

A large colony of King penguins is shown on a sandy beach. The penguins are densely packed, filling most of the frame. They have black heads and backs with a distinctive yellow-orange patch on their chests. The background shows a large, dense colony of penguins stretching towards the horizon. The overall scene is bright and sunny, with shadows cast on the sand.

Is bigger always better?

Aggregation



Office of Government Commerce

Recent developments in public sector procurement have raised questions about the extent to which we should pool our requirements and let fewer and larger contracts. The efficiency agenda is driving us towards reducing our procurement costs, making use of our combined influence as buyers and achieving economies of scale. However, there are also increasing concerns about the role of small firms in a competitive and healthy market, and the fact that in some markets a small number of suppliers is able to exert an undue influence on us. As we move towards adopting a more holistic approach to the markets in which we operate, it is becoming increasingly important to assess both the benefits and potential dangers of aggregation.

This guidance is designed to inform decision making during the development of organisational procurement strategies, and during the strategic planning stage prior to a programme or project. It aims to clarify what is meant by the term 'aggregation'; identifies the possible advantages and disadvantages associated with it; and discusses the key issues that will inform the decision-making process.



Purpose of this guidance

The three areas of procurement activity covered by the guidance are:

- analysing demand information both within a government organisation and across different organisations
- taking decisions on whether to seek aggregated deals (for example, to engage in collaborative deals between departments)
- taking decisions on whether to bundle goods and services together into a single contract (for example, moving to an outsourced IT service is likely to involve bundling).

The target audience is primarily those who take strategic decisions on procurement, programmes and projects, but also those who implement such decisions.

Key messages

- Aggregating, or coordinating, demand information both within and between public sector organisations is an important step in the journey towards more efficient dealings with markets – and better value for money.
- Procurement strategy and sourcing decisions on whether to seek aggregated supply should be taken on a case-by-case basis. The advantages and disadvantages of each option should be assessed in the light of the individual requirement, the capability and capacity of the buyer organisation(s), the wider government agenda and the features of the commercial marketplace. It may be important, for example, to ensure that a competitive supply market is safeguarded for the future.

It is important to ensure that competitive supply markets are safeguarded for the future

What is aggregation?

In this guidance paper the term aggregation is used to include both aggregation (coordination) of demand and aggregation (consolidation) of supply.

Aggregation (coordination) of demand

Aggregating demand means:

- analysing historical purchasing data to provide the management information necessary to assess purchasing practices and trends
- drawing together information on *common or similar* current or future requirements – within an organisation, and with other organisations
- assessing the potential for collaborating with other business units within an organisation, or with other organisations, and agreeing to present these requirements in a coordinated way to the market.

When, instead of grouping together information on common or similar requirements, we include diverse but related requirements (eg IT infrastructure, communications, application development) then we refer to this as **bundling**. We would normally, but not always, gather this information together only within a single organisation.

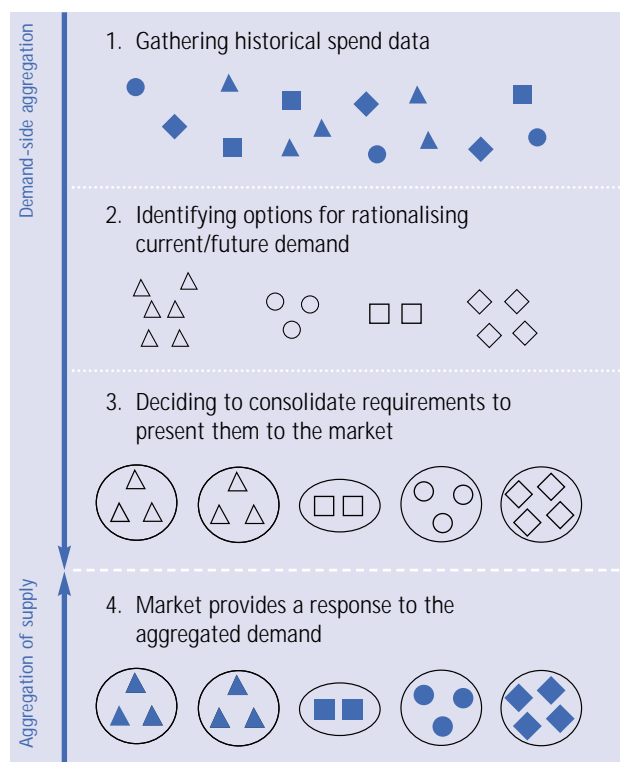
Aggregation (consolidation) of supply

Aggregation of supply means: when the aggregated demand is presented in a consolidated way to the market, a single supplier, or fewer suppliers than before, may respond and contract with us – leading to a supply base for our new requirement that is *rationalised* to a greater extent than previously. Indeed in many cases this is a *likely market response* to aggregated demand presented in a consolidated way to the market.

Aggregation of demand and supply for common goods or services is illustrated in the diagram (below). At each stage a decision is taken on whether to continue following the aggregation route – for example at stage 3 you could decide not to present consolidated requirements to the market, or to do so in such a way as to invite the market to bid for smaller lots.

Aggregation of demand need not necessarily lead to aggregation of supply, and steps can be taken to specify requirements in such a way as to encourage suppliers to bid for distinct elements of the requirement. Whether or not to do this would depend on features of your requirement and organisation, including the costs of letting and managing contracts, but also on the structure and properties of the market. For example you may decide, having considered the potential impact of aggregation on the structure of the market, that it would not be beneficial to longer-term competition to aggregate or bundle all requirements together in a way that results in sourcing from a single supplier. Some of the key issues to be considered are set out in the following sections.

An illustration of the aggregation process



Aggregation of demand does not necessarily lead to aggregation of supply



When should aggregation be considered?

During development of an organisation's procurement strategy

This guidance is relevant to those developing a procurement strategy for their organisation. It is designed to help with such decisions as whether to bundle several requirements for goods and services together into a single service contract (e.g. outsourcing) and decisions about whether to join forces with other organisations to procure goods or services. It should also be considered when devising an e-procurement strategy since electronic tools can make price information more readily available and reduce transaction costs, making aggregation of demand easier. E-procurement can also expose the potential for reducing transaction costs further by seeking aggregated or bundled supply, but this should be approached with caution, taking into account the potential impact on markets. E-procurement could be used to support a more limited bundling that maintains competition.

Programmes and projects

The issues outlined in this guidance should be considered at the earliest opportunity in any programme or project that will involve procurement activity, and certainly prior to embarking on the procurement process itself. If a contract is already in place for the requirement, timely consideration should be given to these issues before the end of the contract. Using the OGC Gateway™ stages for reference, this guidance should be considered for Strategic Assessment analysis of programmes at Gate 0, since it may impact on the relationship between the various projects within a programme. It is also relevant to subsequent stages of the OGC Gateway™ process, especially Gate 1 – Business Justification and Gate 2 – Procurement Strategy.

These issues should be considered as early as possible in any project that involves procurement

A group of penguins is shown on ice floes in the background. The penguins are black and white, with some standing and others in various poses. The ice is white and blue, and the background is a clear blue sky.

Aggregating requirements can strengthen departments' negotiating position with suppliers...

...but aggregation across government could distort markets, by developing a situation where too few suppliers are operating...

Two penguins are shown in the foreground, walking on ice floes. The penguin on the right is in the middle of a step, while the one on the left is slightly behind it. The ice is white and blue, and the background is a clear blue sky.

...and without people of the right calibre many of the potential benefits of aggregation can be missed

Why use aggregation?

There are compelling arguments in favour of aggregating demand, and possible advantages and drawbacks of aggregating supply. The pros and cons of aggregation in general are summarised below.

Potential advantages of aggregation

1. Better management information through aggregation of demand

- The aggregation of demand can deliver benefits through better quality management information. As well as providing opportunities for aggregating supply, aggregation of demand can also allow price benchmarking within an organisation and with others in the market. Aggregating demand can enable more consistent application of best practice, and can reduce the procurement costs associated with gathering price and market information. It can also create opportunities for learning, through collaboration with other organisations.

2. Greater leverage

- Aggregation may facilitate improved management of suppliers at a strategic level – for example by enabling buyers to discern patterns and raise issues in a coordinated way at senior level in companies.
- Aggregating requirements can strengthen departments' negotiating position in contracting with their suppliers. The ability to realise these benefits depends on the competence of the buyers and contract managers.

3. Lower prices through reduced production costs

- Opportunities to achieve economies of scale can be exploited, including enabling smaller organisations to benefit from the same advantageous deals achieved by larger ones if the contract is set up to allow multi-access. However, it is important to understand how the potential for economies of scale varies between different markets.

4. Lower transaction costs

- Aggregation across or within departments can simplify the tendering process leading to reduced procurement costs for buyers and reduced bidding costs for suppliers.
- Reduced project management and contract management costs can be achieved – as long as project managers, negotiators and contract managers are sufficiently skilled and adequately resourced.
- Process savings can free up (scarce) front line procurement staff to concentrate on the most strategically important issues.

5. Better management of the market

- Aggregation of demand can allow capacity constraints in the market to be identified and managed across government.
- There may be potential to transfer more risk to suppliers – which may result in better certainty around cost and delivery (as long as the right risks are transferred).
- Aggregation can result in simplified stock management and logistics – placing responsibility with a single supplier.

6. Better management of the supply chain

- Aggregation (or more specifically bundling) may place the responsibility for managing the supply chain with a prime contractor. In some cases this may result in better supply chain management and better overall value for money.
- There may be opportunities for exploiting economies of scope through bundling. Economies of scope occur where there are significant costs common to different goods or services in a supply chain (eg the cost of gaining specific technical expertise) – so it makes sense for these to be integrated within the same firm.

Process savings can free up scarce front line procurement resource

Potential drawbacks of aggregation

1. Need for highly-skilled procurers and contract managers

- Procuring and managing very large, complex contracts requires highly skilled procurement, project management and contract management staff. Aggregation and analysis of demand also requires significant expertise. Without people of the right calibre many of the potential benefits of aggregation can be missed.
- Demands on resources may not be evenly spread between the beneficiaries of the aggregated deals, for example the lead departments on collaborative contracts may require considerable extra resource. However, this drawback can be overcome by sharing the resource burden amongst participating bodies or by considering other incentive structures.
- Centrally managed and large contracts may not be responsive to local needs of front line staff. Moreover, it may be difficult to extract the necessary information on quality of service.
- Large and complex contracts can often entail lengthy and costly procurement processes – and complexity increases the potential for delays to procurement timescales. It is possible for the total costs of a consolidated procurement to exceed those that would have been incurred if parts of the total requirement had been procured separately.
- It can be difficult to develop a specification that addresses the needs of all members of a buying 'consortium'. Unless the critical requirements of all members are met, including the less influential ones, better overall value for money in whole life terms may be achieved by contracting separately.

2. Distorting the market and missing out on innovation

- Aggregation across government could distort markets, by developing a situation where too few suppliers are operating. This may lead to a situation where suppliers can singly or collectively raise prices above competitive levels and harmfully exploit their market power.
- In most markets there is a point at which it is no longer possible to exploit further economies of scale. Aggregating supply beyond this point would not be advantageous.
- Very large contracts may pose significant barriers to entry for smaller firms, or those wishing to diversify into the market. A combination of the evolving strength of incumbents, size of contracts and high bid costs can lead to less competitive marketplaces. Smaller companies may be automatically excluded from large contracts for capacity or geographical reasons – despite sometimes being able to offer innovative products or services, specialist or niche offerings and a more responsive service through direct access to decision-makers within their organisations.

- Bundling of large portfolios of products or services, for example on electronic catalogues, can lead to sub-optimal prices by restricting the ability of smaller specialist suppliers to compete in the first tier. Although transaction costs may be reduced by bundling, e-procurement techniques could be used to support a more limited bundling that maintains competition.
- Where aggregation results in fewer, bigger procurements, suppliers that lose out are more likely to be locked out of the public sector marketplace for a prolonged period.
- Buyers may risk becoming over-reliant on very large suppliers who are not themselves reliant on their government contracts and therefore have strong negotiating positions.
- It may be difficult to engage with innovators eg by means of pilots, because ideas, opportunities and innovative progress can be lost in large-scale procurement and rollout processes. Awarding smaller contracts can allow more managed risk-taking to pilot new ways of doing things, for example using a 'proof of concept' stage.

3. Invisible supply chain

- Potential loss of visibility of the constituents of the supply chain may result in difficulty with identifying the associated risks and costs (mark-ups) and ensuring value for money.
- Insufficient attention may be paid to attracting the best sub-contractors, with negative consequences for quality or value for money. Moreover, the potential benefits (e.g. of innovation and high quality service) through SME participation as sub-contractors may be lost unless positive action is taken to facilitate their involvement.

In most markets there is a point at which it is no longer possible to exploit further economies of scale

Some practical considerations

In this final section we provide a checklist of questions to be considered in reaching decisions about aggregation. Not every question will apply to each procurement; the aim of the list is to allow you to satisfy yourself that your procurement strategy is likely to result in the best possible value for money in the short and longer terms – taking into account the specific features of both your demand and the relevant supply market.

DEMAND side issues to consider

SUPPLY side issues to consider

Baseline

What has been happening?

- What have we been buying? How many and at what price? (use industry-standard classifications)
- Are there others buying similar things in other organisations?
- How do the prices we pay compare with others'?
- Is there 'silo' or 'maverick' buying within our own organisation?
- Is there room for greater consistency in prices, or greater standardisation of specifications? Are our requirements really that different from those of others?

Scope

What is my requirement?

- Are there several discrete elements to the requirement, for example geographically, or in terms of the overall product or service?
- How widely could I draw my net if I wanted to? Do other departments have similar requirements? How similar are they? Overall value for money for all "buying consortium" members must be achieved – taking account of what is essential and what is optional to each member and also of process costs. This analysis may point to either an aggregated or disaggregated approach.
- Are there other related requirements that could be procured together (bundled) with this one within my own organisation? Are there elements of the bundled goods and services that are critical to my business? Should I consider procuring these separately or could the necessary controls be put in place through supply chain management? (see *OGC's Contract Innovation guidance for more information*).

What are the key features of the market and how competitive is it?

- Are we dealing with a local, regional, national or international market? If we were to aggregate or disaggregate would this change the answer?
- If the market is local or regional would there be any benefits to be obtained from aggregating requirements across geographical regions, or would sourcing locally be a better option?
- Are we, collectively, a significant purchaser in the market? If so, would we achieve greater economies of scale and/or leverage through presenting a consolidated requirement to the market?
- Is this a market where there are significant economies of scale to be obtained by scaling-up production and logistics, or would aggregation only deliver reduced transaction costs?
- What are the key factors that influence price in the market?

Scope

- What are the business implications of aggregating requirements? For example, for a geographically spread requirement, how important are response times and service levels? Are there logistical issues to consider?
- What is the degree of competition in the market?
 - 1 Are there many players in a strongly competitive market? If we aggregate does this change?
 - 2 Are we dealing with a monopoly supplier?
 - 3 Is it a market with a small number of players that may be, separately or together, able to exert their influence and exercise market power?
- If 1, presenting aggregated demand to the market may reduce the benefits of competition, especially in markets where a) there are no significant further economies of scale to be achieved and b) procurement and contract management costs will not be reduced significantly.
- If 2 or 3, we may benefit from joining with other buyers in order to: a) use our collective buyer power to put pressure on providers to improve value for money; or b) take action to create or develop a market to meet our need.
- Does the market tend towards vertical integration, or are the elements of the supply chain provided by separate companies contracting with one another? (see supply chain section on page 11).
- Is it possible that aggregated supply could result in increased risk of distorting the market and of reducing competition to too few suppliers in the future? Would it be better not to present consolidated requirements to the market, or to do so in such a way as to invite bidding for smaller lots?
- Does the market contain large conglomerate firms or complex group structures operating in several discrete markets? If our aggregation activity increases the contact between these firms we risk developing an environment conducive to collusive behaviour – which reduces the incentives for suppliers to reduce costs and innovate.
- Will our activity potentially distort the market by exclusion of a range of suppliers and by raising barriers to entry for new suppliers (including SMEs)? How important is this? (for example if we are interested in innovative solutions – see below).
- Will our requirement generate interest amongst potential suppliers?

Duration

- What is the duration of my need? Is it possible that the requirement may change significantly in the near future? It would be a mistake to aggregate if the duration of need is less than the contract length necessary for the market to secure a return on investment.
- Is there confidence about the long-term goal, stability of the organisation and business objectives?
- Is significant investment required in costly assets specific to this requirement? And if so, what is the shelf life of the assets? What contract length would allow the supplier to make a reasonable return on investment? What size of contract would be needed to generate investment?
- Is the market rapidly changing, for example through consolidation? Could I predict how the market might look at the end of a long contract? Would I still be getting value for money at this stage?
- Does the market have the capacity for frequent recompetitions?
- Will our requirement generate interest amongst potential suppliers?

Innovation

- Is this something new and potentially innovative? Will we be doing something that our organisation (or government as a whole) has never done before?
- How important are new ideas ?
- Has the market carried out this type of work before? If not, is innovation the answer or should we defer the project until we have undertaken market creation activity?
- Is this a high-tech market where there could be significant changes in a relatively short time? If so, aggregation may make it more difficult to accommodate innovation or change.
- Is the innovation in the market taking place in larger firms (because they have sufficient R&D *capacity*) or in smaller niche areas amongst smaller companies with the *incentive* to innovate?
- Do we run the risk of stifling innovation by not creating a stimulating market environment and engendering competition and/or not being able to exploit the niche market players (eg SMEs)?

DEMAND side issues to consider

SUPPLY side issues to consider

Management and resourcing

- What is the capacity and capability of our procurement and contract management resources?
- What is the current capacity in the market? What else is going on (both in terms of bidding capacity and on-going service capacity)? Are there sufficient players with capacity to undertake meaningful competition?
- What impact might my current requirement have as part of the bigger impact of public sector demand on the market? For example, a single organisation's demand for a product or service may represent only a small proportion of total market capacity, but, when considered alongside other organisations' procurement activity, this may represent a risk to government through over-dependency, under-capacity, or market distortion.
- Are there existing departmental frameworks/call-off commodity contracts available for some or all elements of the project?
Do these contracts meet our needs sufficiently?
Would these elements be best procured separately?

Bundling – supply chain

- Do we have the capacity and capability to deal with a lot of smaller contracts and any integration issues?
- Do we have the skills and experience to deal with the complexity of a large or multi-faceted requirement? For example, do we have the resources available and able to maintain visibility of the supply chain throughout the contract, if this is needed?
- Have the suppliers in the market demonstrated the skills necessary to integrate the different elements in an aggregated or bundled contract?
- Is one company likely to be best in class in every element – or would a combination of firms provide best in class in the totality?
- Is there strong competition at every level within the supply chain of my aggregated or bundled requirement? What impact might reduced competition at one level have on value for money overall? Can the management of the supply chain be left to a prime contractor or should I know who they are proposing or using as sub-contractors? Are the prime contractors in this market amenable to encouragement to promote innovation through use of SMEs, or in other ways to accommodate supply chain good practices?
- Does industry provide the services/products that I need? If there are alternative approaches to sourcing and supply chain, what constitutes acknowledged best practice in this market?

Further reading

This guide is supported by other material available from OGC, most of which can be found on the Successful Delivery Toolkit, which contains guidance on all procurement, project and programme issues:
www.ogc.gov.uk/sdtoolkit

Some guidance is also available in hard copy format, and can be obtained from the OGC Service Desk on 0845 0004999.

Specific products that are closely linked to this guide include:

- Best practice guidance on collaborative procurement (forthcoming – for information contact the OGC Service Desk).
- Contract Innovation – Decision Map and Guidance
www.ogc.gov.uk/sdtkdev/new_content/decisionmap/0_index.htm
- Smaller Supplier...Better Value?
www.ogc.gov.uk/embedded_object.asp?docid=2077
- Supplier Assessment Guidance
www.ogc.gov.uk/sdtoolkit/reference/deliverylifecycle/supplierassessment.html
- Capturing Innovation – OGC's guide on innovation through procurement
www.ogc.gov.uk/index.asp?id=1000992



Further information

About OGC

OGC – the UK Office of Government Commerce – is an office of Her Majesty's Treasury.

OGC Service Desk

OGC customers can contact the central OGC Service Desk about all aspects of OGC business. The Service Desk will also channel queries to the appropriate second-line support. We look forward to hearing from you.

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