing Saving = 85%
 Proportion of Total Reduction attributable to eAuction Saving = 15%

Absolute Strategic Sourcing Saving = £85,000 (17%)
 Absolute eAuction Saving = £15,000 (3%)

% Total reduction in unit cost of goods/services =
 % Strategic Sourcing Saving + % eAuction Saving = 17%+3% = 20%

4.2 Delivery of Benefits: Goods / Services Selection

4.2.1 Product Selection Criteria

To attain the maximum level of benefit from e-auctions, it is recommended that time is spent selecting goods and services that most closely fit with the following criteria.

4.2.1.1 Suppliers

The degree of fragmentation of suppliers and competition within the market influences the success of an e-auction. If a market has multiple valid suppliers the e-auction will further encourage competitive bidding.

4.2.1.2 Product specification

The ability to specify requirements for the products is a key criterion. There needs to be standard quality measures that allow for a clearly defined product specification. Examples of standard quality measures include grades, hourly rates, industry standards and certification levels.

Similarly the demand must be specified in terms of quantity. Often buyers will pay over the odds for purchases over the contractually agreed quantities, particularly in the case of services. A clear definition of expected volumes must be deduced from historical and predicted demand whilst factoring in changes to buyer environment and cross-authority aggregation.

Suppliers are more willing to bid on products that are clearly defined and where volumes are guaranteed.

4.2.1.3 Pricing

The degree to which the price of the goods / services fluctuates is also a factor.

Categories that have stable market conditions are advantageous so that prices can be fixed over the duration of the contract.

Those categories of spend, for example, utilities, that have a dynamic spot price need to have a rapid and effective decision process that fits the supply market.

The degree of complexity of pricing must also be low, so that commodities can be clearly defined and priced.

4.2.1.4 Distribution

Simple distribution requirements are preferable to suppliers, such as one delivery point that is not in the middle of a busy town centre. Similarly authorities' requirements should be predictable to help suppliers factor in these costs to the bidding process.

4.2.1.5 Purchasing process

Commodity groups that have suppliers selected centrally and where purchasing is carried out by a small number of buyers across the authority, are also preferable. This is due to the fact that it is easier to guarantee that spend will be made through a particular contract.

4.2.1.6 Contracts

It is also important to choose contracts that are longer term, that are due for renewal or contracts under which switching costs are low. It is also preferable that a contract has not recently been the subject of an e-auction as further savings may be difficult to attain.

4.2.1.7 Spend value

Higher spend values will create more opportunity for cost savings on a long term basis. Higher value contracts will also encourage suppliers to compete against one another.

4.3 Delivery of benefits: e-auction strategy

The following paragraphs outline a tried and tested methodology for using e-auctions to successfully deliver benefits.

4.3.1 Step 1 – Define viable categories for e-Auction

As a first step, an authority should compile a list of viable categories for e-auction. The categories and their sub-categories should logically relate to the supply market. Experience from the private sector suggests that both goods and services are appropriate for e-auctions. A significant level of savings has been realised in the private sector from the following goods/services:

- Paper;
- PCs;
- Electrical Supply;
- Cleaning Services;
- Telecommunication Services;
- Toner;
- Stationery;
- Furniture;
- Postal services;
- Photocopiers;
- Alarm systems;
- Grounds maintenance;
- Staffing/temporary recruitment;
- Transportation – coach hire etc; and
- Financial Services.

4.3.2 Step 2 – Data analysis:

Engage buying units to obtain information on items – both market data (supplier base, market trends, etc) and demand data (volumes, current contracts, etc). Interview notes or a questionnaire could be used to facilitate this data collection.

4.3.3 Step 3 – Data evaluation

Based on the buyer's input, score the viable categories of expenditure in terms of suppliers, product specification, pricing, distribution, purchasing process and contracts using the Selection Criteria Scorer in Figure 4 below:

How To..... Quantify and realise the benefits from e-Auctions

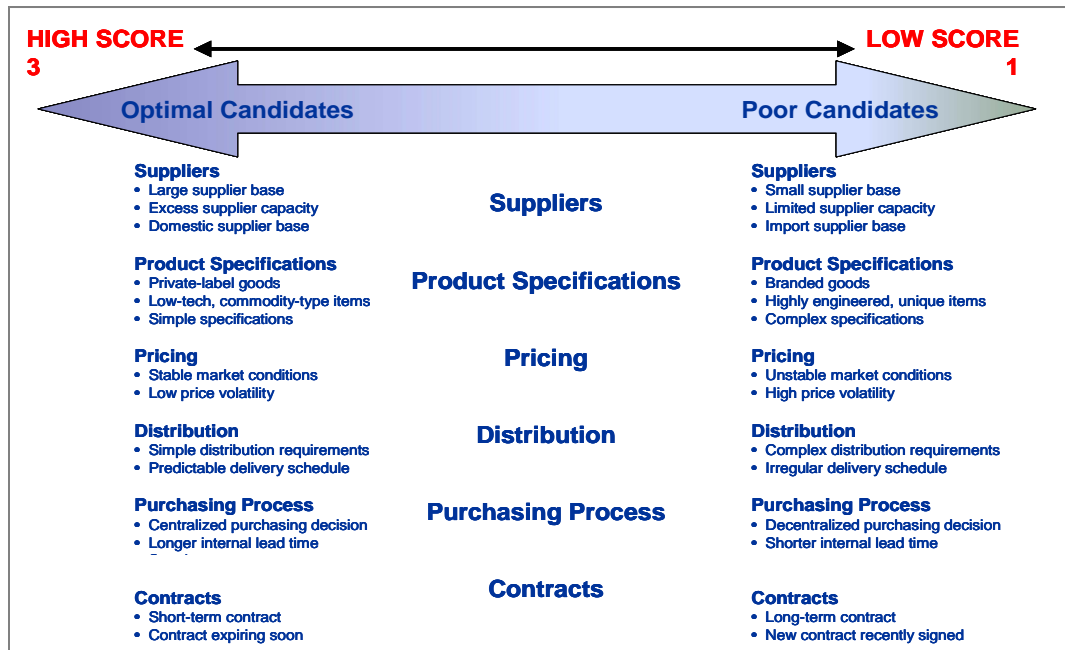


Figure 5: Criteria Selection Scorer

4.3.4 Step 4 – Rank viable expenditure categories

Enter the scores obtained from Step 3 above into the following Break Even Template that multiplies the score by a weighting (determined by the authority) to give a weighted average. The weighted average gives a priority listing of viable expenditure categories. This is shown below in Figure 5.

| | Suppliers | Product Specs | Pricing | Distribution | Purchasing Process | Contracts | Weighted Average | Spend | Estimated Provider Fees | Savings Needed to Break Even |
|-----------------|---|---------------|---------|--------------|--------------------|-----------|-------------------------|-------------|-------------------------|------------------------------|
| Criteria Weight | 25 | 25 | 20 | 15 | 10 | 5 | 100 = Low 300 = High | | | |
| Item | Scoring (1 = Poor Candidate, 3 = Optimal Candidate) | | | | | | | | | |
| Paper | 3 | 3 | 3 | 3 | 2 | 3 | 290 | £ 1,200,000 | £ 9,000 | 0.8% |
| Electricity | 3 | 3 | 1 | 3 | 3 | 3 | 260 | £ 200,000 | £ 4,000 | 2.0% |
| PCs | 2 | 2 | 3 | 3 | 1 | 3 | 230 | £ 2,900,000 | £ 13,000 | 0.4% |
| Printers | 3 | 2 | 3 | 2 | 1 | 1 | 230 | £ 2,000,000 | £ 13,000 | 0.7% |

Figure 6: Break Even Template

4.3.5 Step 5 – Estimate break even savings

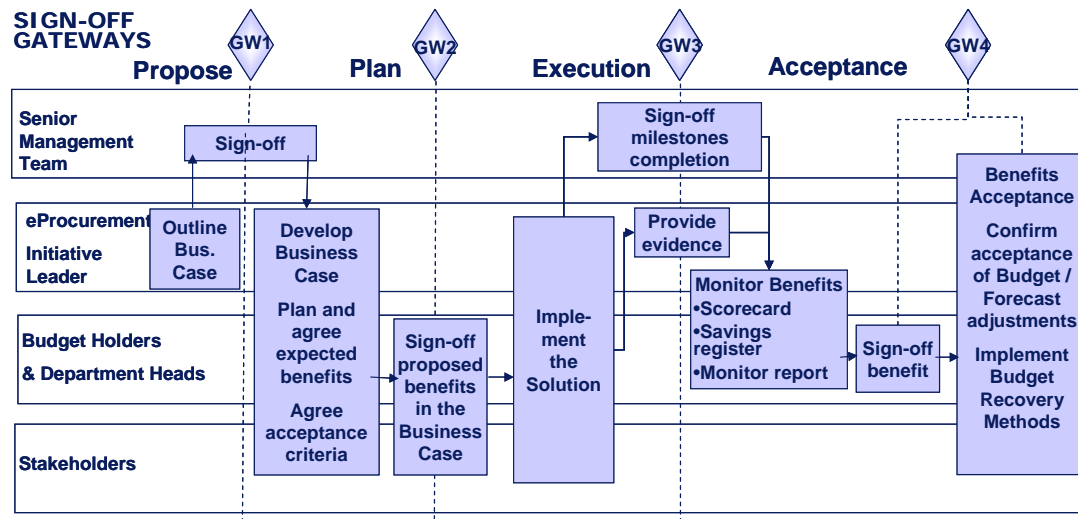
Obtain annual spend per category / sub-category (for the top 10-20 categories) from the buyer questionnaires (see 4.3.2) or from the financial systems (Accounts Payable data) and enter them into Break Even Template. The auction provider fee will need to be accounted for at this stage. This may be a flat fee, or a share of the savings. Applying the provider fee to the annual spend value will provide the break even savings percentage that will need to be obtained from the e-auction.

How To..... Quantify and realise the benefits from e-Auctions

5. BENEFIT SIGN-OFF AND RECOVERY STRATEGIES

5.1 Benefit Sign-Off

The following approach to benefit sign-off and recovery is recommended:



The e-auction initiative passes through a number of gateways as it matures in order to ensure its viability, test the robustness of the business case and gain sign-off from key stakeholders.

The process will comprise of the following stages and their associated sign-offs:

Gateway 1: Sign-off by sponsor to develop the business case further.

Gateway 2: Sign-off of proposed benefits and acceptance criteria.

Gateway 3: Sign-off on completion of initiative.

Gateway 4: Budget holders and Departmental Heads accept realised benefits.

This tracking mechanism must comply with internal authority procedures for project sign-offs and benefit realisations.

5.2 Benefit Recovery Strategies

Authorities will face a choice as to how they wish to utilise benefits:

- Savings can be taken from the departmental budget as bottom line savings;
- Savings could be channelled into a corporate initiative such as service development or a technology project;
- Savings could be left in the departments, but services benefiting from the savings could be asked to deliver increased service levels (more outputs from the budget);
- Savings could be placed into a “business case” pool, against which departments would bid, with awards made against criteria such as impact on core objectives.

However, the savings are utilised, benefits will need to be recovered and the following table (Figure 7) identifies methods to recover realised benefits for both time and cost savings:

| Method | Benefits | Drawbacks |
|---|--|---|
| Top Slice based on % of Departmental Budgets | <ul style="list-style-type: none"> • Relatively simple to implement • Small departments don't pay as much | <ul style="list-style-type: none"> • Recovery of benefits not linked to procurement activity (number of transactions) – Number of transactions will not be proportionate to budget • Political issues with top slicing budgets • Difficulties in realising cost reductions within departments (difficult to remove full heads) • Magnitude of budget cuts based on original business case – must be accurate |
| Top Slice based on number of transactions | <ul style="list-style-type: none"> • Recovery focused on departments where process savings should be greatest • Relatively simple to implement • Ongoing costs of system can be recovered through the charges • If Invoice transactions used as the measure, Departments encouraged to reduce number of invoice transactions | <ul style="list-style-type: none"> • Budget cuts dependent on projected transaction volumes for that year, not actual volumes • Not all process savings related to reduction in a specific transaction processing times • If Purchase orders used as the measure, Departments may procure outside of the system to reduce number of Purchase Orders accounted for • Difficulties in realising cost reductions within departments (difficult to remove full heads) • Departments with large number of transactions not always those with biggest budgets • Some difficulties in accurately tracking number of transactions |
| Charge made to departments for each transaction | <ul style="list-style-type: none"> • (As above plus) • Recovery directly related to savings from reduced current Purchase Order processing costs | <ul style="list-style-type: none"> • (As above plus) • No up front visibility of annual spend – Charges |
| Business case required within individual service plans with method for releasing/ redeploying resources | <ul style="list-style-type: none"> • No reduction in budgets • Favoured by individual departments • Encourages commitment from departments • Other services can benefit from the procurement savings | <ul style="list-style-type: none"> • Very difficult to track release/deployment of resources • Does not guarantee recovery of benefits |
| Combination of Top Slice/ Transaction charges & business cases for releasing/ redeploying resources | <ul style="list-style-type: none"> • Guarantees recovery of some benefits whilst giving flexibility to departments | |

Figure 8: e-Auction benefit recovery strategies

It is recognised that Top Slicing can generate internal resistance and may therefore be introduced after benefits have been demonstrated from early e-auctions.

6. RECOMMENDATIONS FOR BENEFIT REALISATION

Authorities that have taken part in this study have made the following recommendations to ensure that the predicted levels of benefits are attained.

6.1 Specification

Buyers need to have a good knowledge of the supply market and the goods / services being purchased. The specification must be clearly defined and objectively evaluated. In many cases, pre-auction sample testing can be beneficial to assess quality.

Suppliers need an accurate foundation to calculate their pricing. Too much complexity from too many commodity line items or too many variables in the bidding formula can suppress competition.

Buyers throughout the authority should be consulted in order to understand their requirements with regard to the goods or services to be defined for auction.

6.2 Supplier pre-qualification

It is strongly recommended that suppliers are pre-qualified through an initial tendering process. Part of this tendering process may include sample tests. Suppliers will then be invited to the auction based on the results of these quality tests and their ability to meet the required levels of service or delivery. The buyer's confidence in the suppliers should then be sufficient to award the contract to the best bid from the auction.

6.3 Change Management

People issues are the most common reason that IT initiatives fail and therefore the importance of change management must not be underestimated. Experience suggests that the benefits identified at the time of the e-auction are diluted through a lack of compliance to the winning contract.

The following tables (Figure 8 and 9) contrast frequently presented myths around e-auctions with the realities from e-auctions.

How To.....

Quantify and realise the benefits from e-Auctions

| Auction Myths | Auction Realities |
|---|---|
| Reverse Auctions take the purchasing decision out of the hands of the most knowledgeable individuals, the buyers. | Buyers still control/own the buying process. Auctions are a tool to automate one component of the process – the price/bid collection. |
| Reverse Auctions compromise quality as business is awarded to the lowest bidder. | The awarding of business is a decision made by the buyer in which price is one of the considerations. Business does not have to be awarded to the lowest bidder. |
| Reverse auctions will not work since most of our products require detailed specifications and sample reviews. | These steps still take place in an auction environment. Detailed specs can be sent to the suppliers and samples can be reviewed prior to the auction. |
| Auctions are only good for 'commodity' type products and not-services. | Many organisations have had success with service and non-commodity type goods. |
| Reverse Auctions will open the gates for unqualified suppliers. | Buyers can control who bids by restricting auctions to invited and pre-qualified suppliers only. |
| Vendors will refuse to participate. | Experience has shown that suppliers are more than willing to participate and find auctions a more equitable approach. Incumbent suppliers are often concerned at the possibility of losing business, but still participate. |
| Benefits from Reverse Auctions will be minimal as supplier negotiations have already reduced pricing to the absolute minimum. | In instances where four or more qualified suppliers are available, an average savings of 12% - 18% is realised. ¹ |

Figure 9: eAuction Myths and Realities

All of these myths can be dispelled within an authority through education and piloting of auctions.

Careful implementation planning is essential to capture the benefits, especially focusing on the people aspects. Figure 9 below identifies the people challenges and recommends mitigations through planning, training, setting realistic goals, ensuring management 'buy-in' and assigning appropriate resources to implement e-auctions.

| Challenges | Mitigations |
|--|---|
| User perceptions that reverse auctions "are not useful for their purchases" must be overcome. | Education efforts are key, auction misconceptions should be addressed with each buyer/buying groups. Piloting certain items/categories and showing the results / benefits, will also help address this challenge. |
| Buyers may sense that the purchasing decision is being taken away from them. | Initial communication must correctly portray reverse auctions as a tool to support the existing buying process through the automation of one component – price / bid collection. |
| Suppliers may not fully understand process or negotiation tool. This can lead to incorrect bids and unsuccessful auctions. | Supplier training and communication is crucial if initial auctions are to be successful. An 'on-boarding' plan needs to be developed for suppliers. |
| Existing suppliers may push back on new methods. | Existing suppliers require additional communication up front. It is essential that they understand the decision making process. |
| As low bidders may not be awarded the business, suppliers may question the value or legitimacy of the auction process. | Initial supplier training should emphasise that price is not the only criteria for decision making. Buyers should provide feedback to suppliers if the lowest bid is not selected. |
| Auction processes must be kept consistent across departments to reduce confusion. | A centralised project team should be created to standardise processes and leverage 'lessons learned'. |
| Implementing auctions too quickly or aggressively. | Like all changes, the risks associated with implementation must be understood. It is necessary to pilot items / categories to understand the potential organisational impact and what current barriers / resistance exists. |

Figure 10: Change Management Challenges and Mitigations

The following paragraphs explain the mitigations in more detail.

How To..... Quantify and realise the benefits from e-Auctions

6.3.1 Communicate closely with buyers

The buying units must be involved in order to:

- Educate buyers in the rationale behind the use of corporate contracts and electronic auctions;
- Understand the buyer's requirements for the goods / services;
- Understand the criteria used to evaluate suppliers; and
- Obtain commitment that buyers and business users will make use of any contract that emerges from the auction.

This final point is especially important when the buyers do not purchase through corporate contracts – whether contracts are in place or not.

A strong case should be developed outlining the benefits and the conditions for realising those benefits. Buyers must understand the importance of using the corporate contracts and the inefficiencies in maverick purchasing. The greater the number of buying units in support of a corporate contract, the greater the potential for cost reductions through aggregated demand thereby increasing the value of the contract to prospective suppliers. In certain situations it may be necessary to make sure every buyer is comfortable with the list of qualified suppliers that will be invited to the auction.

In addition to face to face meetings to educate buyers on the use of e-auctions, Solihull Metropolitan Borough Council used an Online Data-Collection Questionnaire to collect this information from 120 buying units.

6.3.2 Communicate with suppliers

Maintaining good working relationships with suppliers is important to ensure a mutual understanding of each other's positions. This is advantageous for the buyers because it will improve the complete service suppliers can provide and advantageous for suppliers because it will enable more business through greater call off from centralised contracts, whilst encouraging flexibility and innovation.

In some private sector procurements, suppliers are only informed that an e-auction is going to be used after the RFP stage to prevent suppliers from holding something back. This strategy does not breed trust nor develop mutually beneficial relationships that are key to successful buyer-supplier partnerships and it is not recommended this approach be adopted in the public sector.

In authority auctions, full and honest communication about the process from the outset is essential. In some cases, this may mean suppliers do not bid for the work due to their opposition to divulging pricing information to competitors or technology phobia. The former concern can be addressed by holding a closed auction whereby suppliers have a restricted view of the auction and are notified when another supplier (unnamed) makes a bid lower than their latest offer. If the supplier cannot get access to a computer with an Internet

How To.....

Quantify and realise the benefits from e-Auctions

connection to participate in an e-auction, the authority or the auction provider can often arrange for the supplier to use a terminal. All suppliers should be trained on the use of the auction and a mock auction can be conducted.

It is also important to follow up with suppliers who were not successful in winning the business. They may appreciate this feedback and it may help them to maintain competitiveness.

"After the auction the relevant participants from Welsh Health Supplies, the supplier companies, and the National Health Service in Wales all said they were comfortable with the process and had learned a great deal to carry forward into future auction events. Everyone said they would do it again. The Oracle technology and the process itself as managed by UKprocure impressed everyone involved. For us, it represented a great cost saving and a positive experience." -- Mark Roscrow, Director, Welsh Health Supplies

6.3.3 Strong leadership

Auctions should be centrally managed with strong leadership to ensure effective choice of items to auction and to realise the maximum levels of benefits through effective management of the people and process challenges.

6.3.4 Internal marketing of auction success

The success of auctions should be widely publicised using the metrics described in this guide. This will lower potential resistance to the use of future auctions.

6.4 Reference price cut-off

Given that many e-auction providers calculate their fee based on savings achieved, it is important to establish a cut-off point for calculating the reference price. Authorities involved in this study have had disputes with providers regarding the level of savings, due to reference price alterations prior to the auction.

6.5 Set clear auction rules and parameters

It is important to set clear rules for the auction itself. Some of these can be enforced using the auction provider software, others relate more to particular processes to follow.

6.5.1 Preview time

This is only relevant for open auctions, where the bidders can view other suppliers' starting prices. The preview period is the length of time that participants will be able to view the market prior to the start of the auction. This will allow suppliers to form a bidding strategy before they place a bid.

6.5.2 Bid Format

The bid format is the attribute that bids will be compared against during the auction. There are a number of different options; the following section describes the two most common formats:

6.5.2.1 Price

Having been invited to the auction by virtue of meeting certain criteria, the suppliers bid on price alone throughout the auction. This stage of the buying process is solely to reduce the price of the contract from the Reference Price to the Offer Price. This is the most common format and is the focus of this guide.

6.5.2.2 Weighted multi-attribute

There are other options for the bid format that take factors other than price into account. Supplier bids are adjusted in real-time based on a weighting per attribute. The adjustment enables competition to factor in other attributes that are of importance in the BAFO process.

6.5.3 Bid decrement

The bid decrement is the minimum amount by which new bids must improve on the current price quoted and it can dramatically impact the amount of bidding activity. Setting a large price decrement can cause the auction to conclude faster and cause suppliers to drop out because the desired price cannot be reached due to the larger decrement. Small price decrements can cause the auction to take longer to conclude.

It is recommended that decrements are between 0.2 – 0.5% of the total contract value.

6.5.4 Auction end

It is recommended that a hard deadline with a time period of inactivity is adopted, to cause the market to remain open until bidding has ceased for a period of time, thereby allowing dynamic pricing to be fully achieved. Events can also use auto extensions to give bidders extra time to respond to a competitor's final bid.

6.5.5 Award notification time

It is recommended that the buyer specifies in advance the time when the bidders will be notified to whom the contract is awarded. This period gives the buyer time to evaluate and choose the winning supplier based on various selection criteria.

6.6 e-Auction Provider Service Levels

When choosing an auction provider, there are a number of different services levels that can be adopted:

How To.....

Quantify and realise the benefits from e-Auctions

Managed event – The provider will execute the whole process, - selecting best areas of expenditure for auction, supplier sourcing, selection of event type and event preparation and execution. An indicative cost for a single event is £15-80k.

Supported event – Typically the authority will decide on which areas of expenditure are auctioned and the event strategy. The provider manages the preparation and running of the event. An indicative cost for a single event is £5-15k.

Self service – The authority manages all elements apart from the provision of technology and technical support. An indicative cost for a single event is £1-5k.

This decision should be made through a realistic analysis of the internal resources that are required and available, price and exposure to risk. The authorities taking part in the study opted for a supported event, due to the following benefits:

- Limited strain on internal resources;
- Ability to focus on core skills needed to ensure procurement process up to event day is carefully managed and controlled. This includes understanding disparate requirements, creating a generic specification and common contract, sample testing and compliance to EU / Internal rules;
- Project team was able to gain maximum learning from the event;
- Provider is left to concentrate on ensuring the administration of the event is unhindered. This included training suppliers prior to the event day;
- The provider becomes responsible for managing the technology solution.

6.7 Functionality choices

Having decided on the service level that best suits your requirement, the following functionality checklist must be considered in order to select an appropriate vendor.

Please note that this is not an exhaustive list of available functionality, but it is a starting point to consider the options available.

(Note: Many of the vendors have extended their functionality to include and integrate e-tendering. Details are included in the e-tendering guidance note.

6.7.1 Vendor Ancillary Services:

- In-house consulting services / expertise (procurement / strategic sourcing);
- Assistance with auction strategy;
- Product selection;
- Market analysis information to benchmark prices and monitor market conditions;
- Supplier and / or buyer training (online, classroom, onsite);
- Supplier helpdesk;

How To.....

Quantify and realise the benefits from e-Auctions

- On-site support;
- Auction support (days per auction);
- Project Management;
- Assist with OJEC publication;
- Issue / collect expressions of interest (electronic / paper);
- Issue / collect tenders (electronic / paper);
- Evaluate responses; and
- Assist with analysis / equalisation.

6.7.2 Pre-Auction

- Customisable (e.g. views, templates);
- Online pre-selection supplier questionnaire ;
- Supplier history, supplier scorecard;
- Intelligence to perform queries on previous transactions;
- Security provision - personalised URL (log on with user name and password); and
- Bid analysis tools.

6.7.3 Auction

- Is the site to be configured to reflect the corporate identity including authority's design, logo etc;
- Flexibility to modify / amend auctions;
- Choice of auction style (English, Japanese, Dutch, etc.);
- Choice of auction strategy (Forward, Reverse, RFx);
- Choice of auction approach (open, sealed, blind, blind rank);
- Proxy bidding;
- Minimum decrement / increment bidding;
- Auto-extend capability;
- Ability to build auction with multiple attributes;
- Intelligent bid equalisation (attribute weightings, bid analysis, multiple location);
- Bidder notification / contact in real-time (instant messaging / chat room); and
- Viewing flexibility (sort ascending, descending, etc.).

6.7.4 Post Auction

- Export data to Microsoft Excel or Microsoft Access;
- Customised post auction reporting;
- Customised post auction analysis;
- Post auction reporting;
- Post auction analysis;
- Collection of information and ability to feed to other systems, i.e. automatic creation of a commitment in the accounting system for the winning bid;
- Maintain contract database.

6.7.5 Fees / Payment / Cost Arrangements

There are many options for payment and it is important to choose one that matches the authority's procurement strategy. It is recommended that a pilot be performed to show how auctions work, the benefits and costs and to solicit supplier feedback. The vendor fee for hosting the auction can be agreed upfront or the fee can be based on a share of the savings.

Providers offer packages of multiple numbers of auctions, often 10. Again care must be taken to ensure that the authority understands the process and practical considerations before signing up to such a commitment. Some providers will offer the pilot for free on the condition that the buyer will then purchase a package.

In summary the price options are:

- Full software license purchase;
- Supplier pays;
- Pay as you go – flat fee per auction;
- Multi-auction package;
- Share of savings based on agreed Reference Price;
- Additional costs arrangements associated set-up, training, hosting, helpdesk, auction support, supplier analysis, or project management;
- Commercial arrangements.

7. INFORMATION SOURCES

The information sources used to develop this guidance note are listed below.

7.1 Pilot authorities

We have drawn upon the eAuction experience of:

- Nottingham City Council;
- Solihull MBC.

7.2 Vendors and Solution Providers

We have received helpful contributions from the following vendors and solution providers:

- Achilles;
- Best Value Procurement;
- PSIorg;
- ncSoft;
- UKProcure.

7.3 Case studies and other published material

We have reviewed the experience of organisations in the public and private sectors:

- North Tyneside Council;
- “Royal Bank of Scotland Case Study”, FreeMarkets;
- “BSI Sets the Standard for e-Auctioning”, Global eXchange Services;
- “Case Study: Government of the United Kingdom”, Accenture;
- GovExec.com, “E-Invasion”;
- Cable & Wireless, “eProcurement to provide Cable & Wireless with operating cost savings of up to £25 million a year”;
- US General Services Administration;
- BuyIT, “Online Auctions, a BuyIT e-Procurement Guidelines”;
- Supply Management magazine, “Universities cut £1m from electricity bill in e-auction”;
- OGC research;
- Ariba - Enterprise Spend Management Benefits Research;
- Value for Money Calculation for the Application of eProcurement Tools in UK Central Civil Government, Sensa Consulting Ltd.

7.4 Deloitte assignment experience

We have evaluated Deloitte’s assignment experience in the UK and US, covering both public and private sectors.

How To..... Quantify and realise the benefits from e-Auctions

7.5 Summary of information sources

The information gathered from the above sources can be summarised by sector and expenditure category as follows.

| Sector | Expenditure Category | Number of data sources |
|---------|----------------------|------------------------|
| Private | IT | 2 |
| Public | IT | 1 |
| Private | All categories | 2 |
| Private | Energy | 1 |
| Public | Energy | 1 |
| Public | Paper and stationery | 5 |
| Private | Services | 3 |
| Private | Paper and stationery | 2 |
| Private | Promotional items | 1 |
| Private | Capital equipment | 1 |
| Private | Transport leasing | 1 |
| Total | | 20 |

8. TEMPLATES

The following templates will assist you in assessing the benefits opportunity for your authority from e-auctions:

- “Level of Benefit Opportunity – Self Assessment” document;
- Break-even template.

These templates can be found on the IDeA Knowledge website (www.idea.gov.uk/knowledge/eprocurement/).