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SMEs' access to public procurement markets and aggregation of demand in the EU

pwc

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Executive summary

Objectives

Public procurement is of tremendous economic significance for European business. Estimates made by the European Commission put the total value of expenditure by general government and utilities on public works, goods and services for 2011 at 2.406 billion euros, some 19 percent of the EU's gross domestic product, and a large part of this purchasing is subject to public procurement rules, either national or EU regimes. Public contracts under the latter – normally purchases above a set of value thresholds set in EU legislation – accounted for about 425 billion euros in 2011 (3,4 percent of GDP)¹, showing a steady growth over the past decade.

Given this large overall volume and the weight of public purchasing in selected sectors, it is of vital importance for many European companies to be able to access public contracts. Especially smaller economic actors may face obstacles to successfully participate in public procurement. The aim of this study is to improve understanding of Small and Medium-sized Enterprises' (SMEs) access to the public procurement markets in the EU, as well as to review how contracting authorities or entities (CAEs) aggregate demand and what this means in terms of access and costs. The analysis covers 27 EU Member States² and the three European Economic Area (EEA) countries (Iceland, Liechtenstein and Norway). The study has been prepared for the European Commission to help inform decision-makers about future policy.

Data sources and structure

The analysis of trends and patterns in the European public procurement market is largely based on contract award notices from the years 2009-2012, sourced from the TED (Ted Electronic Daily) database maintained by the European Commission. These notices contain detailed information of almost all purchases above the EU-thresholds by authorities or entities in the abovementioned 30 countries. These purchases represent more than 1,4 trillion euros in value. Data were also collected via two online surveys. One of the surveys was conducted among CAEs in the EU/EEA, while the other one – among companies based in the EU or local affiliates of third-country companies (these were predominantly businesses which have been awarded public contracts in the past few years). The two surveys were an important supplement to the official data retrieved from contract award notices, especially as they allow collecting primary information on the perceived costs and benefits of different procurement processes and on the different channels through which firms can participate in public procurement. In total, 1.198 procurers and 1.375 businesses have responded. In addition, about 215 semi-structured interviews have been conducted with authorities and businesses to help enrich our understanding of the costs and benefits of individual procurement procedures.

The first part of the report gives an overview of the main trends and developments on the above-threshold public procurement market in Europe, while the second chapter provides a detailed analysis of SMEs' access to the public contracts. Here we describe and provide estimates of the channels through which SMEs enter and win public procurement contracts. We furthermore look into the profiles of SMEs who are active in public procurement, which sectors they bid and win contracts in, and the factors influencing SMEs' participation in public procurement. The next part of the paper analyses trends and patterns in the aggregation of demand by looking at the evolution of the methods used for aggregation over time, and the overall volume of the use of framework agreements and centralized purchasing approaches. The last part of the study provides an analysis of the cost-effectiveness of market aggregation techniques and their impact on competition and market access for SMEs.

¹ The estimated aggregate value of public contracts published by 27 EU Member States on TED, the EU's public procurement portal (this corresponds to the volume of above-threshold procurement).

² The EU comprised 27 Member States in 2011, the cut-off date for the quantitative analysis.

Overview of procurement developments in the EU

On the basis of contract award notices published, the total volume of the above-threshold public procurement market in the 30 EU and EEA countries was estimated to be at the level of about 400 billion euros for 2011 in this study³. Following at least five years of a steady growth, the aggregate value of tenders published on TED declined in 2011, especially in Spain, Greece, Belgium, the Netherlands and Ireland, where the above-threshold market shrank by more than the EU-average, thus losing 'market share'.

The typical contract size has been declining over the last five years, with significant difference in average contract value across countries. Another notable trend is a decrease in the degree of competition in the marketplace, again with substantial differences between Member States. We find that there is a significant correlation between average contract value and the degree of competition. Contracts that are awarded using market aggregation techniques show a higher degree of competition.

SMEs' access to public procurement

Small and Medium-sized Enterprises (SMEs) are considered the backbone of the European economy. The approximately 20,8 million SMEs registered in the EU represent 99,8 percent of all enterprises and produce more than a half of European GDP. Due to this, SMEs are in the prime focus of European public policy and one of the objectives is to facilitate SMEs access to public procurement.

In the reference period between 2009 and 2011, an estimated 56 percent of all public procurement contracts above the EU-thresholds were awarded to SMEs (or groupings of companies led by an SME). In terms of the aggregate value of contracts awarded, this corresponds to a 29 percent market share. This figure is slightly below the estimates of the previous three-year period (2006-2008), although it cannot be determined whether this marks a genuine negative trend or merely indicates random fluctuations of the market or bias coming from a refined estimation methodology.

Breaking down figures on SMEs' share by Member State in which the public procurement took place shows marked differences between countries. In terms of the number of contracts won, SMEs' share ranged from an estimated 84 percent in Greece to 44 percent in Spain. In terms of the aggregate value of public contracts awarded, there is a considerably wider difference between countries ranging from an estimated 19 percent in Portugal to 78 percent in Greece.

SMEs are somewhat underrepresented in public procurement (at least in procedures above the EU-thresholds) compared to their overall weight in the economy. The 29 percent share of European SMEs in the 2009-2011 period is 29 percentage points lower than it would have been (58 percent) if the share of public procurement they won equalled to SMEs' share of the total gross value added produced in the business economy.

Due to minimal information available about SMEs performance in below-threshold procurement, no robust estimated method could be employed to calculate their share. Data obtained from official sources confirm a rather evident hypothesis that SMEs are more successful in below- than in above-threshold procurement. The estimate made in this study assigns a total share of 58-59 percent to SMEs in below-threshold procurement in terms of the aggregate value of contracts awarded.

In terms of SMEs' participation rates in above-threshold procurement, the results show, unsurprisingly, that larger companies submit more tenders on average. While the difference between micro- and small enterprises is small, the gap between small and medium, and medium and large companies is considerably larger. The success rate of companies does not seem to differ significantly by enterprise size class.

In addition to being awarded a contract directly, SMEs do benefit from public procurement above the EU-thresholds also through other channels (e.g. as a member of a joint bid arrangement or as a subcontractor). It is estimated that when these additional channels are factored in, SMEs' actual share

³ The study's estimate differs slightly from the European Commission's figures due to different extrapolation methods used to fill data gaps.

in the total number of public contracts above the EU-thresholds is 16 percentage points higher than the volume of contracts they are directly awarded: 45 percent of aggregate contract value versus only 29 percent of contracts in terms of value.

Apart from inherent differences between countries, the value of public contract is one of the major factors that influence the extent to which SMEs can access these contracts. The larger a contract (i.e. single awards/lots), the less likely it will be awarded to SMEs, starting from above ca. 60.000 euros. This effect is not detectable among lower-value contracts. Other factors influencing SMEs' share in winning public contracts are:

- *The type of contract.* SMEs' account for a considerably lower proportion of above-threshold supplies contracts than that of public works contracts
- *The sector of the goods or service.* SMEs play only a marginal role in the supply of commodities (16 percent by value of contracts), but they accounted to more than half (57 percent) of the contract volume in the 'other manufacturing' sectors. Their share is between 25 percent and 32 percent in the other five sectors: supply of machinery and equipment; medical products; construction; business services; other services.
- *The type of procurer.* The share of contract volume awarded to SMEs was relatively high for tenders launched by regional and local authorities and agencies (37 percent) but low among utilities (15 percent).
- *The tender procedure chosen.* SMEs take a much smaller share of the total value of contracts awarded under the various negotiated procedures (19 percent) than under open procedure (34 percent) or restricted procedures (29 percent).
- *Market aggregation.* Joint purchasing (procurement on behalf of others) seems to have a significant negative impact on SMEs' chances⁴, even if the contract value is the same; whereas framework agreements do not influence the outcome. The latter result is also in line with tenderers' perceptions.

Between 2009 and 2011, 1,26 percent of all contracts above thresholds were awarded to economic operators located in a foreign country. In terms of the aggregate value of these contracts, this corresponds to 3,1 percent of all above-threshold procurement. The analysis does not reveal significant difference between the proportions of SMEs among the companies winning domestic or direct cross-border contracts. SMEs won 56 percent of domestic public contracts and 54 percent of cross-border contracts. In terms of value, SMEs' share was lower in cross-border procurement (22 percent) than domestic procurement (29 percent).

Facilitating SMEs access to public procurement is also on the agenda of policymakers in many of the non-member countries participating in the EU's Competitiveness and Innovation Programme (CIP)⁵. The barriers are similar to what small businesses within EU face – large volumes and broad capabilities required restricted access to certain contracts, disproportionately high technical and financial qualification levels, etc. Similarly, most of the legislative and non-legislative measures undertaken to level the playing field for SMEs mimic those practiced in the EU (use of lots, reducing technical and financial requirements, mitigating the administrative burden, etc.). The proportion of SMEs in economic operators winning public contracts is not known for the CIP countries reviewed. The opinion of local stakeholders seem to vary, with some being more or less satisfied, others seeing more room for improvement in the extent to which SMEs have access to public procurement market. Moreover, the extent to which SME access to public contracts has been out on the policy agenda varies across countries.

Trends and patterns in market aggregation

Aggregation techniques (see: Definitions and abbreviations) are used to improve cost-saving and the efficiency of procurement. In the EU, the most common instrument used is a framework agreement.

⁴ This differs from the results and feedback from the survey and interviews.

⁵ Albania, Croatia, the Former Yugoslav Republic of Macedonia (FYROM), Israel, Liechtenstein and Serbia were covered.

Framework agreements establish the contractual terms which will apply to subsequent orders made for a period of time. Another aggregation technique commonly used is centralized purchasing. This involves centralized procurement bodies (CPBs) purchasing on behalf of others, collaborations between procurers, and the use of service providers/entities to manage the purchasing process.

The use of framework agreements has increased in recent years. As of 2011, framework agreements constitute nearly 25 percent of the total value of all contracts awarded above the EU-thresholds. In terms of numbers, they represent 1 in 6 of all contracts awarded. Centralized purchasing accounts for about 5 percent of the market in terms of number of awards, and about 20 percent of the total value of contracts awarded between 2009 and 2011. For this aggregation technique there has been a remarkable growth in terms of value. In many instances, a combination of CPBs and the use of framework agreements can be observed: more than half of all centralized purchases are done through a combined use of CPBs and framework agreement.

Four factors drive both the use of centralized purchasing and the use of framework agreements. First, the cultural environment: Northern and North-Western European countries tend to show an inclination towards the use of centralized purchasing and framework agreements, while Southern Member States use it less (with some exceptions).

The second factor is the effect of fiscal austerity. We see a tendency to conduct more centralized purchasing procurements from 2008 onwards. As from 2008, many (if not all) Member States saw an increased pressure on public budgets, leading them to search for opportunities to reduce the price of goods and services procured. One of the solutions found was a higher aggregation of demand in the form of centralizing procurement to harvest the economies of scale. A significant increase in the number of very large contracts in UK illustrated this trend.

The third factor is the level of standardization, or similarity of the procured goods and services. The more similar (homogenous) the procured products are, the easier it is to aggregate orders without losing out too much in flexibility in meeting the demands of individual authorities. The importance of homogeneity in demand aggregation is underlined by the fact that framework agreements are mostly used for supplies, especially for the supply of commodities.

The fourth and perhaps the most important, although the least tangible, factor is the level of professionalism (a combination of experience and capacities) of the procuring authorities. We found strong indications that this is indeed very important in explaining the use of centralized purchasing. The more experienced a procurement authority is, the more likely other authorities are willing to take advantage of their expertise. Alternatively, the more 'professional' an authority is in its procurement procedures, the more likely it is to engage in centralized purchasing. Nevertheless, despite all the indications in support of this explanation, the study methodology did not allow to test this factor.

The relative flexibility of the regime from the point of view of CAEs, as well as the lower administrative burden involved, seem to be only a minor driver of the use of a framework agreement.

Cost effectiveness of market aggregation

Demand aggregation - whether it is a framework agreement or a centralized procurement – has certain impacts on the overall costs of the procurement procedure. In this study, we estimated the level of reduction in transaction costs, which appears to be considerable. Indeed, our surveys and interviews support the notion the use of demand aggregation techniques is to a large extent motivated by its lower cost and simplified procedures. We have, however, found that the use of demand aggregation has detectable impacts on the level of competition.

The EU public procurement directives offer considerable flexibility with regard to the national implementation. This is seen in the great diversity in the use of aggregation techniques, both between countries and within a country.

The lion's share of the costs of the procurement process is given by the cost of labour. Correspondingly, this study estimated the costs of both centralized purchasing and framework agreements in terms of

person-days (in full-time equivalent), which were subsequently monetized by multiplying the number of person-days by the country's average labour cost.

Centralized purchasing requires more staff time (30 person-days on average) than the broad average for all procurements (22 person-days), but when disaggregating the results by how many authorities or entities (i.e. individual buyers) the contract involves, we find that the average staff time *per buyer* decreases as the number of buyers involved increases. We therefore find that centralized purchasing has a significant cost saving potential.

Framework agreements are the procurement technique with the smallest amount of staff time required, and thus allows for significant cost savings for CAEs. Individual contracts under framework agreements take on average 8 person days' of staff time per request, compared to all procurements with an average number of person-days of 22.

When monetizing the cost we find a significant difference in procurement costs between countries. The costs naturally tend to be higher in high-wage countries; but in the case of centralized purchasing, it is not only high-wage countries that are at the top of the league table. The average cost of a centralized purchase is 6.700 euros across the EU. When dividing this cost by the number of authorities involved in the contract the average cost is around 1.300 euros per authority. For framework agreements with the maximum duration under normal circumstances (i.e. four years) the average yearly total cost has been estimated at 9.500 euros. For framework agreements we find lower costs in low-wages countries. The average cost per individual request under a framework agreement is 1.200 euros.

When comparing the cost per request for framework agreements and the cost per CAE participating in centralized purchases (on a typical purchase with an average total cost of 5.500 euros) we find that the aggregation of demand can significantly reduce the time input of procurers' staff and hence lead to increased savings for CAEs.

The effects of demand aggregation on the level of competition draw a mixed picture. On one hand, competition is usually rather strong in the first stage of awarding framework agreements and also among large centralized contracts. The first stage of framework agreements is likely the most competitive tool in the European public procurement market. On the other hand, when the contracts are implemented, a different picture emerges. 80 percent of framework agreements are implemented under a single supplier-arrangement or use techniques that do not involve any competition among suppliers. In addition, incumbents seem to be usually favoured when new framework agreements are launched.

Interestingly, SMEs' access is not particularly affected by the use of aggregation techniques as compared to stand-alone contracts. Businesses report broadly similar success rates as for stand-alone contracts. We should note however that a very important determinant of SMEs' level of access is the value of the contracts, while aggregated contracts tend to have higher values.

EProcurement tools affects competition, but not aggregation of demand

The main impacts for the usage of eTools are the reduction of process costs by establishing lean-procurement processes and reuse of data in the complete electronic procurement process. In addition the eTools will contribute to increase competition (eNotification) and possibilities for SMEs to compete cross-border. For the CAEs the eTools have marginal effects on the aggregation of demand. The aggregation of demand will be decided in the evolution of the procurement strategy of each category, depending on the business ambition of the CAE.

Use of CPBs increases professionalism

The study reflects that the transparency has increased (80 percent) by the use of centralized purchasing. However, the execution of stage two in framework agreement is important for the transparency and competition. The selection of procedures for call-offs in stage two (see chapter 4.4) decides the distribution of call-offs among the supplier(s). The call-offs is just distributed to the awarded suppliers and in that case less transparent to the market, than an open procedure. For call-offs there are no required award notice. The survey for enterprises confirms that 39 percent of respondents disagreed

that the selection of providers under framework agreements is transparent. Only 22 percent of the respondents agreed with the statement.

Regarding compliance, the professionalism in CPBs would increase the compliance to the legislation. In addition, the CPBs and the CAEs have to increase the use of resources significantly to implement the CPBs' awarded contract and ensure the compliance to the contract clauses if the number of CAEs increases above 6.

The results of the study indicate that the professionalism of the procurement activities is not only concentrated to the improvement of the processes and reducing the process cost. It is also taking into account the theory of portfolio models and smart procurement by implementing category strategies as tools for public procurement to reduce cost and meet budget challenges.

In conclusion, the use of demand aggregation as a policy to strengthen the internal market offers some dilemmas. There is evidence for certain benefits, in particular process cost savings. The implications on competition and especially the longer-term dynamics of reduced competition and lock-in of suppliers should be a concern however. Demand aggregation does not seem to be particularly negative for SMEs, but it should be kept in mind that this is against a baseline (stand-alone contracts of comparable, i.e. relatively high-value) where SMEs have disproportionately lower chances for success to begin with.

Definitions and abbreviations

Definitions

Aggregation of demand: Public sector purchasers from within the same body, and/or from different public sector bodies or other entities combining individual requirements to procure common goods and services from the market to achieve cost reduction through economies of scale.

Aggregation techniques: Techniques used to aggregate demand for public procurement

Awards: Allocation of contracts in compliance with procedures described in EU Directive 2004/18/EC (procedures of public sector bodies) and Directive 2004/17/EC (procedures of entities operating in utilities).

Call-off: Individual contracts that can be made throughout the term of a framework agreement

CANs: Contract Award Notices published in the TED database.

Centralized purchasing: An aggregation technique including either activities using centralized procurement bodies (CPBs), purchasing on behalf of others, collaborations between entities and/or using of service providers/entities to manage the purchasing process. The term is described in the TED databases as whether "*a contract award is on behalf of other contracting authorities or entities*".

Central Purchasing Bodies (CBPs): Article 11, Directive 2004/18/EC defines a Central Purchasing Body: Contracting authority that: (i) Acquires goods or services intended for one or more contracting authorities; (ii) Awards public contracts for works, goods or services intended for one or more contracting authorities; or, (iii) Concludes framework agreements for works, goods or services intended for one or more contracting authorities.

Cross-border procurement: Cross-border procurement takes place when a public contract in a Member State is partly or fully performed by economic operators from abroad.

Contracting authority or entity (CAE): A buyer purchasing under Directives 2004/18/EC and Directives 2004/17/EC

Contract: An agreement having a lawful object entered into voluntarily by two or more parties, each of whom intends to create one or more legal obligations and awarded according under Directives 2004/18/EC and Directives 2004/17/EC

Direct cross-border procurement: When there is at least one contractor, a single contractor or a member of a joint bid, is registered in a different country than the country of the contracting authority or entity (CAE).

Dynamic Purchasing Systems: A dynamic purchasing system (DPS) is a completely electronic process for making commonly used purchases, for a limited period, which is open to any economic operator who meets the selection criteria and has submitted a technically compliant indicative tender. No specific threshold applies.

Electronic auction: Procurement between contracting authority or entity (CAE) and tendering firms, which takes place on an electronic marketplace.

E-Notification: A public electronic message where the procurement body announces publicly his needs in a systematic way and delivered as an open message available for the public.

E-Procurement: Electronic means of collecting demand information. Often these tools are integrated with the go-to-market and may offer online catalogues, scheduled purchasing of specific items, and

links to established contracts with suppliers. The eTools may also extend into the post-contract phases and provide support for contract and supplier management.

EU Members States: States which are members of the European Union

EU procurement directives: EU Directive **2004/18/EC** covers the procurement procedures of public sector bodies. Directive **2004/17/EC** covers the procurement procedures of entities operating in utilities.

European Charter for Small Enterprises: Main policy initiatives from recent years include the European Charter for Small Enterprises⁶ (adopted in 2000).

EU threshold level (below): Below EU threshold means public procurements of works, goods or services with a contract value below:

- General public supply and service contracts: 130.000 euros (central government)/200.000 euros (local government)
- Public works contracts: 5.000.000 euros

Framework agreement: An aggregation technique that is defined by the EC Directive as: "an agreement between one or more contracting authorities and one or more economic operators that purpose of which is to establish the terms governing contracts to be awarded during a given period, in particular the terms as to price and, where appropriate, quality envisaged."⁷

Indirect cross-border procurement: When the economic operators with whom the contract was concluded are domestic, but a substantial part of the contract is performed by foreign firms.

MEAT/Most economically advantageous tender: Criterion that enables the CAE to take account of criteria that reflect qualitative, technical and sustainable aspects of the tender submission as well as price when reaching an award decision.

Negotiated procedure: Negotiated procedure means the procedure whereby the CAEs consult the economic operators of their choice and negotiate the terms of the contract with one or more of these.

Open procedure: Anyone interested in a specific contract will be invited to tender the competition in order to ensure maximum competition.

Participant: CAEs that the CPBs procure on behalf of.

Pre-market phase: The two first phases of the value chain for procurement; Mobilize demand information, Categorization and preparation

Procurements: The acquisition of goods, services or works from an outside external source.

Public procurements: CAEs acquiring goods, services or works from an outside external source under Directive 2004/18/EC and Directive 2004/17/EC⁸

Restricted procedure: The buyers limit the number of suppliers that are invited to tender for a contract.

Request: Individual contracts that can be made throughout the term of a framework agreement (synonym for call-off)

⁶ See the original document, best practices and additional information at the Charter's website: <http://ec.europa.eu/enterprise/policies/sme/best-practices/charter/>

⁷ Article 1(5), Directive 2004/18/EC, Official Journal of the European Union.

⁸ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004L0018:EN:HTML> and <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:134:0001:0113:en:PDF>

Small and Medium-sized Enterprises (SMEs): Independent enterprises or groups of enterprises with less than 250 employees, and with total annual turnover not exceeding 50 million euro, or a balance sheet not exceeding 43 million euro⁹

SMEs' quotas: Legislative arrangements introducing an explicit positive discrimination of small businesses in public procurement procedures

The TED database (OJ/TED): The Official Journal Tender European Daily is the online version of the Supplement to the Official Journal of the European Union, dedicated to European public procurement. The database contains detailed information of all purchases by authorities above threshold level in 30 countries over the period 2009-2012. (<http://ted.europa.eu>).

Utilities: Entities operating in the water, energy, transport and postal services sectors and purchasing under Directive 2004/17/EC of the European Parliament and of the Council of 31 March 2004.

Value chain for procurement: The value chain for procurement consist of four phases; Mobilize demand information, Categorization and preparation, Go-to-market, Post-contract management.

⁹ The official European definition of SMEs is given by a Commission recommendation from 2003.

Abbreviations

AT	Austria
BE	Belgium
BG	Bulgaria
CAE	Contracting Authority or Entity
CAN	Contract Award Notice
CIP	The Competitiveness and Innovation Framework Programme
CP	Central Purchasing
CPB	Central Purchasing Body
CPV	Common Procurement Vocabulary (Regulation (EC) 213/2008)
CY	Cyprus
CZ	Czech Republic
DE	Germany
DG	Directorate-General
DK	Denmark
DPS	Dynamic Purchasing System
EC	European Commission
EE	Estonia
EEA	European Economic Area
EL	Greece
ES	Spain
EU	European Union
EU-27	BE, BG, CZ, DK, DE, EE, IE, EL, ES, FR, IT, CY, LV, LT, LU, HU, MT, NL, AT, PL, PT, RO, SI, SK, FI, SE, and UK
FI	Finland
FR	France
FYROM	Former Yugoslav Republic of Macedonia
GDP	Gross Domestic Product
GVA	Gross Value Added
GWAC	Government-Wide Acquisition Contracts
HR	Croatia
HU	Hungary
HUF	Hungarian forint
IE	Ireland
IL	Israel
IS	Iceland
IT	Italy
LI	Lichtenstein
LT	Lithuania
LU	Luxembourg
LV	Latvia
DG MARKT	The Internal Market and Services Directorate General
MEAT	Most economically advantageous tender
MK	Former Yugoslav Republic of Macedonia
MT	Malta
NACE	Statistical classification of economic activities in the European Community (Nomenclature statistique des Activités économiques dans la Communauté Européenne).
NL	Netherlands
NO	Norway
OECD	Organisation for Economic Co-operation and Development
OJ/TED	The Official Journal Tender Electronic Daily
PIN	Prior Information Notices
PL	Poland
PPO	Public procurement office
PT	Portugal
RO	Romania
SBA	Small Business Act
SBS	Eurostat's Structural Business Statistics
SE	Sweden

SI	Slovenia
SK	Slovak Republic
SR	Serbia
SMEs	Small and Medium-sized Enterprises
TED	Tender Electronic Daily
UK	UK

Introduction

Scope and objective

The aim of this study is to improve the understanding of Small and Medium-sized Enterprises' (SMEs') access to public procurement markets and the aggregation of demand¹⁰ in the European Union (EU). The study provides a description and analysis of SMEs' presence in the overall public procurement, trends in the market aggregation and the impacts of the latter on the way public purchasing is carried out. The study is representative for all 27 Member States and the EEA countries, with data from the years between 2009 and 2011. This study is prepared on behalf of the European Commission and has been carried out during 2013.

Sources and methodology

The analysis is based on data from both public sources as well as from and proprietary surveys and interviews conducted during 2013. The important data sources are:

- **Records of European public contract awards during 2009-2012 from the TED database¹¹.** The data are for contract award notices from 30 countries during this period. Awards above the EU threshold level are required to be published in the TED database maintained by the European Commission. Based upon these data we have performed various statistical presentations and used a variety of techniques, from straight forward cross-tabulations to more advanced econometric modelling. An indication of the overall volume of public procurements in Europe is derived from the TED database for Contract Award Notices that is maintained by the European Commission. Due to limited official statistics of awarded contracts below EU threshold two different methods have been used for estimation of values for this segment.

- **Two surveys of purchasing authorities and businesses.** An important supplement to the official data is the use of data from surveys conducted during this analysis. The surveys gather information on distribution data not covered by the official statistics, cost and perception of effectiveness by authorities in relation to various aspects of the procurement process. In total, **1.198 authorities (748 responded on questions concerning framework agreements and 450 responded on questions concerning centralised purchasing) and 1.375 businesses** responded, providing a robust statistical basis for the analysis.

- **Business data** from Dun & Bradstreet's. Samples of businesses have been matched with business data to enable a categorization of the business size (i.e. small, medium and large). Data from the TED database contains very little information about the characteristics of the firms that win contracts.

- **Interviews and discussions.** **215 semi-structured interviews** have been conducted with authorities and businesses to help enrich the understanding of SMEs' access to public procurement markets, and the aggregation of demand in the EU.

Details of the methodology, including respondent profiles, survey questionnaires and econometric output tables are found in a technical annex (separate file).

¹⁰ Aggregation of demand is defined as: Public sector purchasers from within the same body, and/or from different public sector bodies or other entities combining individual requirements to procure common goods and services from the market to achieve cost reduction through economies of scale.

¹¹ The Official Journal Tender European Daily is a database with Contract Award Notices maintained by the European Commission. TED contains detailed information of all purchases by authorities above threshold level in 30 countries over the period 2009-2012. (<http://ted.europa.eu>). See Annex for more details.

Content

- The first chapter gives an **overview** of procurement developments in Europe. This section provides an important background for the more detailed analysis of the issues that are of focus in this report.
- Chapter two looks into **SMEs' access** to the EU public procurement market. The chapter describes and provide estimates for the channels through which SMEs get access and win public-procurement contracts, the profiles of SMEs active in public procurement, which sectors they bid on and win contracts, and factors influencing SMEs' participation in public procurement.
- The next part of the paper (chapter three) analyses recent trends in **market aggregation** in public procurement. This part of the study investigates the way in which EU Member States have made use of both aggregation over time and volume with methods of framework agreements, centralized purchasing and e-procurement.
- The last part of the study (chapter four) analyses the **cost-effectiveness** of market aggregation and its impact on competition and market access for SMEs.

A separate file of annexes provides a number of data tables pertaining to the most important figures presented in the main section of the study.

Overview of procurement developments in Europe

1 Development of the public procurement market in Europe

This section contains an overview of the developments of the European public procurement markets. Firstly, a theoretical procurement framework is going to be discussed followed by concepts, market situation, volumes, the number of transactions, contract values and a competition. This information constitutes an important background for the more detailed analysis of the issues that are of focus for this report. It also represents the benchmark for measuring the developments in SMEs' market access and the demand aggregation.

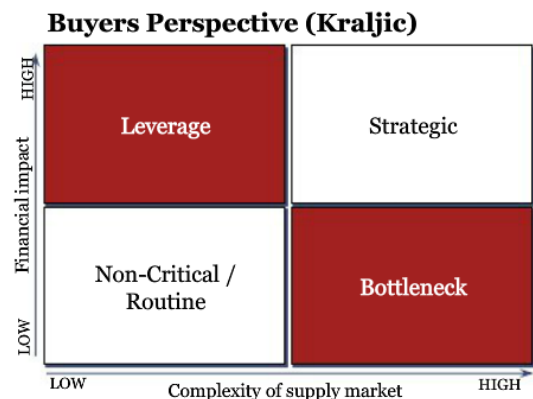
Sourcing and procurement development - theory

There has been an increased focus on procurement and sourcing during the past years. The general financial situation in most European countries has forced the decision-makers responsible for a budget to reduce costs and in general increase public effectiveness. Within an extensive European legislation within the area of public procurement, the decision-makers have to explore and develop innovative processes to meet the overall requirements for the budget reduction, transparency and compliance. The development and strengthening of procurement and sourcing competence both within the SMEs and the CAEs have been actualized. Some nations have started cost-cut programs through cost reductions in procurement processes and the launch of category management.

The theory behind the implementation of category management is the use of portfolio models in procurement. The Kraljic- matrix¹² has become the dominant approach to what the profession regards as "operational professionalism"¹³ Kraljic highlights the financial impact and complexity in supply market as classification indicators for developing sourcing strategies for each category. Every category is grouped within each square (Exhibit 1-1) and each square/portfolio has their own "go to market" strategy. Traditionally, the portfolio approach is more common in private sector supply chain challenges than public procurement. The use of aggregation technics in public procurement may move the attention from procurement as a clerical duty to a more strategic agenda item for the public sector. The public procurement officers will have to use their procurement professionalism within the framework of and compliance with the EC procurement legislation. We will in addition use the data acquired in this study to see if change in

procurement professionalism impacts the CAEs' market behaviour.

Exhibit 1-1: Kraljic – matrix classification of market approach



Further in this introduction we will view the overall volumes on EU-level, contract volumes and competition, before we in detail will present the various technics and development of aggregation of demand.

¹² Kraljic (1983) introduced the first comprehensive portfolio approach "Purchasing Must Become Supply Management," Harvard Business Review, (61:5), September–October 1983,

¹³ Cox, A. Business Success — A Way of Thinking about Strategic, Critical Supply Chain Assets and Operational Best Practice 1997.

Overall volumes

There has been a consistent and robust growth in the public procurement markets for many years and up until quite recently. Over the last seven years, we have seen almost a doubling in the number of transactions, from about 90 thousand in 2006 to 154 thousand in 2011. The market value has increased by about 40 percent during 2006-2011. There are now annual purchases for about 390 billion euros (of above EU threshold level purchases) by the 30 states who report to the European Commission. It is likely that the observed reflects an increased reporting as it exceeds the growth of public sectors in general across Europe in the same period.

Exhibit 1-2: Number of total procurements in Europe

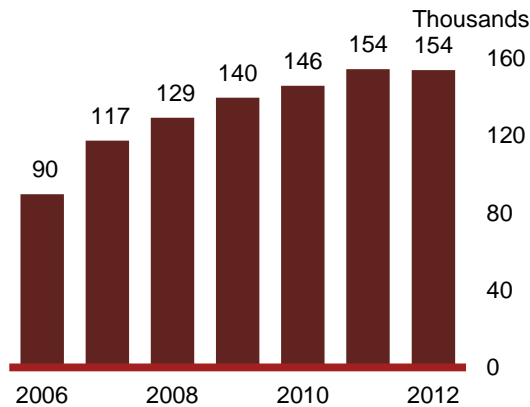
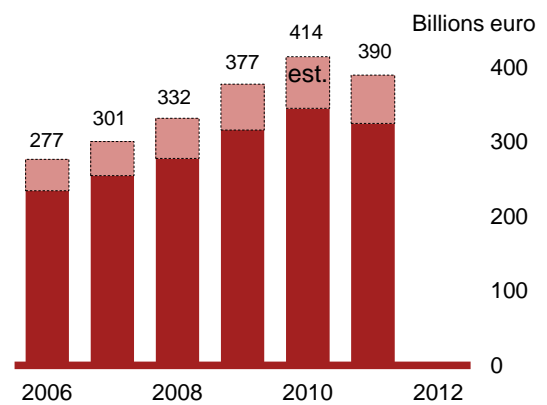


Exhibit 1-3: Value of total procurements in Europe (observed and extrapolated¹⁴)¹⁵



Sources: *The TED database; Team Analysis.*

Public procurement volumes have possibly been declining since 2010. The decline is seen throughout Europe, but with some relative shifts within shares of different countries. For example, a declining share of the overall market can be observed in for instance Spain, Greece, Belgium, the Netherlands and Ireland. Most countries show little change in their overall share, indicating that the absolute values of their markets have declined in line with the overall trend. There is however considerable increases observed in Finland, Romania and also in UK. The latter is also the largest public procurement market under the scope of the EU procurement directives.

¹⁴ Figure shows total value as sum of recorded values and estimated value of the missing observations. The estimation is based on a study with a ratio of 18-20 percent, increasing every year.

¹⁵ Estimated value of total procurement differs from the DG MARKET indicators due to different methods of calculation. The DG MARKET indicators are, in billion euros; 2006: 377,1, 2007: 367,2, 2008: 392,4, 2009:420,4, 2010: 447, 2011: 425,4

Exhibit 1-4: Share of total value compared:2006-2009 vs. 2010-2011

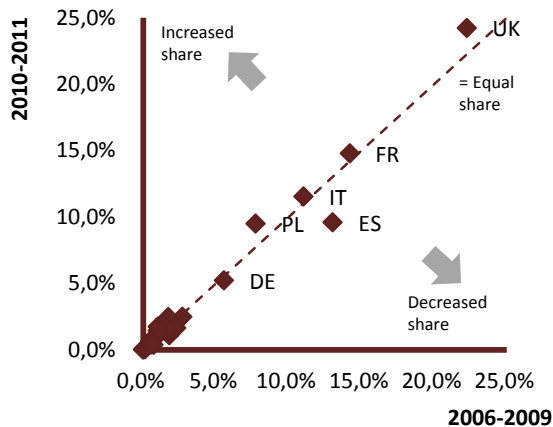
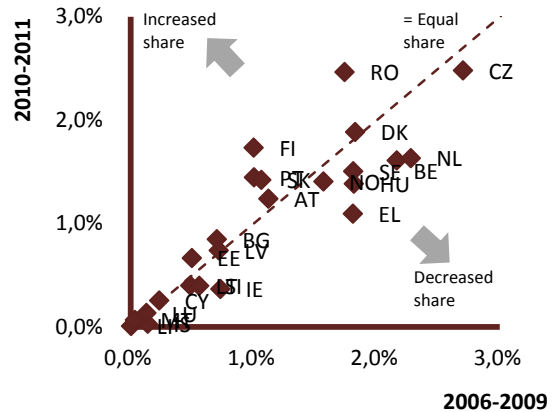


Exhibit 1-5: Extract of lower range in Exhibit 1-4, Share of total value compared (0%-3%) :2006-2009 vs. 2010-2011



Sources: The TED database; Team Analysis.

The declining market size is also manifested through fewer contracts being awarded. Growth of the number of contract awards declined, slightly, for the first time in many years during 2012. In large procurement markets such as UK, Spain and Italy there is a declining number of transactions. There are however some countries, including Poland and Germany, that show growth in the number of public procurements.

Exhibit 1-6: Total procurements in select countries (numbers)

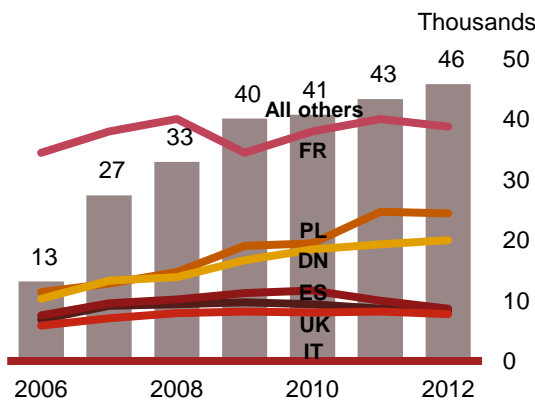
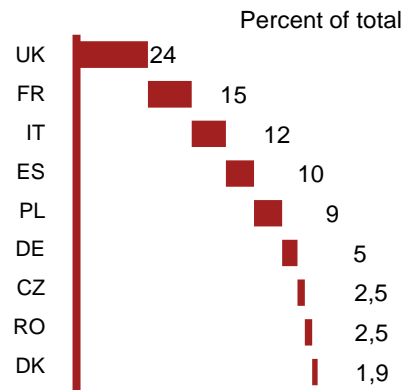


Exhibit 1-7: Share of total value by country 2011 (80 percent of total value in nine countries)



Sources: The TED database; Team Analysis.

The declining volumes in recent years may reflect on going austerity measures across European governments. Before drawing such conclusions, however, we should note that these data do not capture the full scope of market expenditures by European governments. There is additional public procurement volumes that fall below the threshold values of the EU directives, or that otherwise are not covered by the regulations. It is possible that spending could have been shifted to these other market areas although we have no specific indications that such is the case.

Contract sizes

The typical contract size has been declining consistently over the last five years. While the median contract value was about 390.000 euros during 2006-2009, it has now declined to about 300.000 euros. The decline in average value of each contract awarded is consistent across the six largest procurement markets except in UK where the price changes are more erratic over the same period.

SMEs' access to public procurement markets and aggregation of demand in the EU

France and Poland have relatively small contract sizes close to the European average. Values in Italy, UK, and Spain are considerably higher. These differences reflect varying practises across Member States with regards to market approaches and also possibly with regards to market aggregation. The latter will be considered further and more in-depth in the following study.

Exhibit 1-8: Contract values 2009-2012 (median)

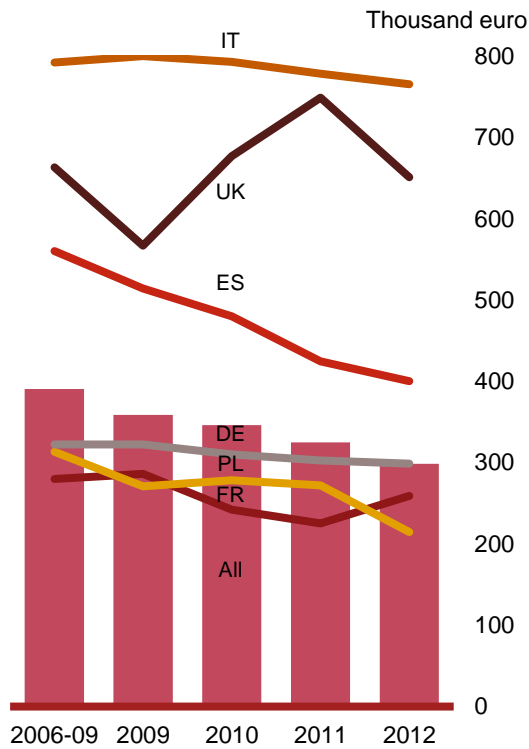
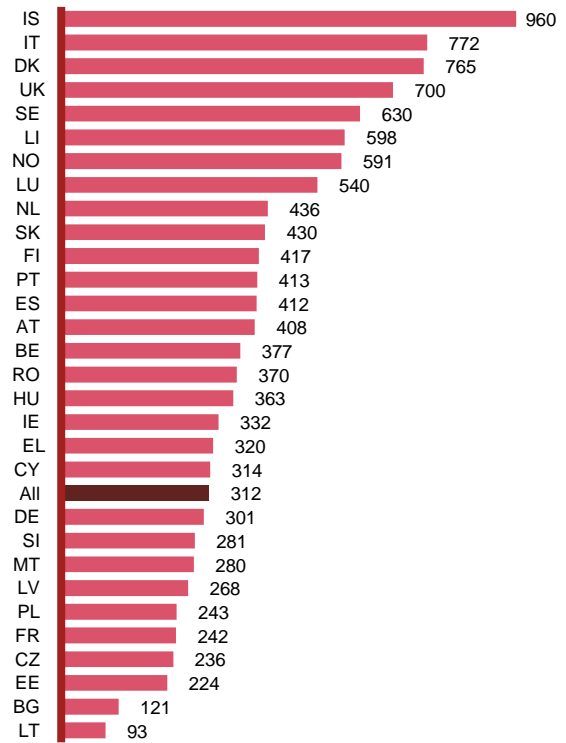


Exhibit 1-9: Contract value by country (median, 2011-12 average)



Sources: The TED database; Team Analysis. Note: Bids calculation with 1pct of awards with highest bids per segment excluded. Segments are: (i) Framework; (ii) Centralized purchasing; and (ii) All others.

Competition

A worrying trend is that the degree of competition in the marketplace may be declining. We can measure the degree of competition by summarizing the bidders for each contract awarded. Generally, most tenders receive about 2-4 proposals. The median is at three and this has not changed since 2006. The mean measurement has however declined every year since 2009. Also, the number of contracts that are awarded without competition, or with only one bidder, has increased from about 20 percent during 2006-2009 to about 25 percent.

There is a significant difference when studying the level of competition between Member States. The median measure is somewhat more stable across countries, while the mean measurement varies more. There is a relationship between average contract values and the degree of competition which we have explored in previous work¹⁶. We will revisit some of the same issues in the case that they pertain to SMEs and market aggregation in chapter 0 and 4.4.

Contracts that are awarded using market aggregation techniques show a higher degree of competition. This is especially the case for framework agreements and centralized purchasing. This will be analysed more in depth in chapter 4.4.

Exhibit 1-10: Number of bids per competition (mean and median)

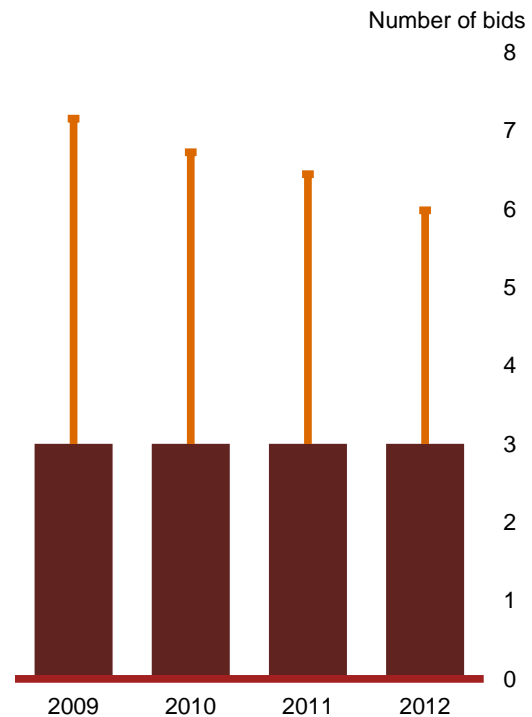
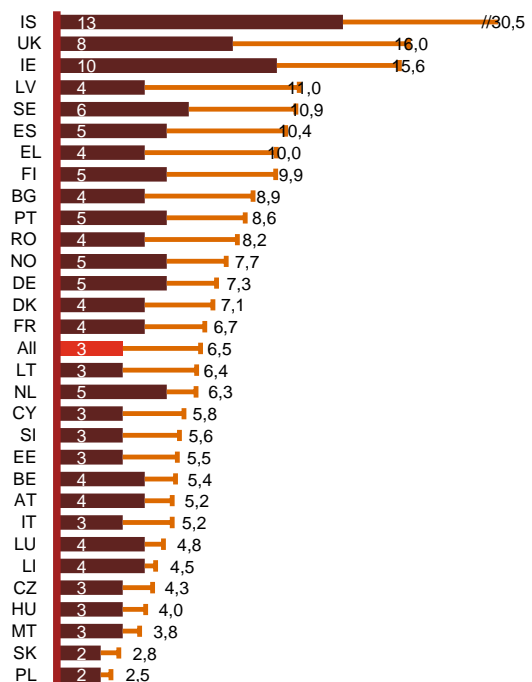


Exhibit 1-11: Number of bids by country (mean and median)



Sources: The TED database; Team Analysis. Note: Bids calculation with 1 percent of awards with highest bids per segment excluded. Segments are: (i) Framework; (ii) Centralized purchasing; and (iii) All others.

¹⁶ Public procurement in Europe: Cost and effectiveness. Strand/Ramada/Canton 2011

Trends and patterns in SMEs' access to public procurement

2 Trends and patterns in SMEs' access to public procurement

2.1 Introduction and past trends

Small and Medium-sized Enterprises (SMEs) are considered the backbone of the European economy. The approximately 20,8 million SMEs registered in the EU represent 99,8 percent of all enterprises. They produce more than half of European GDP and account for about two out of three jobs in the private sector.¹⁸ SMEs are key drivers for European economic growth, competitiveness, innovation, employment and social integration.

Due to their significance, SMEs are also in the prime focus of European public policy, with a host of corresponding initiatives focusing on identifying SMEs' specific challenges and on promoting a favourable business environment for them. Main policy initiatives from recent years include the European Charter for Small Enterprises¹⁹ (adopted in 2000), the re-launched Lisbon Programme²⁰ (2005) and the Communication on implementing a "Modern SME Policy for Growth and Employment"²¹ (2005), the European Small Business Act (SBA)²² (2008), the European Small Business Portal²³ (2010) or the

The official European definition of SMEs is given by a Commission recommendation from 2003¹⁷. According to this definition, SMEs are, somewhat simplified, independent enterprises or groups of enterprises with less than 250 employees and with total annual turnover not exceeding 50 million euros, or a balance sheet not exceeding 43 million euros (only one of the latter two criteria needs to be met). SMEs are further broken down to micro, small and medium-sized enterprises, forming three nested categories, with the larger categories including the smaller ones. The respective thresholds are the following:

Size class	Employee number	Annual sales (euros)	or	Balance sheet total (euros)
Micro	< 10	≤ 2 million		≤ 2 million
Small	< 50	≤ 10 million		≤ 10 million
Medium-sized	< 250	≤ 50 million		≤ 43 million

The above thresholds apply to consolidated figures at group level, taking into account partner and linked organisations. Furthermore, companies in which public bodies have a stake of at least 25 percent are normally not considered SMEs, with some exemptions.

In this study, the category 'medium-sized enterprises' refers to companies that meet the definition for medium-sized enterprises but *not* that of the smaller categories. Similarly, the category 'small enterprises' groups companies that meet the definition of a small enterprise but *not* the definition of a micro-enterprise. Consequently, the three categories, together with large enterprises, will form *four non-overlapping groups of companies* (see Exhibit 2-1 overleaf).

¹⁷ Commission Recommendation 2003/361/EC concerning the definition of Micro, Small and Medium-sized Enterprises. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:124:0036:0041:EN:PDF>

¹⁸ Data sourced from Eurostat's Structural Business Statistics (SBS) database. http://epp.eurostat.ec.europa.eu/portal/page/portal/european_business/introduction

¹⁹ See the original document, best practices and additional information at the Charter's website: <http://ec.europa.eu/enterprise/policies/sme/best-practices/charter/>

²⁰ Communication from the Commission on "Common Action for Growth and Employment: The Community Lisbon Programme" (COM(2005) 330). <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2005:0330:FIN:EN:PDF>

²¹ Communication from the Commission on "Implementing the Lisbon Programme: Modern SME Policy for Growth and Employment" (COM(2005) 551). <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2005:0551:FIN:EN:PDF>

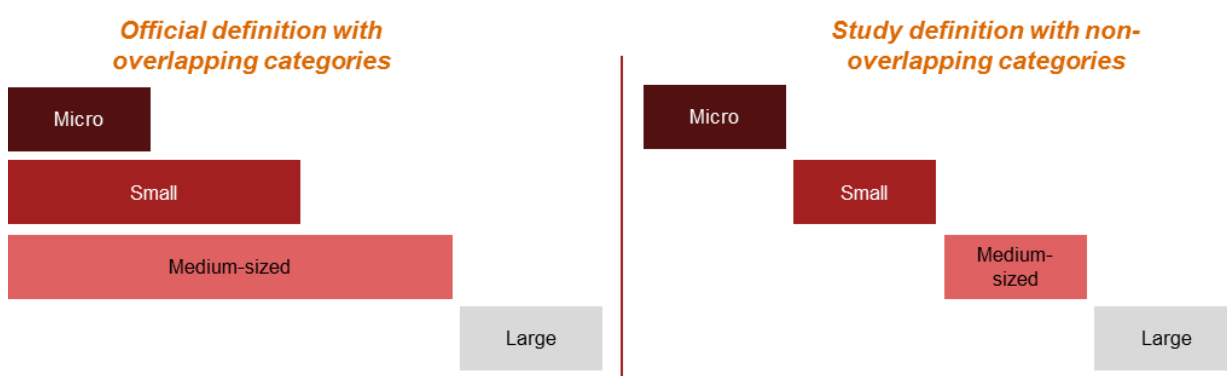
²² Communication from the Commission "Think Small First: A Small Business Act for Europe" (COM(2008) 394). <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0394:FIN:en:PDF>

²³ http://ec.europa.eu/small-business/index_en.htm

Entrepreneurship 2020 Action Plan²⁴ (2012).

European SME policy extends also over the area of public procurement. Creating an even playing field for SMEs, facilitating their access to public contracts is an explicit policy objective of the EU. The goal already appears in the current Directives from 2004 governing public procurement above EU-thresholds.^{25 26} Recent years have seen renewed efforts from the Commission, as well as various Members States, in addressing particular barriers preventing SMEs from successfully competing for public contracts in Europe. Related initiatives have been included in the European SBA (and corresponding good practices being collected), and the Commission proposals (2011) for the new public procurement directives^{27 28} put significantly more emphasis on this objective, i.e. creating a level playing field in public procurement where all players have equal access to information, and enjoy equal opportunities in all aspects of public procurement.

Exhibit 2-1: Schematics of the official SME definition and the size classes used in the analysis



It has been pointed out in several studies²⁹ and by stakeholders³⁰ alike that due to their size, SMEs (especially micro- and small enterprises) are facing certain barriers that make it difficult for them to bid for, and win, public contracts. Consequently, figures show that SMEs are somewhat underrepresented in above-threshold public procurement, compared to their overall weight in the economy:

- A 2004 study on SMEs' access to public procurement markets, prepared by EIM for the Commission, DG Enterprise and Industry, showed that in 2001, SMEs have won 78 percent of single awards in public procurement tenders covered by the Directives (i.e. "above-threshold procurement") in the EU-15, securing about 43 percent of the combined value of these

²⁴ Communication from the Commission "Entrepreneurship 2020 Action Plan: Reigniting the entrepreneurial spirit in Europe" <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0795:FIN:EN:PDF>

²⁵ Directive 2004/17/EC of the European Parliament and of the Council coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2004L0017:20100101:EN:PDF>

²⁶ Directive 2004/18/EC of the European Parliament and of the Council on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:134:0114:0240:EN:PDF>

²⁷ Proposal for a Directive of the European Parliament and of the Council on procurement by entities operating in the water, energy, transport and postal services sectors (COM(2011) 895). <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0895:FIN:EN:PDF>

²⁸ Proposal for a Directive of the European Parliament and of the Council on public procurement (COM(2011) 896). <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0896:FIN:EN:PDF>

²⁹ See EIM (2004), GHK (2007), GHK (2010), further referenced below; as well as European Commission (2000): The European Observatory for SMEs - Sixth Report, Federation of Small Businesses (UK) (2009): Public Procurement - Helping Small Businesses Succeed

³⁰ Including, among others: the European Association of Craft, Small and Medium-Sized Enterprises (UEAPME), Eurochambres, BusinessEurope, the European Construction Industry Federation (FIEC), the UK Federation of Small Businesses.

contracts.³¹ The study pointed out that, considering SMEs' economic significance, there was room for improvement in SMEs' involvement in public procurement.

- A follow-up study done by GHK in 2007 has estimated the proportion of above-threshold contracts awarded to SMEs in the EU-25 to be around 64 percent in 2005, corresponding to 42 percent of the total value.³² The study confirmed that there was a discrepancy between SMEs' share of public procurement and their weight in the economy, with marked differences identified within the group of SMEs: medium-sized enterprises secured a slightly higher share of public contracts than their role in the economy as measured by their share in combined company turnover, whilst Small and Micro-enterprises were considerably less successful than their overall economic significance may have predicted.
- The last research on the subject, undertaken by GHK in 2010, aided by more robust company data and an extensive manual validation process, yielded lower estimates, suggesting that previous studies are likely to have overestimated the participation rate of SMEs. According to the estimates, SMEs have secured around 60 percent of above-threshold public contracts between 2006 and 2008, and 34 percent in terms of value. This study has followed the methodology of the 2010 study, albeit with even more manual validation of the initial classification of companies into enterprise size classes. Correspondingly, the new estimates, which are lower than in predecessor studies, may be considered more accurate of SMEs' access to public contracts above the EU-thresholds, although they still may carry systematic bias (above the bias coming from random sampling).

³¹ EIM (2004): The access of SMEs to public procurement contracts.

http://ec.europa.eu/enterprise/newsroom/cf/getdocument.cfm?doc_id=3687

³² GHK (2007) Evaluation of SMEs' access to public procurement markets in the EU.

http://ec.europa.eu/enterprise/dg/files/evaluation/pme_marches_publics_report_en.pdf

Exhibit 2-2: Previous estimates on the proportion of above-threshold contracts awarded to SMEs (percent)

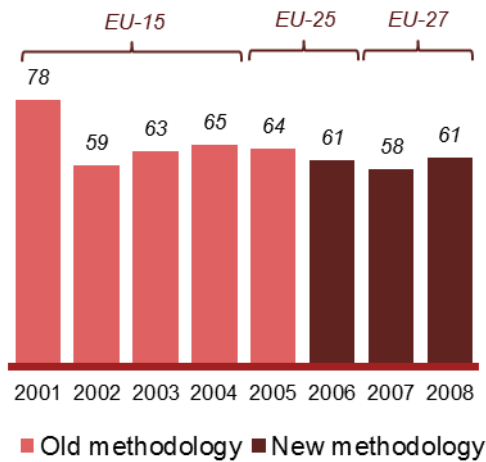
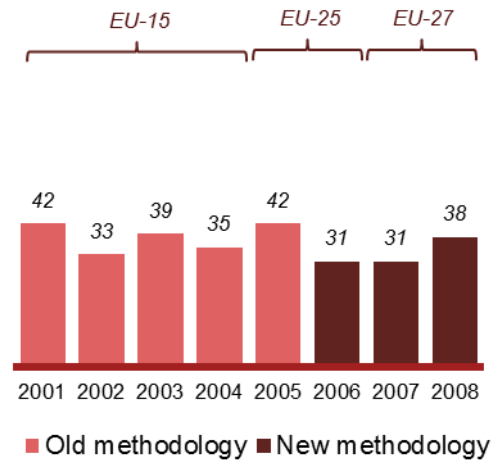


Exhibit 2-3: Previous estimates on SME's share of the aggregate value of above-threshold contracts (percent)



The estimates in all studies referred in this section concern contracts directly awarded to SMEs, as single or lead contractors (with subcontractors) or leaders of joint bids. SMEs may also participate in public procurement through other channels: as partners in consortia or joint ventures, as subcontractors, and more indirectly, as ultimate suppliers of goods and services without being a designated subcontractor. On the other hand, public contracts awarded to SMEs may be partly performed by large enterprises through the same channels.

These alternative channels for the years 2009-2011 are further explored in Section 2.6 of this study, but comparable estimates from earlier years are not available.

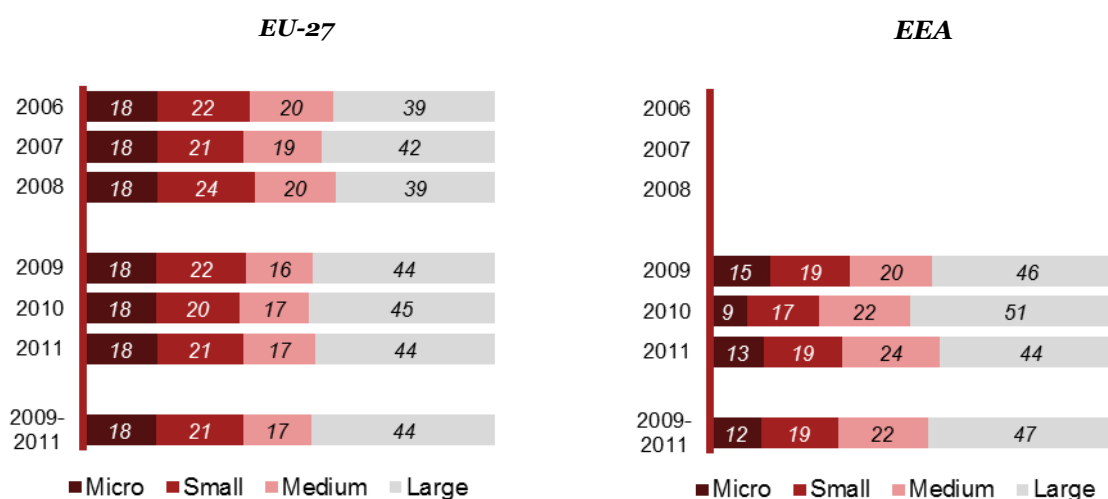
2.2 SMEs in above-threshold procurement

2.2.1 Overall share of SMEs

The analysis of public procurement above the EU thresholds rests on a detailed statistical analysis of contract award notices published on TED (Tenders Electronic Daily), the EU's public procurement portal. The records are not fully complete, as award notification for some procurement procedures has not been published or the information disclosed was not sufficient to be included in the analysis, and may contain a small number of below-threshold public contracts (which are not covered by the EU Public Procurement Directives but have been voluntarily published). However, these shortcomings are relatively benign and the database allows us to obtain a good picture of above-threshold procurement in the EU-27 and in countries of the European Economic Area (EEA)³³.

According to the statistical analysis conducted for this study, between 2009 and 2011, an estimated 56 percent of all public contracts above the EU thresholds were awarded to SMEs in the EU-27 (the estimated proportion was between 55 percent and 56 percent in all three years). This represents a slight decrease compared to the previous three-year period when the equivalent figure was at around 60 percent. SMEs were similarly successful in the EEA, winning 53 percent of public contracts.

Exhibit 2-4: SMEs' share of above-threshold contracts won, by number of contracts (percent)



Note: Percentages may not add up to 100 due to rounding
Margin of error: $\pm 0,9-1,3$ percent

The above analysis suggests that micro-enterprises won an estimated 18 percent of all above-threshold contracts in the EU-27. Small enterprises secured 21 percent, whilst the proportion of contracts awarded to medium-sized enterprises was estimated at 17 percent. Micro-enterprises were somewhat less successful in EEA countries, winning only 12 percent of above-threshold procurement, whilst medium-sized enterprises performed marginally better than in the EU (22 percent). The proportions were rather stable in all three years examined.

A comparison of the results for EU-27 countries (no comparative figures for EEA countries exist) with estimates from the previous three-year period, 2006 to 2008, might suggest that specifically medium-sized enterprises became less successful, with their proportion falling from ca. 20 percent to 17 percent, whereas micro- and small enterprises have more or less maintained their share. This decrease is seemingly significant when applying statistical tests to the data³⁴. However, non-sampling bias might be

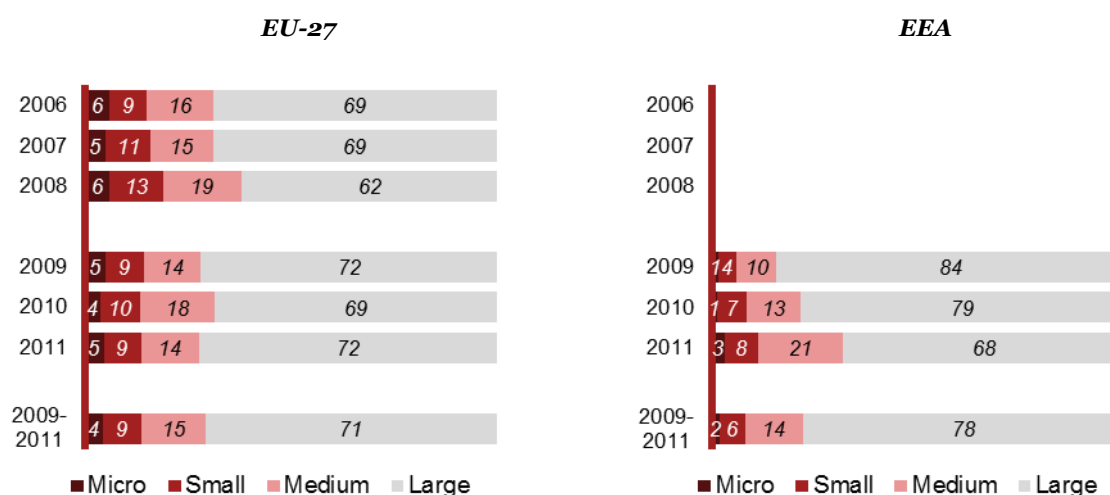
³³ Iceland, Liechtenstein, and Norway

³⁴ Mann-Whitney U test (2006-2008 versus 2009-2011 sample) and Kruskal-Wallis test (annual samples) performed on weighted sample data, and Pearson's chi-square test on weighted data all suggest that the differences between samples from the two waves/years are unlikely to come from random sample variations.

responsible for this apparent change. The relative drop in medium-sized enterprises' proportion cannot be explained by the extended manual verification of records undertaken for the current study, as this focused on micro- and small enterprises. However, the differences between the two time periods are small and could easily be an effect of random fluctuations on the public procurement market or non-sampling bias such as improvements in the company database referred to above. It is therefore concluded that the proportion of above-threshold contracts won by SMEs (and all SME size classes) has remained stable over this specific six-year time period.

Although SMEs are estimated to have secured over half of all public contracts above the EU-thresholds, they rarely, if ever, are able to access the largest public contracts. As a consequence, the average contract value won by SMEs was considerably smaller than those won by large enterprises and the combined value of the contracts going to SMEs represented an estimated share of only 29 percent of the above-threshold procurement market for 2009-2011 in the EU-27 (ranging from 28 percent to 31 percent).³⁵ SMEs' share was even lower in public procurement in the EEA countries: only 22 percent was awarded to SMEs.

Exhibit 2-5: SMEs' share of above-threshold contracts won, by aggregate value of contract (percent)



Margin of error: ±1,0-1,4 percent

Micro-enterprises secured 4 percent of the total value of contracts in the EU, whilst small enterprises and medium-sized enterprises won 9 percent and 15 percent, respectively. In the three EEA countries, medium-sized enterprises were awarded 14 percent of all public contracts in terms of value, similarly to EU-27 estimates. Micro- and small enterprises, on the other hand, secured a smaller fraction of contracts (2 percent and 6 percent, respectively) than their counterparts in procurement launched by EU Member States.

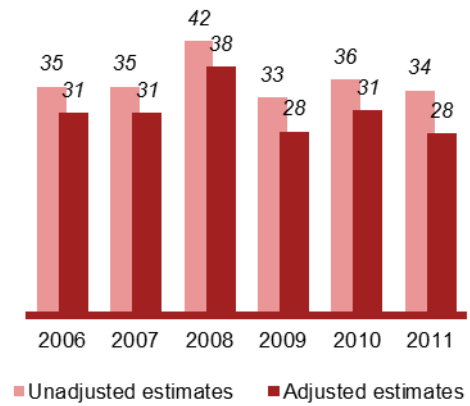
All SME size classes have performed slightly worse in the EU-27 than between 2006 and 2008 in terms of value secured. This decrease in the share of SMEs may to a large extent be explained by the more extensive manual verification of records, albeit, as mentioned above, not for the decrease for medium-sized enterprises. The relatively small differences lead however to the conclusion that the share of the aggregate value of above-threshold contracts that SMEs have secured has not changed markedly in recent years.

³⁵ These estimates only take into account the total value of public procurement contracts directly awarded to SMEs and do not cover the value that is subcontracted to SMEs.

Exhibit 2-6 illustrates the impact of the manual check of companies on the final estimates (concerning EU-27 countries only). This verification exercise mainly addressed companies included in the sample that were classified as micro- or small enterprise on the basis of data sources from Dun & Bradstreet's company database, but which were winning large contracts (above 1 million euros). The verification was done through web search, checking online company databases and company websites for employment and/or annual revenue figures, and whether the company was part of a group or a joint venture between larger companies.

This check has indeed identified a number of erroneous categorisations. In the predecessor study, the revision decreased the initially estimated share of SMEs in terms of value by 4 percentage points. In this study, the upgraded verification exercise has decreased the first estimates by 5-6 percentage points.

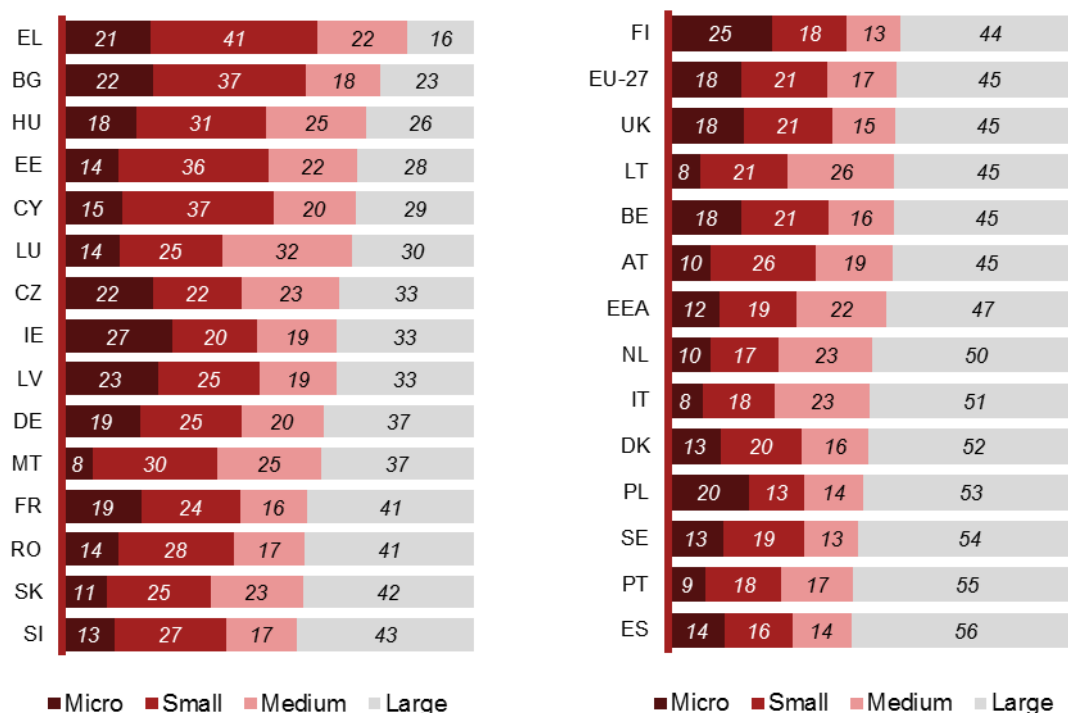
Exhibit 2-6: SMEs' share in terms of value, comparison of adjusted and unadjusted estimates for the EU-27 (percent)



2.2.2 Country differences

Breaking down the headline figure on SMEs' share in terms of value by Member State in which the public procurement took place shows marked differences between countries. In terms of number of contracts won, SMEs' share ranged from an estimated 84 percent in Greece to only 44 percent in Spain. SMEs' access to public procurement contracts above EU thresholds seems to be particularly high, apart from Greece, in some of the newer Member States (Bulgaria, Hungary, Estonia, Czech Republic), as well as in Cyprus, Luxembourg and Ireland. At the end of the spectrum one finds Denmark, Poland, Sweden, Portugal and Spain.³⁶

Exhibit 2-7: SMEs' share of above-threshold contracts won, by number of contracts and Member State, average for 2009-2011 (percent)

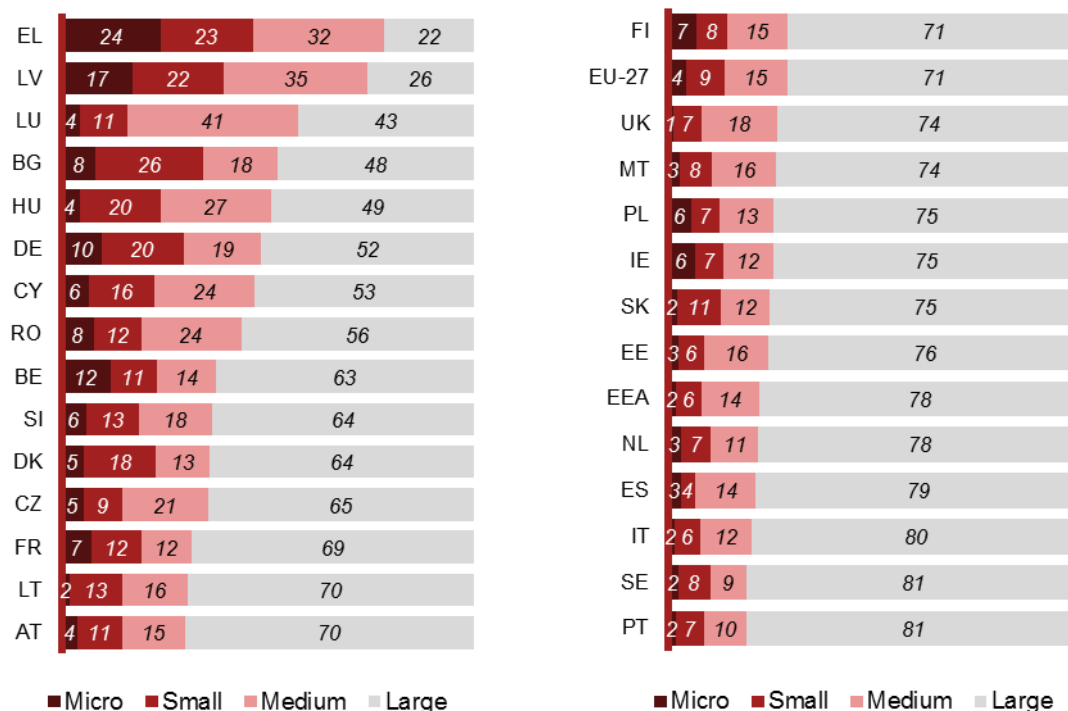


*Note: Figures for individual Member States should be treated with caution as they are less reliable than the aggregate estimates at EU-level due to the much smaller sample sizes.
Margin of error: $\pm 1,1-7,6$ percent, median MoE: $\pm 3,1$ percent*

Differences among Member States are considerably wider when calculating in terms of the aggregate value of public contracts awarded: the volume of contracts won by SMEs decreases from 78 percent in Greece to 19 percent in Portugal. The rank order of Member States is similar to the above, with Greece, Latvia, Luxembourg Bulgaria, Hungary and Germany, Cyprus and Romania awarding relatively large volumes of public contracts to SMEs, or groupings of companies led by such enterprises, and Spain, Italy, Sweden and Portugal awarding only a small fraction of above-threshold public procurement to SMEs. Small business' level of access to public procurement contracts is, on average, significantly lower in the three non-EU member countries of the EEA (Iceland, Liechtenstein, and Norway) than among EU-27 members.

³⁶ The ranking of Member States based on 'odds ratios', as reported in Chapter 2.7, is considered more robust it controls for a set of additional explanatory variables.

Exhibit 2-8: SMEs' share of above-threshold contracts won, by aggregate value of contracts and Member State, average total for 2009-2011 (percent)



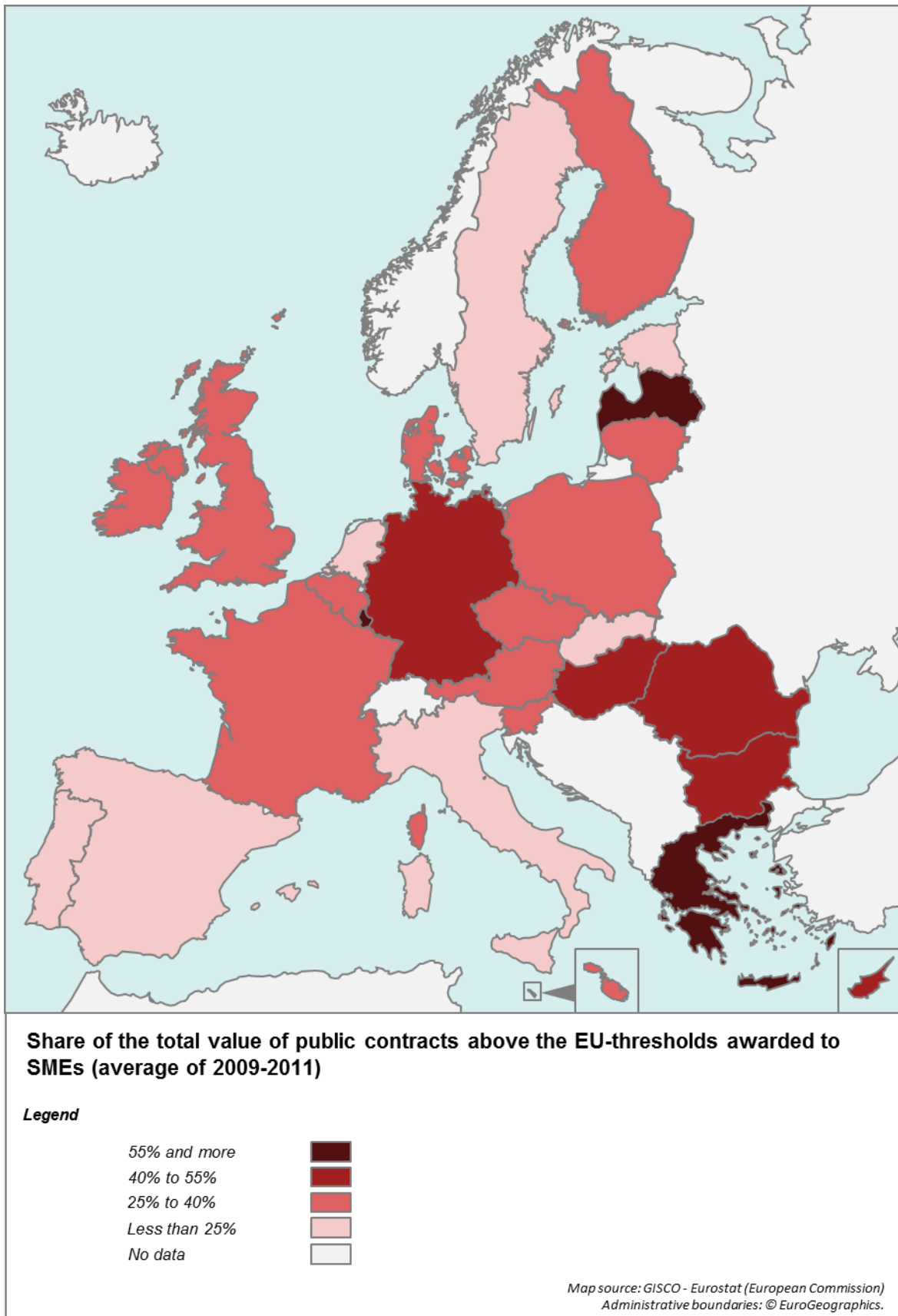
Note: Figures for individual Member States, especially for this disaggregation by value of contract, should be treated with caution as they are less reliable than the aggregate estimates at EU-level due to the much smaller sample sizes.

Margin of error: ±1,1-8,3 percent, median MoE: ±3,3 percent

Although it might have been anticipated, the analysis did not identify a general trend of SMEs being more dominant in smaller countries: for example, CAEs in Germany or France, two large countries, award a relatively high share of above-threshold public procurement contracts to SMEs, whereas smaller countries such as Estonia or Slovakia, Sweden or Portugal tend to award less to SMEs.

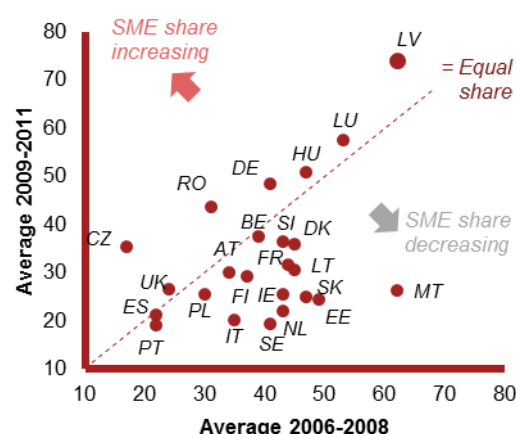
Results also show important differences between countries concerning the success of individual SME size classes. The combined market share of micro and small enterprises, the two size class categories most commonly facing barriers to accessing public contracts, seems to be exceptionally high in Greece (47 percent), Latvia (39 percent), and Bulgaria (34 percent) and to a certain extent in Germany (30 percent). On the other hand, the relatively large market share of SMEs in Luxembourg, and partly in Hungary, Cyprus and Romania, seems to originate predominantly from the success of medium-sized companies. At least in Luxembourg and Cyprus these companies may be large enough to cover the relatively small national service area or to meet the relatively small orders for supplies.

Exhibit 2-9: SMEs' share of the total value of contracts awarded, by Member State (2009-2011)



A crude comparison between the two three-year periods (estimates for three years were averaged to minimise sampling bias) 2006-2008 versus 2009-2011 shows improved access of SMEs only in a minority of countries, including the Czech Republic, Latvia, Romania, Germany. On the other hand, SMEs appear to have lost some ground in Member States such as Sweden, the Netherlands, Estonia and Malta. These results should, however, be treated with extreme caution considering the small sample sizes, the impact of the upgraded manual verification process, and possible variations in the type of procurement undertaken, as well as the presence of very high-value contracts, which may distort the results.

Exhibit 2-10: Change of SMEs' share of public contracts above the EU thresholds (percent)



As a form of “reality check” of the estimates, the figures were compared to more robust data from countries in which data on SMEs’ access to public contracts was accessible. Certain countries require economic operators in the tendering phase or when the contract has been awarded to them to disclose whether they are SMEs or not.³⁷ Others will compare the list of successful enterprises with employment and turnover data in their own national company databases. The results, summarised in Exhibit 2-11, show indeed some divergence of this study’s country-level estimates from Member States’ own, assumedly more reliable, statistics. Whereas the gap is reasonably narrow in the case of France (although French figures include below-threshold procurement as well), the study seems to have underestimated SMEs’ shares for Slovenia and overestimated it for Hungary. The estimates are also lower than national figures for Lithuania and Slovakia, but part of this might be explained by the fact that the statistics reported by these countries include below-threshold procurement.

Exhibit 2-11: Comparison of national data on the share of public contracts awarded to SMEs and estimates from the current study (percent)

Country	Legal regime (EU-thresholds)	National data				Study estimates (1)			
		2009	2010	2011	Average 2009-2011	2009	2010	2011	Average 2009-2011
By number of contracts									
Finland (2)	Above+below	64	71	64	67	59	57	52	56
France (3)	Above+below	62	60	61	61	60	57	60	59
Hungary	Above+below	74	79	81	78	-	-	-	-
	Above	65	69	63	66	73	76	73	74
	Below	79	84	85	83	-	-	-	-
Lithuania	Above+below	73	76	78	76	63	51	54	55
Slovakia (4)	Above+below	77	80	-	79	58	60	58	58
Slovenia (5)	Above+below	71	72	74	72	-	-	-	-
	Above	67	70	72	70	62	61	59	57
	Below	72	73	74	73	-	-	-	-
UK	Above+below	n.a.	n.a.	n.a.	n.a.	50	58	57	55

(continued)

³⁷ Or, in the case of Hungary, have required such information until 2010.

Country	Legal regime (EU-thresholds)	National data				Study estimates (1)			
		2009	2010	2011	Average 2009-2011	2009	2010	2011	Average 2009-2011
By aggregate value									
Finland	Above+below	n.a.	n.a.	n.a.	n.a.	23	34	30	29
France	Above+below	28	27	28	28	31	34	29	31
Hungary	Above+below	39	48	42	43	-	-	-	-
	Above	31	38	31	33	61	39	49	51
	Below	73	77	80	77	-	-	-	-
Lithuania	Above+below	51	62	52	55	25	34	31	30
Slovakia (4)	Above+below	47	46	-	47	34	14	47	25
Slovenia (5)	Above+below	54	45	56	52	-	-	-	-
	Above	54	35	54	48	39	33	37	36
	Below	54	63	61	60	-	-	-	-
UK (6)	Above+below	7	7	10	8	16	38	21	26

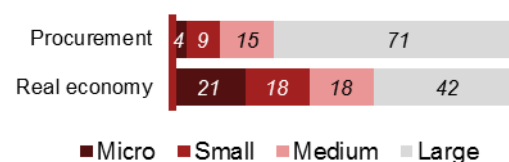
Notes: (1) Annual estimates are less reliable due to small sample sizes. (2) Figures only for Hansel Oy, the central procurement unit of the Finnish government. (3) Data for France contracting covers only government procurement; utilities are excluded (4) Slovak data classifies companies into size classes based on number of employees only. Coverage is only partial. (5) Slovenian below-threshold procurement data only covers relatively high-value contracts (above certain national thresholds). (6) UK supplies data on 'direct spend' by central government bodies, which may include non-public procurement spending.
Source: Hansel Oy (FI), Observatoire Economique de l'Achat Publique (FR), Közbeszerzések Tanácsa (HU), Viešųjų Pirkimų Tarnyba (LT), Úrad pre Verejné Obstarávanie (SK), Ministrstvo za Finance (SI), Cabinet Office (UK).

2.2.3 Comparison with the overall economic significance of SMEs

In order to put the estimates presented above into context, the SMEs' share in winning public contracts (by aggregate value) was compared to their overall share in the economy. As a proxy, the breakdown of combined gross value added (GVA) by company size class on the basis of employment was chosen, calculated for non-agricultural and non-financial business sectors (NACE Rev.2 categories B to N, with the exemption of K). The comparison shows that the share of SMEs in winning public contracts above the EU thresholds is disproportionately lower than their overall economic significance.

In terms of the aggregate value of contracts secured, the 29 percent share of European SMEs in the 2009-2011 period is 29 percentage points lower than it would have been (58 percent) if the share of public procurement they won would have equalled their share of the total gross value added produced in the business economy (excluding agriculture and financial intermediation). This gap is apparent across all three size classes of SMEs, but most notable in relation to micro- and small businesses. Micro-enterprises are estimated to account for only some 4 percent of public contracts in terms of value, whilst accounting for 21 percent of combined GVA in the real economy. For small enterprises, the difference is 9 percent to 18 percent.

Exhibit 2-12: Difference between the share of SMEs in public procurement (average 2009-2011) and their role in the economy (EU-27)*

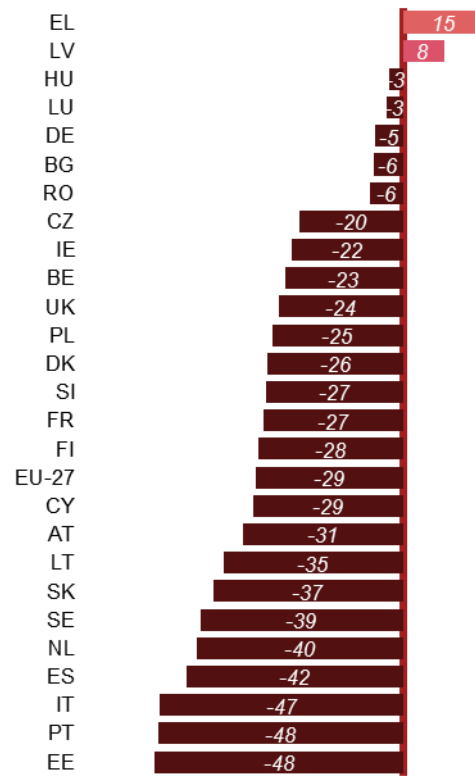


*Calculated on the combined gross value added in main economic sectors

An analysis of data by country should be only made with great caution, given the low reliability of estimates at this level. However, if we look at how the gap between participation in public procurement, only calculating with the value of contracts directly awarded to SMEs and groupings of companies led by SMEs, and in the real economy, there are very marked differences between Member States. Between 2009 and 2011, SMEs in Greece and Latvia seem to have had a better access to public procurement above the EU-thresholds than their significance in the wider economy would have suggested. SMEs in Hungary, Luxembourg, Germany, Bulgaria, and Romania also do not seem to be significantly disadvantaged. This might signal, apart from specific contextual factors, policies and practices that favour SMEs' participation.

On the other hand, SMEs in Spain, Italy, Portugal and Estonia seem to be losing out disproportionately in public procurement, compared to what their weight in the economy could warrant.

Exhibit 2-13: Difference between the share of SMEs in public procurement and their role in the economy by Member State (average 2009-2011)



2.3 SMEs in below-threshold procurement

Whereas contract award notices published on TED provided an excellent basis for the estimation of SMEs' share, only minimal information is available on how SMEs fare in below-threshold procurement. Data on the amount of below-threshold public contracts (above certain national thresholds) awarded to SMEs has been obtained only from Hungary and Slovenia. Other Member States do not have this information available. This was either confirmed by national experts contacted or through extensive web research. Lacking appropriate input data, only very basic estimates can be made at the EU level, these being bound to remain unreliable.

To produce estimates on the share of below-threshold procurement awarded to SMEs, three independent methods have been used in this section:

1. Extrapolation of above- and below-threshold procurement data from merely two Member States, Hungary and Slovenia, to the EU level, by using this study's earlier estimates on above-threshold procurement at country level, the apparent difference in SMEs access in the two countries mentioned, and estimates on the total volume of below-threshold public procurement in the Member States.
2. Calculating SMEs' share for a sample of contract award notices published on TED which covers single awards with values under the EU-thresholds. Although these public procurements were considered above-threshold at the time the contract notices were published, the ultimate value of the individual awards is below the thresholds (mostly because the contract was broken down into several lots) and were considered here as proxies for below-threshold procurement.
3. Results of an online survey among tenderers where the 1,375 respondents were asked to provide some information on the latest public procurement contract below the thresholds they were involved in – not necessarily as lead contractor.

The aim was to confront the different estimates and establish whether they are similar enough to at least broadly dimension SMEs' share in below-threshold procurement. Note that the calculations refer to contracts awarded directly to SMEs, i.e. as single contractors or leaders of joint bids. The two calculations are also compared to findings from the online survey among companies that asked participants about details of their latest below-threshold procurement contract (although the sample is admittedly not representative of the underlying population of companies taking part in the execution of public contracts below the EU-thresholds).

1. Extrapolation

Data obtained from official sources confirm the rather evident hypothesis that SMEs are more successful in below- than in above-threshold procurement. In Hungary, SMEs' share by the aggregate value of contracts won in below-threshold procurement for which data were collected³⁸ procedures exceeded that of above-threshold procurements by 43 percentage points (77 percent versus 33 percent³⁹); in Slovenia, by 12 percentage points (60 percent versus 48 percent).

Exhibit 2-14: National data available on the share of public contracts awarded to SMEs

Country	Legal regime (EU-thresholds)	By number of contracts				By aggregate value			
		2009	2010	2011	Average 2009-2011	2009	2010	2011	Average 2009-2011
Hungary	Above	65	69	63	66	31	38	31	33
	Below	79	84	85	83	73	77	80	77
Slovenia	Above	67	70	72	70	54	35	54	48
	Below	72	73	74	73	54	63	61	60

³⁸ See the national minimum thresholds applied in the table overleaf.

³⁹ The figures do not add up exactly to due to rounding error.

Source: *Közbeszerzések Tanácsa (HU), Ministrstvo za Finance (SI)*

The above figures can be expressed in terms of ‘odds ratios’: this is the odds for an SME to be awarded x euro worth of contract below the thresholds ($q/(1-q)$), divided by the corresponding odds for above-threshold procurement ($p/(1-p)$); where p and q are simply the observed share of the procurement volume above and below thresholds secured directly by SMEs – reported from Hungary and Slovenia. In the case of Hungary the odds ratio is $0,77/(1-0,77) \div 0,33/(1-0,33) = 6,61$. For Slovenia, the odds ratio is 1,62. The geometric mean of these figures is 3,27, which has been taken to roughly estimate for the remaining 25 EU Member States to what extent the odds of SMEs securing public contracts in below-threshold procurement is larger than that in above-threshold procurement – the latter having been estimated from the sample of contract award notices published on TED, presented in Chapter 2.2.

Exhibit 2-15: National thresholds underlying official statistics for below-threshold procurement, 2011

	‘Classic’ public procurement contracts			Utilities procurement		
	Works	Supplies	Services	Works	Supplies	Services
Hungary	15 million HUF (ca. 55.000 euros)	8 million HUF (ca. 30.000 euros)	8 million HUF (ca. 30.000 euros)	100 million HUF (ca. 373.000 euros)	50 million HUF (ca. 187.000 euros)	50 million HUF (ca. 187.000 euros)
Slovenia	80.000 euros	40.000 euros	40.000 euros	160.000 euros	80.000 euros	80.000 euros

SMEs’ share in below-threshold procurement was simply calculated backwards from this odds ratio and the estimates for above-threshold procurement. Subsequently, this estimated share of below-threshold procurement secured by SMEs was applied to the estimated volume of below-threshold procurement by country. Figures on the overall volume of below-threshold procurement were sourced from the Commission’s Annual Public Procurement Implementation Review 2012 for 15 Member States.⁴⁰ For the rest, below-threshold procurement volumes were extrapolated from the total expenditure by general government and utilities on works, goods and services, as estimated by the DG MARKT in its statistical publication ‘Public procurement indicators 2011, by applying the above-mentioned 15 Member States’ average ratio of below-threshold procurement versus total expenditure.⁴¹ This crude method yields an estimate of 58 percent for SMEs’ share in below-threshold procurement.

Exhibit 2-16: Estimation of SMEs’ share of contract value awarded in below-threshold public procurement (extrapolation method)

Country	SMEs’ share (study estimates)			Above-threshold procurement (bn euros)	Below-threshold procurement (bn euros) (2)	Below-thresh. proc. awarded to SMEs (bn euros)
	Above-threshold (%)	Below-threshold (%)	SME odds ratio (1)			
	p	q	$\frac{q/(1-q)}{p/(1-p)}$	A	B	$q/100 \cdot B$
Austria	30	58	3,27	5,5	12,8	7,5
Belgium	37	66	3,27	10,9	10,6	7,0
Bulgaria	52	78	3,27	2,8	1,1	0,8
Cyprus	47	74	3,27	0,9	0,4	0,3
Czech Republic	35	64	3,27	9,5	12,7	8,1
Germany	48	75	3,27	33,8	98,2	74,0

⁴⁰ European Commission (2012): Annual Public Procurement Implementation Review 2012. http://ec.europa.eu/internal_market/publicprocurement/docs/implementation/20121011-staff-working-document_en.pdf

⁴¹ European Commission (2011): Public Procurement Indicators 2011. http://ec.europa.eu/internal_market/publicprocurement/docs/modernising_rules/public-procurement-indicators-2011_en.pdf

Country	SMEs' share (study estimates)			Above-threshold procurement (bn euros)	Below-threshold procurement (bn euros) (2)	Below-thresh. proc. awarded to SMEs (bn euros)
	Above-threshold (%)	Below-threshold (%)	SME odds ratio (1)			
Denmark	36	65	3,27	11,8	6,2	4,0
Estonia	24	51	3,27	2,6	0,5	0,2
Greece	78	92	3,27	4,7	2,9	2,7
Spain	21	47	3,27	25,1	29,7	13,9
Finland	29	57	3,27	8,1	6,8	3,9
France	31	60	3,27	80,7	14,3	8,5
Hungary	33 (3)	77 (3)	6,61	5,1	1,4	1,1
Ireland	25	53	3,27	3,5	9,3	4,9
Italy	20	45	3,27	45,9	43,7	19,7
Lithuania	30	59	3,27	1,7	1,2	0,7
Luxembourg	57	81	3,27	0,6	1,2	1,0
Latvia	74	90	3,27	3,6	0,7	0,6
Malta	26	54	3,27	0,3	0,1	0,1
Netherlands	22	48	3,27	9,7	35,6	17,0
Poland	25	53	3,27	28,6	48,5	25,6
Portugal	19	43	3,27	3,7	4,8	2,1
Romania	44	72	3,27	10,4	3,5	2,5
Sweden	19	44	3,27	15,4	12,4	5,4
Slovenia	48 (3)	60 (3)	1,62	1,9	0,9	0,5
Slovakia	25	52	3,27	4,0	0,9	0,5
United Kingdom	26	54	3,27	94,7	60,1	32,5
Total EU 27	29	58	3,42	425,5	420,4	245,2

Notes: (1) Geometric average of HU and SI value for all other Member States. (2) Figures in italics are extrapolations (3) Official national statistics used for Hungary and Slovenia instead of study estimates

2. TED-subsample

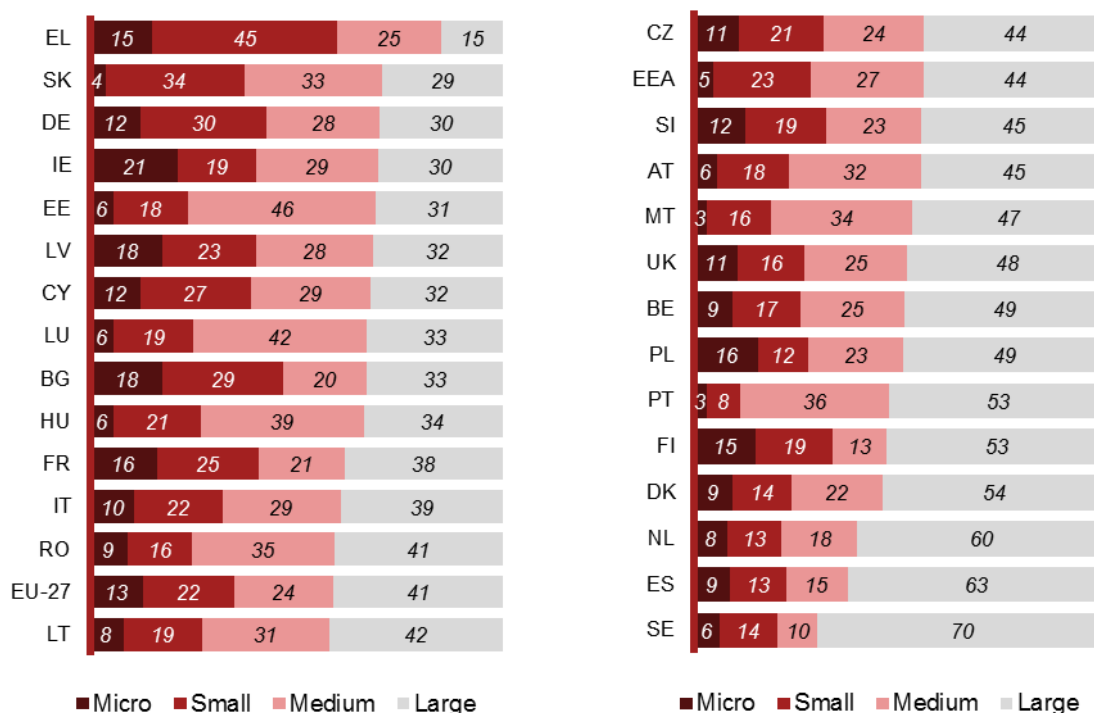
As explained earlier, the database of contract award notices published on TED contains numerous single awards (i.e. lots) with values very substantially lower than the thresholds set up in the Directives (and updated in subsequent regulation). After filtering the analysed sample of CANs according to a simplified set of value thresholds, as presented in the exhibit below, almost 68 percent of all single awards remained in the database as having contract values below the thresholds. Whereas these 'low-value' contracts are surely different from genuine below-threshold procurement, it was attempted to use them as proxies.

Exhibit 2-17: Value thresholds applied to contract award notices to proxy below-threshold procurement (based on EU-thresholds in effect as of 1 January 2012)

	'Classic' public procurement contracts (18/2004/EC)			Utilities procurement (17/2004/EC)		
	Works	Supplies	Services	Works	Supplies	Services
Threshold used (euros)	5 million	200.000	200.000	5 million	400.000	400.000

The statistical analysis shows that among these relatively 'low-value' single awards, SMEs were able to secure directly (as single contract or leader of a group of companies) 59 percent in terms of total value.

Exhibit 2-18: SMEs' share of 'low-value' contracts published on TED won, by aggregate value of contracts and Member State, average total for 2009-2011 (percent)



The two approaches yield very similar results - 58 percent and 59 percent, respectively. The resulting figure of 58-59 percent could be regarded as the best available estimate to date for SMEs' participation in below-threshold procurement. However, it should be noted that both calculation methods took as the point of departure the previous estimate for the full above-threshold sample, which could (and probably is) already biased.

3. Survey results

The online survey among tenderers (presented in more detail in Chapter 2.5.2.) produced a very similar result. From the latest below-threshold contracts in which companies in the sample participated, 61 percent in terms of total value was awarded to an SME in terms of value (73 percent of the contracts). It must be borne in mind, however, that the sample was not representative of all European companies participating in below-threshold procurement.

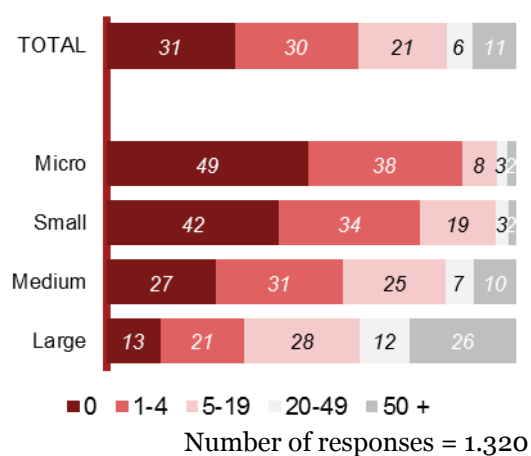
2.4 SME participation and success rate

Results of an online survey among identified tenderers in above-threshold procurement and additional randomly selected European companies show, as expected, that larger companies generally submit more tenders – both above and below the EU-thresholds. The figures overleaf confirm that the proportion of companies submitting no or only 1 to 4 tenders in the last closed financial years gradually decreases when looking at larger company size classes; whilst the proportion of those submitting 20 to 49, or 50 and more tenders annually increases. However, the difference between micro- and small enterprises is relatively small; the gap between small and medium, and medium and large companies is considerably larger. The limitations of the online survey do not allow for an analysis of factors explaining a higher or lower prevalence of companies to participate in public procurement - e.g. country, sector, level of experience, internal capacities, participation in wider business networks etc. It may be assumed – based on only limited survey data - that the main explanatory factor is the sector in which the company or business unit is active: if this sector is generally dependent upon public sector clients, the number of tenders submitted by the company is higher, as competing for public contracts is the main focus of their business strategy.

Interestingly, the success rate of companies does not seem to differ by enterprise size class. Around half of tenderers in each size class reported a success rate of above 25 percent and around one fifth-one fourth of tenderers were successful more than 50 percent of the time. Extreme values (i.e. no success or a success rate of above 75 percent) are more prevalent among micro and small enterprises, but this is to a large extent only a sample size effect: they submitted much less tenders in the first place.

Exhibit 2-19: Number of tenders submitted in the last financial year, by company size class (percent)

Above thresholds



Below thresholds

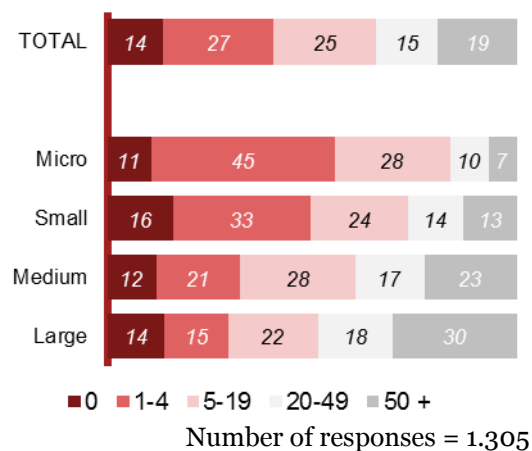
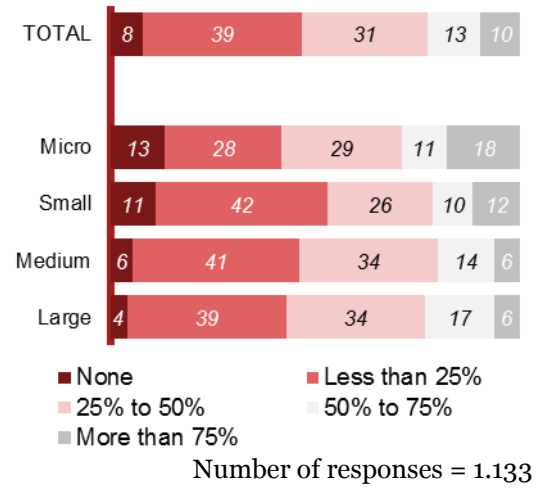
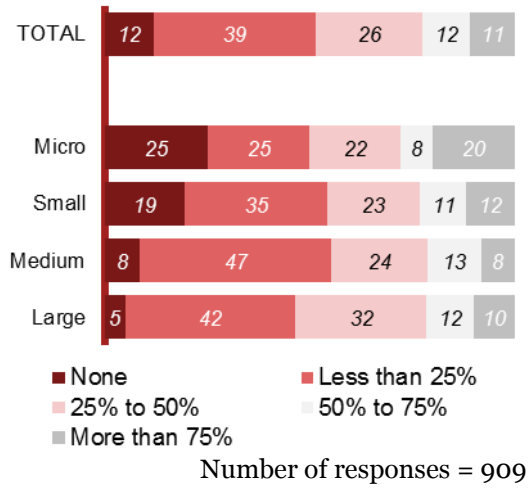


Exhibit 2-20: Proportion of successful tenders in the last financial year, by company size class (percent)

Above thresholds

Below thresholds



2.5 Additional channels for SMEs' participation

The discussions in previous sections were based on estimates on the number and value of public contracts directly awarded to SMEs, or to groupings of companies led by an SME. However, SMEs may also take part in the delivery of public contracts through other channels:

1. as member (but not leader) of a consortium or other joint bid arrangement
2. as a subcontractor
3. as a generic supplier not named as subcontractor

This study has tried to estimate the relative weight of SMEs in the first two of the above channels – both in above- and below-threshold procurement. For this purpose, respondents to the online company survey were asked to report how the value of the last public contract they took part in (i.e. they were not necessarily the lead contractor to which the contract was awarded) was split up among companies participating in its delivery, distinguishing between SME and non-SME participants. The possible setups for delivering the contract included – apart from delivery by a single company – consortia or other forms of joint bidding, and subcontracting arrangements. The reported values under these setups were translated into aggregate estimates concerning the two indirect channels for SME participation in public procurement.

2.5.1 Procurement channels above thresholds

Of the most recent contracts above thresholds in the sample, more than half (54 percent) were service contracts, 37 percent were supply contracts and only 9 percent of the contracts concerned public works (see Exhibit 2-21). 28 percent were contracts under some framework agreement while 72 percent were single contracts.

The value of the above-threshold contracts in the sample, as in the TED database, ranged on a wide scale: 50 percent of the contracts were below 225.000 euros while the highest 1 percent of the contracts was worth 37 million euros or more. The highest reported contract was 350 million euros. The average value of the contracts included in the sample was ca. 824.000 euros. The value of public works contracts were, on average, higher than supply or service contracts. The average value of a public work contract was around 2 million euros. An average service contract was worth 723.000 euros and a supply contract 668.000 euros. These values are broadly similar to the average values of all single awards (contracts awarded for a specific lot) found in the TED database. For 2011, the average values, per award, for all above-threshold contracts were at around 3 million euros for public works, 450.000 euros for supplies and 1 million euros for services.

Exhibit 2-21: Distribution of above-threshold contracts in the sample by type (percent)

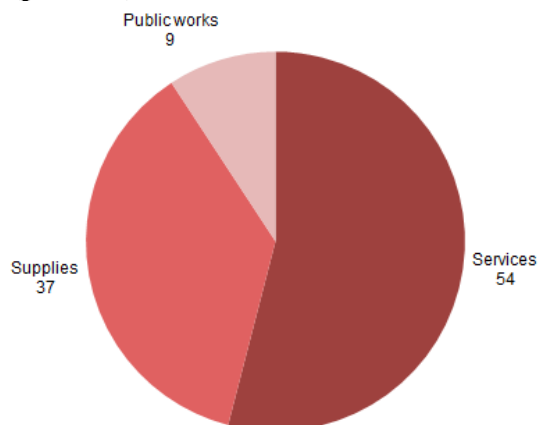
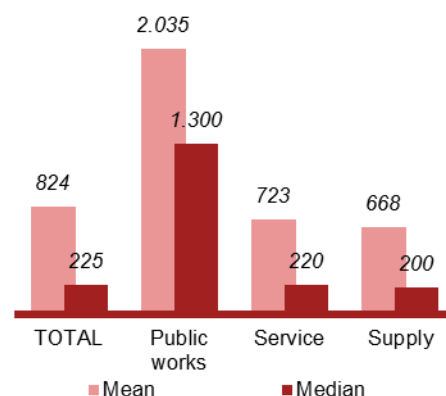
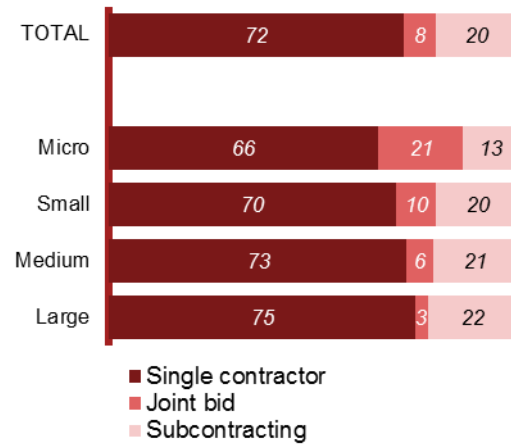


Exhibit 2-22: Mean and median values of above-threshold contracts in the sample by type of contract (in thousand euros)



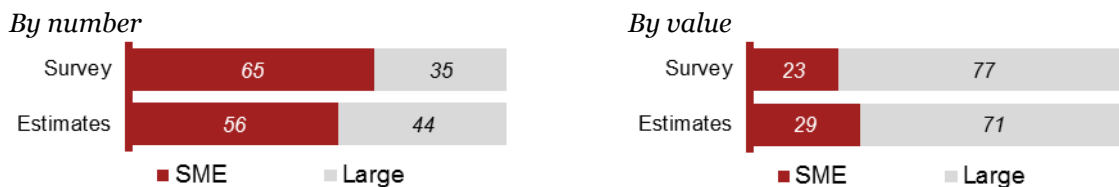
Most of the surveyed organisations, 72 percent (643 respondents), reported that they performed the contracted work above EU threshold on their own (see Exhibit 2-28). 20 percent of the companies (180) performed the work involving some form of subcontracting; 173 of respondents were the lead contractors and 7 were subcontractors to another company in their last above-threshold procurement contract. The proportion of joint bids/consortium arrangements in the sample is low: only 8 percent of the respondents (71) performed their most recent public contract above the threshold in such an arrangement – either as leader or as participant.⁴² Exhibit 2-23 also suggests that the larger the company, the higher is the probability that they have done the work on their own, but also the inclusion of subcontractors - while the significance of joint bids decreases.

Exhibit 2-23: Proportion of different delivery arrangements by size class of respondent, above thresholds (percent)



Extracting the size class of the company being awarded the most recent contract the respondents reported about, the survey gave SMEs a 65 percent share (571 contracts). For comparison, the statistical analysis of CANs suggested that SMEs are awarded only 56 percent of contracts in the EU-27. Factoring in the fact that large companies typically secure more contracts (their proportion amongst individual companies winning contracts should therefore be lower than the proportion of contracts awarded to large enterprises), the sample in this regard seems to be representative. In terms of total value of the contracts awarded however, SMEs could secure only a 23 percent share as direct contractors according to the survey, whereas the statistical analysis estimated a 29 percent share for 2009-2011. This is probably the result of the high standard deviation of contract values and the relatively small sample size, although the difference between survey results and the statistical analysis is not wide.

Exhibit 2-24: Split of above-threshold contracts by size class of company, survey sample versus TED-based estimates (percent)



Looking at the three main channels separately, the analysis of survey results suggest that SMEs do indeed benefit from public procurement above the EU-thresholds through channels other than only being awarded a contract directly.

- From among the 635 companies that performed the work on their own, without involving other companies, 413 (65 percent) were SMEs, being awarded 49 percent of public contracts in terms of value (these contracts tended to be of lower value).
- From the altogether 66 contracts that were awarded to a consortium or similar grouping of companies, 52 (79 percent) were led by an SME. On average, the lead company in such an arrangement was responsible for only 68 percent of the work (42 percent if the lead was an

⁴² Note that contracts performed under a consortium arrangement may also involve additional subcontractors.

SME, and 73 percent if it was a large enterprise). From the remaining, 30 percent was done by other SMEs and only 2 percent by large enterprises. Overall, whilst SMEs were awarded only 17 percent of such contracts in terms of total value, their overall participation in their performance – including roles as partners or subcontractors – was 20 percentage points higher than that, approximately 37 percent.

- As concerning the 177 contracts that were implemented by companies using subcontractors, 106 (60 percent) were led by SMEs. Here, the main contractor was undertaking on average 56 percent of the work (68 percent if the main contractor was an SME and 55 percent otherwise). SME subcontractors accounted to 28 percent of the remaining work, large enterprises only to 16 percent. In total, SMEs secured about 34 percent of the work in this group of above-threshold contracts, although they initially won only 10 percent of them in terms of value as lead contractors.

Summing up all the three channels, the survey analysis shows that SMEs are much more involved in public procurement above the EU-thresholds than their share is among companies that were directly awarded such contracts. It is estimated on the basis of the survey that SMEs' share in the actual performance of above-threshold contracts is 16 percentage points higher than the share they directly secure in terms of total value of contracts (39 percent versus 23 percent in the survey). If we use the 29 percent estimate from the statistical analysis rather than the survey's result for gauging the volume of contracts directly awarded to SMEs, we may set the total participation of SMEs at ca. 45 percent for the EU-27.

2.5.2 Procurement channels below thresholds

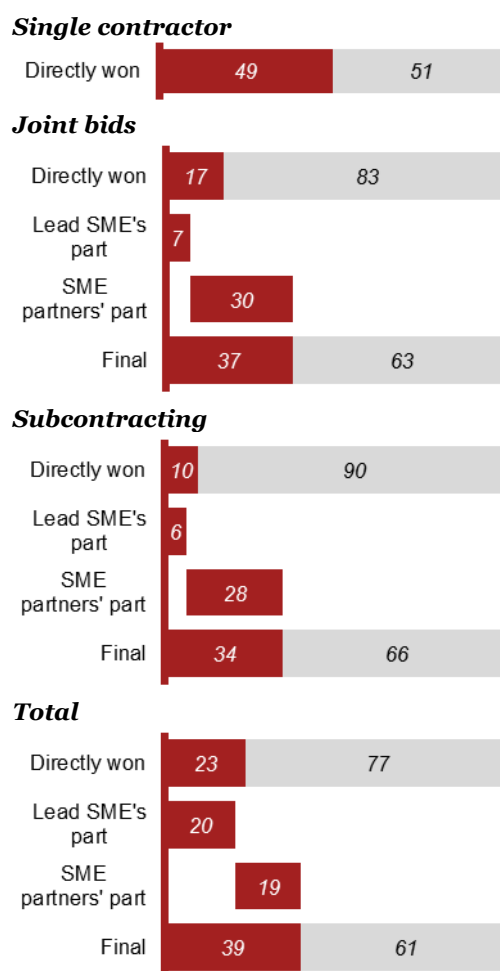
Following questions on above-threshold procurement, respondents to the survey were also asked to provide some information on the latest public procurement contract below the thresholds they were involved in – not necessarily as lead contractor.

Similarly to what was reported by respondents for above-threshold procurement, more than half (58 percent) of recent below-threshold contracts were service contracts. Around one third (30 percent) were supply contracts and the remaining 12 percent of the contracts were for public works (see Exhibit 2-26). Evidently, this follows from the fact that the two sections of the survey were filled in by the same companies from the same industries.⁴³

43

The small difference is explained by a number of companies not having reported data for one of the procurement types - usually for above-threshold procurement.

Exhibit 2-25: Part of contract allocated to SMEs under different delivery arrangements, above thresholds (percent)



The average value of the contracts was 151.000 euros⁴⁴, with public works contracts being the largest, with an average value of 708.000 euros, followed by supply (74.000) and service contracts (70.000). Median contract values were considerably lower, with only 52.000 for the full sample. Note that the contracts about which the companies were responding were typically not 'low-value contracts', i.e. they were mostly above the national thresholds, thus subject to national public procurement legislation.

Exhibit 2-26: Distribution of below-threshold contracts in the sample by type (percent)

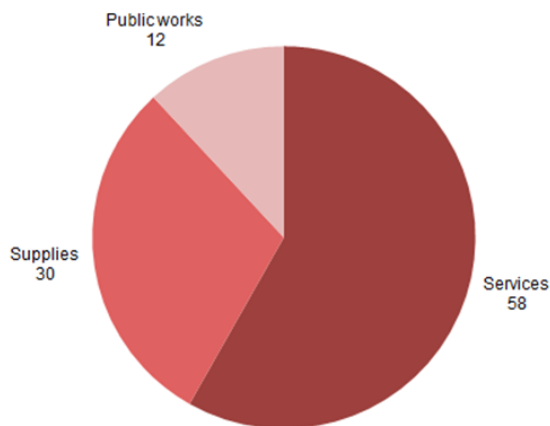
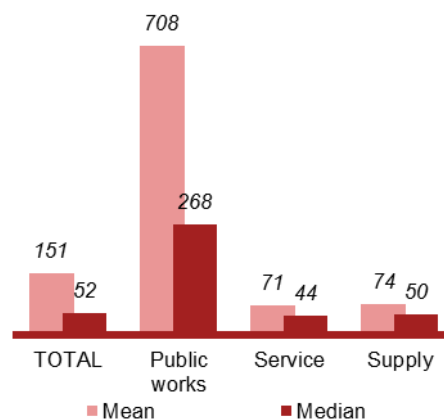
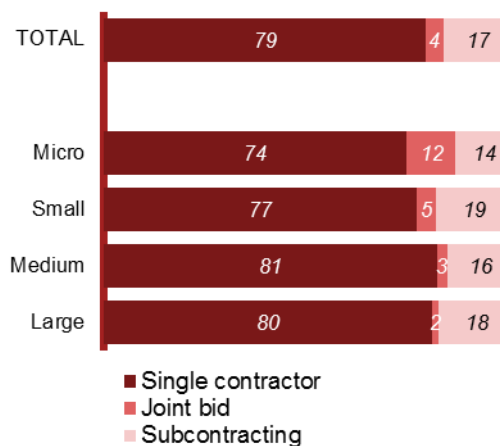


Exhibit 2-27: Mean and median values of below-threshold contracts in the sample by type of contract (in thousand euros)



As in above-threshold procurement, the large majority of the companies surveyed (79 percent, 879 respondents) performed their latest below-threshold procurement contract as a sole contractor (see Exhibit 2-28). Around one sixth of the respondents (17 percent, 189 respondents) worked on contracts involving subcontracting. Most of these contracts were led by the respondent's company. Joint bids/consortium arrangements in the sample accounted for 4 percent (50 respondents). As in the answers on arrangements in recent above-threshold procurement, we can again observe that the proportion of joint bids decreases by size.

Exhibit 2-28: Proportion of different delivery arrangements by size class of respondent, below thresholds (percent)



Considering that the question was answered by the same companies than the section on above-threshold procurement, these similarities between the relative significance of different arrangements were expected and should not be seen as evidence that the role of different channels is genuinely similar in above- and below-threshold procurement.

⁴⁴ A minority of responses were excluded from this calculation and from the analysis of channels, as the contract values indicated were too high for below-threshold procurement. Furthermore, these contracts would have had an overly large influence on the results, bringing in significant bias..

Almost three quarters, 73 percent of the below-threshold contracts reported about in the questionnaire were awarded to SMEs. This is more or less comparable with the simple average of Hungarian and Slovenian official data on SMEs' proportion among the winners, i.e. 78 percent (by the number of contracts).

In terms of total value of the contracts awarded, the analysis of survey results indicate a share of 61 percent for SMEs – well similar to the estimates presented in Chapter 2.3, i.e. of 58-59 percent. The breakdown of the headline figure to the three main channels confirms that when taking account of the indirect participation of SMEs as partners under joint bids and through subcontracting, SMEs enjoy a greater access to public procurement below the EU-thresholds as well, in line with the findings in the previous subchapter, although this additional gain is significantly less than in above-threshold procurement.

- 73 percent of the companies that performed their latest below-threshold public procurement contract on their own, without involving other companies were SMEs, and the aggregate value of contracts awarded to them made up 67 percent of the total sample.
- 81 percent of the contracts awarded to a consortium of companies were led by an SME. The lead company took, on average, 54 percent of the budget (41 percent if the lead was an SME and 79 percent if it was a large enterprise). 41 percent of the remaining work was performed by other SMEs – consortium partners or additional subcontractors - and 4 percent by large enterprises. The contracts awarded directly to consortia led by an SMEs accounted for 66 percent of the total value of contracts under this channel, but ultimately SMEs took 68 percent of the budget, when correcting for the share of work that consortium partners or subcontractors did.
- 70 percent of the sample's below-threshold contracts implemented by companies using subcontractors were led by an SME. The main contractor was responsible, on average, for 51 percent of the work (56 percent if the main contractor was an SME, and 46 percent if not). Subcontractors classified as SMEs accounted to 43 percent of the remaining work, whereas large enterprises only to 5 percent. The value of contracts under this channel awarded directly to an SME amounted to only 52 percent of the total in terms of aggregate value, but SMEs ultimately could claim about 72 percent of the total budget.

Exhibit 2-29: Split of below-threshold contracts by size class of company, survey sample

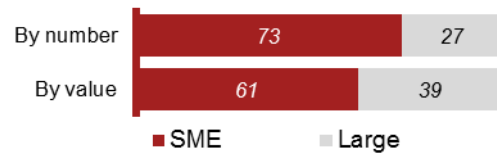
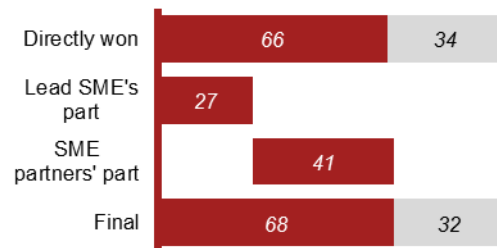


Exhibit 2-30: Part of contract allocated to SMEs under different delivery arrangements, below thresholds (percent)

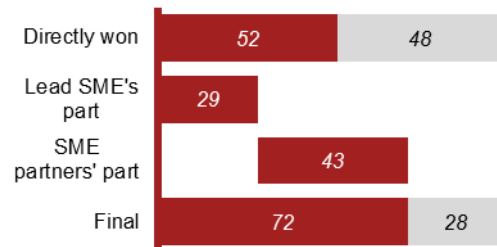
Single contractor



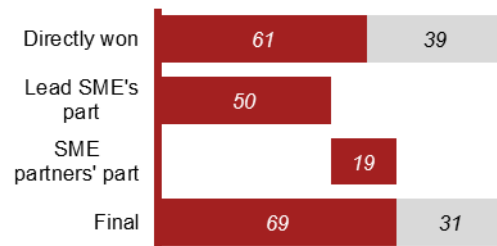
Joint bids



Subcontracting



Total



The combination of findings for the three main channels above indicates that the budget of below-threshold contracts allocated ultimately to SMEs is 8 percentage points higher than the share they can secure directly (69 percent versus 61 percent), although this additional share for SMEs is much lower than in procurement above the EU-thresholds.

2.6 Factors influencing SMEs' share in winning public contracts

Apart from differences between countries in the extent to which SMEs are able to secure public contracts, there are a number of common factors that can influence their chances in public procurement. Academic literature and European policy papers list several actions that can help SMEs to reach a level playing field, starting from the use of lots to framework agreements with several suppliers. Below we provide an analysis of how a set of selected factors impact on SMEs' success in winning above-threshold public contracts, based on information extracted from contract award notices in the TED database. The following factors have been reviewed:

- The overall contract value for a single award (lot)
- The type of contract (or, in a more refined breakdown, the sector of the goods or services procured)
- The type of procurer
- The publication of prior information
- The tender procedure chosen
- The selection criteria used (notably: the use of the 'most economically advantageous tender' criteria vs. lowest price)

In the analysis, first a descriptive analysis is provided of the patterns of SME participation in public tenders, broken down by the above categories. Notably, the analysis reveals differences between SMEs' accesses to public contracts under various settings. Second, a regression analysis is presented which brings all the factors together and estimates the impact of each of the factors on SMEs' probability of winning public contracts above the EU-thresholds. More specifically, this *logit* (logistic regression) model calculates how the above factors, on average, influence the odds that a specific public contract will be won by an SME. The descriptive analysis covers only Member States of the EU-27, whilst the regression model includes data from EEA countries.

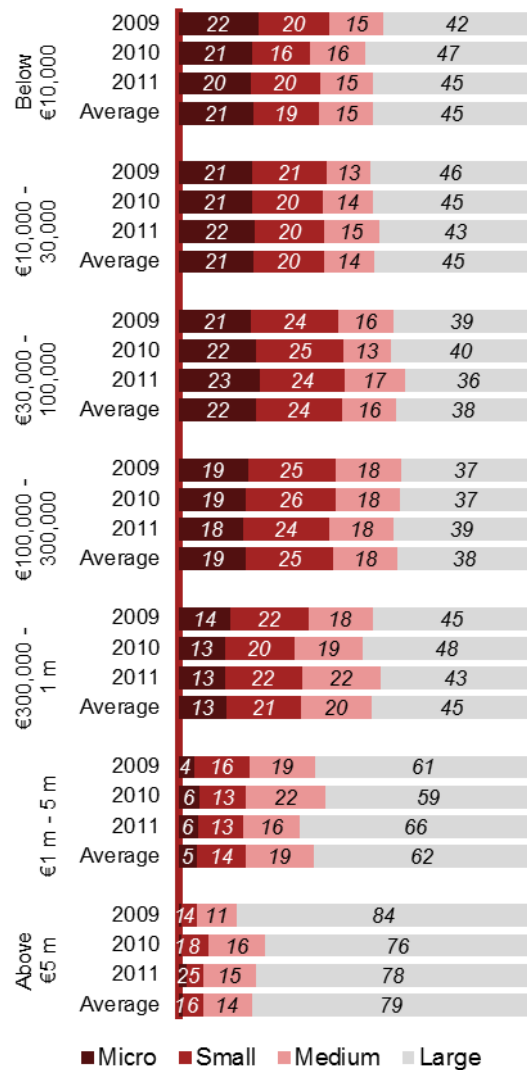
2.6.1 Contract value

The value of a public contract has a major, apparently one of the greatest, influence on the extent to which SMEs can access above-threshold procurement contracts.⁴⁵ This is widely seen among stakeholders as the most important barrier, and according to the estimations this is arguably the greatest obstacle. According to the estimates in this study, the overall proportion of SMEs winning relative low-value contracts (i.e. single awards under contracts published by Member States in the TED database), contracts with a value of below 1 million euros, was in a rather narrow range of 55 percent - 62 percent. (See Exhibit 2-31 and Exhibit 2-32 overleaf)

The weight of micro-enterprises among the winners starts to decrease when the contract value exceeds 100.000 euros. Small enterprises' proportion among the companies being awarded above-threshold contracts is the greatest among contracts valued 30.000 – 300.000 euros, after which their share starts to decrease. Medium-sized enterprises seem to gradually increase their share up to a value band of 1 - 5 million euros, and only losing ground when contract values start to exceed 5 million euros. In this highest value category, SMEs were only awarded 21 percent of contracts (17 percent in terms of value).

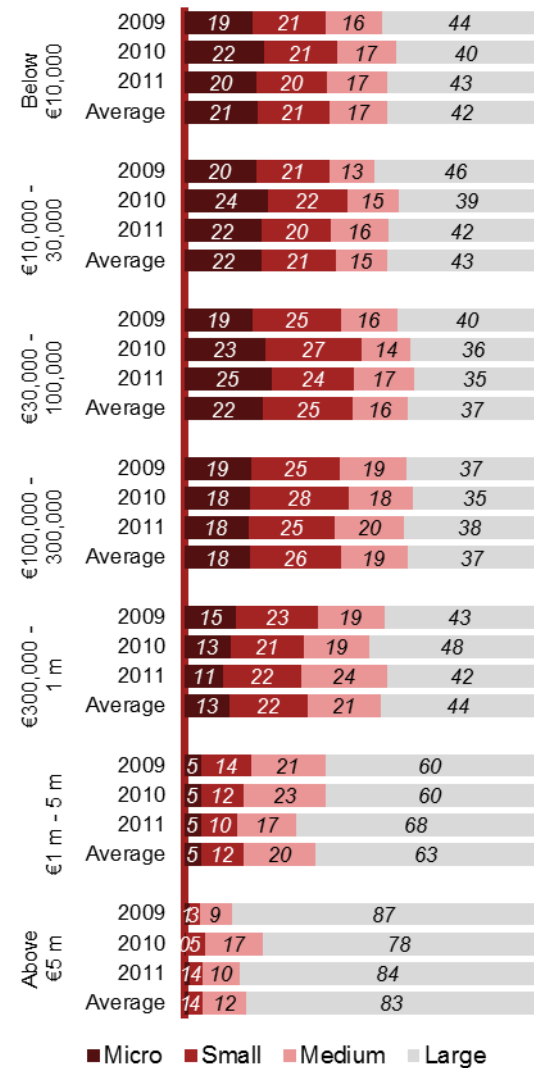
⁴⁵ Note that the value of many single contracts in the TED database is far below the EU thresholds: either because they are parts, lots, of larger contracts, because the estimated value was originally above the thresholds, or because they have been only voluntarily published on TED

Exhibit 2-31: Proportion of SMEs amongst successful bidders, by contract value (percent)



Margin of error: ±0,5-5,3 percent, median MoE: ±2,7 percent

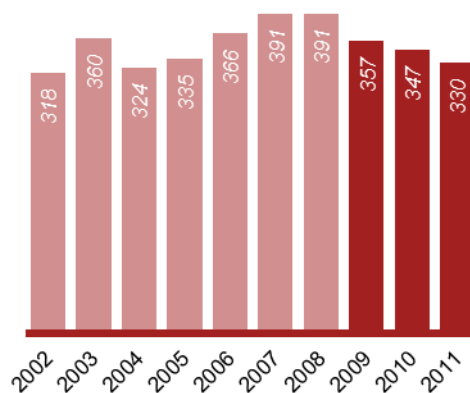
Exhibit 2-32: Share of SMEs in the total value of contracts awarded, by contract value (percent)



Margin of error: ±0,5-6,7 percent, median MoE: ±2,8 percent

Differences in the typical contract sizes might have an impact on SMEs' access across years and in different countries. Between 2009 and 2011, the estimated median values of all CANs published for procurement in the EU Member States were trending slightly downwards, in direct contrast to the upward trend seen from 2005-2008. It must be noted though that the differences between the annual median values is not very large and differences may be due to normal fluctuations on the public procurement market.⁴⁶

Exhibit 2-33: Trends in the estimated median value of CANs (thousand euros)



The estimated median values of public procurement contracts show a differentiated picture across individual Member States. Denmark and Italy have the highest median value of contracts. These have median values of above 800.000 euros. Generally, estimated median values of public procurement contracts tend to be lower for newer Member States. 9 out of the 10 countries with the lowest estimated median contract values (below 320.000 euros) have joined the EU most recently. The only notable exception is France.

The estimated median values of the estimated aggregate value of a public tender (Exhibit 2-34, Exhibit 2-35) do not offer explanations about eventual barriers to SMEs as they tender for single contracts (i.e. individual awards/lots). The estimated median aggregate CAN value of 330.000 euros is much higher than the estimated median value for single awards of 50.000 euros. Estimated differences across Member States are more wide-ranging for single awards. Estimated differences range from approximately 460.000 euros in Denmark to 4.000 euros in Lithuania. The 'typical' contract seems to be, if purely from a financial perspective, accessible for SMEs, considering the thresholds above which SMEs find it difficult is approximately 300.000 euros.

⁴⁶ For instance, the database contains for certain years very large numbers of CANs covering very low value contracts such as supplies of pharmaceuticals or training services. In some cases these notices relate to single lots or groups of lots one large public procurement procedure.

Exhibit 2-34: Estimated median aggregate value of CANs, by Member State, 2011 (thousand euros)⁴⁷

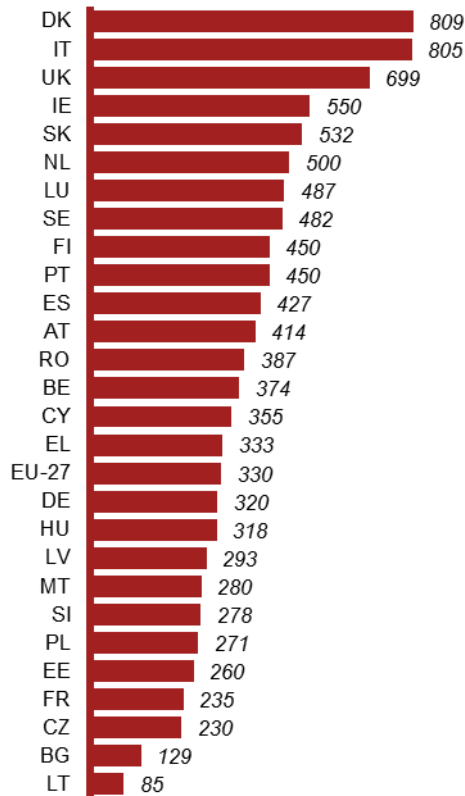
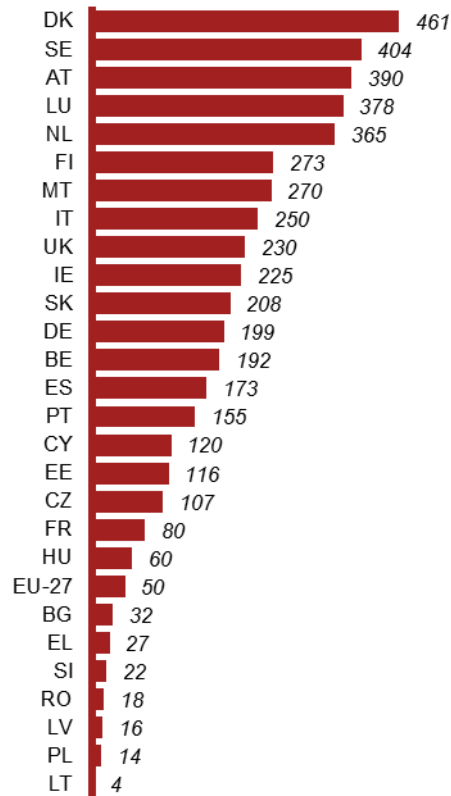
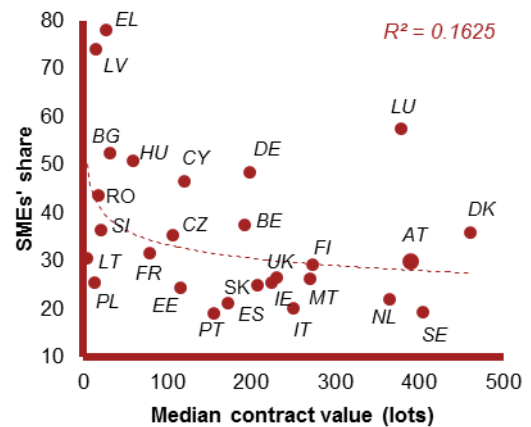


Exhibit 2-35: Estimated median value of single awards, by Member State, 2011 (thousand euros)



The scatter diagram (Exhibit 2-36) suggests there is some marginal correlation between the median value of single awards (lots) and the proportion of these contracts won by SMEs in the EU. On average, the higher the median value of a single award (lot), the lower the success rate of SMEs. Some outliers, e.g. Poland and Lithuania with public supply contracts that often contain a massive number of lots (for instance, medicines, normally supplied by large enterprises) bias the diagram slightly. Another outlier is Luxembourg, having high median contract values but high SME shares as well.

Exhibit 2-36: Relationship between the median value of single contracts and proportion of contracts won by SMEs



Note: R^2 measures the goodness-of-fit of the trend line to the data

⁴⁷ Calculated for all CANs published on TED

Breaking tenders down into lots is one of the most important tools to help SMEs access public contracts. This mitigates the above problem with large contract sizes, which would require technical capacities and financial resources that SMEs do not possess. However, by breaking down contracts into different professional or geographical tasks will alleviate this.

The overall proportion of notices being broken down into lots has remained consistent since 2009. There was a slight increase from 2009-2010 (27 percent to 29 percent of contracts being split into lots); however since then, the proportion has remained stable. On average, 17 percent of CANs contained between 2 and 4 single awards, while 7 percent comprised between 5 and 9 awards. 3 percent of CANs were split into 10-19 single awards, with the remaining 2 percent being split into 20-50+ awards. 71 percent of CANs published were single-contract tenders.

Considerable differences exist in the propensity of countries to use lots. In Latvia, Cyprus, France and Slovenia, more than 2 in 5 tenders above the EU threshold were broken down into lots in the 2009-2012 period. On the other end, one can find authorities from Austria, Lithuania, Malta, Czech Republic and Germany, who rarely use the opportunity of lowering the entry barrier to SMEs through lots.

The simple comparison of this league table with the proportion of SMEs in above-threshold procurement in these countries does not reveal an apparent link between the two. The logistic regression (presented later in this section) does show there is a connection between the number of lots and SMEs odds of winning above threshold contracts. Contracts broken down into more lots are more likely to be won by SMEs, even when accounting for the resulting lower contract sizes.

Exhibit 2-37: Comparison of the number of CANs published and the number of single awards (lots) (percent)

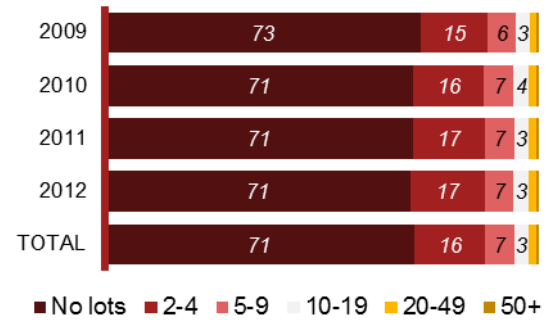
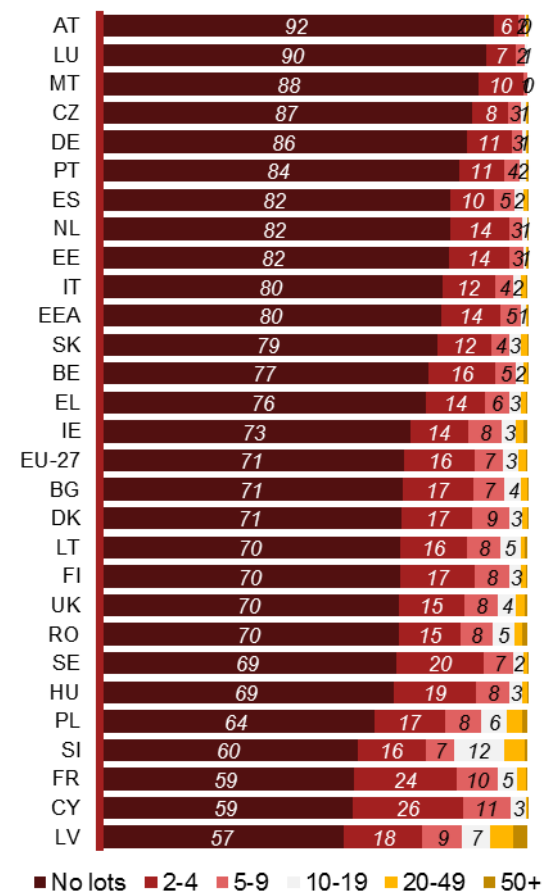


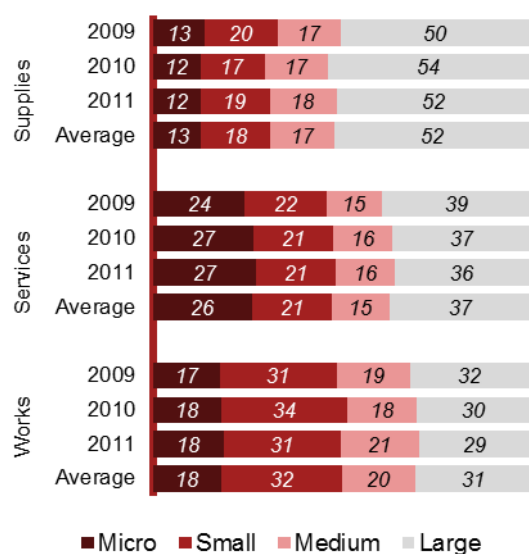
Exhibit 2-38: Distribution of CANs by the number of lots they contain, by Member State (2009-2012) (percent)



2.6.2 The type of contract

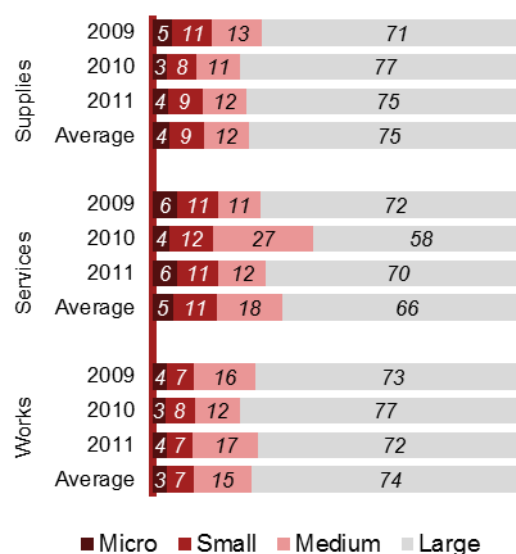
SMEs account for a considerably lower proportion of above-threshold supplies contracts than public works contracts, 48 percent and 69 percent, respectively (average across the three years, 2009-2011). The share in contract value secured by SMEs ranges from 25-26 percent in supplies and works to 34 percent in services. Although works contracts tend to be larger than service and supplies contracts, SMEs still have a reasonable chance of accessing these contracts: public works often include many smaller tasks and are often broken down into separate lots that are more suitable for SMEs. Nevertheless, this category also contains some of the largest contracts which SMEs normally cannot access. The difference between the number of contracts secured and the value of contracts is particularly evident for micro and small enterprises.

Exhibit 2-39: Share of successful bidders, by company size and by nature of contract (percent)



Margin of error: $\pm 1,2-3,3$ percent, median MoE: $\pm 2,0$ percent

Exhibit 2-40: Share of the total value of contracts awarded, by company size and by nature of contract (percent)



Margin of error: $\pm 1,1-3,7$ percent, median MoE: $\pm 2,0$ percent

2.6.3 *The sector of the goods or services*

The three main types of public contracts can be broken further down enable a more detailed analysis of SMEs' access to public procurement by the nature of the goods or services they supply. The main sector code indicating the type of good or service on the contract award notice, categorised according to the Common Procurement Vocabulary (CPV), are used to form seven product or service groups:

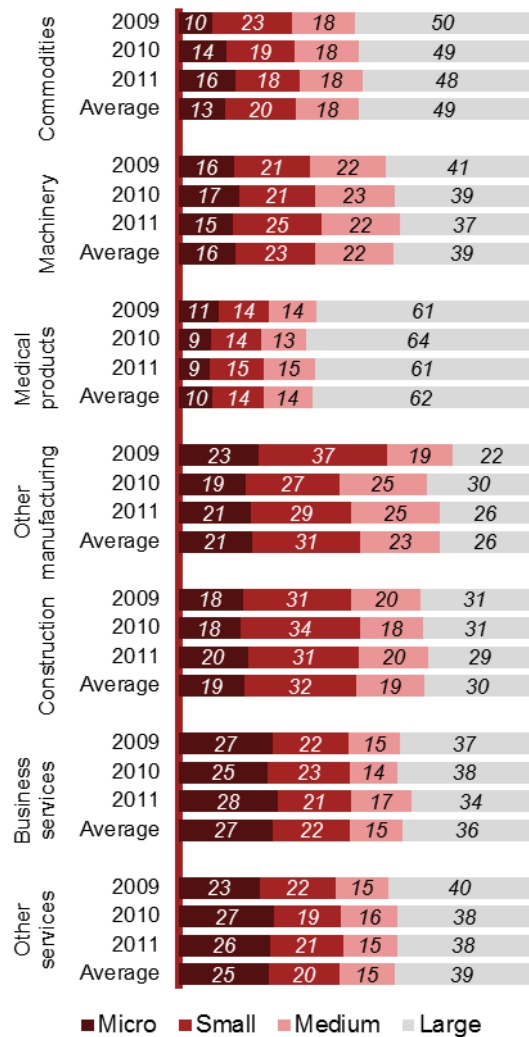
- Commodities and food, including agricultural products, fuels and construction materials (two-digit CPV codes 03, 09, 14, 15, 24, 41, 44)
- Machinery and equipment, grouping together a range of manufacturing sectors (CPV 16, 30, 31, 32, 34, 35, 38, 42, 43)
- Medical products, containing primarily pharmaceuticals (CPV 33)
- Other manufacturing, including the remaining light and heavy industries such as textiles, rubber and plastic products or toys (CPV 18, 19, 22, 37, 39, 48)
- Construction (CPV 45)
- Business services, combining traditional 'business services' (law, marketing, consulting etc.) with real estate, engineering, IT and research services (CPV 70, 71, 72, 73, 79)
- Other services, grouping together all other services (CPV 50, 51, 55, 60, 63, 64, 65, 75, 76, 77, 80, 85, 90, 92, 98)

The first four of the above sectors can be equated with supplies contracts; construction with public works; and the two service sectors with service contracts.

In terms of aggregate value of contracts awarded, the analysis shows that SMEs play only a marginal role in the supply of commodities (16 percent), but on the other hand, they accounted to more than half (57 percent) of the contract volume in the 'other manufacturing' sectors. Their share seems to be at a similar level, somewhere between 25 percent and 32 percent, in the other five sectors.⁴⁸

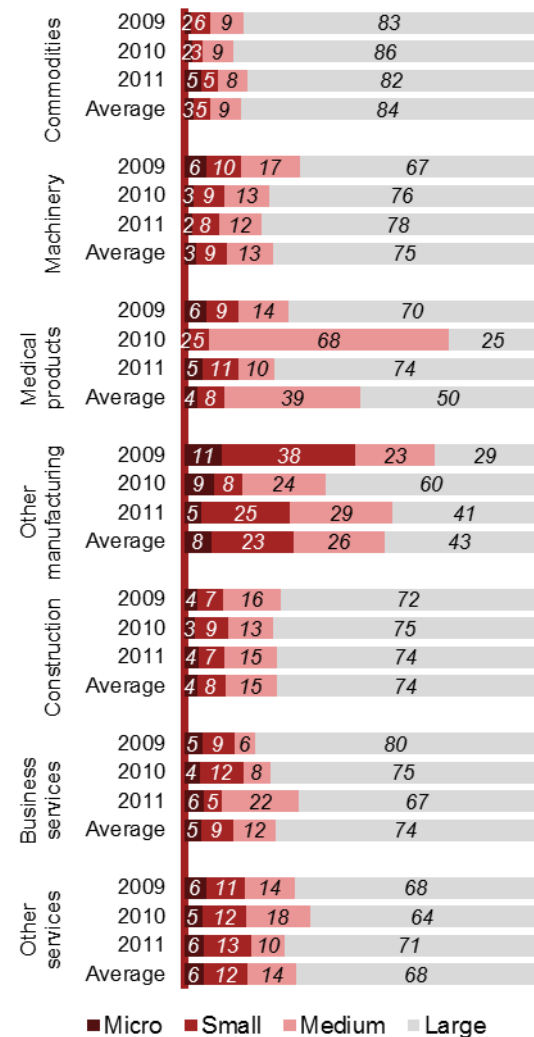
⁴⁸ The estimate for medical products is strongly biased by one very large UK contract from 2010, apparently awarded to a medium-sized enterprise. Discarding this contract, SMEs' share for 2010 would have been 30% and the three-year average 28%.

Exhibit 2-41: Proportion of SMEs amongst successful bidders, by sector (percent)



Margin of error: $\pm 1,3-5,9$ percent, median MoE: $\pm 3,2$ percent

Exhibit 2-42: Share of SMEs in the total value of contracts awarded, by sector (percent)

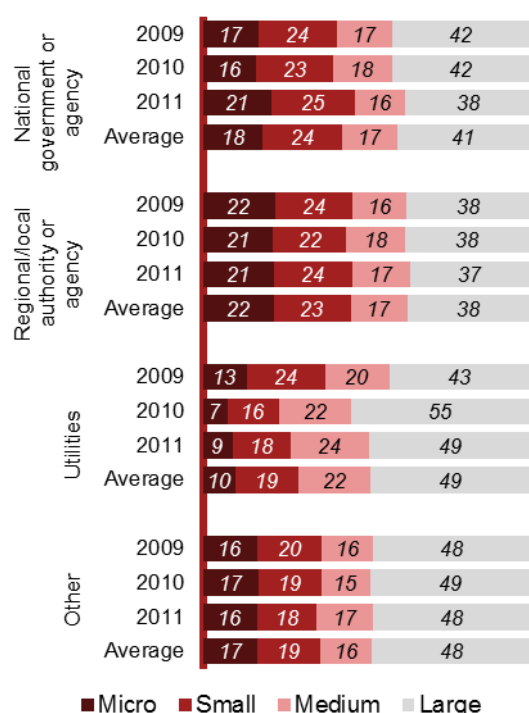


Margin of error: $\pm 1,3-6,1$ percent, median MoE: $\pm 3,3$ percent

2.6.4 The type of the procurer

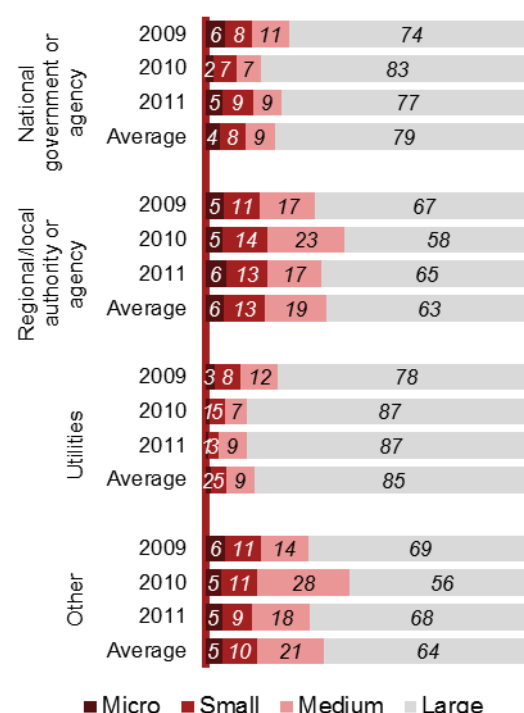
The proportion of above-threshold public procurement contracts awarded to SMEs in the EU-27 is relatively high for tenders launched by regional and local authorities and agencies (62 percent). SMEs do also have the most to benefit from local procurement in terms of contract value (37 percent). SMEs are also estimated to account for a relatively large proportion of contracts awarded by national (central) government and its agencies (59 percent), but as this category includes a number of high-value contract to which they do not have access, SMEs' share in terms of value is considerably lower (21 percent). SME access to public contracts appears to be particularly low among utilities, especially in terms of value (15 percent).

Exhibit 2-43: Successful bidders by company size and by type of awarding body (percent)



Margin of error: $\pm 1,2-5,6$ percent, median MoE: $\pm 2,5$ percent

Exhibit 2-44: Share of the total value of contracts awarded, by company size and by type of awarding body (percent)



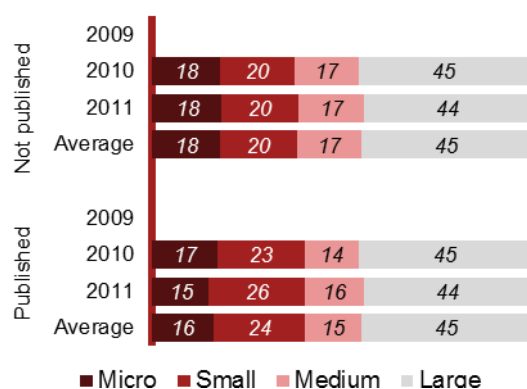
Margin of error: $\pm 1,3-6,0$ percent, median MoE: $\pm 2,6$ percent

2.6.5 The publication of prior information

Prior Information Notices or, for utilities, Periodic Indicative Notices (PINs) are voluntary publications defined under Article 35(1) of Directive 2004/18/EC and article 41(1) of Directive 2004/17/EC that inform potential bidders about the key characteristics of upcoming tenders. They allow CAEs to shorten the time limits later in the tender procedure. The publication of PINs is advocated by the European Code of Conduct ⁴⁹ as a tool that can help SMEs participating in public procurement by allowing them sufficient time to organise their team and to prepare their bid.

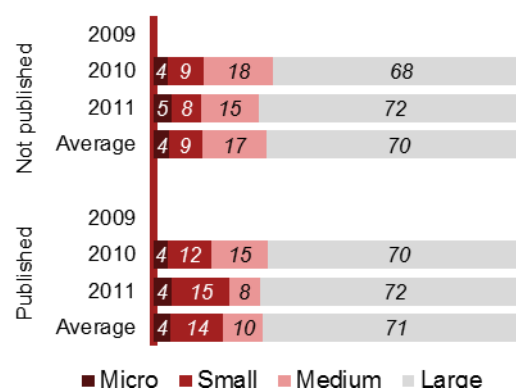
According to the analysis of above-threshold procurement contract award notices, whether a PIN was published or not prior to the procedure does not seem to have an impact on the overall success of SMEs in securing public contracts above the EU-thresholds. Between 2010 and 2011, SMEs won 55 percent of all contracts under both scenarios, corresponding to 29-30 percent of total public procurement volume. Interestingly, certain differences emerged between individual SME categories. Small companies seem to have been somewhat more successful in public procurement above the EU-thresholds if a PIN was published beforehand (24 percent versus 20 percent when no PIN was published); but their gain was counterbalanced by the loss of micro- and medium-sized enterprises, whose proportion was 2 percentage points lower in tenders for which PINs were published. This result could however be merely an effect of sampling bias, although the difference between publication and non-publication of PINs is significant in one case, for small enterprises in 2011, with non-overlapping 95 percent confidence intervals (and close to be significant at 5 percent for micro-enterprises in 2011).

Exhibit 2-45: Proportion of SMEs amongst successful bidders, by publication of PINs (percent)



Note: Data for 2009 were not available
Margin of error: $\pm 1,0-3,9$ percent, median MoE: $\pm 2,0$ percent

Exhibit 2-46: Share of SMEs in the total value of contracts awarded, by publication of PINs (percent)



Margin of error: $\pm 1,1-4,0$ percent, median MoE: $\pm 2,0$ percent

⁴⁹ Available at:

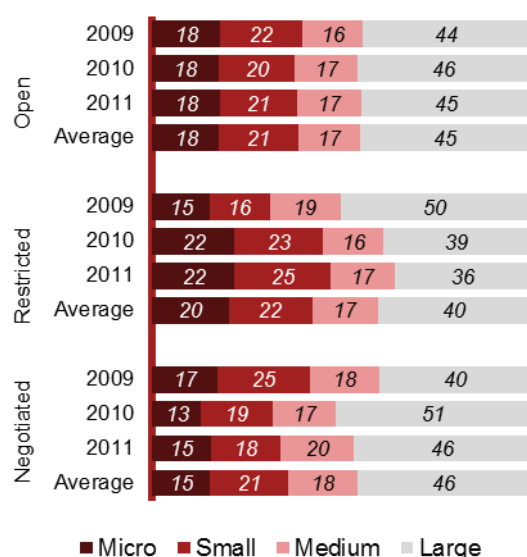
http://ec.europa.eu/internal_market/publicprocurement/docs/sme_code_of_best_practices_en.pdf

2.6.6 The tender procedure

The proportion of SMEs amongst successful bidders was broadly consistent amongst open, restricted and negotiated tender procedures in the EU. Under these procedures, the proportion of enterprises winning bids was also relatively steady across all the three years. Micro enterprises won between 15-20 percent, small enterprises 21-22 percent and medium-sized enterprises 17-18 percent. Please note in the analysis, all sub-types of restricted tender procedures and all sub-types of negotiated tender procedures were grouped together. Competitive dialogue was excluded from this analysis due to insufficient sample size.

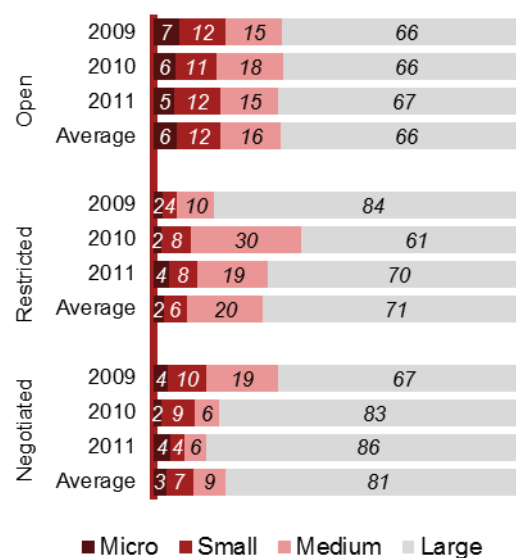
On the other hand, SMEs' shares of the total value of above-threshold contracts awarded are less consistent across the different types of procedures, with SMEs representing a much smaller share of the value of bids under negotiated procedures (which tend to be larger). SMEs account for 34 percent of contracted tendered through open procedure and 29 percent tendered through restricted procedures, but only for 19 percent under negotiated procedures, in terms of value. SMEs' share under open tender bids has remained consistent over this 3 year period, whereas the other two large procedure types fluctuated more strongly.

Exhibit 2-47: Proportion of SMEs amongst successful bidders, by type of procedure (percent)



Margin of error: $\pm 1,1-5,5$ percent, median MoE: $\pm 3,5$ percent

Exhibit 2-48: Share of SMEs in the total value of contracts awarded, by type of procedure (percent)



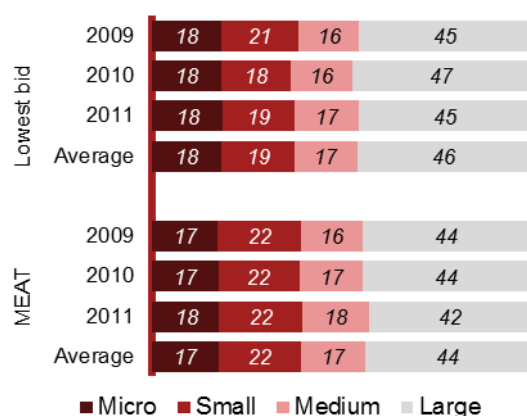
Margin of error: $\pm 1,1-5,5$ percent, median MoE: $\pm 3,7$ percent

2.6.7 The selection criteria

Estimates suggest that there is no difference between SMEs' rate of success irrespectively of whether the 'most economically advantageous' (MEAT) criterion or the 'lowest bid' criterion is applied in the evaluation of tenders: SMEs have won 54-56 percent of tenders in both cases. Conversely, SMEs' share of contracts in terms of value under the MEAT criterion (29 percent) is somewhat lower than under 'lowest bid' (34 percent).

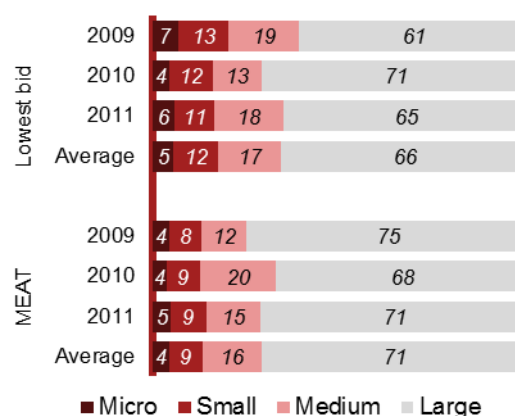
This result may, as such, not be supportive of the arguments often voiced by SME organisations and the Commission to use MEAT criteria more often, as MEAT would help quality-conscious and flexible SMEs become more successful in public procurement, and would maximise value for money for the procurer. However, this conclusion is likely to be premature. A possible explanation for the apparent disadvantage of SMEs under the MEAT criterion may be that procurers tend to use the MEAT criteria for high-value contracts more often. Therefore, purely on accounts of larger contract values, SMEs have a correspondingly lower chance of winning these tenders. However, as we will see from the results of the compound analysis of influencing factors, the MEAT criteria also has a *ceteris paribus* negative effect on SMEs' chances of winning contracts. Explanations for this phenomenon might revolve around the better access of SME traders to tenders aiming at the purchase of simple, unsophisticated supplies or simple services.

Exhibit 2-49: Proportion of SMEs amongst successful bidders, by criteria applied (percent)



Margin of error: $\pm 1,3-2,0$ percent, median MoE: $\pm 1,5$ percent

Exhibit 2-50: Share of SMEs in the total value of contracts awarded, by criteria applied (percent)



Margin of error: $\pm 1,3-2,1$ percent, median MoE: $\pm 1,6$ percent

2.7 Compound analysis of the factors

To assess the *ceteris paribus* effects⁵⁰ of the different factors on SMEs' participation in a systematic way, also controlling for contextual variables, a logistic regression analysis (*logit*) was conducted. This approach allows an interpretation of how specific factors influence the odds ratio for SMEs winning a specific contract.

The analysis was based on the same three-year sample of contract award notices than the one used for the descriptive statistics above: i.e. 28.609 randomly selected CANs published on TED by EU Member States and EEA countries, for which the contract value was given and the size class of the winner had been identified. This sample was complemented by a 'booster' sample of 1.392 records from the year 2011, focusing on framework agreements and centralized purchasing. The total starting sample thus contained 30.102 records, not all of which were complete and used in the model estimations.

Several alternative models were designed and tested, five of which are presented in this chapter. Although the analysis departs from a very simple model using only contract value as predictor of SMEs' success, the aim was not to find the most efficient model (predicting well whether a specific contract would be won by an SME or not, whilst using only a limited number of predictor variables). With the exception of the first simplistic model all alternative models include a relatively large number of contextual and policy-related predictors to demonstrate in which direction they influence SMEs' odds of winning.

The outcome variable was a binary (dichotomous) variable in all models examined; taking the value of 1 if a specific contract had been won by SMEs and 0 if not. Explanatory variables were grouped into three categories:

1. Country dummy variables (a specific country dummy variable takes the value of 1 if the given contract was awarded by a CAE in that country) to control for the aggregate impact of many important but unobservable country-level variables such as: different procurement rules and policies; varied procurement practices of CAEs; the overall strength of the SME sector.
2. 'Contextual' explanatory variables:
 - Dummies for the sector of the good or service provided, on the basis of the main CPV code: to control for differences in the sector context (these correspond to the six broad sectors presented in the descriptive analysis: commodities and food; machinery and equipment; medical products; other manufactured products; construction; business services; other services)
 - Dummies for the type of procurer: distinguishing between national government and agencies; regional governments and agencies; utilities; and, other bodies obliged to apply public procurement rules
 - The contract value: as the distribution values were highly skewed to the right, strongly biasing the analysis, the natural logarithm of the contract value was taken. To cater for specificities in the relationship between contract value and SMEs' odds, a spline was added at the logarithm value 11 (corresponding to ca. 60.000 euros) and the interaction between values below this spline and the dummy for medical products, to filter out from the main coefficient the positive slope for medical supplies for low-value contracts.
3. Key policy variables (which can be set or influenced by the CAE) were:
 - Dummies for the main type of procedure chosen (open, restricted, negotiated)
 - Dummy for cross-border procurement
 - Dummy for centralized purchasing
 - Dummy for framework agreements

The individual models included all or only a selection of the above variables, and added certain additional interaction variables. The reporting of the impact each of the explanatory variables is based on 'odds ratios', which shows the odds of the chance of an SME winning public contracts if the explanatory variable is increased by one unit (in case of dummy variables; if the contract falls into the category indicated by the dummy) versus

⁵⁰ i.e. looking at the impact of one individual factor, all other things being equal

their odds otherwise, all other things held constant. If the odds ratio for a given predictor variable is above 1, this means that SMEs are more likely to win contracts for which this specific factor takes on a higher value. If the odds ratio is below 1, SMEs will be less likely to win contracts for which this factor takes a higher value.

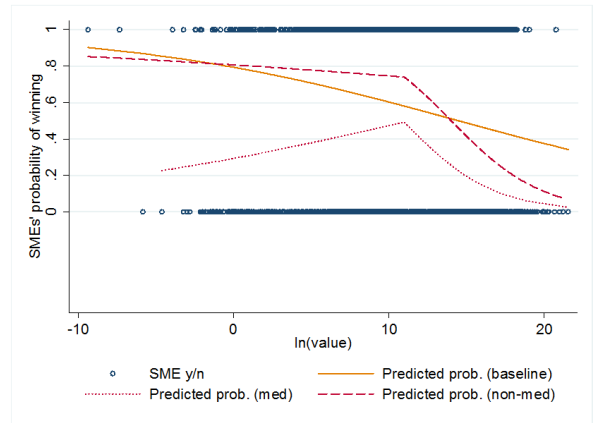
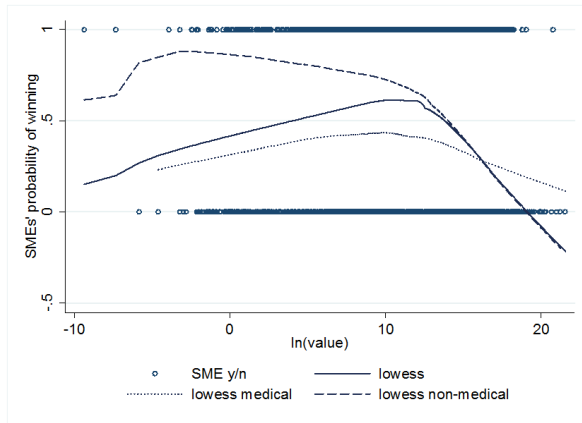
The report on the econometric analysis also indicates whether the estimated odds ratios for each of the predictors are significant at 5%, 1% and 0,1% levels (Wald test).

The simplest of the models (*Model 1*) only contains the contract value, i.e. for a single award, as explanatory variable. The more complex models introduce country dummies (*Model 2*) and varying sets of key policy variables and additional ‘contextual’ variables (*Models 3-5*).

Certain modifications to the value predictor were necessary from the outset. Charting whether the contract had been won by an SME (1 if yes and 0 if not) versus the logarithm of the contract value showed that this relationship is far from simple and one-directional. Exhibit 2-51 presents the actual data (hollow dots) together with a calculated empirical probability of an SME winning contracts at a given contract value, using locally weighted scatterplot smoothing (‘lowess’), one for the total sample and two curves breaking down contracts to medical supplies and others. For medical supplies, chances for SMEs are apparently modest for very low-value contracts⁵¹, then increasing slightly up to logarithmic value of about 10-11 (ca. 22.000-60.000 euros), to decrease above that point. For all other products and services, the slope remains negative at all contract values: moderately so below the logarithmic value of 11, but falling sharply above this threshold.

Exhibit 2-51: Empirical probabilities of SMEs’ winning contracts as a function of ln(value)

Exhibit 2-52: Predicted probabilities from Model 1



To take these specificities into account, all models have therefore included a spline (a break in the regression curve) at the logarithmic value of 11, a dummy for medical products and an interaction term between the dummy and the contact value below the spline. The two dashed lines in Exhibit 2-52 present the predicted probabilities coming from Model 1 (with the spline at 11), distinguishing medical supplies from other goods and services. They evidently fit the data much better than a hypothetical baseline logistic regression without using a spline and separating medical supplies.

Impact of contract value

Running the models confirm that the chances of SMEs winning public contracts start to decrease, relatively rapidly, above ca. 60.000 euros: this is the most significant predictor in all models. On the

⁵¹ This is explained primarily by contracts covering the supply of pharmaceuticals and other medical products – usually won by large enterprises - which were broken down to a very large number of single lots (especially in Poland and Lithuania).

other hand, for contracts with lower values, and excluding medical supplies, the contract price does not seem to matter (the corresponding odds ratio barely differs significantly from 1 even in the simplest Model 1, and gets insignificant under all subsequent models). For medical supplies, the calculations confirm that the gradual increase in SMEs' chances for lower-value contracts seen on the graph is significant.

Impact of the country

As already seen in Chapter 2.2.2, the country where the procurement takes place is a decisive factor in explaining SMEs' access - a residual effect of important unobserved factors at Member State level, such as differences in law, institutional setting, market size, economic context, CAE practices etc. Taking the country with the lowest odds ratio (Sweden) as baseline, i.e. omitting this dummy from the model, we can see that the other country dummies are highly significant, except for a few countries with similarly low odds ratios (Austria, the Netherlands, Portugal or Spain). SMEs seem to be the most successful - on a *ceteris paribus* base - in accessing above-threshold contracts in Greece, Cyprus, Bulgaria, Malta, Estonia, Hungary and Latvia.

Impact of 'contextual' variables

As for the 'contextual' control variables, the sector (CPV code) of the good or service procured has a significant and very strong effect on the probability of SMEs winning contracts. SMEs rarely win contracts concerning medical products (mostly pharmaceuticals), commodities and food, and to a lesser extent in machinery and equipment and other services, even if their value is the same. They are however rather successful in supplying construction and business services, as well as manufactured goods other than machinery and pharmaceuticals. The Wald test of these variables confirms their strong significance versus the baseline category (construction), with the exception of other manufactured goods, which has a similar odds ratio than construction.

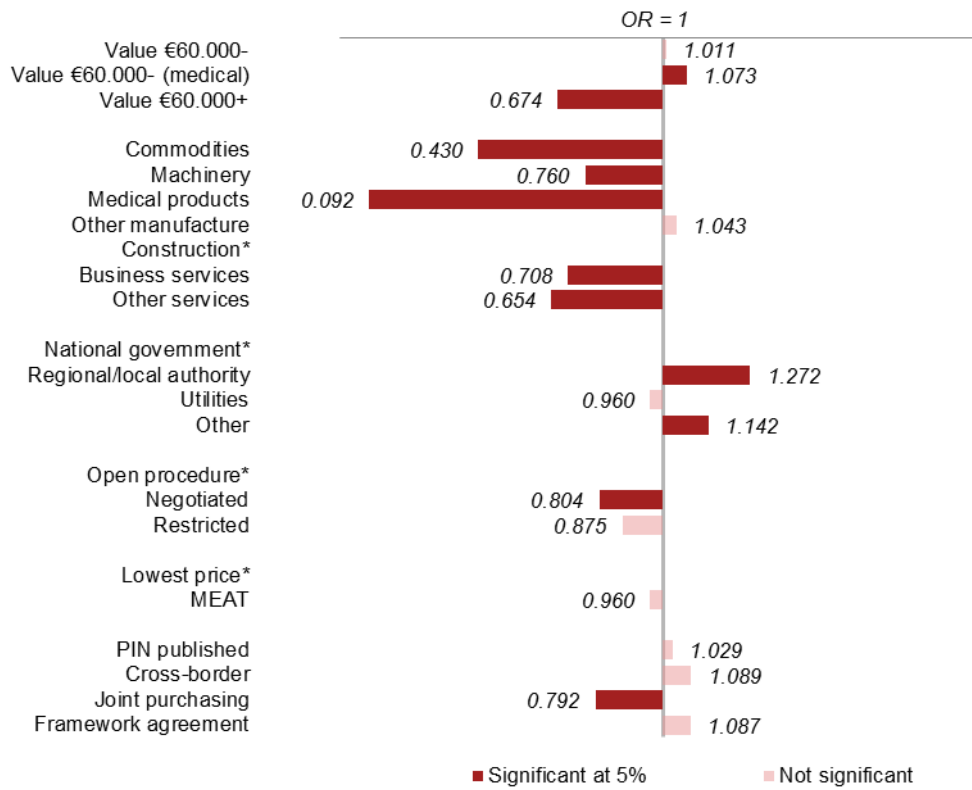
The type of the procurer has generally only marginal impacts on the SMEs' chances of winning contracts, with one notable exception: if the procurement is conducted by regional/local agencies and local authorities, this increase the probability for SMEs of winning contracts, holding all other factors (including the value of the contract) constant.

Impact of 'policy' variables

Concerning the explanatory factors that can be influenced by policy and CAEs, the analysis produced the following findings:

- The specific tender procedure chosen, as already seen in the descriptive statistics, seems to have some impact on the opportunities of SMEs in public procurement above the EU-thresholds. The regression analysis indicates that, in comparison to open procedures (used as baseline) both restricted and negotiated procedures diminish the chances to SMEs, although the latter predictor does not have a significant influence on the outcome in the full model (Model 5).
- The use of the MEAT criterion in the evaluation is not a significant explanatory variable in the models.
- The publication of prior information notices does not influence SMEs' chances either.
- SMEs' success in direct cross-border procurement does not seem to differ significantly from domestic procurement (it should be emphasized though that the size of the particular sub-sample of cross-border contracts was small).
- Centralized purchasing has a considerable negative effect on SME access (on a *ceteris paribus* basis), while framework agreements does not seem to have a significant influence on the outcome.

Exhibit 2-53: Key results of the regression analysis (estimated odds ratios)



Notes: Detailed regression outputs from the five models can be found in the Annex.

2.8 SMEs and cross-border procurement

2.8.1 Introduction

Cross-border procurement takes place when a public contract in a Member State is partly or fully performed by economic operators from abroad. The nature of involvement of foreign companies may vary, thus defining different channels for cross-border procurement. In (i) direct cross-border procurement, the contractor, single contractor or the leader of a joint bid, is registered in a different country than the country of the CAE. In (ii) indirect cross-border procurement, the economic operator with whom the contract was concluded is domestic, but a substantial part of the contract is performed by foreign firms. This may happen, for instance, through bidding through local subsidiaries, including foreign consortium partners or subcontractors, or delivering foreign supplies through local traders.⁵²

The subsequent analysis looks at direct cross-border procurement only, where the single contractor or a leader of a joint bid is located abroad. The section will present key figures on the extent and patterns of direct cross-border procurement above the EU-thresholds and the share of SMEs winning such contracts.

2.8.2 Prevalence of direct cross-border procurement

Between 2009 and 2011, a total of 16.317 awards were given to economic operators located in a foreign country in the EU-27, corresponding to 1,26 percent of all contracts. The annual figures show a slightly increasing trend, from 1,21 percent in 2009 to 1,33 percent in 2011. The aggregate value of these contracts is estimated at 40 billion EUR, around 3,4 percent of all above-threshold procurement.

Exhibit 2-54: Direct cross-border procurement above the EU thresholds (2009-2011)

	2009	2010	2011	Total
Number of contracts				
Total contracts awarded (single awards)	391.784	437.787	469.443	1.299.014
- domestic (and indirect cross-border) contracts*	387.057	432.422	463.218	1.282.697
- direct cross-border contracts*	4.727	5.365	6.225	16.317
<i>Direct cross-border procurement as percent of all contracts</i>	<i>1,21%</i>	<i>1,23%</i>	<i>1,33%</i>	<i>1,26%</i>
Aggregate value of contracts (billion euros)*				
Total contracts awarded	377,5	414,3	389,6	1.181,4
- domestic (and indirect cross-border) contracts*	363,0	402,4	376,4	1.141,8
- direct cross-border contracts*	14,5	11,9	13,2	39,6
<i>Direct cross-border procurement as percent of aggregate procurement value</i>	<i>3,84%</i>	<i>2,87%</i>	<i>3,39%</i>	<i>3,35%</i>

* These figures are partly based on statistical imputation as the value of the contract was not indicated in all notices

Foreign companies' participation in public procurement is more prevalent in smaller countries that may not have the domestic industrial base or specialized service providers necessary to meet certain public needs. The legal and institutional framework (e.g. the ease of acknowledging certificates issued by foreign authorities), on-the-ground practices (e.g. track record requirements, publication of information and acceptance of documents in other languages), political priorities and traditions of public bodies in interacting with foreign companies may explain the extent to which cross-border purchases occur directly, through awarding contracts to foreign companies, or rather through various forms of indirect cross-border procurement.

⁵² This approach is consistent with the definitions set out in Ramboll (2011): *Cross-border procurement above EU –thresholds*. http://ec.europa.eu/internal_market/publicprocurement/docs/modernising_rules/cross-border-procurement_en.pdf

Statistical analysis of contract award notices show that the level of direct cross-border procurement is the highest in a set of small and open economies: Malta, Luxembourg, Ireland, Cyprus and Estonia (with more than 6 percent of above-threshold contracts awarded to foreign bidders). On the other end of the scale, Italy, Poland, Bulgaria, France and Spain show the smallest proportion of contracts awarded directly to foreign economic operators (at or below 1 percent).

The picture is similar in terms of total value of direct cross-border procurement: Malta is in the lead with 53 percent of above-threshold public procurement spent on contracts that were awarded to companies from outside the country between 2009 and 2011. The figure is exceeding 15 percent in Greece, Cyprus and Latvia, but below 2 percent in the Netherlands, the United Kingdom, France and Spain.

Exhibit 2-55: Share of public contracts awarded to companies located abroad, by number of contracts (percent)

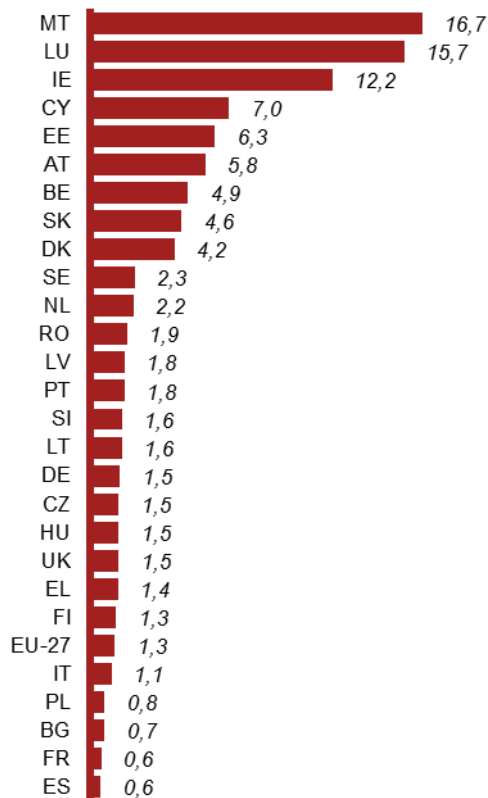
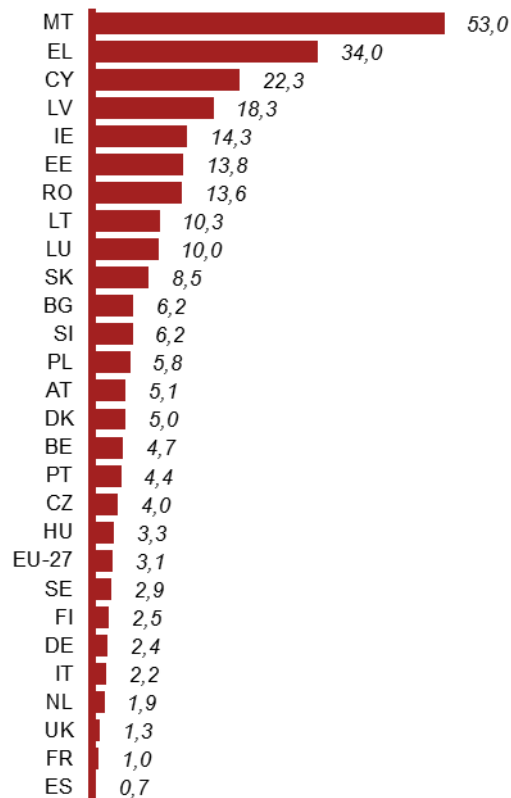


Exhibit 2-56: Share of public contracts awarded to companies located abroad, by aggregate value of contracts (percent)



Considerable differences are also detectable between the significance of cross-border contracts for companies from individual Member States. Between 2009 and 2011, German companies have secured the most above-thresholds contracts in other Member States, a total of 2.709, followed by British companies (2.496). German economic operators were also leading in terms of aggregate value of cross-border contracts, amounting to 4,9 billion euros, followed by Italian companies (3,6 billion euros).

In relative terms however, i.e. looking at the proportion of contracts that were won in another Member State, direct cross-border procurement is a more important source of revenue for companies from Luxembourg, Austria, Netherlands, Belgium and Estonia. The share of cross-border procurement in terms of the aggregate public contract value awarded is the highest in Ireland, Malta, Austria, Luxembourg and Cyprus, all small countries with competitive manufacturers, service providers or construction companies. For economic operators from most of the large Member States, the domestic market is the overwhelming source of their public procurement revenue above the EU-thresholds (above 95 percent except for German companies), not accounting for indirect forms of cross-border procurement.

Exhibit 2-57: Share of public contracts secured abroad, by number of contracts (percent)

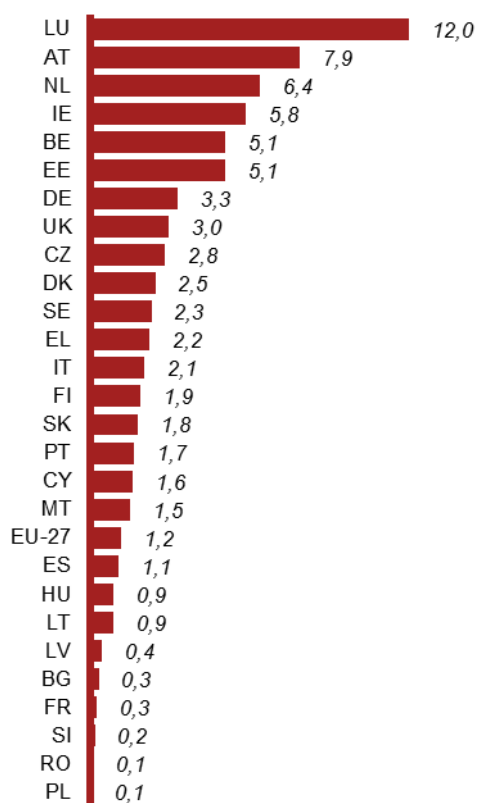
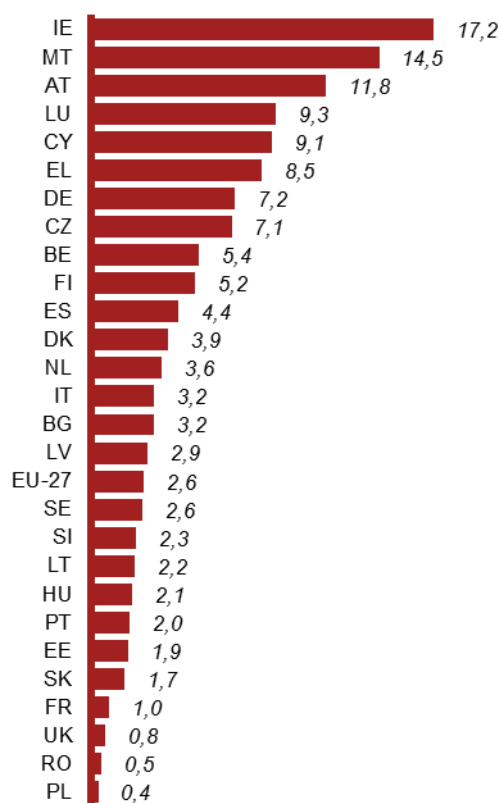


Exhibit 2-58: Share of public contracts secured abroad, by aggregate value of contracts (percent)



2.8.3 SMEs in direct cross-border procurement

The statistical analysis does not reveal a significant difference between the proportions of SMEs among companies winning domestic or direct cross-border contracts. SMEs have won 56 percent of domestic public contracts above the EU-thresholds between 2009 and 2011, and 54 percent of cross-border contracts. In terms of value, SMEs' share is somewhat lower in cross-border procurement: 22 percent only vs. 29 percent in domestic procurement. Around half of the difference is explained by the lower share of medium-sized enterprises.

Exhibit 2-59: Successful bidders by company size and by cross-border nature of contract (percent)

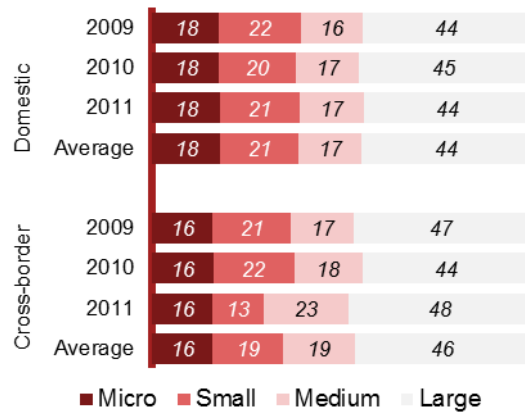
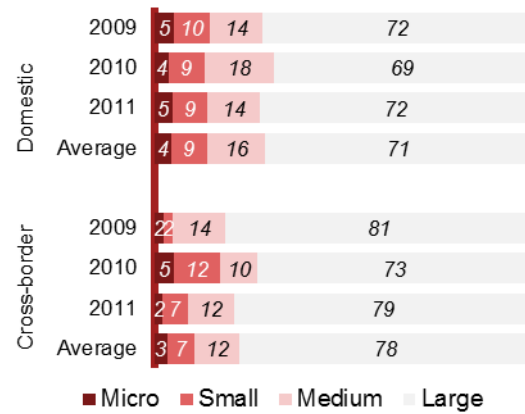


Exhibit 2-60: Share of the total value of contracts awarded, by company size and by cross-border nature of contract



2.9 Review of facilitating measures in CIP countries

2.9.1 Introduction

This subsection looks at a selection of countries that were not members of the EU in the period covered by the quantitative analysis (2009-2011) but which collaborate with the EU in coordinating their SME policies and in activities aimed at boosting entrepreneurship and innovation under the framework of the Competitiveness and Innovation Programme (CIP). It gives a qualitative review of the situation in these CIP member countries with regard to the access of SMEs to public procurement markets, primarily at key legislative and non-legislative measures in place to facilitate SMEs' successful participation in public procurement. The following countries involved in the analysis are Albania (AL), Croatia (HR), the Former Yugoslav Republic of Macedonia (MK), Israel (IL), Liechtenstein (LI), and Serbia (SR).

Facilitating SMEs' access to public procurement is on the agenda of policymakers in many of the CIP countries concerned. The barriers to successful participation are similar to what small businesses within the EU face, large volumes and broad capabilities required, restricted access to certain contracts, disproportionately high technical and financial qualification levels etc. (see Exhibit 2-61 for a list of key barriers), as are most of the legislative and non-legislative measures undertaken to level the playing field.

Exhibit 2-61: Typical barriers to SMEs' access to public procurement

Large contract volumes and broad capabilities required	Lack of knowledge about procedures
Temporary closing of the market through framework agreements	Limited tendering skills and experience
Disproportionate technical and financial qualification levels	Lack of time to prepare bids
Over-emphasis on price and costly industry standards and certifications	Little dialogue with procurer and feedback
Insufficient access to information about opportunities	Excessive administrative burden
Unclear requirements	Late payments, risk of non-payment

Almost all CIP countries are candidates or potential candidates for EU membership, or members of the European Economic Area (Israel is the notable exception, while Croatia has since joined the EU, as of 1 July 2013). As such, much of their national legislation is oriented towards the EU *acquis*.

Correspondingly, the laws governing public procurement of these countries are to a large extent aligned with the European Public Procurement Directives, with clauses that may have positive or negative effects on SMEs' access to public contracts mostly mirroring those included in the Directives.

The laws and by-laws of the CIP countries define an institutional setup that is similar to EU Member States' systems in almost all cases. Some of the concrete arrangements and solutions might have an indirect impact on how SMEs fare in public procurement, for instance the independence and transparency of the body responsible for reviews, as well the speed and effectiveness of its procedures and the administrative costs involved.

It is assumed that maybe the most important institutional factor shaping the opportunities for small business to secure public contracts is the degree of centralisation of public procurement in the given country, and the level of aggregation of demand associated with it. According to the theory, countries that have highly decentralised government structures with many tasks and responsibilities delegated to the lower levels of government are likely to have smaller public contracts (and probably a higher proportion of contracts below the EU-thresholds). These should be more accessible to, local, SMEs, as the required technical and financial capacities, as well as interest from larger enterprises are smaller.

On the other hand, SMEs in countries with strong centralised purchasing bodies and a higher prevalence of centralized public procurement and large multi-annual framework agreements are likely to have more limited access to public procurement.

The analysis of above-threshold procurement contract award notices shows only a very weak negative relationship between the extent of centralized purchasing in EU Member States (measured as percent of all procurement above thresholds) and SMEs' estimated proportion in above-threshold procurement (in terms of number of contracts awarded, 2011 data), with a correlation coefficient of -0,27 and an R² for the linear regression between the two of only 0,07. However, the two individual causal links of the theory are better supported by data. More centralized purchasing does lead to a higher average value of public contracts above the thresholds (correlation coefficient of 0,61, with R² of 0,37), and higher average contract values do seem to have a negative effect on SMEs' proportion in winning these (correlation coefficient of -0,42, R² of 0,18).

2.9.2 SMEs' access to public procurement in CIP countries

The proportion of SMEs among economic operators winning public contracts is not known for the CIP countries reviewed, as none of the countries collect such information. The opinion of local stakeholders interviewed was mixed, with some thinking that the level of SME access is below its potential and a policy concern, whereas others did not see SMEs to be particularly disadvantaged. Correspondingly, the extent to which SME access to public contracts has been put on the policy agenda varies across countries: the extent to which the situation and needs of small business are referred to in national public procurement legislation might also give an indication. SMEs are specifically mentioned in the public procurement law of some CIP countries. In Albania, for instance, the law sets out that qualification requirements must be drawn up in a manner that encourages the participation of Small and Medium-sized Enterprises. In Serbia, the law obliges the central procurement body to define its procedures so that they are accommodating to Small and Medium-sized Enterprises. On the other hand, the law does not make any direct reference to SMEs in Croatia and the Former Yugoslav Republic of Macedonia.

However, despite apparent differences in the significance assigned to smaller economic operators' problems in public procurement, the set of concrete measures introduced is rather similar across the CIP countries and in line with the practice of EU Member States. This is a logical consequence of the similarity of the problems and barriers SMEs face, and of the fact that the legal framework of most CIP countries was to a large extent shaped by the EU Public Procurement Directives. The remainder of this section presents the key measures in place in the CIP countries, structured around eight topics responding to the key barriers to SME access outlined above (as presented in Exhibit 2-62).

The topics are in line with the themes of the European Code of Best Practices.⁵³ The review of the legislative framework of the CIP countries, key websites and stakeholder interviews aimed primarily at identifying what kind of measures are in place and, if legislation allows their use, to what extent they have been taken up by CAEs or tenderers. In addition, it was also investigated whether SME quotas, set-aside contracts or any explicit positive discrimination in the evaluation of bids in favour of SMEs exist.

The individual country fiches providing more detail on context and the measures in place are presented in the Annex.

⁵³ European Commission (2008): *European code of best practices facilitating access by SMEs to public procurement contracts*. Available at: http://ec.europa.eu/internal_market/publicprocurement/docs/sme_code_of_best_practices_en.pdf

Exhibit 2-62: Barriers and key countermeasures to facilitate SMEs' access to public procurement

Typical barriers	Countermeasures
Large contract volumes and broad capabilities required	A. Overcoming obstacles related to the size of contracts <ul style="list-style-type: none"> • Breaking down tenders into lots • Restricting bidders from competing for all lots • Limiting the duration of framework agreements • Limiting renewal of framework agreements
Temporary closing of the market through framework agreements	
Disproportionate technical and financial qualification levels	B. Avoiding disproportionate technical or financial requirements <ul style="list-style-type: none"> • Rules on setting proportionate technical qualification levels • Limitations on financial qualification levels • Reducing amount of financial guarantees/bid bonds • Possibilities for joint bids, reliance on others' capacities
Over-emphasis on price and costly industry standards and certifications	C. Emphasis on quality and allowing for flexibility <ul style="list-style-type: none"> • Using the MEAT criterion • Using performance or functional requirements • Full life-cycle costing
Insufficient access to information about opportunities	D. Providing more and better information <ul style="list-style-type: none"> • More information on public procurement opportunities • Free access to contract notices and tender documentation • Availability of documentation in other relevant languages • Guidelines and other support material for tenderers • Helpdesks • Training opportunities for tenderers
Unclear requirements	
Lack of knowledge about procedures	E. Providing sufficient time to complete bids <ul style="list-style-type: none"> • More time to submit tenders (above statutory deadlines) • Publishing prior information notices or buyer's profiles
Limited tendering skills and experience	
Lack of time to prepare bids	F. A better dialogue between procurers and tenderers <ul style="list-style-type: none"> • Q&A on the tender procedure • Dialogue with procurer on requirements and specifications • Post-award debriefing
Little dialogue with procurer and feedback	G. Alleviating the administrative burden <ul style="list-style-type: none"> • Submission of documents once shortlisted or selected • Allowing self-certification • No need for official translations • Pre-selection questionnaires and tender shortlists • Not requesting documents submitted in the past • Retrieving documents directly from authorities • Electronic submission of tenders and use of electronic tools
Excessive administrative burden	
Late payments, risk of non-payment	H. Overcoming liquidity problems <ul style="list-style-type: none"> • Tight payment deadlines and sanctions for late payments • Allowing advance and interim payments • Protecting the interests of subcontractors in contracts • Direct payments to subcontractors

SME quotas

Legislative arrangements introducing an explicit positive discrimination of small business in public procurement procedures, quotas, set-aside contracts, extra scores in tender evaluation, were not identified in CIP countries, except for one case. In Serbia, procurers may require tenderers to deliver a certain proportion of contracts above a threshold of ca. 394.000 euros for supply and service contracts and ca. 525.000 euros for works with the involvement of small enterprises or self-employed persons. If the tenderer itself is not a small business as of the definitions set out in national legislation on accounting and auditing, it must include subcontractors in its offer that satisfy this condition.

A. Overcoming obstacles related to the size of contracts

Legislation allows the subdivision of contracts into separate lots in the CIP countries, but it is generally not a mandatory requirement or a default option by law.

Partial exceptions however do exist: in Macedonia, the use of lots is mandatory if a special (technical) requirements for a given

subtask (under works or services contracts), if it is separable from the remainder and it would not allow companies to participate that could otherwise perform other parts of the contract. In Croatia for instance certain central purchasing bodies or other CAEs, may have policies to break down contracts by default, if applicable and reasonable. It is understood from national reports and stakeholder feedback that lots are frequently applied in several of the CIP countries (confirmed for Macedonia and Israel). In Croatia, larger supply contracts are often broken down into lots, but they are less prevalent in service and works contracts.

The number of lots tenders may bid for, or win, cannot be limited under the law on public procurement in at least Croatia, the FYROM, Liechtenstein and Serbia.

The duration of framework agreements is limited, unless the application of a longer timeframe is specifically justified by the nature of the contract, to four years (as in the EU Directives) in Croatia and Liechtenstein, and to only three years in Macedonia and Serbia. In both Croatia and Serbia, the duration is limited to two years if the agreement is concluded with a single economic operator.

Framework agreements are generally not renewed in Croatia, while this would be permitted by law. In Macedonia, public procurement legislation does not allow renewal.

B. Avoiding disproportionate technical or financial requirements

CAEs in CIP countries are generally obliged to set technical qualification levels proportionate to the contract, although this legal obligation is usually phrased in more general terms and not specifically with reference to SMEs. Legislation in Croatia, FYROM, Israel, Liechtenstein and Serbia

requires procurers to define the technical qualification criteria in a way that ensures the equal access of all candidates and does not introduce unjustified obstacles to competition. In Albania, as an exception, the law also mentions that technical qualification criteria need to allow the participation of SMEs.

Financial qualification levels are limited in some CIP countries. In Croatia, the minimum annual turnover required from tenderers is limited at twice the estimated contract value as a default. This upper limit can be exceeded only in exceptional cases. A similar arrangement is in place in Israel. In other countries, such as FYROM, Liechtenstein or Serbia, specific rules on limiting financial

A. Overcoming obstacles related to the size of contracts

- Breaking down tenders into lots
- Restricting bidders from competing for all lots
- Limiting the duration of framework agreements
- Limiting renewal of framework agreements

B. Avoiding disproportionate technical or financial requirements

- Rules on setting proportionate technical qualification levels
- Limitations on financial qualification levels
- Reducing amount of financial guarantees/bid bonds
- Possibilities for joint bids, reliance on others' capacities

qualification levels have not been included in public procurement legislation; procurers may however be required to set the levels proportionate and directly connected to the subject matter of the contract.

Tender securities (bid bonds) from participants can be, and are in practice, requested from tenderers in most CIP countries. This is frequently done, for instance, in Croatia, whilst public procurement law in Albania goes further and obliges CAEs to require tender securities. The tender security may be withheld if the tenderer withdraws its bid, does not sign the contract or fails to provide the financial guarantee asked for in the contract. Legislation however requires tender securities to be set proportionate to the contract size. In Croatia, its value is limited to a maximum of 5 percent of the estimated contract value (although this can be exceeded in exceptional and duly justified cases).

In all of the CIP countries, legislation permits economic operators to rely on the capacities of other entities. The concrete form of collaboration (such as consortium, joint venture, a special purpose vehicle, or simply subcontracting arrangements) is generally not constrained, and tenderers are not required to establish a new legal entity for the execution of the contract, unless justified by the nature of the contract.

C. Emphasis on quality and allowing for flexibility

None of the countries reviewed have established in their public procurement legislation a preference for the ‘most economically advantageous offer’ (MEAT) selection criterion vis-à-vis the lowest bid criterion. The two criteria are on an equal footing, although the level of uptake of the MEAT criterion varies considerably across CIP countries. Data from Croatia show that the MEAT criterion has been used in only 0.45 percent of public contracts published in 2012, due to the significant administrative burden on CAEs it involved. In the FYROM, it was more frequently used, in 19 percent of all tenders in 2012, while it is also relatively widely used in Serbia according to expert opinion. However, to consider certain minimum quality requirements even under the lowest bid criterion, abnormally low bids may be rejected in several countries, including at least FYROM and Liechtenstein.

C. Emphasis on quality and allowing for flexibility

- Using the MEAT criterion
- Using performance or functional requirements
- Full life-cycle costing

The use of flexible technical specifications in form of performance or functional requirements, instead of technical standards, is allowed in public procurement legislation in Albania, Croatia, the FYROM, Liechtenstein and Serbia, but it is reported that they are not frequently applied in practice, nor are particular measures in place encouraging their uptake by CAEs. Similarly, the uptake of full life-cycle costing is to date at negligible levels in CIP countries, according to expert feedback.

D. Providing more and better information

The level of SME access to information on opportunities, legal context and procedures, and on other relevant aspects of public procurement markets is relatively good in CIP countries, following recent years’ legislative changes and especially the setting up of centralised web portals.

D. Providing more and better information

- More information on public procurement opportunities
- Free access to contract notices and tender documentation
- Availability of documentation in other relevant languages
- Guidelines and other support material for tenderers
- Helpdesks
- Training opportunities for tenderers

All of the CIP countries reviewed have a centralised e-procurement platform where CAEs can publish contract notices as well as tender documentation. These portals are usually managed by the public procurement office (PPO). Tender documentation can be downloaded free of charge in most countries (Albania, FYROM, Serbia), however, documentation usually has to be requested directly from the CAEs in Liechtenstein (even site visits are sometimes mandatory). The use of the platform is either already mandatory for CAEs (Albania; Liechtenstein; Serbia; Croatia and Israel above certain thresholds) or will be in the near future

(FYROM). In addition to publishing contract notices on the central platform and official bulletin, CAEs may be encouraged, as e.g. in Croatia or Serbia, to advertise tender opportunities via other channels, e.g. their own website or newspapers. More and more CIP countries (e.g. FYROM, Liechtenstein; Serbia) require that large-value contracts are also published in the Official Journal of the EU (the TED portal).

Central public procurement portals often also offer additional information or services, e.g. registration and alerting services; various search tools; lists of CAEs; contract awards or lists of contractors; 'blacklists' of tenderers who withdrew their tender or failed to sign their contract (e.g. in the FYROM); downloadable forms and electronic support tools. In some countries, such as in Albania, the central portal also allows the electronic submission and evaluation of tenders and electronic communication throughout the procurement process. Companies registered on the portal can participate in e-auctions. In Macedonia, while registration is not free-of-charge, the fee is modest and is calculated on the basis of the size of the enterprise, small enterprises pay less.

A broad range of brochures, manuals and guidance is available in the CIP countries, explaining procurement law and procedures and helping companies to operate the e-procurement system and to submit a tender. Furthermore, PPOs often have helpdesks providing ad-hoc assistance to economic operators (for instance Albania, Croatia, and FYROM). The helpdesk of the public procurement office in the FYROM, for instance, assists both CAEs and tenderers with clarifying legal requirements, procedural requirements and other practical issues involved with public procurement.

The public procurement offices of the CIP countries, or other relevant authorities, generally offer some kind of training to CAEs. The training and certification of officials working in public procurement is a legal obligation in many of the countries concerned (see FYROM). PPOs may also, albeit less often, train economic operators, either by letting them participate together with public officials in generic training courses, or by offering specific modules targeted at tenderers. PPOs are not the only actors who organise trainings. Especially in CIP countries on the Western Balkans with a quickly developing public procurement system and significant legislative changes, chambers of commerce, private consultancies and even universities may also offer courses (for instance, in Croatia and FYROM).

E. Providing sufficient time to complete bids

Statutory time limits established for the submission of tenders, set out in public procurement legislation, are normally a compromise between the needs of CAEs who would ask for shorter deadlines to speed up the procedure, and tenderers who would

require more time to put together consortia, and complete their bid and supporting documentation. In CIP countries that have oriented their national legislation towards the EU'S Public Procurement Directives (i.e. except Israel), these statutory time limits for high-value contracts (i.e. contracts above thresholds similar to the EU thresholds) are generally in line with those set out in the Directives. Legislation defines a set of shorter time limits for procedures above or below given national thresholds. Time limits may be shortened slightly if the contract notice and all tender documentation have been published electronically on the central procurement portal (Croatia, FYROM).

E. Providing sufficient time to complete bids
<ul style="list-style-type: none">• More time to submit tenders (above statutory deadlines)• Publishing prior information notices or buyer's profiles

Whereas SMEs would often benefit from time limits above the minimum thresholds, leaving them enough time to team up with other economic actors and write their bid, expert feedback suggests that deadlines are very rarely set over the mandatory minimum.

The publication of prior information notices (or periodic indicative notices for utilities, PINs) is not mandatory in CIP countries, although they are indirectly encouraged by legislation in all of the countries, as they would allow the CAE to apply shorter deadlines. However, PINs are very rarely published in most of the CIP countries (this is the case in at least Croatia, the FYROM, Liechtenstein, and Serbia). An alternative to PINs are buyer profiles - procurement plans of tenderers that describe all planned purchases over the year, estimations on the launch date of the tender, estimated cost, the

envisaged type of procedure etc. The publication of buyer profiles is common for instance in Croatia. They are published on the contract authorities' websites and perhaps also on the central procurement website (as e.g. in Croatia and Serbia).

F. A better dialogue between procurers and tenderers

The possibility for a dialogue with the CAEs during the tendering procedure is regulated in public procurement legislation of several CIP countries, Croatia, FYROM, Serbia, among others. Communication between procurer and tenderer is often done through electronic means (written procedure, with questions and responses published on the national public procurement portal). In Macedonia, a pre-launch technical dialogue on tender specifications is made possible by law for contracts above certain value thresholds. Before publishing the contract notice, the CAE must publish the draft technical specifications, with economic operators having 3 days to review these and suggesting amendments if deemed necessary.

F. A better dialogue between procurers and tenderers

- Q&A on the tender procedure
- Dialogue with procurer on requirements and specifications
- Post-award debriefing

Post-award debriefing of participants is required by law and common practice across CIP countries. CAEs have to notify bidders within a tight timeframe of the decision taken. The note in most countries needs to mention who was awarded the contract, information on the award procedure, the relative advantages of the chosen bid, and why the tender of the unsuccessful bidder was not selected. In Serbia, CAEs may even hold separate meetings explaining the outcomes to unsuccessful tenderers.

G. Alleviating the administrative burden

Companies participating in public procurement procedures across Europe traditionally face a substantive administrative burden, but CIP countries, as most EU Member States, have introduced several measures recently aimed at reducing these. The approaches and the portfolio of measures in place in the respective countries show however considerable differences.

G. Alleviating the administrative burden

- Submission of documents once shortlisted or selected
- Allowing self-certification
- No need for official translations
- Pre-selection questionnaires and tender shortlists
- Not requesting documents submitted in the past
- Retrieving documents directly from authorities
- Electronic submission of tenders and use of electronic tools

Allowing the submission of certain documents only in later stages of the procedure, if the tenderer has been shortlisted or selected, is a tenderer-friendly solution allowed in many of the CIP countries, although this option is not included in the public procurement legislation in Liechtenstein. Pre-selection questionnaires and tender short lists (i.e. under restricted tenders) also decrease the administrative burden on companies which are ultimately not shortlisted. While restricted procedures are a possibility in the CIP countries, as they are in the EU Public Procurement Directives, the level of their use is negligible in the countries for which information was available (Albania, Croatia, FYROM), with the exception of Serbia (where 17 percent of the procedures were restricted in 2012). A possible explanation offered by experts interviewed is that restricted procedures would prolong the procurement process as well as raising the suspicion of corruption.

Legislation in Albania, Croatia, FYROM and Serbia allows self-certification to a certain extent by tenderers (e.g. declaration of oath for his/her suitability to carry out the professional activity required), but CAEs do not necessarily take advantage of this possibility. For high-value procurement, self-certification is not permitted in the FYROM and Serbia.

A simple photocopy of documents, instead of originals or certified copies, is sufficient at the tendering stage in (at least) Croatian, Macedonian and Serbian procurement procedures, with only the selected bidder being required to present the originals. However, it is reported that this option is not applied by many CAEs who still request original documents or certified copies.

Legislation inter alia in some CIP countries (albeit not in Liechtenstein) also permits CAEs to accept certificates and other documentary evidence already submitted by the bidder to the same authority in another procedure, although this possibility is not yet widely used by procurers. In Macedonia, companies registered on the country's e-procurement platform only need to submit documentary evidence once and resubmit upon expiration only. A similar central register is in place in Serbia since September 2013. Tenderers do not have to supply the documents already uploaded to, and accepted by, the central registry.

'One-stop shops' where tenderers can obtain all customary certifications (listing in company registry, proof of tax and social security payment etc.) also help reduce the administrative burden. An initiative to set up such a system has been launched for instance in Macedonia.

Establishing electronic links with official databases allowing CAEs to verify the status of tenderers themselves and to download certificates directly from the competent authorities is advocated as a good practice reducing the administrative burden. At present, CIP countries do not seem to have such systems in place. In Serbia, however, the law states that tenderers are not obliged to supply evidence that is available at the websites of public authorities. CAEs must accept offers that do merely contain a link to the company documentation stored on these websites.

The use of electronic tools (notably e-submission) is on the rise in CIP countries, supported by corresponding national strategies. These tools are considered to reduce administrative costs, although concerns have also been voiced that learning how to use them might be challenging for some of the smallest enterprises. The current prevalence of e-submission solutions varies across the countries reviewed: tenders cannot yet be submitted electronically in Croatia (e-submission will be introduced in 2014-2015) or Liechtenstein, while it is relatively widespread in Macedonia.

The review of CIP practices did not identify countries where electronic tools for qualification and supporting evidence such as e-certificates, national passports, Virtual Company Dossiers would already be widely used.

H. Overcoming liquidity problems

Arrangements ensuring that contractors and subcontractors are paid as due and on time by the procurer or the lead contractor are particularly important for SMEs that have limited funds to weather a strain on their liquidity. Corresponding measures have been introduced into the public procurement systems of some of the CIP countries.

H. Overcoming liquidity problems

- Tight payment deadlines and sanctions for late payments
- Allowing advance and interim payments
- Protecting the interests of subcontractors in contracts
- Direct payments to subcontractors

Serbian public procurement law sets out strict deadlines for payment, as a general rule, 45 days for payments between public sector bodies and their contractors, and 60 days for business-to-business transactions. Advance and interim payments are, although generally not mandatory, commonly performed in most of the CIP countries (e.g. Croatia, FYROM and Liechtenstein). In Croatia, interim payments are the rule in works and supplies contracts, although infrequent in services contracts. Also, CAEs are obliged by law to pay advance payment of 10 percent under works contracts and service contracts that include public works. In Macedonia, procurers can give advance payments of up to 20 percent of the total value of the contract, although this is not mandatory.

Direct payment to subcontractors is allowed by law in Croatia as well as in Serbia (but not done in the FYROM and Liechtenstein). Subcontractors need to be presented in the tender and accepted invoices upon delivery to be forwarded to the CAE for payment.

The overview table under Exhibit 2-63 summarises the main measures identified in the CIP countries reviewed. Due to gaps in the availability of information, it is not an exhaustive analysis of all activities undertaken in the respective countries to facilitate SMEs' access.

Exhibit 2-63: Overview of identified measures in CIP countries facilitating SMEs' access

● = measure in place; ○ = measure in place but not frequently applied; - = measure not in place; blanks = no information

	AL	HR	MK	IL	LI	SR
SME quotas, reserved contracts, positive discrimination	-	-	-	-	-	●
<i>A. Overcoming obstacles related to the size of contracts</i>						
Obligation to breaking down tenders into separate lots	-	-	- / ●	-	-	-
Restricting bidders from competing for all lots		-	-		-	-
Limiting the duration of framework agreements		●	●	●	●	●
Limiting renewal of framework agreements		-	●		-	
<i>B. Avoiding disproportionate technical or financial requirements</i>						
Rules on setting proportionate qualification levels	●	●	●	●	●	●
Limitations on financial qualification levels		●	-	●	-	-
Reducing amount of financial guarantees/bid bonds	●	●				
Possibilities for joint bids, reliance on others' capacities	●	●	●	●	●	●
<i>C. Emphasis on quality and allowing for flexibility</i>						
Preference for using the 'most economically advantageous offer' selection criterion	-	-	-	-	-	-
Using performance or functional requirements	○	○	○		○	○
Full life-cycle costing		○				○
<i>D. Providing more and better information</i>						
More information on public procurement opportunities	●	●	●	●	●	●
Free access to contract notices and tender documentation	●		●		-	●
Availability of documentation in other relevant languages		- / ●		●		- / ●
Guidelines and other support material for tenderers	●	●	●		●	●
Helpdesks	●	●	●			
Training opportunities for tenderers	●	●	●		●	●
<i>E. Providing sufficient time to complete bids</i>						
More time to submit tenders (above statutory deadlines)		○	○	(○)		
Publishing prior information notices or buyer's profiles		○ / ●	○		○	○ / ●
<i>F. A better dialogue between procurers and tenderers</i>						
Q&A on the tender procedure		●	●	●		●
Dialogue with the procurer on requirements and specifications			●	●	-	
Post-award debriefing	●	●	●	●	●	●
<i>G. Alleviating the administrative burden</i>						
Submission of documents once shortlisted or selected		●	●		-	●
Allowing self-certification	●	●	●		-	●
No need for official translations						
Pre-selection questionnaires and tender short lists	○	○	○			●
Not requesting documents submitted in the past		○	○ / ●	-	-	○ / ●
Retrieving documents directly from authorities	-	-	-	-	-	-
Electronic submission of tenders and use of electronic tools		-	●		-	
<i>H. Overcoming liquidity problems</i>						

Tight payment deadlines and sanctions for late payments						●
Allowing advance and interim payments		●	●		●	
Protecting the interests of subcontractors in contracts		-	-	-	-	-
Direct payment to subcontractors		●	-		-	●

Trends and patterns in market aggregation

3 Trends and patterns in market aggregation

3.1 Introduction to market aggregation

Aggregation techniques are used to improve cost-savings (market power and economy of scale) and efficiency of procurement (process improvement). They are used in a variety of forms and configurations across public or private spheres, sectors and industries.

For example, the pooling of customer demand in car rental companies is an aggregation technique; cloud computing represents a business model where an operator aggregates demand from multiple and dispersed customers; and various forms of purchasing consortiums, cooperatives, alliances and joint group purchasing have been around for decades.

The basic notion is that purchasers can aggregate demand within (or beyond) its own organization and more effectively go to markets and achieve cost-savings. This may hold true in principle, but demand aggregation is a difficult process to implement successfully and especially realization of the achieved cost savings. The functioning of such arrangements presents several **coordination, organizational and implementation** challenges including:

- Establishing a degree of strategic alignment between the actors so that they share common purchasing objectives and postures.
- Developing structures and systems to ensure information sharing and cross-functional collaboration.
- Identifying the categories of purchasing that may be suited for centralization and aggregation.
- Finally, developing skills and professionalism, as well as more intangible aspects such as culture. This could impact whether or not there is success.

All of these dimensions are relevant in the public sector.

Regulatory aspects may also impact the degree of demand aggregation. Private sector entities may be restricted by anti-trust policies. Public sector agencies on the other hand may have larger degrees of (legal) freedom to organize the aggregation of their demand. The pre-market phases of public procurement are rarely regulated explicitly in legally binding procurement regulations or other external legal frameworks. In practice, the ability is much more restricted by non-legal barriers to coordination and organization.

The market approach of public sector procurement is more tightly regulated and may impact the ability to aggregate demand. Generally, public regulations are perceived as more restrictive than (large) corporate purchasing policies.⁵⁴ This may limit some types of pre-market related activities, i.e. the ability to attend suppliers' workshops and information meetings, and may constrain the ability to establish certain market approaches and contractual structures.

Public regulations do however also facilitate the go-to-market strategy with aggregated demand through **specific tools and approaches**.

In the EU, the most notable aggregation instrument is the **framework agreement**. The concept of a framework agreement is that it establishes the contractual terms which will apply to subsequent orders made for the goods, services or works for a period of time. Establishing a framework involves an initial

⁵⁴ Public procurement in Europe: Cost and effectiveness. Strand/Ramada/Canton 2011

call for tenders against set terms and conditions, the appointment of one or more suppliers, and then the placing of periodic orders or call-offs.

The mechanism is used in many countries. For example, in the U.S. there are several tools that allow for standing contracts and subsequent calls for service or orders. This includes the federal Government-Wide Acquisition Contracts (GWAC), Indefinite Supply Contracts or Multiple Award Schedules. In Canada there are "Supply Arrangements", in Australia there are "Panel Arrangements". The term "Umbrella Contract" is used in other jurisdictions.

EProcurement tools may also facilitate the aggregation of demand. Some of these tools apply mostly to the demand identification and aggregation stage. In its simplest form this could be electronic means of collecting demand information. Often these tools are integrated with the go-to-market and may offer online catalogues, scheduled purchasing of specific items, and links to established contracts with suppliers. Various eTools have been developed supporting the different steps in the procurement value-chain, from identification of demand to contractual payment. The eTools may also extend into the post-award phase and provide support for contract and supplier management.

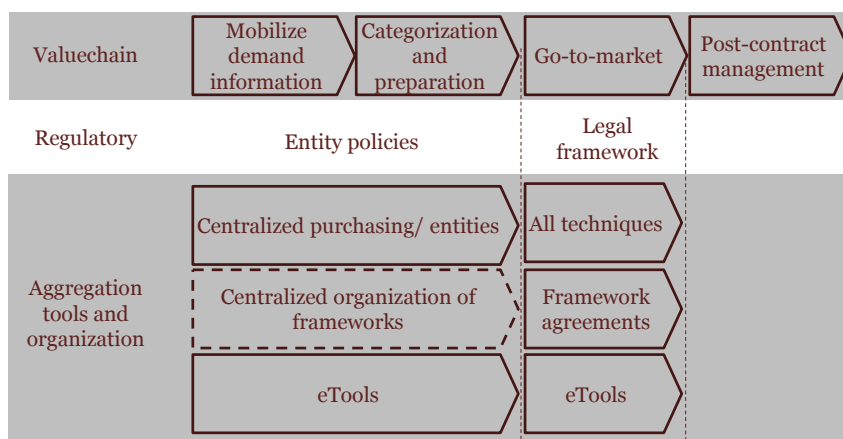
To help structure the issues in this paper, we view demand aggregation from the perspective of a conceptual and simplified, **procurement value-chain**. Demand aggregation largely pertains to the pre-award phase, but may also involve specific go-to-market techniques or tools.

In the **pre-award phase**, the important issues pertain to how demand information is mobilized, categorized and prepared for the market. The strategic and implementation issues for governments pertain to how this is organized effectively. This is certainly a question for the functioning of dedicated entities for centralized purchasing, but may also be the case for framework agreements. The development of category management defining sourcing strategies for each defined sourcing group will influence on the CAEs' ambition to aggregate their demand and the use of eTools. It is of great importance that the chosen sourcing strategy support and is aligned with the public entities' overall strategic goals.

As an example, framework agreements will by design aggregate demand over time. In principle this is a **go-to-market** tool. A framework agreement could involve only one purchaser, but may also be across government entities or mobilize demand from different business units within an entity. As such, there are important pre-market aggregation elements for framework agreements. It may also reflect the development of the supplier market (mergers and demergers) i.e. combination of services and goods or broaden the scope of goods within the framework agreement.

Similarly, eProcurement tools are commonly used to help aggregate demand and integrate this with a go-to-market offering.

Exhibit 3-1: Conceptual overview of procurement value chain and demand aggregation



Source: Team Analysis

3.2 Overall on demand aggregation in European public procurement

The European Union is the world's largest integrated public procurement area. It also offers procurement statistics at a central level (EU), based upon individual contract awards in each member state. This system collects information among other on the use of framework agreements and whether there is a centralized purchase arrangement behind the contract award.

This greatly facilitates statistical descriptions and quantitative analysis of market aggregation. The data (TED-database) includes contract award volumes, frequencies, types of contracts, number of bids, government entities and business sectors and much more. The information collected on each contract award is indeed quite detailed and special parts will be presented in our report.

Less is known about the **pre-award stages** of each contract award, including whether or not it actually represents an aggregation of demand. What does the centralized purchasing actually represent? How much of this is from centralized purchasing bodies? How many purchasers do they aggregate demand from? What level of government and what are the characteristics of these entities? Similarly to framework agreements the EU databases cannot tell us what kind of demand aggregation preceded the establishment of an agreement.

Our analysis of these issues will largely draw upon other sources of information, including surveys and interviews developed for this study. This includes other important characteristics of each centralized procurement and framework agreement, such as how many suppliers that are appointed or how the awards of the calls under the arrangement are organized.

First however, we turn to the big picture of demand aggregation that goes to the European marketplace.

Centralized purchasing is a term that describes the fact that the TED database collects information on whether "*a contract award is on behalf of other contracting authorities or entities*". The exact meaning of this is hard to establish without actually surveying the imputers of data and identifying patterns and structures among the CAEs. We will return to those issues in chapter 3.3 . For now, it is sufficient to say that this will include a very wide range of centralized purchasing activities including the use of centralized procurement bodies, collaborations between entities, and also the use of service providers/entities that manages the purchasing process. For the latter there may not necessarily be an "aggregation" of demand, as there could be only real purchaser behind the contract award.

Centralized purchasing constitutes about 20 percent of total value of contract awards in recent years. There has been remarkable growth in value terms. By number of contract awards we find that the concept is much less frequently used and only constitut about 5 percent of awards in the last few years.

Exhibit 3-2: Centralized purchasing as share of total contract awards in the EU (number)

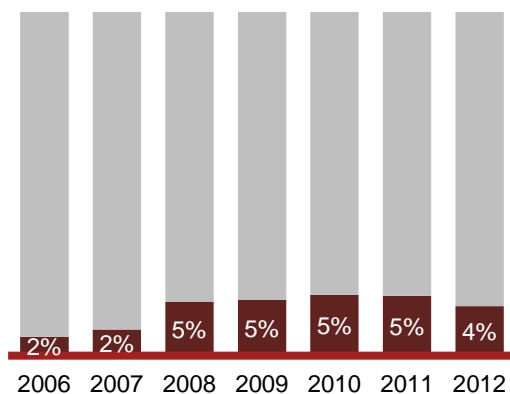
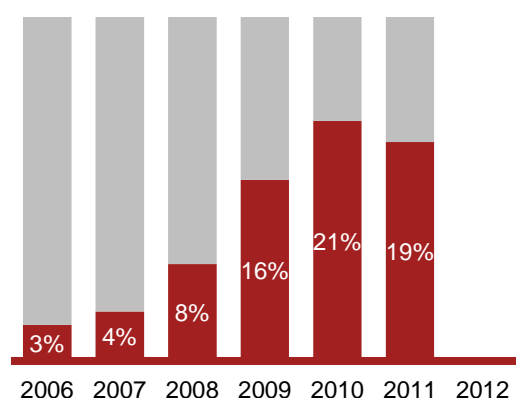


Exhibit 3-3: Centralized purchasing as share of total contract awards in the EU (value)



Source: The TED database; Team Analysis

Framework agreements are clearly defined in the EU directives and as such, there is more clarity about what this entails. We will, in chapter 0, review the underlying features of these agreements including assessments of whether they actually constitute demand aggregation. As framework agreements aggregate demand over time, and it is possible to appoint only one purchaser, framework agreements have the ability to reduce process costs without actually aggregating demand. There may be some incentive to use frameworks in this manner which may or may not be the intention of the directives.

Framework agreements constitute nearly 1 in 4 of all contract awards with regards to value. In terms of numbers they represent about 1 in 6 of all contract awards. The use of such agreements has also increased. Note that some of the observed increases are due to more countries transposing the directives into national legislation. That would still represent a real increase at the EU level, but may not reflect increased uptake within countries.

Exhibit 3-4: Framework agreements as share of total contract awards in the EU (number)

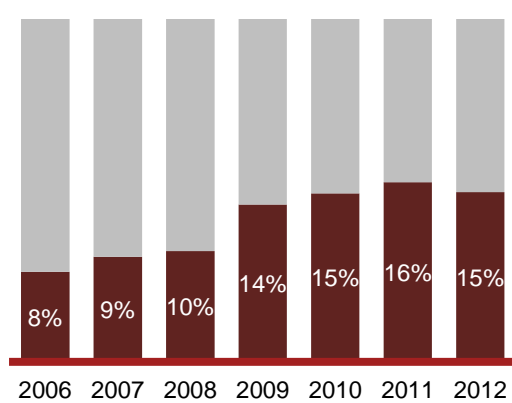
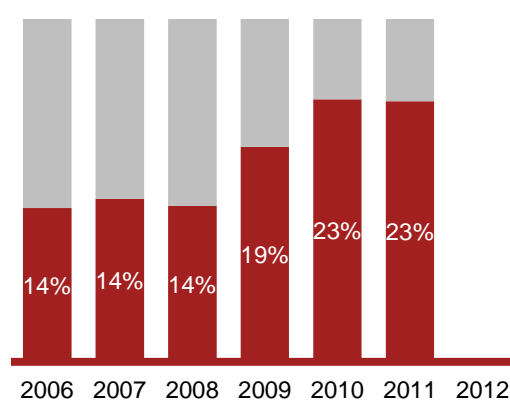


Exhibit 3-5: Framework agreements as share of total contract awards in the EU (value)



Source: The TED database; Team Analysis

We also note the combined use of centralized purchasing and framework agreements. More than half of all centralized purchasing arrangements are through framework agreements. About 1,3 percent of all purchases are carried out through a combination of framework agreement and centralized purchasing. This combination is in general used for high value contracts. In terms of value, the combined use of framework agreements and centralized purchasing constitute about 1 in 10 of all contract awards.

Exhibit 3-6: Combined use of centralized purchasing and framework agreements as share of total (number)

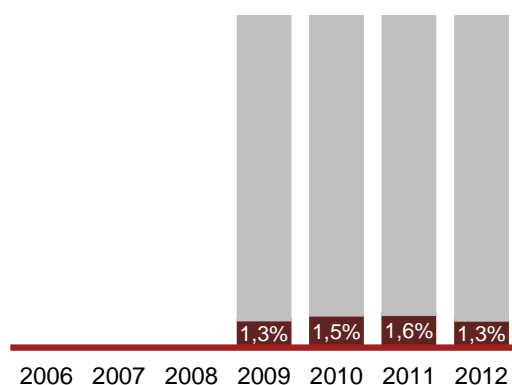
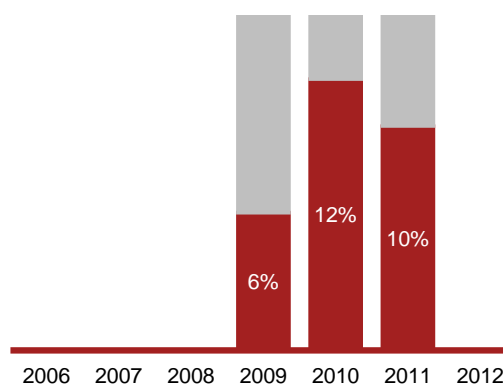


Exhibit 3-7: Combined use of centralized purchasing and framework agreements as share of total (value)



Source: The TED database; Team Analysis

3.3 Centralized purchasing

3.3.1 The concept of procurement "on behalf" in the EU directives

Centralized purchasing is a basic procurement concept widely used across public and private sectors. In many segments of private industry, the ability to lowering purchasing costs and standardizing inputs to the supply chain is the key competitive advantage.

The directives define Central Purchasing Bodies (CBPs)⁵⁵ as entities that:

- I. Acquires goods or services intended for one or more contracting authorities or entities;
- II. Awards public contracts for works, goods or services intended for one or more contracting authorities or entities; or,
- III. Concludes framework agreements for works, goods or services intended for one or more contracting authorities or entities.


The operative element of this definition is of acting “**on behalf**” of other entities. This is also the wording used in the standard form on which awarding authorities report the contracts. This definition allows for a range of degrees of centralization, from the smallest (i.e. on behalf of one entity) to acting on behalf of several. There is no specific requirement for degree of institutionalization or organization. As such, authorities acting “on behalf” could range from loosely organized ad-hoc collaborations, to institutionalized permanent structures.

There are many variations of this basic concept of centralized purchasing among European public authorities today. Centralized purchasing varies widely in terms of organization, degree of centralization and focus. Some, and important in terms of their overall purchasing volumes, are institutionalized and permanent centralized bodies. Most however, are much more loosely organized entities and ad-hoc collaborations.

It is important to note that when analyzing Centralized procurement, we rely entirely on the self-reported “on-behalf” classification in the reporting forms to the TED database (See below). In order to better understand what’s behind this classification, we have performed free text analysis of information in the database, conducted large scale surveys across Europe, and performed hundreds of semi-structured interviews. The findings are reported in the following chapters.

In the following sections, we will review who the centralized purchasing bodies are and patterns in their purchasing, organization and management.

Exhibit 3-8: Facsimile of EU standard form for recording of "on behalf" of other contracting bodies

	European Union Publication of Supplement to the Official Journal of the European Union 2, rue Mercier, 2985 Luxembourg, Luxembourg E-mail: ojsp@publications.europa.eu	Fax: +352 29 29 42 670 Info & on-line forms: http://simap.europa.eu
Contract notice Directive 2004/18/EC		
I.4) Contract award on behalf of other contracting authorities		
The contracting authority is purchasing on behalf of other contracting authorities: <input type="radio"/> yes <input type="radio"/> no <small>(if yes, information on those contracting authorities can be provided in Annex A)</small>		

⁵⁵ Article 1(10) and 11(2) of Directive 2004/18/EC of the European Parliament and of the Council on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:134:0114:0240:EN:PDF>

3.3.2 Characteristics of centralized purchasing

As we have seen, centralized purchasing constitutes nearly 20 percent of total value of contracts awarded in Europe over the last few years. There are considerable differences between countries. To understand the importance of centralized purchasing within each country it is helpful to compare the values of contracts awarded with the overall values in the country as they are reported to the EU in the contracts award database.

Exhibit 3-9: Share of number of CANs using centralized purchasing by country 2010-12 (percent of total procurements per nation)

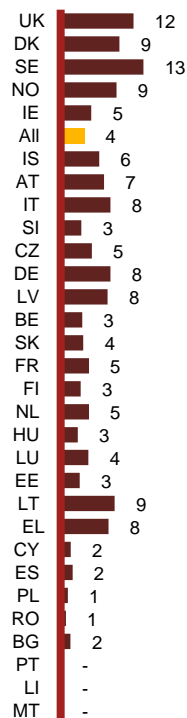
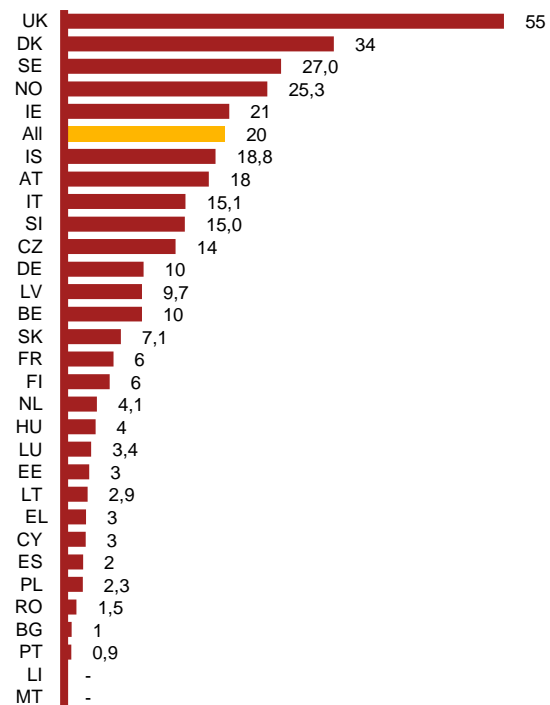


Exhibit 3-10: Value of CANs using centralized purchasing by country 2010-11 (percent of total procurements per nation)



Source: The TED database, Team Analysis

Centralized purchasing in Europe is in many ways a story about UK, where more than 55 percent of contracts awarded in value during 2010-11 are through centralized purchasing arrangements and CPBs. As we shall see in chapter 3.3.2, the largest individual CPB are also found in UK. They have accounted for between 50 and 60 percent of all centralized purchasing value in Europe since 2009. No other single country has such a high degree of centralized purchasing value. We find that the three Scandinavian countries are high on the list, which is consistent with the findings from 2006-2009 in a previous study⁵⁶. However, UK has since then emerged as the dominant player in the area. In Austria, Italy, Slovakia, and the Czech Republic the values lie in the range of 15-20 percent. In Germany and Belgium the value is about 10 percent, nearly twice the level of France.

Exhibit 3-9 only shows the average share of number in the period 2010 - 2012. If we look closer on the changes of use of centralized procurement in terms of numbers across Europe in the time period between 2009- 2012, we can see that overall in Europe there has been a decline in the growth of share of centralized contracts in terms on number by around 1 percent point. However, Ireland, Cyprus, and UK have all had high growth in the use of centralized procurements. In these countries the use of centralized contract has grown with between 5 - 8 percent points. In terms of value, we can see an even

⁵⁶ Public procurement in Europe: Cost and effectiveness. Strand/Ramada/Canton 2011

bigger change. The use of centralized contracts in Ireland, Czech Republic, Italy, and Sweden has grown with between around 15 – 20 percent points. Overall in Europe, the share of centralized contracts in terms of value has grown with around 3 percent points. This is most likely because the growth of fewer, but larger contracts in terms of value.

In **absolute value**, UK has centralized purchases of about 9 times the value of the next country on the list, Italy, for the period 2009-2011⁵⁷. France is third on the list, at about the same level as Italy in absolute terms.

The average value of 20 percent is influenced by UK numbers and does not represent the realities in most of Europe's other countries. In half of the countries, the value is less than 7 percent of total value of contracts awarded.

While 50 percent of all contracts awarded in terms of value in UK are through centralized procurements, only 12 percent are awarded in terms of number. The centralized contracts have in average higher value than the average procurement. Hence, the big difference between the share of centralized contracts in terms of value or numbers, only five countries have a higher share of centralized contracts in terms of number than in terms of value.

We also note that in most countries the value of centralized purchasing contracts is much higher than the average contract. We will review this in more detail in the next section, but for now we note that there are relatively few contracts awarded compared to the total value of contracts.

In Exhibit 3-11 and 3-12 we have shown the development from 2009 to 2012 for numbers and 2009 to 2011 for value by nation. The main trend shows that most nations have a relative growth in number of purchases through CPBs as well as value.

Exhibit 3-11: Change in use of centralized purchasing by country 2009-2012

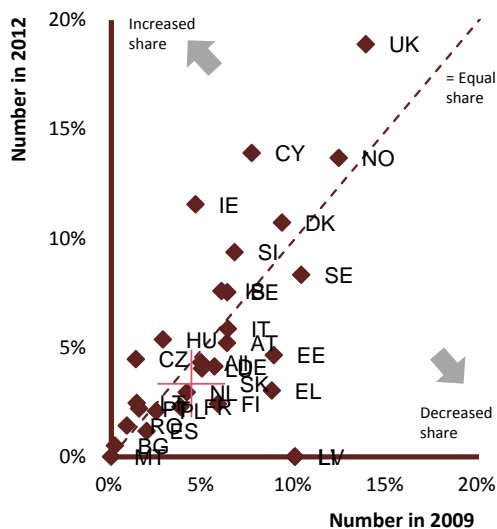
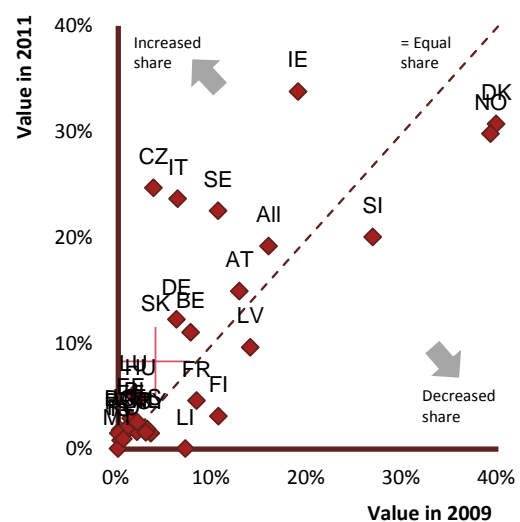


Exhibit 3-12: Change in total value of centralized purchasing by country 2009-2011



Source: The TED database, Team Analysis

⁵⁷ In absolute value, UK has purchased for 125 billion euros in the period 2009-2011, while Italy has purchased for 13 billion euros.

Most common at national levels

Centralized purchasing is more common at national levels. Relative to the overall value of centralized procurement, we find that at national levels (National agency and Central government), Central government has a share of centralized purchasing of above 30 percent while National agencies has nearly 40 percent.

When calculating the share of centralized purchasing by type of CPB, we find that national agencies manage some very large joint contracts compared to the other contracts by national agencies. This is possibly due to the fact that many CPBs are defined as national agencies. They procure on behalf of multiple agencies within the broader government and as such the value of these contracts is huge. This is very much UK model which also impacts these findings. Contracts awarded by national agencies, for themselves, are much smaller.

Regional governments have a value as a multiplier of number of contract awards of about three, indicating that the CPBs award larger contracts. This multiple is higher than for a typical central government award.

At regional agencies on the other hand, we find that the multiple is less than one. This could indicate that at regional levels, the CPBs are not necessarily defined legally as entities in the same way as at national levels. Indeed, when looking at the detailed underlying data we find that most large value centralized purchasing contracts at regional levels are done by entities that refer to themselves as the regional authority and not as specialized procurement agencies as is found at national levels. For example, in Italy and France, Citta di Torino and Ville de Paris respectively is near the top of the list of centralized purchasers in their countries.

We shall come back in more detail to such organizational models in chapter 3.3.6.

A few large entities dominate, but many ad-hoc consortia

We find about 6.000 individual centralized purchasing entities that have been active in Europe during 2009-2012. On an annualized basis there are between 2.500-3.000 unique entities.⁵⁸

The prevalence of “one-timers” is quite significant. Nearly 4.000 of the entities that have recorded their purchases as “on behalf of”, appear only once over the indicated time period. This also applies to very

Exhibit 3-13: Centralized purchasing as share of total value of procurement by type of CPB

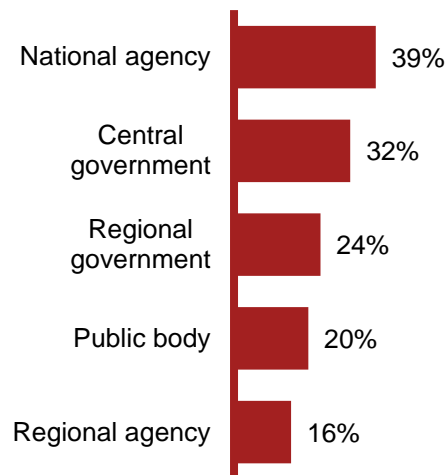
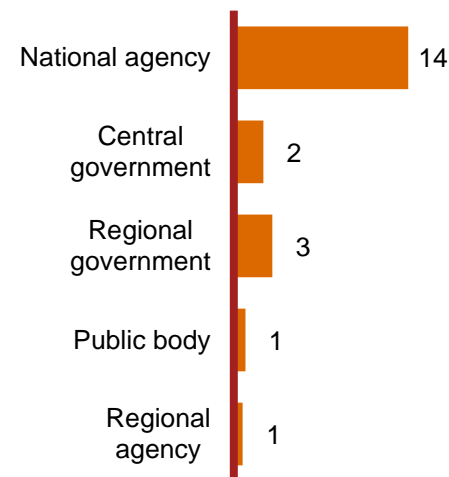


Exhibit 3-14 Average number of contract awards per type of CPB



Source: The TED database, Team Analysis

⁵⁸ The estimates are based on text analysis of organizational names from the TED database. Automated and manual corrections applied to the original data including checks of addresses, emails, phone numbers, and contact persons. Some caution advised as systematic analysis of unstructured data has methodological challenges.

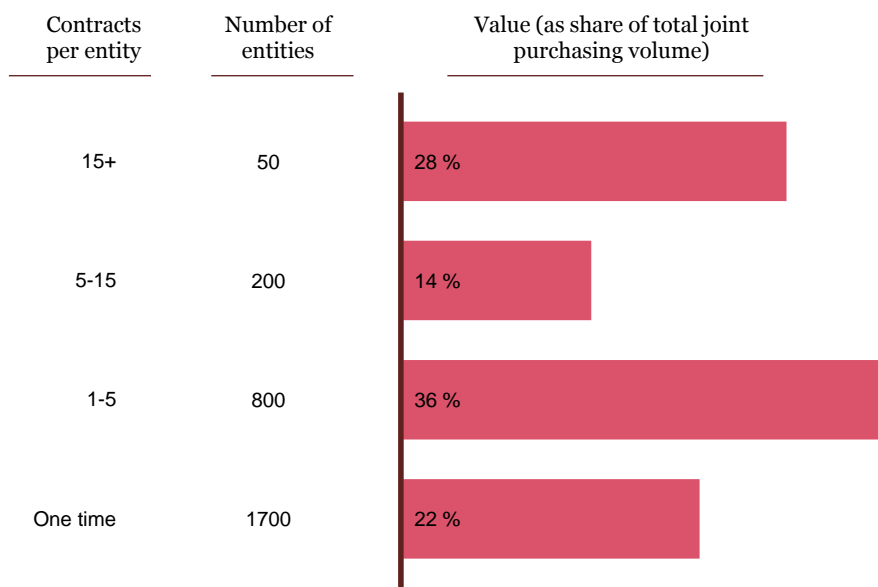
large contracts. For example, 4 of the 20 largest contracts are by entities that appear only once. Many of these one-timers appear to be consortia formed of various entities for a specific project.

However, a few entities dominate. For example, we find that the 20 most active entities account for 40 percent of all value. Those entities are defined by us as having at least 3 contracts awarded annually and ranked by total value over the period 2009-2012. The value of the contracts taper off for the entities following these few entities.

Another indication that centralized purchases is a world dominated by few entities is found by categorizing them according to whether they have a certain annual frequency of contracts awarded. We find that there are **only about 50 CPBs across Europe that award more than 15 contracts a year**. These account for about 28 percent of all value. For those in the range 5-15 there is about 200 entities. Most have very little (annualized) activity and for those with (on average) more than one contract a year, but not more than 5, there are about 800 entities. These account for 36 percent of the total value. The one-timers mentioned above are many in number, but constitute only about 22 percent of the total value.

Next, we turn to a more detailed picture of who the largest entities are.

Exhibit 3-15: Measures of activity, number of entities and values (annualized estimate)



Source: The TED database; Team Analysis

Top ten list of largest CPBs based on value

Coming closer to the traditional idea of a centralized purchasing agency we look more closely at the top-ten list of CPBs in Europe. We have defined them as agencies that have at least three annual contracts awarded on behalf of others annually during 2009-2012. They are ranked by value of the contracts awarded. The criterion of having at least three annual contracts implies that 9 entities are excluded from the list. Amongst those excluded, five have only one purchase on behalf of others throughout the period.

A few findings stand out and are worth mentioning in more detail. They relate to local governments (in UK), as well as national procurement agencies.

The actual values of these contracts will depend on the implementation of the agreements across the UK government entities. The individual values of the contracts are very large, but as most are framework agreements, the value provided here is an estimate by the authority at the time of the contract award.

Exhibit 3-16: Largest CPBs in Europe 2009-2012 (more than three contracts annually on average)

Entity		Annual contracts	Value	
			National	Europe*
Government Procurement Service	UK	18	12 %	18 %
Eastern Shires Purchasing Organisation	UK	42	2,3 %	4 %
Derbyshire County Council	UK	4	2,1 %	3 %
Yorkshire Purchasing Organisation	UK	30	0,9 %	1,3 %
Kent County Council	UK	14	0,8 %	1,3 %
Kammarkollegiet	Sweden	7	12 %	1,1 %
SKI	Denmark	17	9,2 %	1,1 %
CEPRO, a.s.	Czech Rep.	7	6,7 %	1,1 %
Amgros I/S	Denmark	84	8,5 %	1,0 %
NHS Wales Shared Services Partnership -...	UK	4	0,6 %	0,8 %
North Yorkshire County Council	UK	11	0,5 %	0,8 %
London Universities Purchasing Consortium	UK	4	0,5 %	0,8 %
Scottish Procurement	UK	9	0,5 %	0,7 %
NHS Commercial Medicines Unit	UK	23	0,5 %	0,7 %
Ministry of Justice Procurement	UK	4	0,4 %	0,7 %
Bundesbeschaffung GmbH	Austria	25	8,5 %	0,7 %
Sellafield Ltd	UK	3	0,4 %	0,6 %
East Riding of Yorkshire Council	UK	4	0,4 %	0,6 %
Home Group Limited	UK	4	0,4 %	0,6 %
ESTAV Centro	Italy	58	0,8 %	0,6 %

*Share of Joint Purchasing volume in Europe

Source: The TED; Team Analysis

- 1. Government Procurement Services** (formerly Buying Solutions) constitutes 18 percent of all centralized purchasing volume in Europe. In UK alone, the agency awards about 12 percent of all government contracts above the EU threshold level. The agency puts in place agreements which other government agencies (unrestricted list) can utilize. Three in four are framework agreements, mostly related to services, but also supply of products (such as vehicles and telecom equipment).
- 2. Purchasing Organizations of Local Governments in UK** include Eastern Shires and Yorkshire Purchasing organizations. These generally provide purchasing services to local governments. They have awarded contracts across a range of areas, and also operate stocked warehouses of supplies.
- 3. Local governments in UK** include Derbyshire and Kent County Council. These local governments have established purchasing organizations that provide purchasing services to the government. They have contracts across a range of areas.
- 4. Kammarkollegiet of Sweden** is possibly the longest running centralized purchasing entity in Europe. Although it may not have been called centralized purchasing at the time, the organization can trace its direct history (and functions) to royal decrees from 1539. Today it purchases supplies for the central government. It also awards contracts for large businesses and IT consulting services. Nearly eighty percent are framework agreements. It comprises about 12 percent of total value of contracts awarded by government authorities in Sweden.

-
5. **SKI of Denmark** procures on behalf of central and local authorities in Denmark. It serves about 30.000 government entities and has about 850 suppliers. Over the last few years it has procured annually about 9 percent of the value of Danish contracts awarded according to EU regulations. It appears more focused on supplies than its UK and Swedish counterparts. There is also another central procurement agency in Denmark (Statsinnkjøp) but it does not come near to the same volumes. A third, **Amgros I/S** offers purchasing agreements for medical supplies to all pharmacies and hospitals across Denmark. It awards contracts equal to about 8,5 percent of all contracts awarded by Danish authorities.
 6. **Cepro A.s. Czech Republic** was established by the privatized, formerly state-owned company Benzia in 1994. The company engages in transportation, distribution, and storage of oil products. Its services include wholesale and retail sale of oil products to customers through product pipelines, railway tanks, automobile tanks and trucks. Its contracts awarded are entirely fuel contracts.
 7. **NHS Wales Shared Services**. This is an entity that provides among other services procurement services to health agencies across Wales. The contracts awarded over the last four years are nearly all for construction of health facilities and are framework agreements. Note that there are several NHS purchasing organizations across UK. Together they account for an amount which would put them near the top of the list if seen as one entity.
 8. **London Universities Purchasing Consortium**. This entity comprises a large group of HE institutions in the capitol area. Its largest contract over the last few years is for journals and periodicals. It has also established large contracts in office supplies and facilities management.
 9. **Scottish Procurement** is both a policy body (Directorate) and an agency that establishes framework agreements on behalf of all government entities in Scotland. Its largest contracts are for IT-services, other business services and quite a few temporary staff contracts. It also offers some supplies i.e. telecom and electricity.
 10. **NHS Commercial Medicine**. This is a centralized (Health Ministry) level agency. It procures almost entirely medical supplies for secondary care in UK. About 50 percent are framework agreements.

Top list of largest CPBs across all Member States 2009-2012⁵⁹

- **Federal Procurement Agency (FPA) (Austria).** The Federal Government of Austria founded the Federal Procurement Agency (FPA, "Bundesbeschaffung GmbH") in 2001 by the Federal Procurement Agency Act ("BBGmbH-Gesetz") to provide central procurement services to federal agencies, in particular to negotiate framework contracts and make them available to the agencies. Its primary tasks are to bundle requirements to obtain better prices and terms from suppliers and to standardise public purchasing to reduce processing costs and legal risks. The FPA is a non-profit organisation providing free services to their mandatory clients. Federal institutions are obliged to order from these contracts, unless they are able to obtain the same product at better conditions. Other public sector organisations like universities, communities, states, state-owned organisations or health organisations may take advantage of FPAs' contracts and services for a modest fee. The agency had 74 contracts in the time period between 2009 and 2012, with a total value of 1.034.416.635 euros.
- **SPF P-O-CMS - centrale de marchés pour services fédéraux (Belgium).** The FPS Personnel and Organisation (FPS P&O) is a Federal Public Service of Belgium. It is a so-called horizontal Federal Public Service because it is not responsible for a specific policy field, but provides services to the other Federal Public Services. CMS (Central Markets for Federal Services) is a service of the FPS P&O that provides central procurement services at the federal level. The CMS is responsible for procurement procedures for supplies and services that are related to large amounts and that are repetitive, and when there is an economy of scale related to the consolidation of buyers. From 2009 to 2012 they had 20 contracts with a total value of 163.285.136 euros.
- **ČEPRO (Czech Republic).** ČEPRO, a. s., a joint-stock company, was formed as a result of privatization of the former state enterprise Benzina. The Company was established on 16 December 1993 pursuant to Section 172 of the Commercial Code and on 1 January 1994 it was recorded in the Commercial Register. Since 1 January 2006 the sole shareholder of the Company has been the Ministry of Finance of the Czech Republic. The principal activities of ČEPRO, a. s. are primarily as follows: storage, transport and sale of crude oil products; provision of related transport, storage and other specialized services to third parties; preservation of the supply reserves of the Administration of State Supply Reserves (ASSR); operation of the EuroOil petrol station network. During the time period from 2009 to 2012 ČEPRO had 20 contracts with a total value of 1.636.210.504 euros.
- **Statens og Kommunernes Indkøbs Service A/S (Denmark).** Statens og Kommunernes Indkøbs Service A/S (or SKI for short or in English: National Procurement Ltd. Denmark) establishes framework contracts between the public sector in Denmark and private sector companies. SKI is a not-for-profit and self-financing public company owned by the Danish state and the interest group and member authority of Danish municipalities Local Government Denmark. It is SKI's aim to promote effective public purchasing in Denmark. From 2009 to 2012 they had 50 contracts with a total value of 1.714.813.127 euros.
- **Riigi Kinnisvara Aktsiaselts (Estonia).** The Republic of Estonia established the company with the business name Riigi Kinnisvara Aktsiaselts (State Real Estate Ltd, hereinafter RKAS) according to the order no. 461 of the Government of the Republic of 28 June 2001, with the objective to guarantee the saving and effective provision of the real estate service to the executors of state authority. RKAS is the preferred partner and competence centre for the government and state authorities for the fulfilment of the state functions and providing the public service in development, management and maintenance of the required real estate. During the time period from 2009 to 2012 the company had 24 contracts with a total value of 51.387.295 euros.

⁵⁹ The list does not include examples from all the EU/EEA Member States due to challenges with converting data from the TED database.

- **Stara Logistiikka Hankinta (Helsingin kaupungin rakentamispalvelu) (Finland).** Stara is a constructor that constructs and manages Helsinki's streets, parks and public utility services, repairs buildings as well as produces logistics services and technical expert services mainly for the needs of the City of Helsinki. Stara started operations at the beginning of 2009, known as the Helsinki City Building Service. From the start of 2010 it has been called Stara. Stara Logistics establishes framework agreements related to the acquisition of materials and services such as: vehicles (passenger cars, vans and trucks), general equipment for vehicles and machinery, (diesel, gasoline, tires, grader blades), transport, machinery and crane services, building materials (lumber, building boards, paint, ready-mix concrete), traffic and road marking. From 2009 to 2012 Stara Logistiikka Hankinta had 31 contracts with a total value of 105.452.868 euros.
- **APIJ (Agence publique pour l'immobilier de la Justice) (France).** This French agency is a specialized public institution under the Ministry of Justice, who is entrusted with the design and management of major real estate projects in different departments of the Ministry. The agency had 6 contracts in the time period between 2009 and 2012, with a total value of 1.385.555.767 euros.⁶⁰
- **Magyar Nemzeti Vagyongezel (The Hungarian National Asset Management Inc.) (Hungary).** The Hungarian National Asset Management Inc. (HNAM) plays a leading role in the state co-ordination system of state-owned assets and property managers. HNAM exercises the proprietary rights of state-owned companies, provides location for the organisations exercising public responsibilities, and manages the real estates and movable assets, nationally-known monuments as well as the ornaments, antiques possessed due to inheritance, which are under its control. HNAM also provides services (management, procurement) to help the operation of the budgetary organisations during performance of state tasks regarding the use of the state assets. Magyar Nemzeti Vagyongezel had 2 contracts in the time period from 2009 to 2012 with a total value of 131.862.200 euros.
- **Reykjavik Procurement Office (Iceland).** During the time period between 2009 and 2012 they had 6 contracts with a total value of 15.133.995 euros.
- **National Procurement Service (NPS) (Ireland).** The National Procurement Service (NPS) is located in the Office of Public Works and has been tasked with centralizing Irish public sector procurement arrangements for common goods and services (e.g. office equipment, furniture, vehicles, fuel, electricity). The NPS is an operational procurement unit, which collaborates closely with the National Public Procurement Policy Unit in the Department of Finance, which is responsible for procurement policy. During the time period between 2009 and 2012 they had 6 contracts with a total value of 235.188.722 euros.
- **ESTAV-centro (Ente per i Servizi Tecnico-amministrativi di Area Vasta) (Italy).** ESTAV-centro is a Tuscany Regional Agency in charge of centralised procurement, logistics, health technology and ICT support for Central Tuscany Public Health Entities. During the time period from 2009 to 2012 ESTAV-centro had 173 contracts with a total value of 897.392.172 euros.
- **Vilniaus miesto savivaldybė –s administracija (Vilnius city municipality-administration) (Lithuania).** Vilnius district municipality is one of the largest municipalities in Lithuania. Within the administration there is a Department of Public Procurement. The department participates in the preparation of procurement plans for goods and services; carries out the orders of the Director of Administration in organizing public procurement; analyses contracts and other related documents and projects for approval to the Director of Administration; prepares public notices provided in accordance with the reports and

⁶⁰ Etabl public Palais justice de Paris had the largest total value of contracts during the time period in France. Due to only one large contract we did not look any closer on this organization.

information about on-going and committed purchases; provides advice on the organization of the procurement; and organizes and carries out procurement. Between 2009 and 2012 they had 8 contracts with a total value of 42.705.214 euros.

- **SIDEN union (Luxembourg).** The purpose of SIDEN union is to remove and remediate wastewater from its member municipals. The trade mission is not limited to the operation and maintenance of drainage and water pollution control equipment. From 2009 to 2012 SIDEN union had 12 contracts with a total value of 41.005.901 euros.
- **Ministerie van Algemene Zaken, Dienst Publiek en Communicatie (Netherland).** Minister of General Affairs, Public Service and Communication supports the national government with improving communication with the public and with professionals. The service provides public information from the national government through Rijksoverheid.nl, accompanies mass media campaigns, does the central media buying, and supports the national government in further professionalizing the communication function, for example, learning and research. They had 12 contracts in the time period between 2009 and 2012, with a total value of 214.271.963 euros.
- **Statens vegvesen region Øst (Norwegian Public Roads Administration region East) (Norway)** is part of the Norwegian government agency responsible for the construction and maintenance of highways and county roads and supervision of vehicles and road users. The agency consists of a Roads Directive, five Regional branches, where Norwegian Public Roads Administration Eastern Region is one of the five, and 20 Road divisions. Major development projects are organized into separate units directly under the Regional Roads. Due to large infrastructure projects the Norwegian Public Roads Administration Eastern Region had 25 contracts between 2009 and 2012, with a total value of 328.580.407 euros. The Agency had contracts for a total of 910.075.870 euros during the same time period.
- **Tauron Polska Energia S.A, (Poland)** previously called Energetyka Poludnie S.A, was established on 6th December 2006 and is one of the largest companies within the energy sector in Poland. TAURON Polska Energia S.A. is the mother company in TAURON Polska Energia S.A. Capital Group. The TAURON Group is one of the largest business entities in Poland with the equity exceeding PLN 16,5 billion. During the time period from 2009 to 2012 the group had 8 contracts with a total value of 144.167.410 euros.⁶¹
- **AdP Group/ Águas de Portugal Serviços Ambientais (Portugal).** In partnership with the Municipalities, AdP Group comprises a set of companies which, in total, provide services to more than 80 percent of the population in Portugal. They operate in the environmental sector with objectives in the water supply, wastewater sanitation and treatment and recovery of waste. During the time period from 2009 to 2012 AdP Group had 2 contracts with a total value of 33.536.618 euros.⁶²
- **Ministry of Culture of the Slovak Republic (Slovak Republic)** is the central body of state administration of the Slovak Republic for national language, preservation of monumental funds, national heritage and library science, art, copyright and copyright laws, extension service and folk artistic production, support of cultural innovation for ethnic minorities, presentation of the Slovak culture and arts abroad, relations with churches and religious societies, media and audio visual. The ministry also provides purchasing services to different sectors of the country within the areas the ministry is in charge of. This spans across a range of areas, from furniture to construction work, to cultural buildings. In the time period from 2009 to 2012, the Ministry of Culture had six contracts with a total value of 217.313.003 euros.

⁶¹ Poland has one organization with a higher total contract value, but this organization has only one contract listed in the TED database.

⁶² In general, there were few companies listed in Portugal and the listed companies had small total contracts value in the time period.

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- **AJN /Public procurement Directorate (Slovenia).** The directorate works within the framework of the Directorate for public procurement Act: Department for Public Procurement System, Department for Public Procurement Procedures and Department for Electronic Procurement, Interpretation and Analyses. The Directorates main tasks are e.g. standardisation of typical public procurement goods, services and works, including preparation of samples of tender documentation and establishment of a database with information on market analysis for typical public procurement goods, services and works. AJN had 47 contracts in the time period from 2009 to 2012 with a total value of 104.880.681 euros.
 - **Generalitat de Catalunya, Departamento de Economía y Finanzas, Comisión Central de Suministros (Spain).** Government of Catalonia, department of economics and finance, Central Committee of Supply. During the time period between 2009 and 2012 they had 17 contracts with a total value of 728.665.990 euros.
 - **Kammarkollegiet of Sweden (Sweden)** is possibly the longest running CPB in Europe. Although it may not have been called centralized purchasing at the time, the organization can trace its direct history (and functions) to royal decrees from 1539. Today it purchases supplies for central government. It also awards contracts for large businesses and IT consulting services. Nearly eighty percent are framework agreements. It comprises about 12 percent of total value of contracts awarded by government authorities in Sweden. During the time period between 2009 and 2012 Kammarkollegiet had 20 contracts with a total value of 1765.320.473 euros.

Source: The TED database; Team Analysis

Top ten largest centralized purchasing contracts (value) 2009-2012

When looking closer at the top-ten list of centralized purchasing contracts in Europe in terms of value of awarded contracts, we find that nine out of ten of these contracts are located in UK. We also find that the values of these contracts are very large. One explanation for this is that most of the contracts are framework agreements. Six of the top-ten centralized purchasing contracts are framework agreements. The value provided here is an estimate by the authority at the time of contract award.

The largest contract during 2009 – 2012 was established in 2010 by the Contracting Authority **Government Procurement Services, UK** (formerly Buying Solutions). The contract established a pan- Government collaborative **postal services framework agreement** for use by or on behalf of UK public sector bodies. The Postal Services framework provides public sector bodies with easy access to all their postal requirements through 14 lots covering a full range of postal services. The reported total value in TED was 6.994.311.168 euros.

The "top-ten" list of the largest centralized procurement contracts in value between 2009–2012 is further described in the annex chapter 2.1.24.

9/10
Located in
the UK

6/10
Combination
of centralized
purchasing
and framework
agreements

3.3.3 Centralized procurement below the EU threshold level

Are centralized purchasing instruments also used for smaller contracts, below the EU threshold values? Centralized purchasing can conceivably also take place for contracts that are not regulated by the EU and are below threshold values. Threshold levels determine whether a contract falls under the scope of the directives (see: definitions and abbreviations, EU threshold level (below)).

Less is known of these contracts as they do not require publication of a contract award notice in the TED database. Country practices vary regarding requirements in national databases. We have found earlier⁶³ that a substantial portion of award notices published in the journal are actually below threshold levels. Now we estimate the use of centralized purchasing or similar instruments for below threshold. For that purpose, CAEs have been surveyed. The findings are presented below.

About 55 percent of CPBs report having implemented centralized purchasing contracts for below threshold value contracts. For about half of these, the value of those contracts over the last year constitutes less than 25 percent of all centralized purchasing contracts. About 28 percent of entities report that the total value of below threshold agreements is higher than the value of EU regulated contracts.

Exhibit 3-17: Value of centralized purchasing contracts below EU threshold in percent of total centralized purchasing agreements

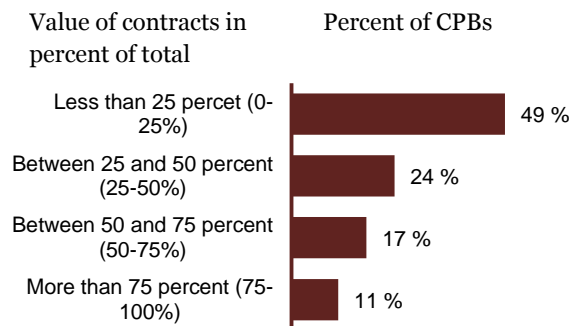
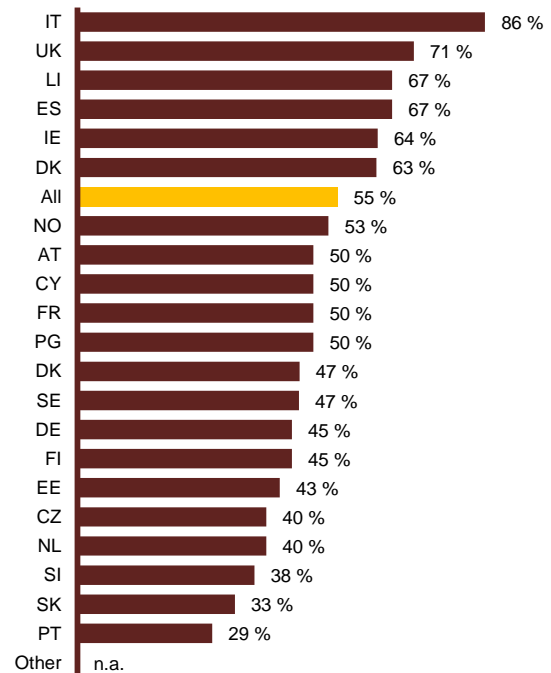


Exhibit 3-18: Percentage of CPBs that conduct contracts below EU threshold value



Source: Proprietary survey with 450 respondents, Team Analysis

There are country variations. All countries in the sample have centralized purchases contracts recorded that are below threshold value. The largest share of contracts below threshold is found in Italy and UK, where 86 percent and 71 percent respectively of the respondents reported that they also use centralized purchasing arrangements below threshold.

⁶³ The study "Public procurement in Europe: Cost and effectiveness", prepared for the European Commission in 2011, analyzed the threshold levels with data of contracts below threshold level optionally published in the TED database.

Overall, authorities find little difference between performing procurement under the EU procurement directives or under national regulation. However, a small majority of respondents regard below threshold procurement as less time-consuming.

As illustrated below, as much as 50 percent and 44 percent (respectively) of CPBs with service contracts and supply contracts on behalf of others have signed contracts below threshold level. This is more than 8 times as many entities with goods contracts on behalf of others. It is likely to think that this is due to the higher average value of goods contracts.

Exhibit 3-19: Number of contracts below threshold among types of contracts (percent)

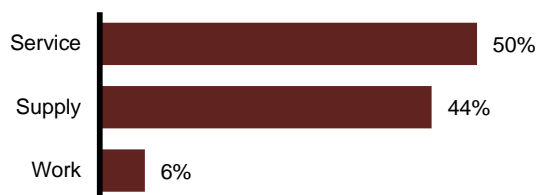
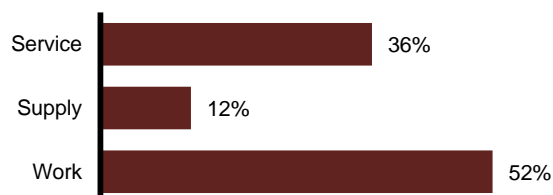


Exhibit 3-20: Type of contract as share of total value (mean value)



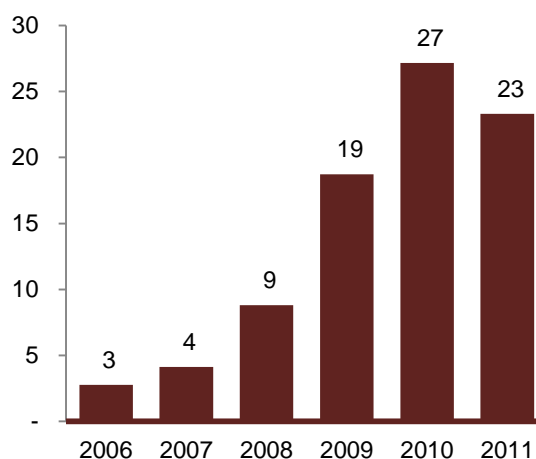
Source: Proprietary survey with 450 respondents, Team Analysis

3.3.4 Estimated total value of centralized purchasing below threshold value

When estimating the value of centralized purchasing below threshold, the respondents reported that they have contracts on behalf of others for below threshold value and the approximate value of the contracts below threshold in percent of total agreements. We then found that the median value of below threshold in percent of the entities total procurement is 37,5 percent⁶⁴. We then aggregate the percentage of below threshold to the total value of centralized purchase as reported in the TED database.

The total value of below threshold value was in 2011, 23 billion euros. This is close to 4 billion euros lower than in 2010.

Exhibit 3-21 Value of centralized purchasing below threshold value (median value of contracts below threshold, in billion euros)



Source: Proprietary survey with 450 respondents, Team Analysis

⁶⁴ The average value of centralized purchasing below threshold in percent of total agreements is 35,7 percent see Exhibit 2-16.

3.3.5 How and what do they procure?

Centralized purchasing is executed more through framework agreements than the average in the EU. In fact, for two out of three countries, centralized purchasing is more likely conducted through framework agreements than the EU average. In countries with strong centralized bodies, such as Sweden and Denmark, the share of framework agreements is above 80 percent.

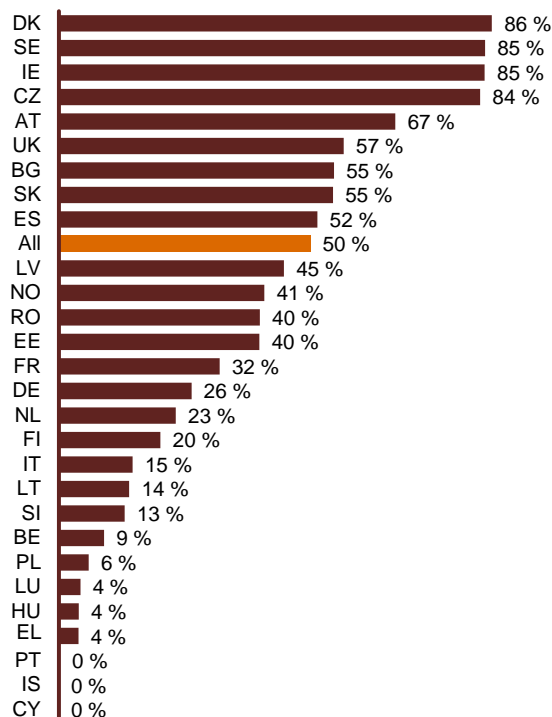
Exhibit 3-22: Use of framework agreements by CPBs (percent of total value of centralized procurement)

CPBs use of
framework
agreements in EU

50%

Overall use of
framework
agreements in EU

23%



Source: The TED database; Team Analysis

The share of CPBs' use of framework agreements in EU has increased from about 40 percent in previous years to 50 percent.

Contract values are also on average higher, both measured as median and mean values. The typical centralized purchasing contract (median) is about twice the level of the typical contract awarded overall in Europe. It is also higher than those offered as framework agreements. The values have declined over the last four years (see Exhibit 3-23).

Exhibit 3-23: Median value of centralized purchasing agreements 2009-2012 (in thousand euros)

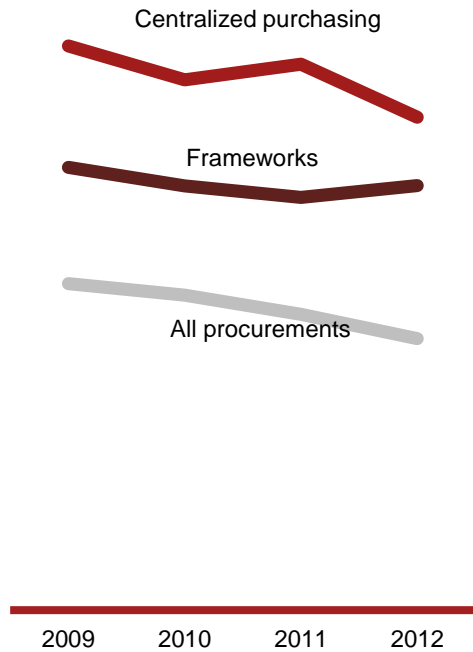
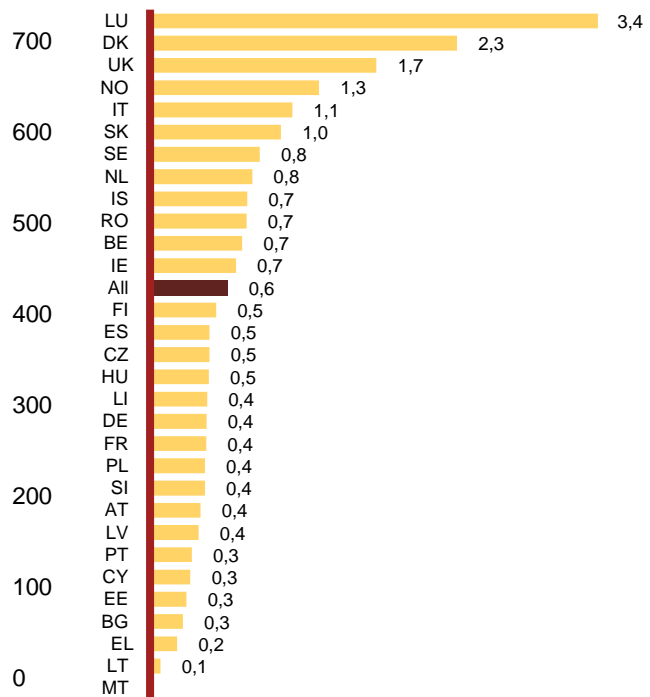


Exhibit 3-24: Value of contracts by country (median, in million euros, 2009-2012)



Source: The TED database; Team Analysis

The median value of a CPB contract is estimated to 0,6 million euros. The median values varies a lot, but as indicated earlier, UK and Nordic countries with their frequent use of CPBs have more than twice as high median. The data for LU states that there are awarded few but large contracts in the period 2009 – 2012 from the CPBs.

Exhibit 3-25: Number of bids for centralized purchasing agreements by year (mean and median)

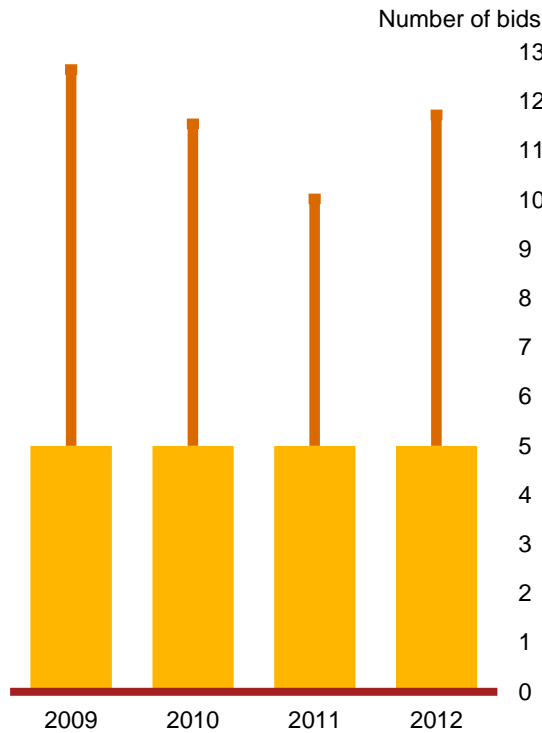
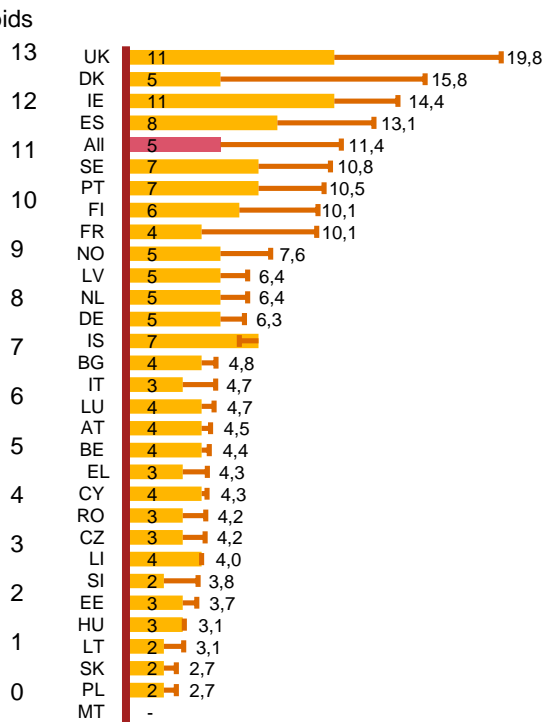


Exhibit 3-26: Number of bids for centralized purchasing agreements by country (mean and median, 2009-2012)

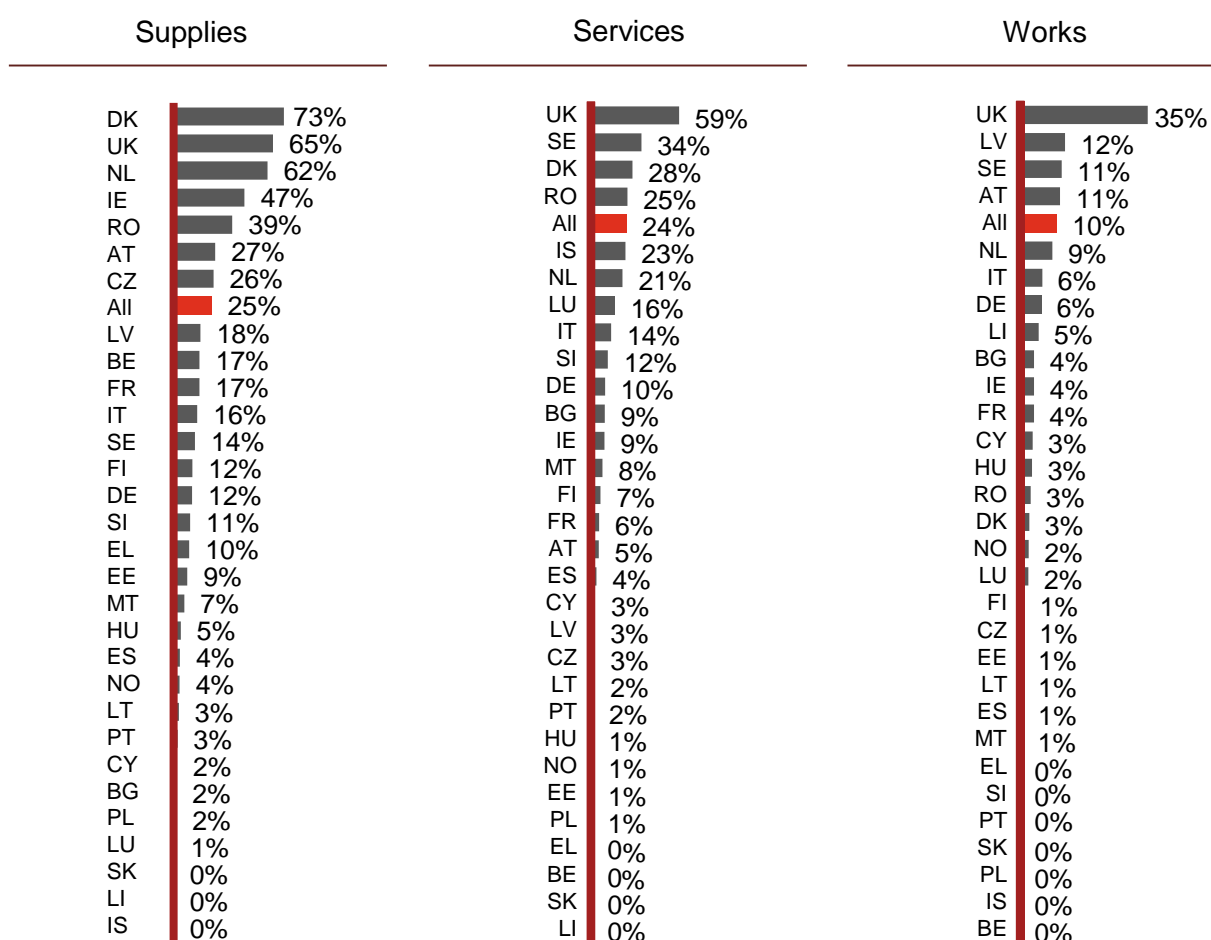


Source: The TED database; Team Analysis

One of the aims in public procurement legislation is to ensure the principle of competition. The number of bids submitted per launched proposal is an indicator of the competition. The median for the number of proposals received per year from 2009 to 2012 is stable with 5 bids per proposal launched as centralized purchasing (measured by mean, the value is 11,4 per proposal). Especially UK, Denmark, Ireland and Spain attracted large numbers of bids with a mean of between 20 and 13. These are mainly large proposals regarding services framework agreements and some supplies contracts attracting huge number of bids.

There seems to be limited competitions in several countries. Exhibit 3-26 visualizes that CPBs in 17 nations receives below 5 bids measured as both mean and median.

Exhibit 3-27: Centralized purchasing agreements by contract type and country (2009-2012)



Source: The TED database; team analysis

As expected, centralized purchasing is used mostly for **supplies** contracts. This is in line with theory and literature regarding category management, see Exhibit 1-1. Supplies are an area where demand could be more predictable, easier to aggregate, and savings could be considerable, by going through large centralized contracts. The largest supplies contracts are in the area of standardized medical supplies, but there are also large contracts for petroleum products (standardized supplies). Together these two areas account for 50 percent of the value of awarded supplies contracts. Construction materials account for about 11 percent, office supplies for about 8 percent. The remaining categories are distributed across some 40 different CPV areas (2. level code).

The share of supplies procured centrally reaches above 60 percent in Denmark, UK and the Netherlands. Supporters of centralized purchasing might be disappointed that the average share in the region is only about 25 percent, with most countries being below that average.

Procurement of Service as centralized purchasing is perhaps a more modern (and public sector) phenomenon. The overall share reaches about 24 percent, but this is very much driven by the large services contracts in UK. In absolute numbers, services contracts awarded have the largest value. Supplies and work contracts are at about 60 and 40 percent of the total value respectively.

Business services account for about 20 percent of service procurements. Many of these are large consultancy support framework contracts. There is no place where these are as prominent as in UK, with a possible exception for Sweden. IT-services contracts are about 16 percent. There is possibly some overlap between the two categories. Waste management and post/telecom are at about 10 percent each.

Works contracts are almost entirely recorded as construction work. These are less frequently procured as a centralized service, with an average of about 10 percent of total work contracts awarded.

3.3.6 Centralized purchasing is not always about market aggregation

Results from our survey paints an interesting picture of the degree of aggregation actually involved in centralized purchasing. Only about 80 percent of the CPBs reports that the aggregated demand by purchasing on behalf of two or more CAEs.

Our analysis is based on a survey distributed to the CAEs who have reported to have "purchased on behalf of other CAEs" in the contract award notices published on the TED database.

In centralized purchasing, entities purchase on behalf of others or bundle requests from the CAEs. Use of centralized purchasing often involves use of professional purchasers operating more detached from the actual users of the service/goods.

About 20 percent of the reported "on behalf" purchasing is service provision and does not represent aggregation (of more than one actor).

Most of these contracts are for service (65 percent), higher than the average share of services. About 22 percent of the contracts with only one actor are framework agreements, which are comparable to the overall use of framework agreements, but represent a lower usage than the ones typically seen from CPBs.

The relatively high share of non-aggregation could be related to the fact that authorities report in our survey that they choose centralized purchasing to save process costs and manage regulatory and category complexity, not only to aggregate demand. The fact that some public bodies out-source their procurement services as professional services could also be a factor.

What support do centralized purchasing bodies provide

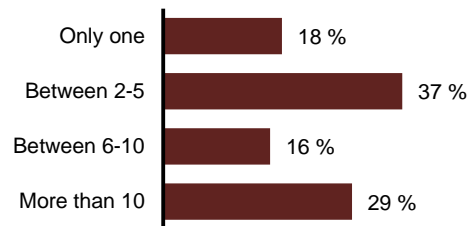
This is a question of to what extent purchasing bodies provide managed offerings of standardized goods or whether they are service and support agencies for non-standard procurements.

A typical understanding of centralized purchasing is that it is most useful when deliverables are standardized and require little user involvement. The typical example is supplies of commonly used inputs. As we have seen this may hold true for some supplies, in particular medical consumables and office supplies.

Items which are more complex or non-standardized may need to be procured with more user involvement. In that regard it may be surprising to see that the largest categories centrally procured in Europe are large service contracts for consultancy and IT-services. These are contracted through framework agreements and it could therefore be that the actual design of the agreements leaves much of the specification of design to the individual user.

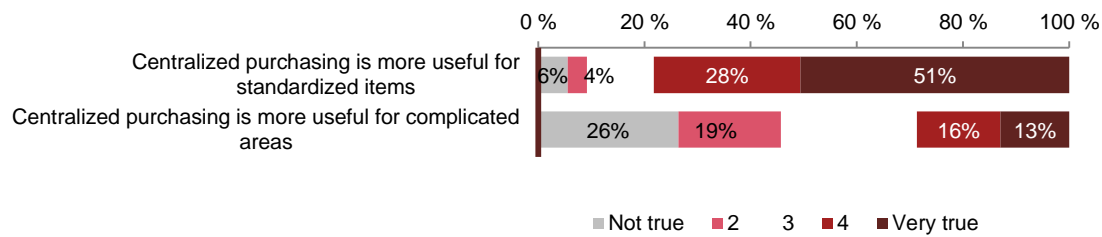
Indeed, our survey of centralized purchasing bodies shows that close to 80 percent of the entities consider centralized purchasing most useful for standardized items, while 29 percent find centralized purchasing more useful for complicated areas where specification cannot be determined in advance.

Exhibit 3-28: Centralized purchasing contracts grouped by number of CAEs (percent)



Source: Proprietary survey with 450 respondents; Team analysis

Exhibit 3-29: Comparison by authorities: Use of centralized purchasing contracts



Source: Proprietary survey with 450 respondents; Team analysis

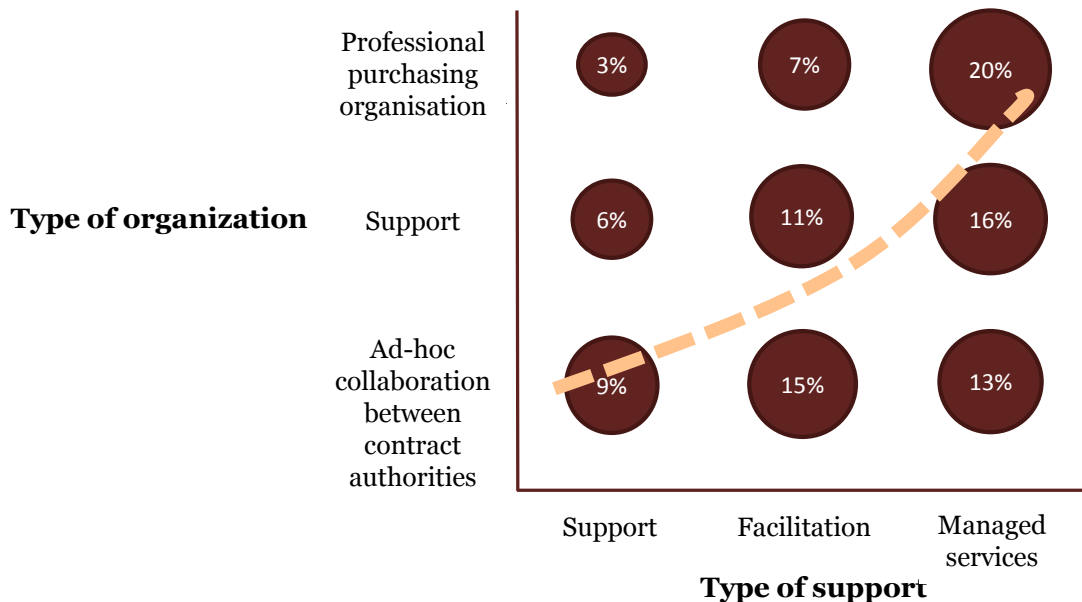
A related question is what service the centralized purchasing body provides. This is a more intangible issue than standard versus non-standard items, but we have nonetheless asked survey respondents to classify the service offering according to three categories.

49 percent describe this as a managed offering, meaning they manage the process end-to-end. At the other end, 18 percent describe the CPB as providing basic administrative support.

We have also asked entities how they classify themselves, as a professional purchasing organization or, on the other extreme, as ad-hoc collaboration. 30 percent describe themselves as professional purchasing organizations, while 37 percent describe themselves as being ad-hoc collaboration between entities.

There is, perhaps not surprisingly a relationship between the two. Professional purchasing organizations offer more managed services, and provide more than the basic administrative support.

Exhibit 3-30: Category management and support models



Source: Proprietary survey with 450 respondents; Team analysis

How central purchasing bodies are organized

We have asked survey respondents to classify themselves according to the following typology of organization:

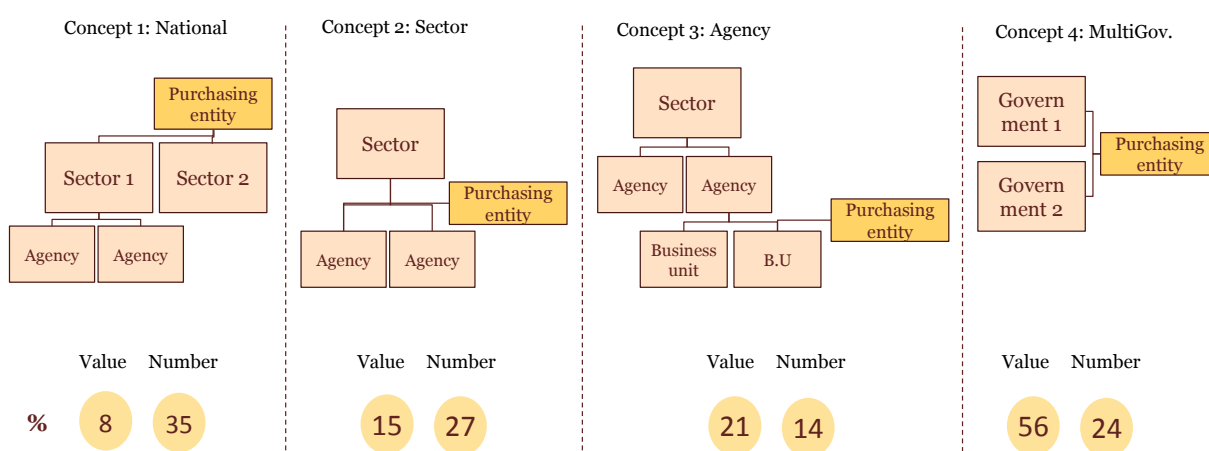
Concept 1: National. This is where the CBP is providing services across different sectors of governments. Normally this happens within certain product categories. The model can apply to both central and local levels of government. The entities can be established as independent agencies or within ministries or departments. Examples of this include Hansel of Finland, SKI of Denmark, Consip in Italy, UGAP in France, KSzF of Hungary and GPS in UK. Countries may have several such entities covering different categories of products and services. In Europe, such entities account for about 8 percent of the total awarded contract value.

Concept 2: Sector. These are agencies established to serve the needs of particular sectors, often focusing on certain product areas. For example, in the health regions (21) in Italy, procurement is centralized in regional agencies such as So.Re.Sa of Campania, Estav of Toscana and AV Vicenza of Veneto. In Norway, HINAS provides procurement services on behalf of the hospitals in all regions. Overall for Europe, such entities account for about 15 percent of the total awarded contract value.

Concept 3: Agency level. These are centralized purchasers who act on behalf of their agencies. For example, the roads authority in Norway that procures construction work, and several directorates in other places. In Europe, such entities account for about 21 percent of the total awarded contract value.

Concept 4: Multi-government entity. These are purchasing entities that serve multiple (local) governments across a range of areas. They differ from concept 1, the national entity, as they mostly serve local governments and are frequently organized and owned by multiple government entities. These entities account for about 56 percent of the total awarded contract value in Europe.

Exhibit 3-31: Four models of strategic organization of centralized purchasing



Source: Proprietary survey with 450 respondents; Team analysis

Budget and financing models

Asking survey respondents to describe the financing model of their centralized purchasing body, we find that more than two out of three entities are financed by regular government budgets. The remaining 32 percent are financed by cost recovery, performance based on savings, profit, or other financing models. Only one percent of the entities is financed by fees and commissioned based on profit.

The entities financed by cost recovery have the highest average value of contracts (close to 6 million euros). This financing model is followed by the majority who has the regular government budget model. These entities have an average contract value close to 5,5 million euros. The remaining models of financing have relatively low average contract value, with respectively 1,2 million, 800.000 and 570.000 euros.

Exhibit 3-32: Financing of the procurement activity (percent)

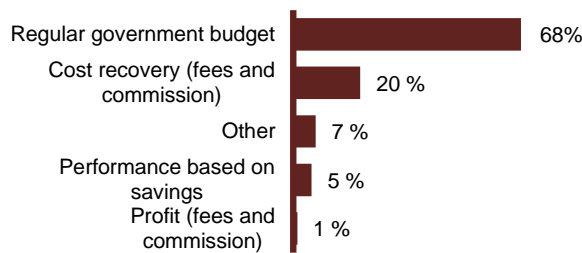
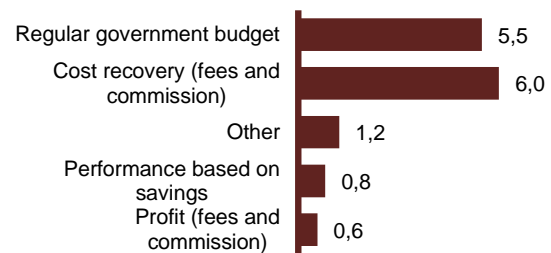


Exhibit 3-33: Average value of contracts in different financing models (in millions euros)



Source: Proprietary survey with 450 respondents; Team analysis

It is important in the selection of financial model that the model supports the overall business goals of the public authority. Contradictory relations are observed when the budget owners aim for high quality and lower cost, while the centralized procurement body is financed by a percentage fee of the yearly turnover of the contract.

Professionalism and sign of public procurement sophistication

Initially, we introduced the Kraljic matrix as the most dominant theory of purchasing portfolio models. A study published in *The Journal of Supply Chain Management* (2005) concludes that; *"It is possible that the introduction of the purchasing portfolio in companies drives purchasing sophistication. Adopting a portfolio approach could work as catalyst for change within the company"*.⁶⁵ The same study also concludes that; *"A portfolio project could put purchasing higher on the company's strategic agenda clarifying the problems and possibilities"*. The basis for this study was private companies.

If we summarize the headlines from the survey 79 percent responded that CP is "most useful when deliverables are standardized and require little user involvement", 30 percent of the CPBs identify themselves as "professional procurement organisations and 20 percent of these deliver managed services and only 3 percent delivers support services. Also from the interviews we found that 45 percent of the respondents stated that the quality was improved by using CBs (see: Exhibit 4-40) and further comments from the respondents stated that CPBs have specialists (legal and procurement expertise) contributing to more transparency and compliance.

All these findings indicate that the use of applicable procurement theory is valid in public sector procurement as well. The increased use of CPBs seems to contribute to professionalism by the use of portfolio models i.e. aggregation of demand for standardized products and services and increasing the competition by the leverage of buying power. The management decision of using CPBs (partly or total outsourcing of the procurement function) reflects also the management's focus on the value added by professional procurement.

⁶⁵ Gelderman & van Weele – Purchasing Portfolio Models: A Critique and Update – *The Journal of Supply Chain Management: A Global Review of Purchasing and Supply* – (August 2005)

3.3.7 Compound analysis of the factors

To explore what drives the decision to choose for centralized purchasing with other CAEs and what the results⁶⁶ of a centralized purchase are, we developed an econometric model to calculate the way in which variables influence each other and how strong this influence is. In the sections below we provide a general presentation of the model and the results. A detailed description of the methodology used and the results can be found in the Annex chapter 3.3.

Methodology

Firstly, we analyse what influences the choice to procure centralized. The potential drivers include:

- Use of electronic auction;
- Type of evaluation mechanism (MEAT or lowest price);
- Type of CAE;
- Sector of the CAE;
- Type of contract;
- Type of work.

To identify the drivers of a choice for a centralized purchase, we test the impact of each of the drivers in isolation, correcting for any disturbance caused by any other potential driver.

Secondly, we test whether the choice for a centralized purchase has an impact on the duration of the procedure and the number of offers received. We also investigate a relation between the choice for a centralized purchase and:

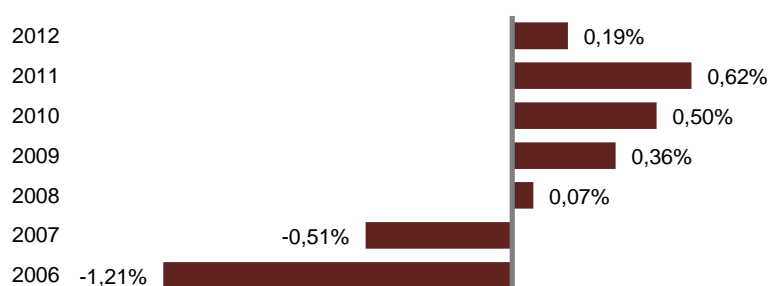
- Cross-border winners;
- The value of the contract;
- The type of procedure chosen.

In order to identify how the choice for a centralized purchase affects the above mentioned variables, we use the same approach as in the first step.

Step 1 - Drivers of a centralized purchase

Before discussing individual drivers, it's interesting to reflect on the development of centralized purchasing over time. Corrected for all other variables, we see an autonomous increase in the use of a centralized purchase, only showing a slight decline in 2012. This increase over time implies some form of learning, legal or political effect that pushes procurement officers to engage more in the centralized purchasing.

Exhibit 3-34: Development of a centralized purchase over time - year differences



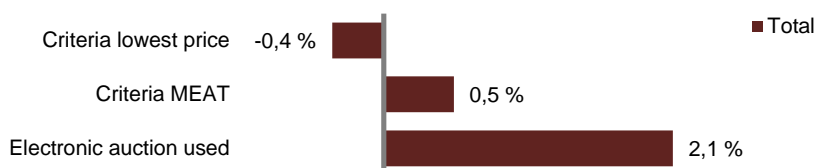
⁶⁶ In this section by results of centralized purchasing we mean the factors on which centralized purchasing has an impact.

We also examined if any geographic influence could be identified, for example as a cultural driver. Although the observations are relatively widely-spread and should therefore be interpreted cautiously, there is a general trend that the Scandinavian and other Northern European countries tend to engage more in centralized purchasing than South and South Eastern European countries. However, there are some notable exceptions such as Greece, Italy, Finland and Poland.

The use of electronic auction and the type of evaluation mechanism

The model shows an increased likelihood that a contract is (partly) procured for another authority/entity. This result is consistent for the data set with the use of an electronic auction. The criteria aimed at selecting the most economically advantageous tender (MEAT) makes it also more likely the contract is procured on behalf of another CAE.

Exhibit 3-35: Techniques in procedure

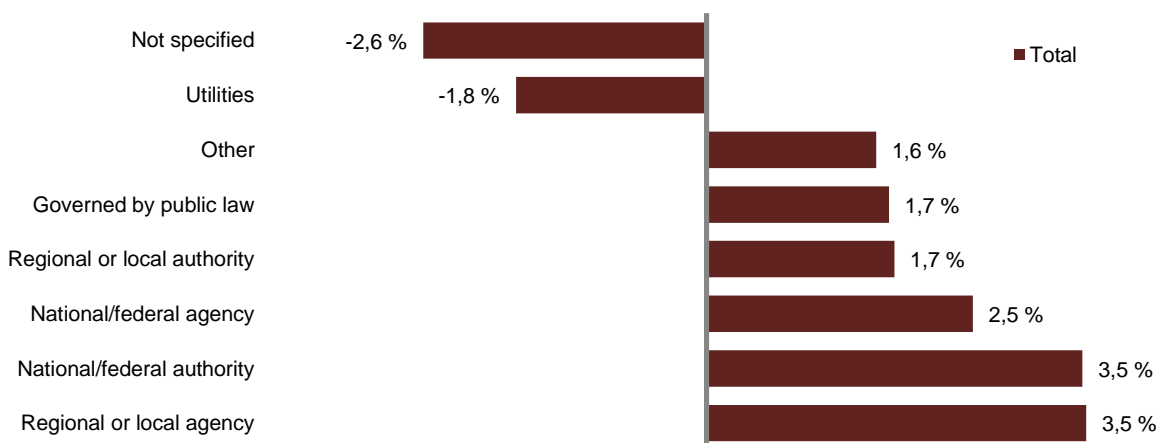


The findings for the electronic auction support the hypothesis that more standardized products or services increase the possibility of aggregation. The electronic auction allows the awarding authority/entity to create a dynamic tender environment where interested suppliers can adjust their offer in reaction to the offers of their competitors.

Type of CAE

We find that most types of CAEs show a positive relation with use of centralized purchasing. These effects range from little (bodies governed by public law and other) to moderate (regional or local agency). CAEs that demonstrate a negative relation with use of centralized purchasing are utilities and governments for which no classification is specified.

Exhibit 3-36: Type of CAE



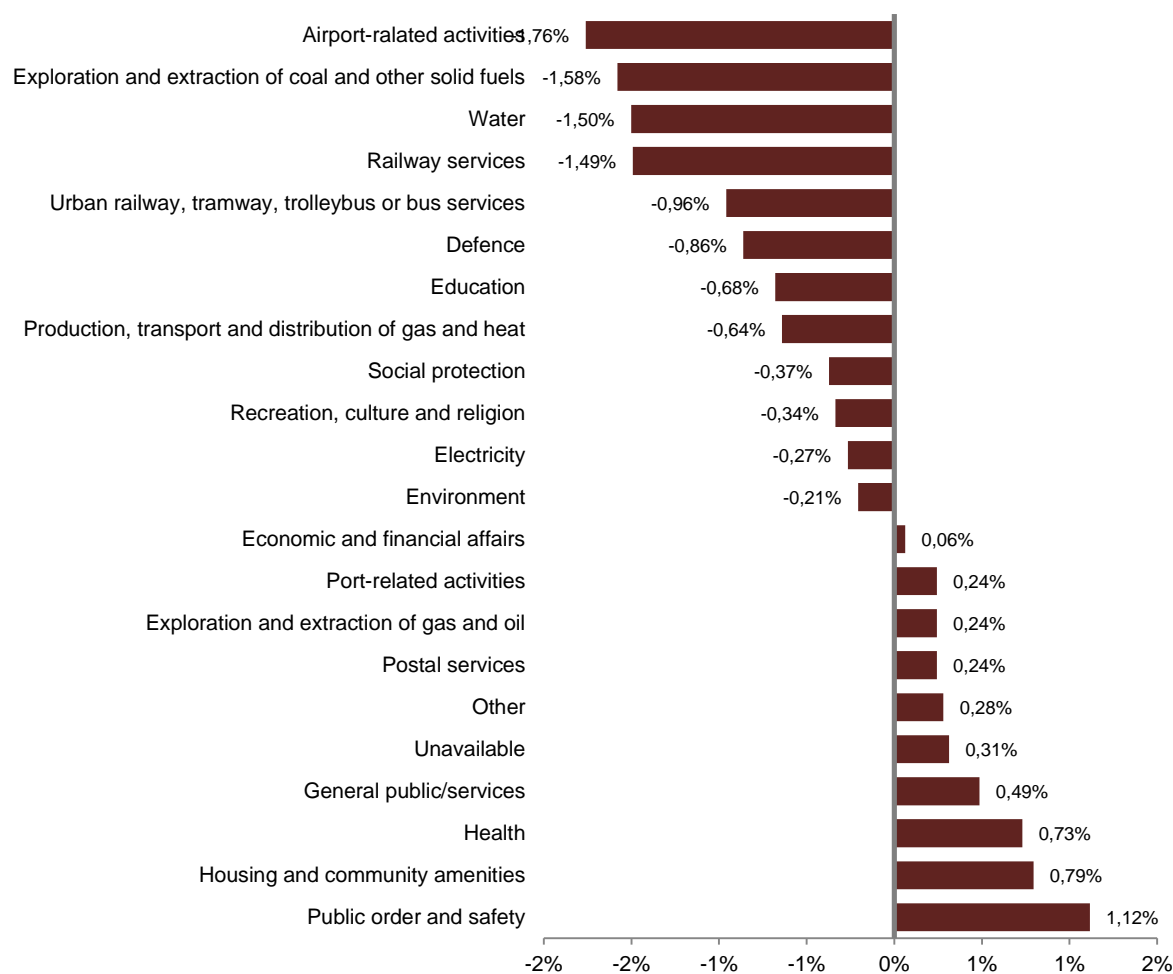
It is interesting to reflect on the reasons behind the difference between utilities and other CAEs. Utilities are most likely of all CAEs to face competitive forces and as a result, it may be the competition law that forbids the cooperation between utilities and other CAEs and causes the negative effect. Another possibility is the unique position utilities have in the society. For example, in some countries they have a monopoly position. Even if they want to work together in their procurement activities, there are no other entities with a similar demand. In addition many utilities are privatised, and as such they are

institutionally positioned further from the other authorities. This makes cooperation less likely and even contrary to their privatized status.

Sector of the CAE

There are only a few sectors where the CAEs are interested in combining the demand, notably Public order and safety, Housing and community amenities, and Health. On the other hand, a lot of sectors are showing a negative disposition towards engagement in the centralized purchasing. The sectors with the strongest aversion are Airport related services, Exploration and extraction of gas and coal, Water and Railway services.

Exhibit 3-37: Sector of the CAE

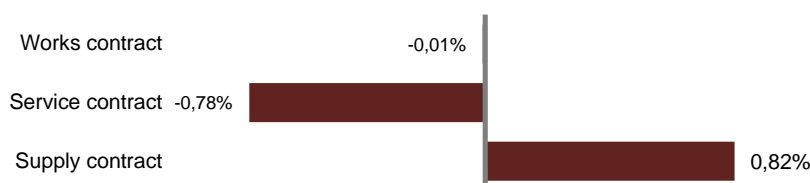


The observed differences between the sectors are likely due to the competitive and legal environment. CAEs in the sectors with a negative attitude towards engagement in the centralized purchasing either do not have another authority to work together with (i.e. utilities and public transport) because they are a (local) monopolist, or are forbidden to do so by the competition law. On the other hand, sectors that have a positive disposition towards engagement in centralized purchasing are typically the ones where other authorities are present and not rivalling its position.

Type of contract

For the type of contracts we see small but significant effects. In supply contracts, CAEs are more inclined to engage in the centralized purchasing, while when service contracts are used, CAEs are disinclined to do so. For works, there is almost no effect.

Exhibit 3-38: Type of contract

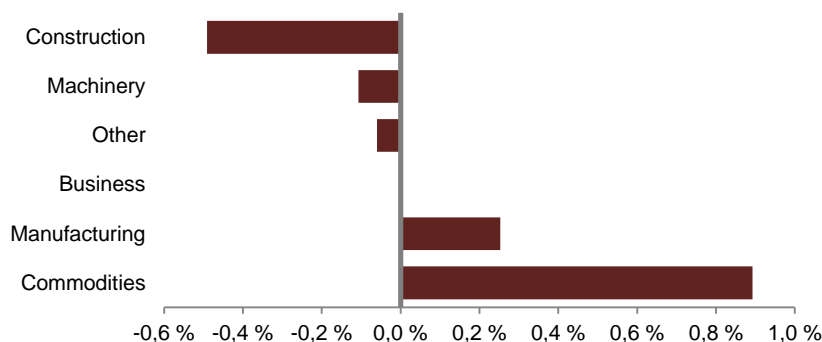


These findings confirm the hypothesis that aggregation is easier for standardized products and services.

Type of work

The type of work in the contract has a significant influence on the choice to engage in a centralized purchasing or not. For purchase of commodities, most notably, an increase in the probability of cooperation among CAEs can be observed. Also manufacturing has a positive relation with the chance of a centralized purchase. Construction services are less likely to be procured centralized. The other types of activity show virtually no effect.

Exhibit 3-39: Activity in contract



These findings show as well that aggregation is less likely when the products or services are more unique, and therefore less standardized. Typically, firms working within the commodity or manufacturing sector offer products that are easier to standardize than services or works. Moreover, commodities are by definition standardized products.

Step 2 - Results of centralized purchase

The second step of the analysis is to test how large the effect of a centralized purchase on the results of the procurement is.

In case of a centralized purchase, the average number of offers received is 0,8 higher compared to the situation when a CAE works on its own.

Combination of the demand of two or more CAEs results in a longer duration of the procurement procedure (by 3,4 days). This increased duration is caused by the longer period of time it takes to evaluate the offers⁶⁷. Meanwhile, firms have on average 0,4 days less to prepare an offer for centralized purchases.⁶⁸ The increase in duration to conduct these procedures is only partly explained by the larger number of offers. Another explanation of this is the relative complexity of centralized procurement procedures.

The chance that a foreign bid is selected to be a winner is lower in case of a centralized purchasing.

⁶⁷ It takes on average 4,1 day longer to evaluate the offers under a centralized purchasing procedure compared to an individual procurement procedure.

⁶⁸ Please note, due to rounding errors, the sum of the duration to award and the duration to submit an offer does not equal the duration for the entire procedure.

The results for value of the contracts confirm that a centralized purchasing is a form of aggregation, as on average the contracts are 6.120.289 euros larger than individual procurements.

In terms of procedures used, there is a strong trend to use more the open procedure (+2,3 percent) in centralized purchasing. Also the competitive dialogue is more popular in centralized purchasing (+0,4 percent). This goes mostly at the expense of awarding without publishing (-1,0 percent point) and negotiated with competition (-1,0 percent point), an indication of more transparency and predictability.

Conclusions and implications

We found support for the idea that centralized purchasing is a tool used by CAEs to aggregate demand. This is visible in larger contracts awarded by the CPBs compared to contracts individually awarded by CAEs. Consequently, we also found that competition for a centralized purchase, based on the number of offers, is fiercer, but this holds only for contracts awarded above threshold.

There are four factors identified that drive the use of centralized purchasing techniques. The first one is the cultural environment, captured by country specific effects. Mostly Northern and North-Western European countries show an inclination towards using centralized purchasing techniques, while Southern Member States show limited use. There are however individual exceptions.

The second factor is the effect of fiscal austerity. We see a tendency to conduct more centralized purchasing procurements from 2008 onwards. As from 2008, many (if not all) Member States saw reducing budgets, driving the search for opportunities to reduce the price of goods and services procured. One of those measures is higher aggregation of demand in the form of the centralized purchasing.

The third factor is the level of standardization, or similarity, of the procured goods and services. The more similar (homogenous) the procured products are, the easier it is to aggregate it without too much loss of flexibility in meeting the demands of individual authorities or entities.

3.4 Framework agreements

3.4.1 The framework agreement

The most commonly used aggregation technique is the framework agreement. The core concept of a framework agreement is one where the purchasing is conducted in two stages:

- In the first stage, all general terms of the contract are defined. Contracts may be signed with one or more potential suppliers.
- In the second stage, the actual orders are placed (calls) with the participants in the framework agreement, who may then tender or be awarded the delivery.

In principle, the concept of a framework agreement allows for better management of demand heterogeneity where buyers may have multiple preferences and/or where shifts over time can be expected. For example, an IT-department may enter into contracts with multiple IT developers and related services. As needs arise for support to various projects and developments over time, the IT-department will have an established framework through which it can reach out to qualified suppliers and place orders for the specific assignments. The framework agreement concept also ensure rapid response from the selected supplier compared to an ordinary tendering process.

Framework agreements may not represent an aggregation of the number of unique purchasing entities, but is better understood as **an aggregation technique over time**. In that sense, it may be a relevant question whether an agreement functions to aggregate demand or mostly to reduce process costs with procurements. If a framework agreement is established, search and process costs for a purchasing authority are lower. This may be an important motivation in itself. We will return to these issues in chapter 4.3.2.

Exhibit 3-40: Facsimile of the definition of a "framework agreement" in Directive 18 art 1(5)

L 134/114

EN

Official Journal of the European Union

30.4.2004

DIRECTIVE 2004/18/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 31 March 2004

on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts

5. A 'framework agreement' is an agreement between one or more contracting authorities and one or more economic operators, the purpose of which is to establish the terms governing contracts to be awarded during a given period, in particular with regard to price and, where appropriate, the quantity envisaged.

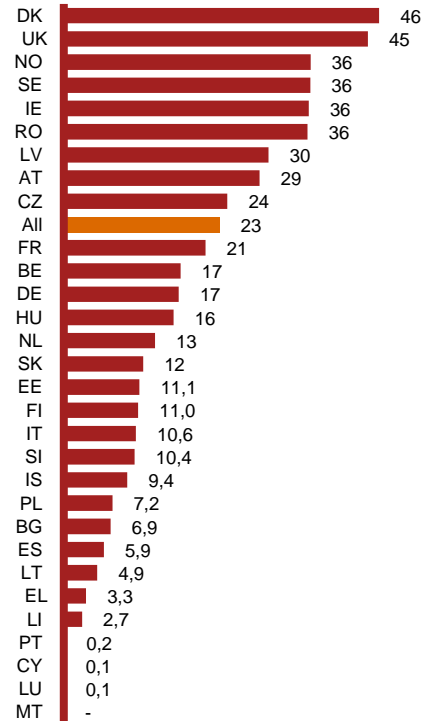
3.4.2 Who is implementing framework agreements?

Overall, about 23 percent of contract awards in Europe is through framework agreements. The use of frameworks has increased in the past years and especially since 2009.

Note that the concept of value in a framework agreement is notional only. The values are estimates provided at the stage of the procurement and may not represent the actual value procured for a number of reasons. The contracts are not binding with regard to the authority and only represent an opportunity to access the market.

In Denmark and UK the framework agreements constitute more than 40 percent of procurements in terms of value. In another group consisting of seven countries, framework agreements are above the EU average.

Exhibit 3-41: Value of contract awards using framework agreements as share of total 2009-2012 (percent)



Source: The TED database; Team Analysis

Over time there has been an increase in awarding such agreements, but it is far from a uniform picture. Norway, Latvia, the Czech Republic and Estonia show strong increases in the use of framework agreements (in terms of value). Overall in the region, there has been an increase in use of framework agreements in terms of value of about 3 percent points. The change in use of framework contract in terms of number in the time periode between 2009 – 2012 is only a bit smaller than the change in terms of value. Overall the use of framework agreements in terms of number has increased by 2 percent points. Estonia has the largest increase with 27 percent points.

Exhibit 3-42: Change in use of frameworks by country 2009-2012 (percent)

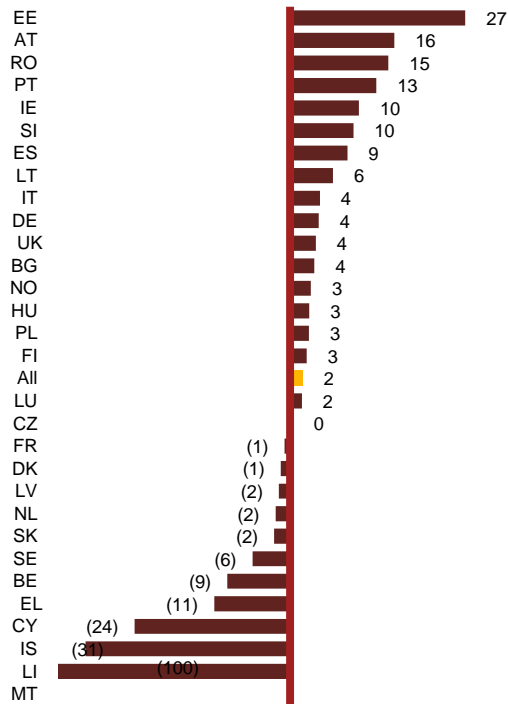
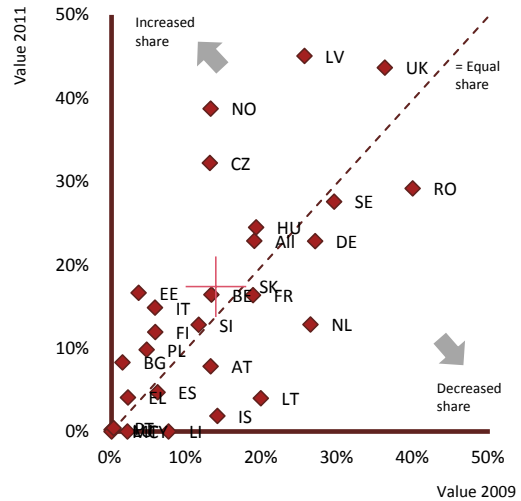
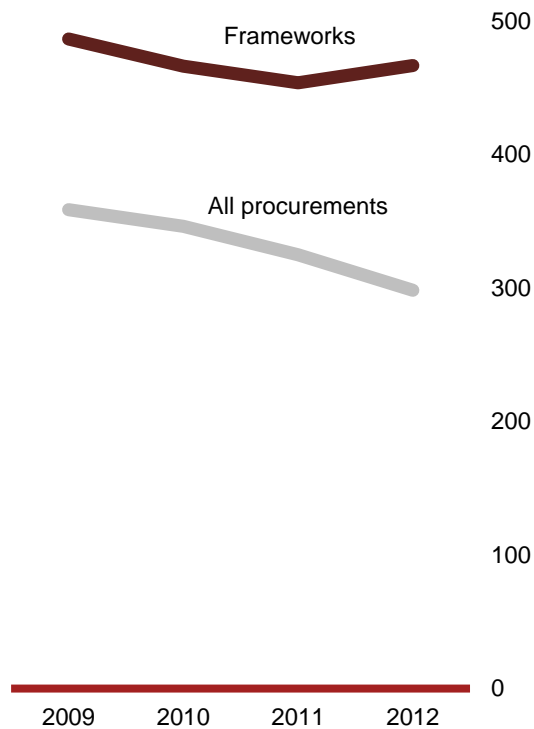


Exhibit 3-43: Change in total value of framework agreements by country 2009-2011



Source: The TED database; Team Analysis

Exhibit 3-44: Value of framework agreements 2009-2012 (median, in thousand euros)



Source: The TED database; Team Analysis

Frameworks usually have a higher value than the average contract. The average value of a framework agreements is overall in Europe 500.000 euros. The average value of framework agreements differs significantly across Europe.

To analyse the value of frameworks relative to their average use we look at the value multiplier. This multiplier shows the value of framework contracts as a multiplier of the number of contracts. The EU-wide multiplier is 1,5. We do however find a number of countries with negative multipliers indicating that the agreements have lower notional value than the typical contract. Among the countries with higher than average propensity to use framework agreements this only includes Norway. In France and the Netherlands, the value of framework agreements is also lower than the average value.

Exhibit 3-45: Value of CANs by country (median, in million euros, 2009-2012)

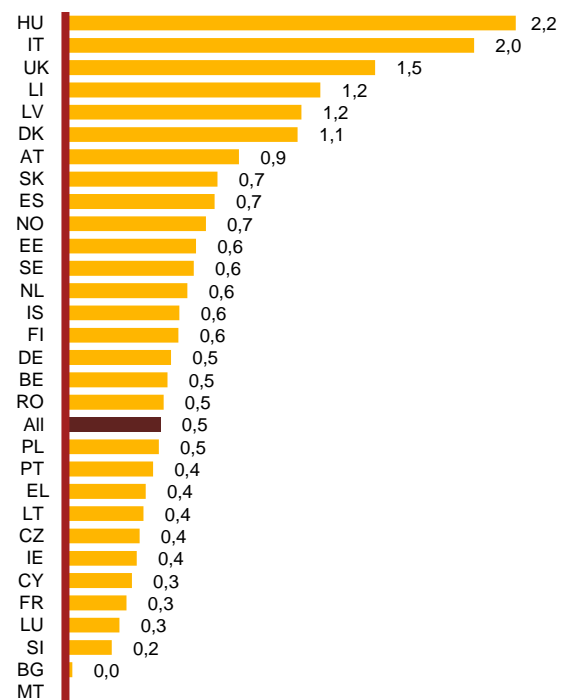
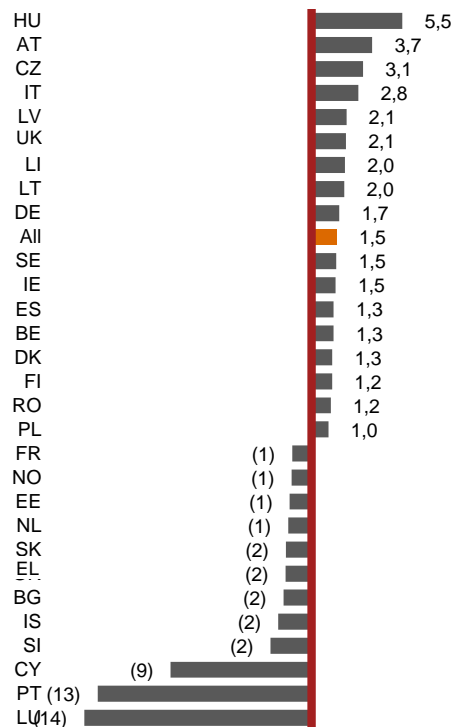


Exhibit 3-46: Value of CANs as a multiple of number of contracts



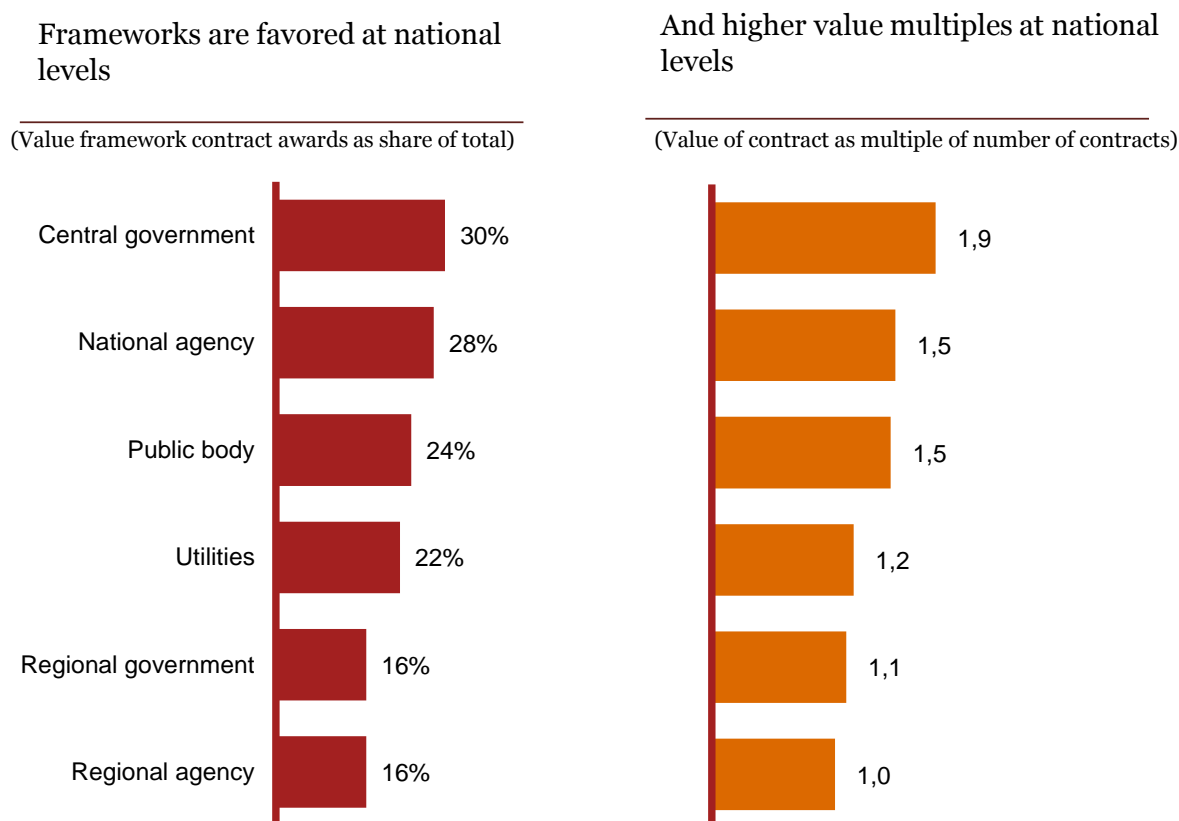
Source: The TED database; Team Analysis

Most popular at national levels and used with higher value there

Frameworks are used across all levels of government, but there is a higher propensity for central governments to use them. This also includes national agencies.

Both national government and national agencies have the highest share of framework agreements in terms of value (see Exhibit 3-47) with respectively 30 percent and 28 percent, while regional government and agencies have the lowest share with 16 percent.

Exhibit 3-47: Value of contract awards using framework agreements



Source: The TED database; Team Analysis

The value of contracts as a multiplier of number of contracts in Exhibit 3-47 shows the value of framework agreements relative to their average use. It is positive for all government authorities. Again it is most significant at the central level. The multiplier is however much smaller than for centralized purchasing. Also, it is only in central governments that the multiplier is higher than the EU average (1,5).

Compared to the other main aggregation technique, centralized purchasing, frameworks are more evenly distributed across government levels. The factor differential between regional and national levels is about 2, compared to about 2,5 for centralized purchasing.

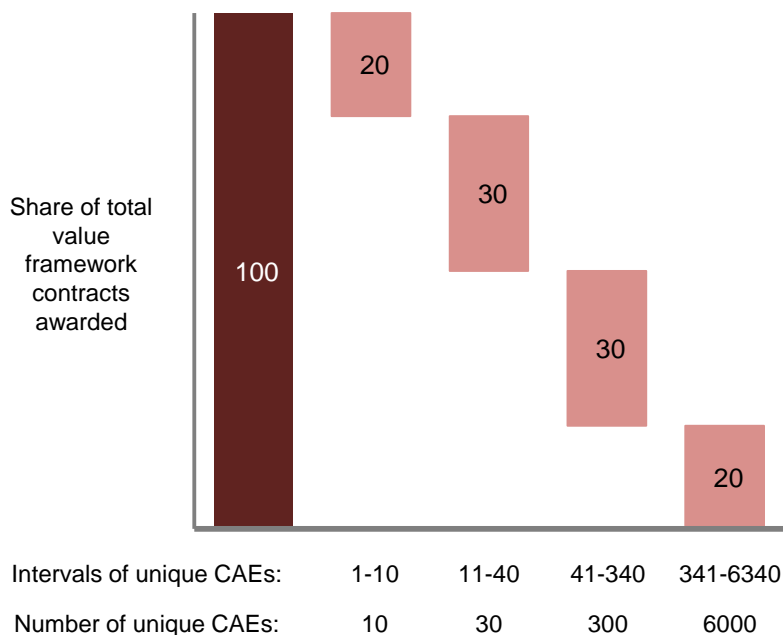
Few high value contracts dominate the market

About 20.000 -25.000 framework contracts are awarded each year by about 6.300 unique CAEs. Over the four year period investigated, about 13.000 unique CAEs have issued frameworks. This compared to about 6.000 CAEs who are acting on behalf of others through centralized purchasing.

Framework agreements are a more repetitive phenomenon however, and most of these CAEs appear to have issued more than one framework agreement. There are some very high frequency users including those with very high contract value agreements.

The economic significance of the framework agreements is best understood by looking at the values and the distribution across the number of unique CAEs.

Exhibit 3-48: Share of total value of framework agreements per interval of unique CAEs (percent)



Source: The TED database; Team Analysis

We find that an astonishingly low number of unique CAEs, close to ten annually, constitute nearly 20 percent of the total value of framework agreements. Chances are that these agreements are in UK as nine out of the ten largest framework contracts by value are all located there. These contracts represent all sorts of deliverables, from temporary staff services, catering to construction work and supplies of electricity.

Further, we find that the next 30 unique CAEs (in terms of largest share of total value) constitute 30 percent of the total value of framework agreements. Following this, the next 300 CAEs (in terms of largest share of total value) constituting another 30 percent of the total value. Consequently, about 5 percent of the CAEs (the intervals from 1-10, 11-40 and 41-340) share 80 percent of the total value of framework agreements in the EU. This is a more skewed distribution than for the average EU contract. The rest of the unique CAEs, about 95 percent, constitute only about 20 percent of the total value.

Framework agreements are mostly about supplies and commodities

Contracts can be for works, supplies or services. Works have significantly lower use of frameworks than supplies and services where the use of frameworks is more common. Supplies and services show a nearly similar use of frameworks in terms of number of contracts. The distinction is also of importance with regards to threshold levels which determine whether or not a purchase falls under the scope of the directives. The threshold level for works is nearly 40 times more that for services and supplies.

This picture changes a bit when the use of frameworks is viewed in terms of value. First of all, the share in terms of value is higher than the share in terms of volume. This is to be expected, as framework contracts have an above-average value of procurement due to multiple individual contracts being granted under the framework. More interesting to observe is that the difference between supply contracts and service contracts increases. This implies that there is a stronger presence of framework contracts in the larger supply procurements compared to services, where framework contract values are still above-average, but less significant than in supply contracts.

Exhibit 3-49: Share of framework agreements by type of contract

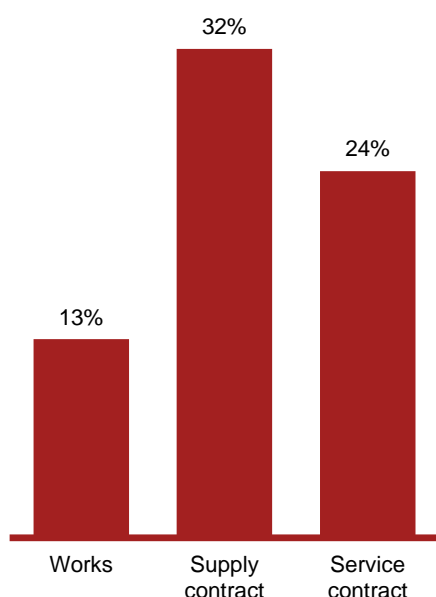
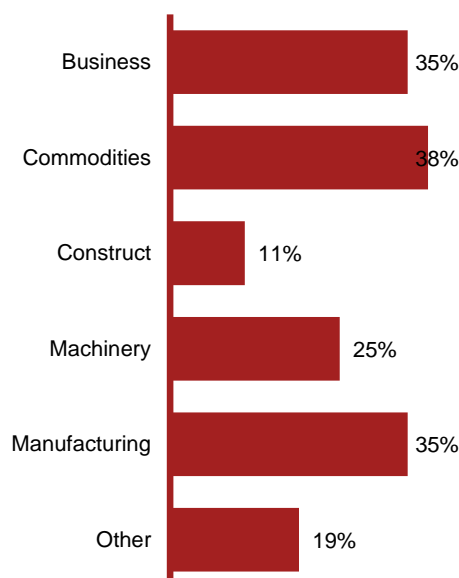


Exhibit 3-50: Value share of framework agreements by type of contract



Source: The TED database; Team Analysis

For works and supplies, there has been little change in the relative use of framework contracts in the past years. This concerns both the use of frameworks in terms of number of contracts as well as the value procured. The picture for services does show some fluctuation over the years. An increase in share of service contracts consisting of frameworks can be observed in the period 2009-2011. However, the trend was not continued in 2012, where a decline of share of framework contracts was observed.

Interestingly, the development of the share of service framework contracts shows a different story in terms of value. Here we find a very strong increase between 2009 and 2010, reflecting a strong increase of presence of framework contracts amongst the higher value service contracts. The trend was not continued in 2011, despite an increased share in the number of framework contracts.

The median value of framework contracts shows similarity to the EU threshold values. The median value for works is very large, while the median value for supplies and services are quite a bit smaller. This difference is also the result of these same threshold values: the TED database contains supply and service procurements with much lower values than works procurements.

3.4.3 Top 15 framework agreement contracts based on value

Next, we will look at the top-fifteen list of framework agreement contracts in Europe in terms of value of awarded contract. We find that nine out of ten of these contracts are located in UK. In addition, eight out of the ten largest contracts in terms of value are a combination of framework agreements and centralized purchasing on behalf of a collaboration of government bodies. These contracts have a value of about three times the average framework agreement, or nearly 10 times the average contract.

- 1. Postal services, UK.** Buying Solutions, as the contracting authority, established a pan Government collaborative postal services framework agreement for use by or on behalf of UK public sector bodies. The Postal Services framework provides public sector bodies with easy access to all their postal requirements through 14 lots covering a full range of postal services. The framework was established in 2010, and has a value of 6.994.311.168 euros. *(also described on page 95)*
- 2. Computer-related services, UK.** The desktop service includes provision of user access devices (for example, desktop PCs, laptops, plus other specialist user access devices) and related user services (for example, accessibility services, desktop software, and authentication services). The agreement was established by the Government Procurement Service in 2010, and has a value of 5.245.733.376 euros.
- 3. Construction work for buildings relating to health, UK.** The ProCure21+ National Framework is a framework agreement with six Supply Chains (PSCPs) selected via an OJEU Tender process for capital investment construction schemes across England until 2016. The framework was established by the Department of Health in 2010 and has a value of 4.464.453.632 euros.
- 4. Business services: law, marketing, consulting, recruitment, printing and security, UK.** Buying Solutions as the Contracting Authority established a Pan Government collaborative framework agreement for the supply of non-permanent staff for use by UK public sector bodies. The framework was established by the Government Procurement Service in 2010, and has a value of 2.914.296.320 euros.
- 5. Supply services of personnel including temporary staff, UK.** Eastern Shires Purchasing Organization (ESPO), on behalf of Pro 5, working in partnership with Efficiency Reform Group (previously Office of Government Commerce (OGC)), Department for Education and members of the Professional Services Collaborative Category Board (PSCCB) and the Local Government Professional Services Group (LGPSG), established a framework agreement with a number of suppliers for the provision of Managed Services for Temporary Agency Resources (MSTAR). Managed services include neutral vendor solutions, master vendor solutions and other hybrid solutions. The framework was established in 2011, and has a value of 2.304.466.176 euros.
- 6. Catering services, UK.** Eastern Shires Purchasing Organization (ESPO), on behalf of the Pro5 group of professional buying organizations, established a framework agreement for the provision

9/10
Located in
the UK

8/10
Combination
of centralized
purchasing
and framework
agreements

of catering services to the public sector. The framework covers four distinct sectors: education (school meals and higher education), social care (including community meals), staff and civic catering (e.g. for council offices) and visitor and venue catering (museums, galleries, county parks, etc.). The framework was established in 2011 and has a value of 2.304.466.176 euros.

- 7. Construction work, UK.** The provision of construction capital works on both infrastructure and non-infrastructure projects for AMP5 and potentially beyond on a non-exclusive basis. The agreement was for a possible 10-year period and was issued in 2011 by Northumbrian Water Ltd and has a value of 1.728.349.568 euros.
- 8. Electricity and Heating programme (solar and nuclear energy), IT.** The framework agreement was issued in 2011 by the purchasing consortium ASMEZ for selection of partners to support the implementation of the Programme ASPEA concerning the implementation of photovoltaic systems for local authorities (municipalities) in Italy. The contract has a value of 1.590.000.000 euros.
- 9. Natural gas, UK.** Framework agreement for delivery of flexible gas and the provision of associated services for municipalities in UK. The agreement was issued by West Mercia Supplies in 2011 and has a value of 1.497.902.976 euros.
- 10. Architectural, construction, engineering and inspection services, UK.**
Scottish Water was seeking to appoint a number of capital delivery partners (CDPs) to support it in the delivery of its future quality and standards capital investment program for the regulatory period 2010 to 2014. The framework agreement was issued in 2011 and has a value of 1.440.291.328 euros.
- 11. Computer-related services, IT.** Framework agreement for applications with both web-based and client/server systems, business intelligence and management reporting package (Microstrategy, SAPBW / SEM, Business Objects, Oracle BI). The agreement was issued by Ferservizi SpA - Gruppo FS on behalf of The Society of the Ferrovie dello Stato Group in 2011. The contract has a value of 1.364.999.940 euros.
- 12. Railway vehicles, AT.** Framework agreement for the delivery of electric trains with a seating capacity of about 100 to 350 seats, door heights of 600 mm and 800 mm, with or without maintenance, and individually identifiable features. The agreement was issued by ÖBB-Personenverkehr AG in 2010 and has a value of 1.306.040.060 euros.
- 13. Software-related services, UK.** Buying Solutions as the Contracting Authority was putting in place a Pan Government Collaborative framework agreement for software-related services for use by UK public sector bodies including but not limited to Central Government Departments and their Agencies. The agreement was issued in 2010 and has a value of 1.165.718.528 euros.
- 14. Repair and maintenance services, UK.** Framework contract for Total facilities management including (but not limited to): Managed services, Health & safety management, Environmental management, and Energy management. The agreement was issued by the Ministry of Justice in 2011 and has a value of 1.152.233.088 euros.
- 15. Construction work, UK.**
The framework agreement was issued by Scape System Build Ltd in 2011 for construction work and ancillary services for the public sector. The contract has a value of 1.152.233.088 euros.

Source: The TED database; Team Analysis

3.4.4 Framework agreements below EU threshold

Next we turn to the framework agreement below threshold level. As discussed under centralized purchasing, framework agreements can also take place under the threshold level. Threshold levels determine whether a contract falls under the scope of the directives (see: definitions and abbreviations, EU threshold level (below)). The value of contract is a key factor in determining this, but there are also other factors involved, including the type of contract, government level and specific types of purchases.

Contracts below threshold value do not require formal publishing in the TED database, leaving little formal data about these contracts. However, the data gathered from the surveys for this study finds that nearly 50 percent of all entities have issued framework contracts for below the EU threshold level during the last 12 months. The average number of contracts issued during this time is 21,5, with an average value of 121.718 euros.

Exhibit 3-51: Average number and average value of contracts issued during the last 12 months below threshold (median and mean)

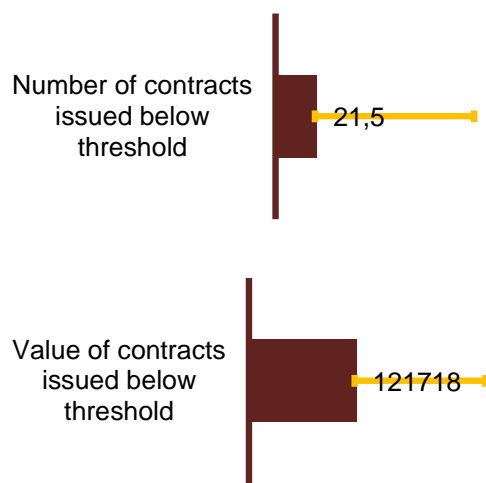
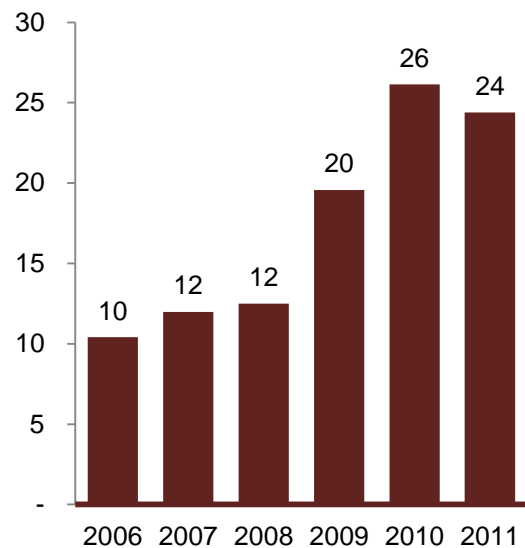


Exhibit 3-52: Value of framework agreements below threshold value (average value of contracts below threshold, in billion euros)



Source: Proprietary survey with 748 respondents; Team analysis

More than half of the entities state that the value of contracts below threshold level is less than 25 percent of the total value of all agreements. We find the largest share of entities having contracts below threshold value in Slovakia, Estonia, and Sweden, with respectively 80 percent, 73 percent, and 62 percent.

Exhibit 3-53: Value of contracts below EU threshold in percent of total agreements

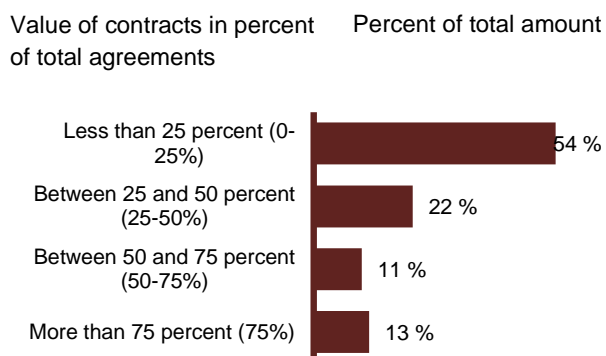
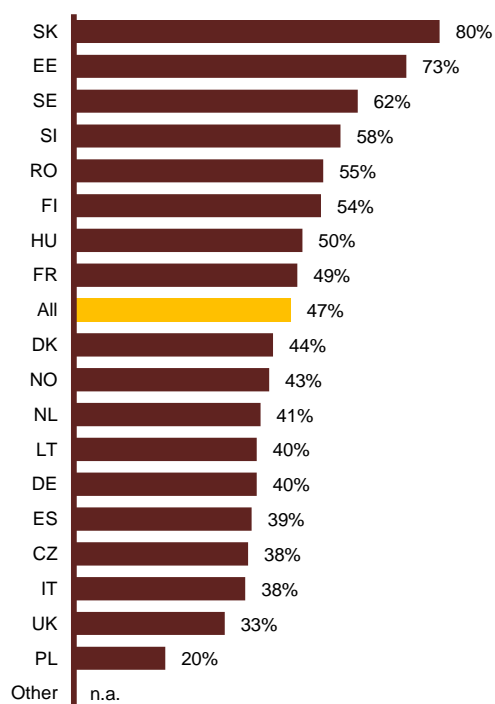


Exhibit 3-54: Percentage of framework agreements below EU threshold value



Source: Proprietary survey with 748 respondents; Team analysis

When estimating the value of framework agreements below threshold level we have done the same procedure as for centralized purchases. We here find that the median value of below threshold in percent of the entities total procurement is only 12,5 percent, while the average percentage is 33 percent. The median value is relatively low, and the average value seems like a better estimate for the total value of below threshold level agreements.

The total value of framework agreements below threshold value was in 2011 24 billion euros.

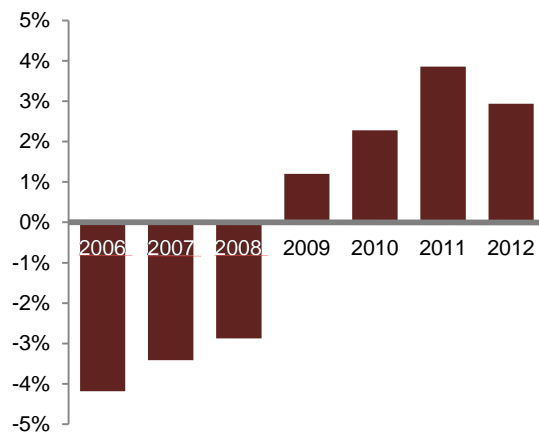
3.4.5 Compound analysis of the factors

A similar model as used for the compound analysis of centralized purchasing is used for the analysis of drivers and results⁶⁹ of framework agreements. Likewise, we provide the results in the section below, with a detailed description to be found in the Annex chapter 3.4.

Model results – step 1

Before discussing individual drivers, we reflect on the development of the use of framework agreements over time. We see a very strong tendency to use more framework agreements, also corrected for other variables. The impact of each year also has a tendency to grow over the years.

Exhibit 3-55: Development of the use of a framework agreement – year differences

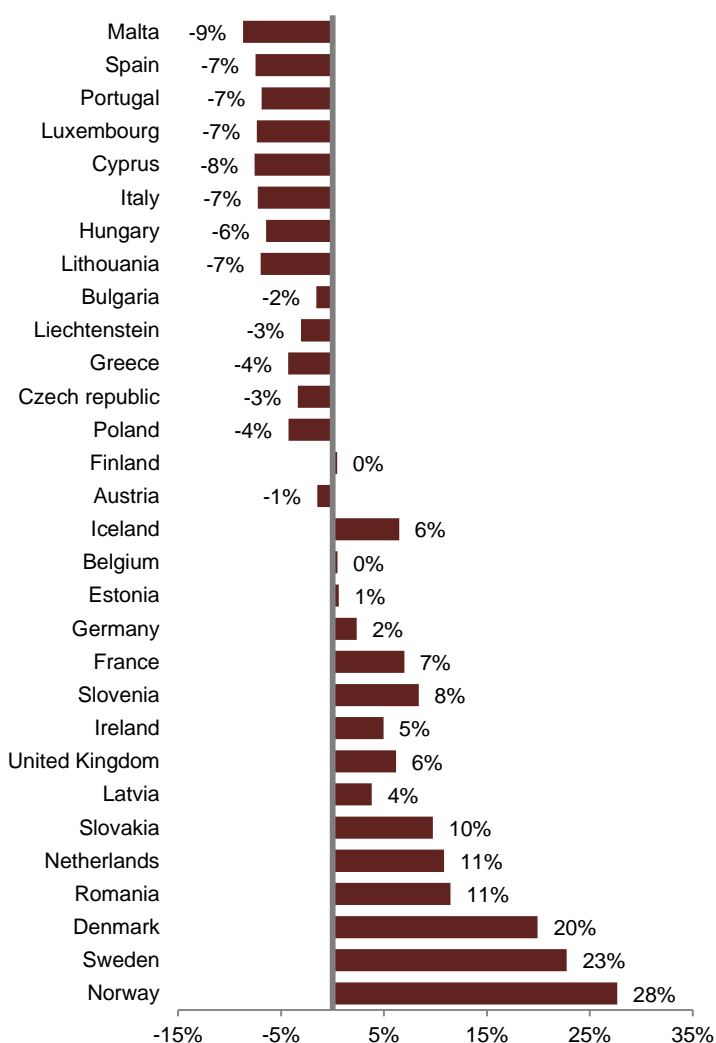


Before 2009, the year effects are negative, indicating that procurement officers are less likely to choose framework agreements. In 2009, there was a large change in attitude with regards to using a framework agreement. Especially in 2011, the officers were much more inclined to choose a framework agreement. In 2012, the year effect was somewhat less pronounced. Interesting in this regard is that the radical change occurs in 2009, which corresponds with the start of the credit crunch crisis.

We also find very strong country effects, reflecting a different legal, political or cultural environment in the EU and EEA Member States that influence the decision of procurement officers to choose a framework agreement.

⁶⁹ In this section by results of framework agreements we mean the factors on which the use of a framework agreement has an impact.

Exhibit 3-56: Country differences in use of framework agreements

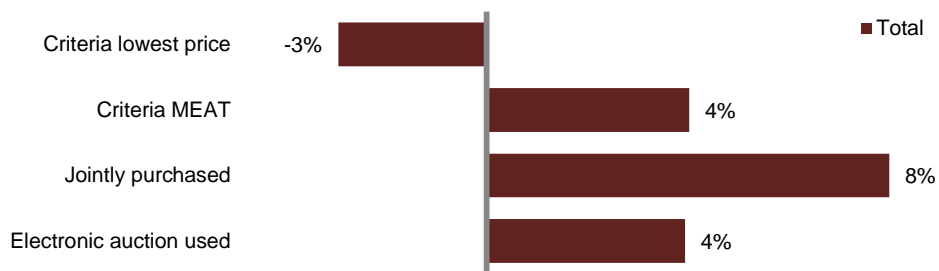


It turns out that the attitude towards the use of framework agreements matches the geographical location of countries. Nordic countries use framework agreements relatively often, while Southern and South-Eastern European countries do use the framework agreement notably less often. Notable exceptions to this geographical division are Finland and Iceland (framework agreements are used much less than in the neighbouring countries), and Romania (framework agreements are used much more than in the neighbouring countries).

The use of electronic auction, centralized purchase and type of evaluation mechanism

The use of an electronic auction and purchasing on behalf of another entity strongly increases the likelihood that a framework is concluded. Criteria aimed at selecting the most economically advantageous tender (MEAT) makes it also more likely that a framework agreement is chosen, as opposed to criterion aimed at selecting the cheapest offer.

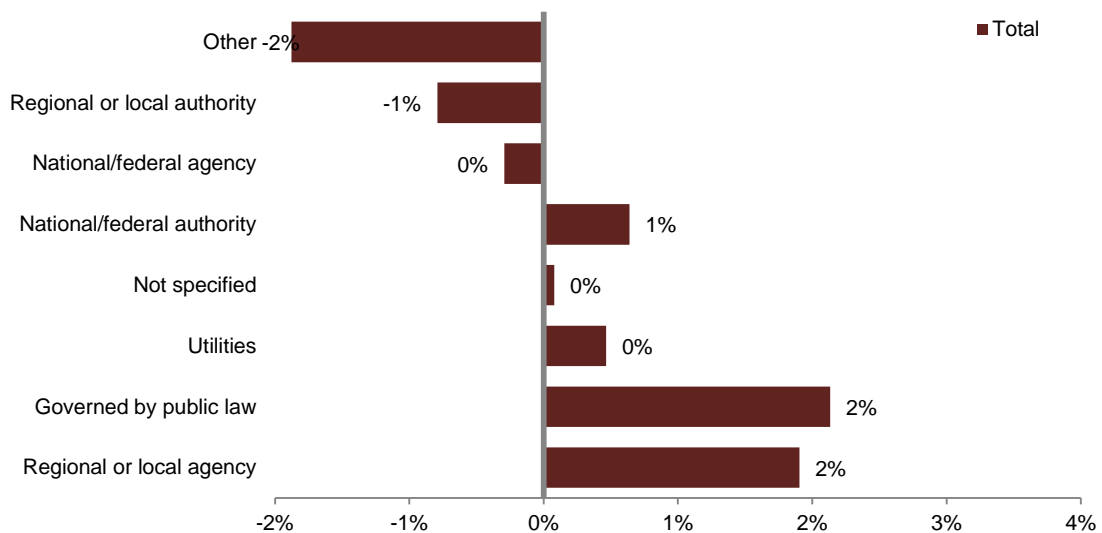
Exhibit 3-57: Techniques in procedure



Type of CAE

Most types of CAEs have a preference for or against the use of framework agreements. We see that regional and local agencies and bodies governed by public law have a particular tendency to use framework agreements. Regional and local authorities and other authorities have a particular inclination to avoid using a framework agreement.

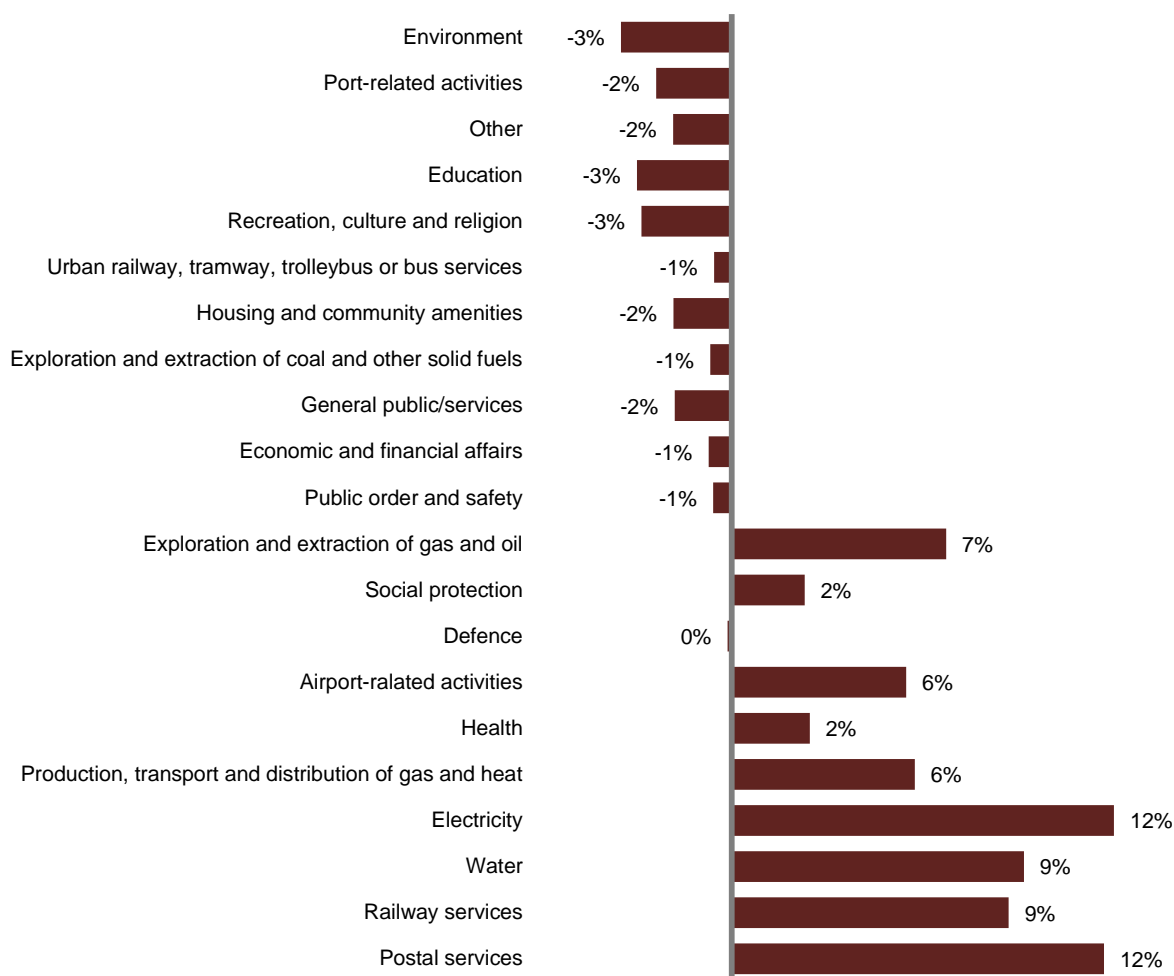
Exhibit 3-58: Type of contract contracting authority and entity



Sector of CAE

In every sector, CAEs show a preference for or against using framework agreements. It is interesting to note that particularly contracting entities in the utility sector (postal, railway, water, electricity, gas and heat, health services) show a strong preference for the use framework agreements. On the other hand, sectors that are related to the soft and hard infrastructure of a country show less preference for the use of a framework agreement.

Exhibit 3-59: Sector of CAE



This distinction between sectors seems to confirm the hypothesis that more standardized products are easier to aggregate than more complex products. Particularly in the utility sectors, the types of services are relatively standardized and consist of large volumes. An example is maintenance of the power grid. This is opposed to the soft and hard infrastructure of a country that requires more tailor made operations, in low volumes. One can think for instance about building a road in a community, which is relatively ad-hoc work and details differ per situation (building on sand or on clay, and use of cobble stones or concrete).

Type of contract

The data show two effects. First, there is a very strong tendency to avoid using framework agreements in works contracts with a negative tendency of 7 percent. The effects for the other two types of contracts are virtually the same, as indicated by the statistical insignificance of the coefficients.

Exhibit 3-60: Type of contract

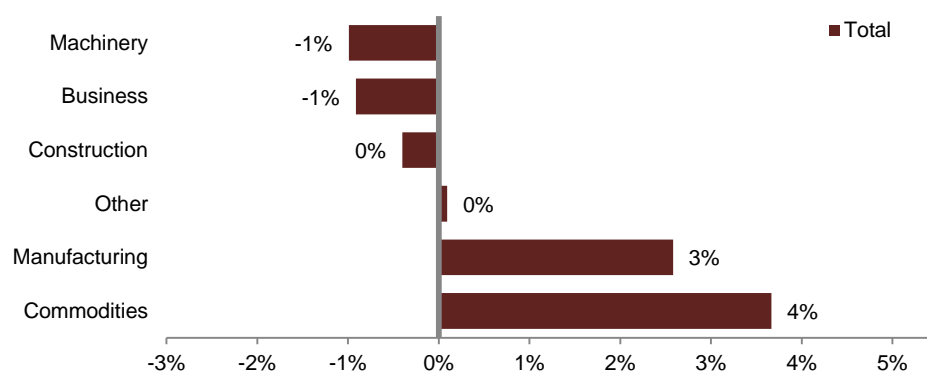


These results again confirm the hypothesis that aggregation is more likely in standardized products or services. Works contracts involve building projects which are almost always unique due to the spatial and institutional circumstances that require unique approaches.

Type of work

In the dataset we distinguish between six aggregated types of activities to be conducted under the contract as identified by CPV codes: Businesses, Commodities, Construction, Machinery, Manufacturing and Other. The models show statistically significant coefficients for all categories in all datasets.

Exhibit 3-61: Activity in contract



Looking at the actual effects, we see a relatively strong tendency to use framework agreements in commodities and manufacturing. A tendency to avoid framework agreements is visible in business and machinery.

Again, this confirms our hypothesis that aggregation is more likely for standardized products and services. Commodities and manufacturing represent goods, which show a high factor of standardization. This is opposed to business and machinery, which are more unique services and is consequently harder to aggregate.

Similar to most of the previously mentioned variables, for activity in the contract the effect is less strong for below threshold value contracts than for above threshold contracts. This holds true for both the negative and the positive effects.

Step 2 - Results of the use of framework agreements

The second step of the analysis is to test the effect of using a framework agreement on the various dependent variables.

If a framework agreement is used, the average number of offers is increased by 1,4 compared to the situation when a framework agreement is not used. This indicates a stronger competition for a framework agreement than that for other types of contracts.

The use of framework agreements results in a longer duration of the procurement procedure⁷⁰. Nevertheless, it leads to less time available for companies to prepare a proposal (on average 0,5 days less) while CAEs take 5,7 days extra to award a proposal.⁷¹

Regardless of the number of offers, the chance an CAE selects a winner from another country using a framework agreement is approximately 1 percent-point less when compared to the situation in the absence of a framework.

The value of framework agreements is notably higher than that of non-framework agreements. On average, framework agreements are 2.683.874 euros larger than single contracts. The largest part of this effect is explained by and confirms the hypothesis that a framework agreement is a form of aggregation.⁷²

The findings also suggest an increase in the use of framework agreements strengthening competition when tendering for the contract. There is a tendency to make more use of open procedures (+2,0 percent point) and negotiated procedures that include competition (+2,8 percent point).

Conclusions and implications

We have explored what drives the decision to use a framework agreement and what the results of a framework agreement are. The findings of this chapter are roughly the same as the ones of the investigation of a centralized purchasing.

First of all, we found support for the idea that framework agreements are a tool CAEs use to aggregate the demand: the contract sizes for framework agreements are larger than that of the single contracts. Consequently, we also found that competition for the framework agreements is fiercer.

Secondly, drivers for the use of framework agreements are mostly country specific. In some countries framework agreements are very popular, while in others not. We see that the use of framework agreements has risen over the years. Especially the large jump in popularity of the framework agreement in 2009, following the budgetary austerity of governments in that very same period. Thus, budgetary concerns could be a major reason to aggregate the demand through using framework agreements, is interesting to observe. A possible explanation for this strong increase may be an increased attention of procuring authorities/entities to achieving cost savings by means of aggregation, with budgetary concerns as key driver for this shift in attention.

⁷⁰ On average the duration is 5,4 days longer.

⁷¹ Please note, due to rounding errors, the sum duration to award, and duration to submit an offer, does not equal duration for the entire procedure. In addition, the analyses do not constitute the same observations due to missings for one of the key dates.

⁷² Another explanation of this effect may be that a maximum possible contract value of a framework contract is reported in the TED database. A maximum contract value is not equal to the actual realized value, which is usually lower than the maximum value. Thus, the true effect size is probably not as large as the results of the statistical analyses show.

Cost effectiveness of market aggregation

4 Cost effectiveness of market aggregation

4.1 Introduction

This section provides an analysis of cost effectiveness of market aggregation in the public procurement markets in Europe.

The first part of the chapter looks at process cost of demand aggregation in EU public procurement process. Following this part we look at competition and potential gain and loss in quality, compliance, and transparency by use of aggregation demand, before we look at aggregation and impact on SMEs market access. We close up the chapter with conclusion remarks.

Potential economic gains from demand aggregation stem from two main sources: (i) Price savings from buying in bulk; and (ii) Costs savings from lower transaction costs of combining procedures. The gains are potentially off-set by other factors, such as negative impacts on competition, more difficult access for SMEs and quality concerns. For now however, we will try to understand the potential gains in transaction cost savings.

Effectiveness cannot be directly measured or calculated from the data sources. To deal with this challenge, we use a number of proxies to make inferences about the relative effectiveness of different types of market aggregation techniques, entities, and countries by measures of competition, procedural aspects, and perception by survey respondents. The number of bids is also analysed and used as a proxy for effectiveness.

As a hypothesis the number of received bids (increased competition), all other things equal, the CAE will enter into a more effective contract with the preferred supplier that meet the selected evaluation criteria. (i.e. the sum of best quality and best price)

Analysis of the survey results and interviews are also incorporates in this chapter. In the survey the respondents were asked about different perception of efficiency.

Finally, we look at aggregation and impact on SMEs' market access by analysis of an online survey among economic entities tendering for public procurement contracts. The respondents are asked about experience with and views about framework agreements.

4.2 Process cost with demand aggregation

Demand aggregation of procurement can potentially support achieving economies of scale. It can also potentially benefit smaller organisations by achieving the same terms as larger organisations, if the contract is set up to allow multiple accesses. Demand aggregation across organisations can simplify the tendering process leading to reduced procurement cost for buyers and reduced bidding costs for suppliers. It can also reduce project management and contract management costs.

In this section we investigate the cost of the procurement processes measured in terms of person-days (in full-time equivalents), and compare demand aggregation techniques with stand-alone purchases.

Data on the cost of the procurement processes and market aggregation are not readily available therefore unique data are collected for this study. The input for the cost analysis is provided from 1.200 purchasers across Europe who have reported the number of person-days spent for establishing both centralized procurement and framework agreements, as well as the number of person-days spent per request for framework agreements. The respondents provided the information with reference to a specific and recent purchasing contract for which they indicated themselves as the person responsible.

When asking the respondents to estimate the costs, we simply asked them to provide a number (in person-days) for all activities related to the contract, from identification of need to contract award.

To analyse the cost of the aggregated procurement process, we have used two methods. First, we used a descriptive approach that reported the median costs over all respondents, and compared the cost to regular procurement contracts. These analyses were conducted by person-days, which were chosen as the core parameter as they are a robust estimate, which leaves little room for interpretation. The second method used monetary cost calculations by linking labour cost to the person-days cost.

4.2.1 Cost in person-days staff time of centralized purchasing

The total person-days of staff time for establishing a given centralized purchase contract is on average 30 person-days. This is higher than the average person-day staff time of all procurement of 22⁷³. However, given that joint contracts mostly replace more-than-one standalone contract, the comparison value is possibly lower.

When disaggregating the results by how many CAEs the contract represents, we find that those who are acting on behalf of only one CAE have higher person-day staff time (person-day staff time of 25) than the organisations acting on behalf of between two and five CAEs (person-day staff time of 20).

Note that the staff time for the contracting CAE increases significantly in more complex configurations, i.e. with more than six CAEs involved. Average staff time is here above 40 person-days.

When distributing these costs among all the CAEs involved, which is a more appropriate benchmark to compare against the standalone contract, we find that there are significant savings involved. Average staff time by entity is reduced to about six person-days. Note that this is an underestimation as staff time by the (second tier) CAEs involved is not captured in this survey. The databases do not contain any information on who these CAEs are.

Exhibit 4-1: Total person-day staff time



⁷³ Numbers from survey 2011, Public procurement in Europe: Cost and effectiveness. Strand/Ramada/Canton 2011

Exhibit 4-2: CPBs total person-day staff time according to number of CAEs acting on behalf of

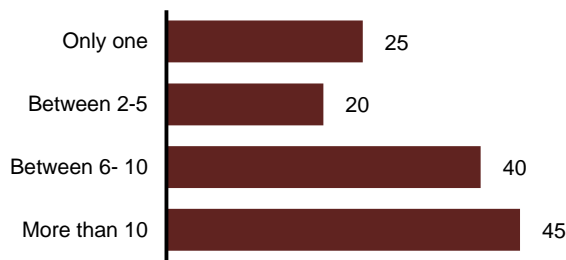
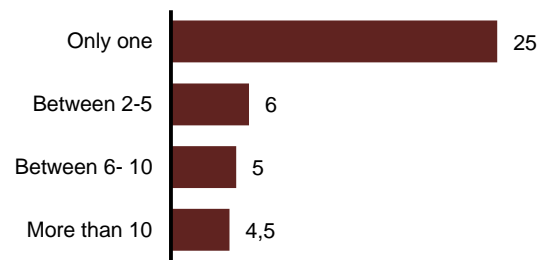


Exhibit 4-3: Average person-day staff time per CAE acting on behalf of



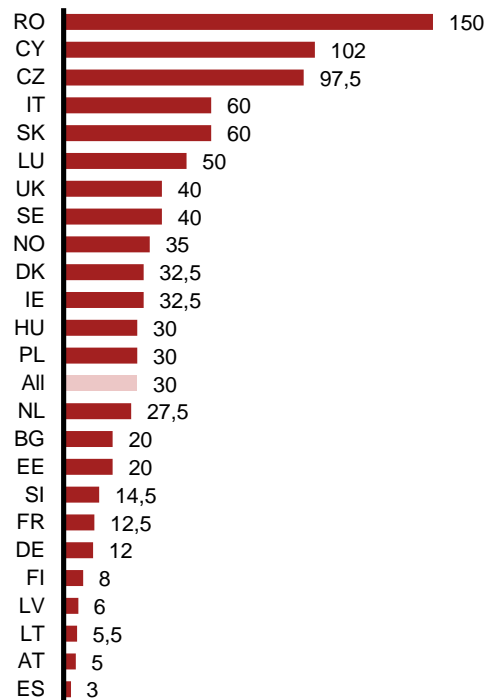
Source: Proprietary survey with 450 respondents; Team analysis

Person-day staff time per Member States and EEA

When analysing the total person days of staff time for establishing a given centralized purchase contract across the Member States we find that there is a significant difference between countries.

CPBs in Romania, Cyprus and Czech Republic are on top of the list, with a median of respectively 150, 102, and 98 person-days staff time for establishing a given centralized contract. This could partly be due to a variance problem in the data with relatively few respondents from these countries. Countries such as Luxembourg, UK, and the Scandinavian countries are all above the average person-days staff time. These countries have all more than average contracts with relatively high value and many participants. In the bottom of the list we find Spain, with only a median of 3 person-days of staff time.

Exhibit 4-4: Person-day staff time per Member States and EEA



Source: Proprietary survey with 450 respondents; Team analysis

4.2.2 Cost in person-days staff time of framework agreements

Framework agreements represent an aggregation of demand over time. Doing this, framework agreements, in the initial stage, aggregate a larger part of administrative burden of a procurement process. This would be expected to lead to significant cost savings, especially if the number of call-offs is high. To estimate the cost of framework agreements a modified approach was used. For each formal contract established there are call-offs under each agreement. The average cost of a call-off⁷⁴ is thus calculated as the framework setup cost (fixed) in terms of person-days plus the yearly contract stage call-off cost (variable) divided by the number of yearly call-offs.

An estimate of average process cost

When calculating the total process cost for framework agreements, we find that the average person-days staff time for each call-off is 8. This is lower than the average person-days staff time of contracts in Europe of 22 days (in 2010). It is also lower than an estimate average person-days staff time of 16 for each call-off found in 2011.⁷⁵ There are more data behind the estimate in this study and thus possibly more accurate.

Exhibit 4-5: Person-day staff time

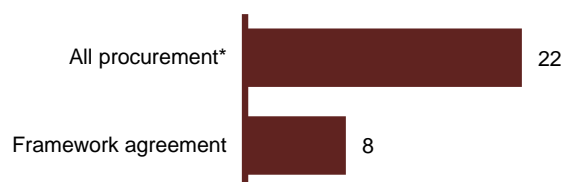
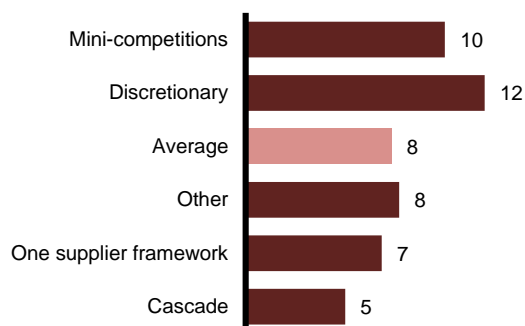


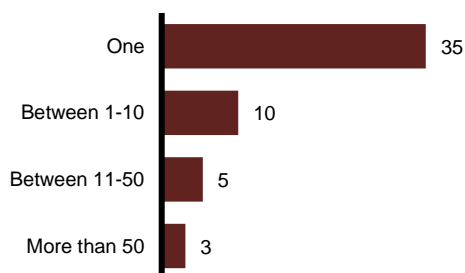
Exhibit 4-6: Person-day staff time according to different types of call-offs⁷⁶ (median days)



Source: Proprietary survey with 748 respondents; Team analysis

When calculating the average person-days staff time of the framework contract, the total staff time is spread among the multiple requests throughout one year. We find that the person-day cost decreases with more requests. This means that a framework agreement with more requests within one year will lower the cost per request. Call-offs under framework contracts has lower costs than any other form of procurement and lead to process cost savings for authorities.

Exhibit 4-7: Person-day staff time per call-off (median days)



Source: Proprietary survey with 748 respondents; Team analysis

⁷⁴ Individual contracts that can be made throughout the term of a framework agreement

⁷⁵ Strand, Canton, Ramada 2011

⁷⁶ Random and Rotation second-stage award schemes are taken out of this analysis due to few data on award schemes.

Person-days staff time for stage one and two alone

The first stage of a framework contract involves sending out a tender that will return bids. This involves an average person-day cost of 25. This is higher than the EU benchmark of 22 days. It is important that the selection of the second stage award scheme has to be included in the tender for the framework agreement, and there is variation in the use of person days in first stage, depending on the selected second-stage award-scheme. Our survey states that the person-day staff time of setting up a mini-competition scheme is more than 1,5 times as expensive as using a cascade scheme for the second stage.

After the framework contract is established, there are call-offs under each agreement. The call-offs can either be done through an agreement of, mini-competition, cascade, discretionary selection between suppliers, through a one supplier framework, rotation, or random selection. Beyond that, there is less variation in the cost of the methods of award. One supplier framework exhibit somewhat higher process costs, while predetermined schemes like cascades are the cheapest forms based on person-days staff time.

Each individual contract has much lower costs because most of the administrative elements of the tender are no longer required (included in stage 1). The average person-day cost of the second stage is 3.

Exhibit 4-8: Person-day staff time stage one



Source: Proprietary survey with 748 respondents; Team analysis

Exhibit 4-9: Person-day staff time stage one⁷⁷

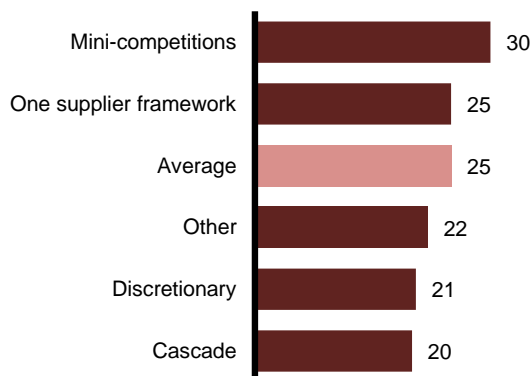
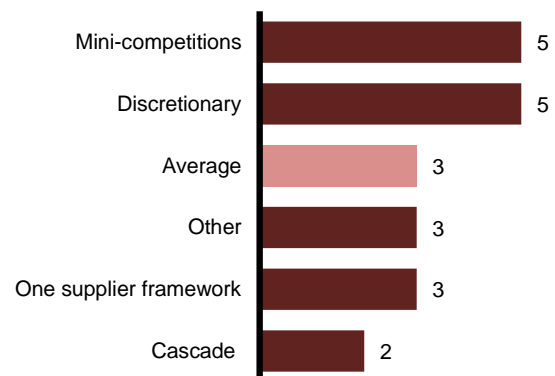


Exhibit 4-10: Person-day staff time stage two⁷⁸



Source: Proprietary survey with 748 respondents; Team analysis

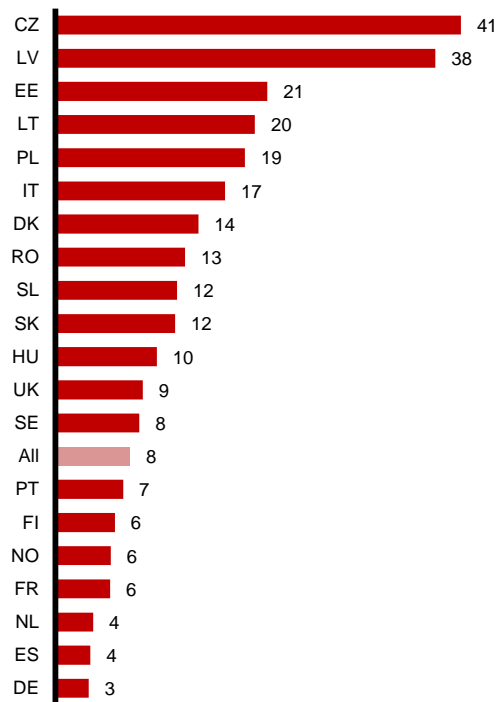
⁷⁷ See footnote 76

⁷⁸ See footnote 76

Person-day staff time per Member States and EEA

Next we turn to a presentation of person-days staff time for framework agreements across countries. Looking at the person-days observations we find that Germany, Spain, and Netherlands have the lowest person-days staff time per request. In the midrange we find United Kingdom and Sweden. United Kingdom is known for having a large share of high value contracts, but it seems that this does not affect the person-days staff time spent on each request. Latvia and Czech Republic seems to have a high median person-day staff time on each request, this is probably due to a low number of observations in these two countries.

Exhibit 4-11: Total person-day staff time per request per Member States and EEA



Source: Proprietary survey with 748 respondents; Team analysis

4.3 Monetizing cost

Next we turn to an analysis of monetized procurement cost. The analysis is done by linking labour cost to the person-day cost observations reviewed above. The costs are determined by the number of person-days spent by the purchaser on each contract (See calculation in chapter 4.2.1); and the standard cost of each person-day of time⁷⁹. When multiplying the total person-day costs by labour costs we relied on data from Eurostat and OECD source to determine the average salary costs for different countries. This number does not distinguish between salary variations among sectors or other categories. We also included a standard uplift of 25 percent as it is customary in activity based costing models.⁸⁰ When analysing the cost of purchases, we have, as above, distinguished between centralized purchases and framework agreements.

4.3.1 Centralized purchasing

Cost by country

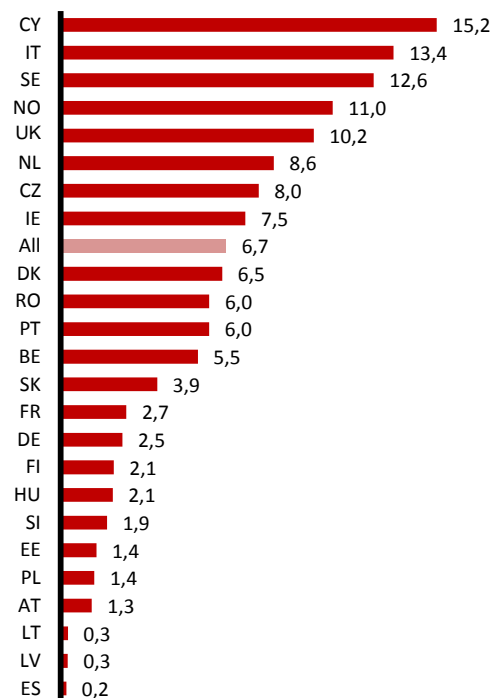
We use median as the expression of the CPBs typical contract.

Surprisingly, high wage countries are not the only ones who have the highest score. Both Cyprus and Italy have medium high wages (respectively 149 and 221), yet still top the list. Note that the findings from Cyprus are especially sensitive to a small number of respondents, but the findings from Italy are more statistically robust.

Unsurprisingly, both Sweden and Norway are near the top of the list. UK is also high up, with both high unit costs and above average person-days spent on each contracts. This is most likely due to the country's many large purchase entities. Fourteen out of the top twenty largest purchase entities in Europe are located in UK and nine out of top-ten centralized purchasing contracts (by value) are located in UK (see chapter 3.3.2).

In the low range we find countries with both lower wages and lower person-days spent on each contract.

Exhibit 4-12: Median cost of an centralized contract (in thousand euros)



Source: Proprietary survey with 450 respondents; Team analysis

⁷⁹ Total labour cost for 2009 and real unit labour cost growth rate for 2010, 2011 and 2012 as reported from Eurostat. The total labour cost statistic includes wage and other costs.

⁸⁰ We apply a mark-up on labour cost which covers items such as: Personal training and development, Information technology, Entertainment, Office articles, Subscriptions, Memberships, general indirect costs, depreciation, Rent, Insurance, Light, Electricity and water, Repairs. This is in addition to the total labour cost reported from Eurostat. The mark-up applied in SCM models in most countries is typically between 25-30 percent. The following daily labour costs including uplift of 25 percent are used for each country: CZ 81, CY 149, UK 288, DK 321, HU 69, LV 47, LT 52, PL 67, RO 39, SE 312, NO 361, EE 71, ES 149, FI 264, FR 261, IT 221, NL 309, PT 110, SK 64, SL 127, DE 258.

Cost per participant of centralized purchasing

We find that, CPBs acting on behalf of only one entity have a higher overall cost than the organisations acting on behalf of between one and five entities. This is unexpected since the CPBs acting on behalf of more companies tend to be larger organisations. There is only a small difference in the total cost of organisations acting on behalf of between six to ten and more than ten entities

If we look at the organisations' total cost divided by the number of participants in the contract, we find that there is an opportunity to achieve economies of scale. Aggregating more than one contract into a centralized purchase lowers the average cost per contract and will hence increase the opportunity to achieve economies of scale.

Exhibit 4-13: CPBs cost (in thousand euros)

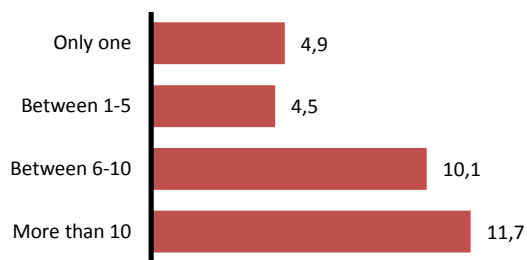
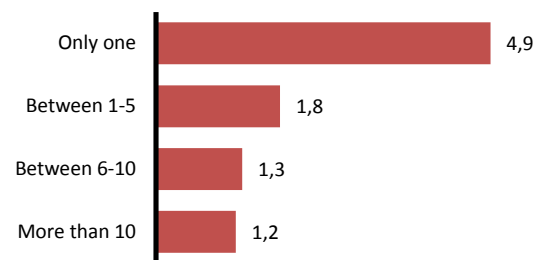


Exhibit 4-14: Cost per participant in the contract (in thousand euros)



Source: Proprietary survey with 450 respondents; Team analysis

4.3.2 Framework agreements

Cost by country

To analyse the cost of framework agreements we first look at the total cost for the authorities/entities of framework agreements, including both person-days of staff time used to establish a framework agreement and to conclude a call-off to the supplier under the agreement. We only look at the cost for the authorities/entities of establishing a framework agreement.

When calculating the total cost for framework agreements we find that the first year average total cost of framework agreement is 17.600 euros. This is close to three times the cost of a centralized purchase contracts (average cost of a centralized purchase is 6.700 euros).

Norway and UK top the list with respectively a cost of 25.800 and 21.600 euros on average for a framework agreement. This is mainly due to their high labour cost in the countries, but also, to some extent, the above average person-days spent on each framework agreement. UK is closely followed by Slovenia and Sweden. Not surprisingly, in the low range we find lower wages countries.

The picture does not change much if we only look at the total cost of establishing a framework agreement. UK, Slovenia and Norway still top the list, while the low-wages countries, such as Estonia, Romania and Hungary, are situated in the lower range.

However, when looking at the first year total cost of framework agreements per request we find that the average cost per request is 3.000 euros. Only four countries have total cost per request over the average of all. France, Poland, Denmark, and UK have all total cost per request over 3.000 euros while the rest of the countries have total cost per request of less than 3.000 euros.

Exhibit 4-15: Total cost of a framework agreement (in thousand euros)

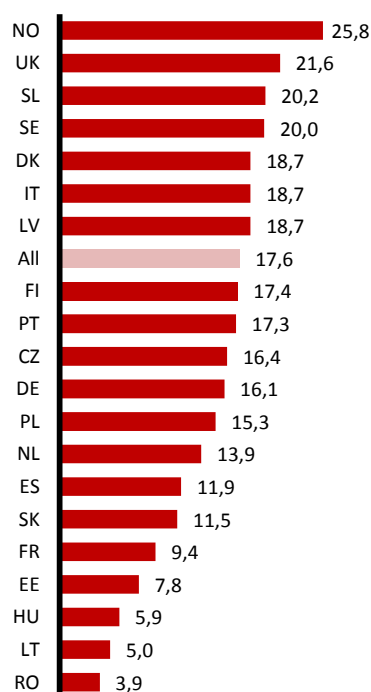


Exhibit 4-16: Cost of establishing a framework agreement (in thousand euros)

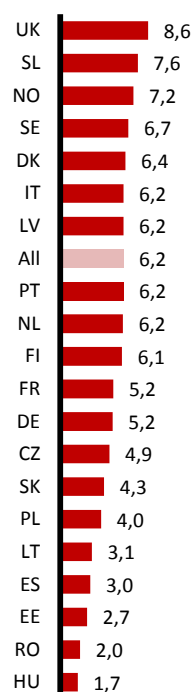
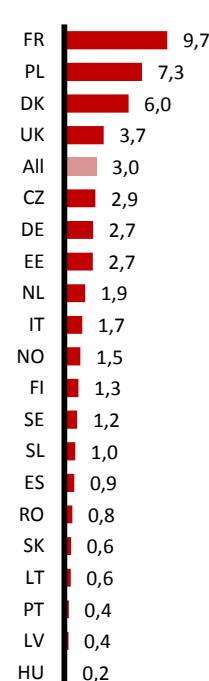


Exhibit 4-17: Total cost of framework agreement per request (in thousand euros)



Source: Proprietary survey with 748 respondents; Team analysis

Cost by number of requests

When calculating the average cost of the framework contract, the total cost is spread among the multiple requests throughout one year. We find that the most expensive contracts are those with more than 50 yearly requests. The contracts with a large number of yearly requests are also the contracts with the highest value. We also find that the cost per request is decreasing with more requests until more than 50 yearly requests. Framework agreements with more than 50 yearly requests become more expensive than contracts with between one and fifty yearly requests⁸¹.

Exhibit 4-18: Total cost of a framework agreement according to number of yearly requests (median, in thousand euros)

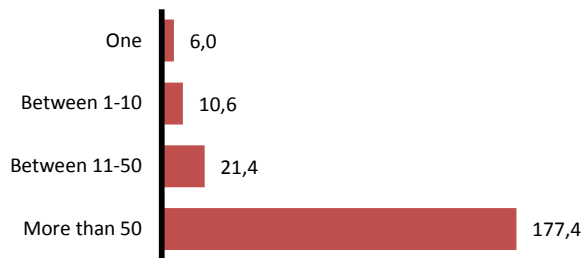
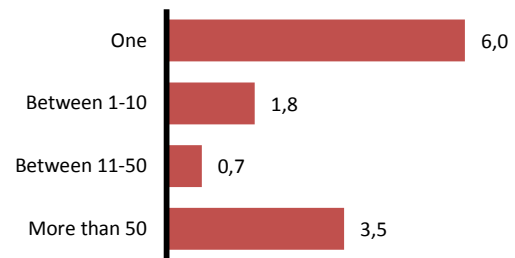


Exhibit 4-19: Total cost of a framework agreement per request (median, in thousand euros)



Source: Proprietary survey with 748 respondents; Team analysis

⁸¹ It is based on an average cost of 50 requests.

Cost of different types of calls⁸²

The analysis indicates that the first stage of a framework contract involves an average cost of 6.231 euros⁸³. There is some variation with regards to the selected second stage award schemes being used. The analysis indicates that the cost of setting up a mini-competitions framework agreement is close to twice as expensive as setting up a discretionary framework agreement.

After the framework contract is established, there are calls under each agreement. The calls can either be done through an agreement of, mini-competition, cascade, discretionary selection between suppliers, through a one supplier framework, rotation, or random selection. Each individual contract has much lower cost because most of the administrative elements of the tender are no longer required.

When we look at the different award schemes, there is variation among the cost. Cascade and mini-competitions exhibit somewhat higher process costs, while schemes like one-supplier framework and discretionary seems to be the cheapest forms. Note that the cost related to the use of the cascade scheme is high due to the registration of several high value call-offs. The average cost of the use of framework agreement is 15,8.

Exhibit 4-20: Total cost of establish a framework agreement (median, in thousand euros)

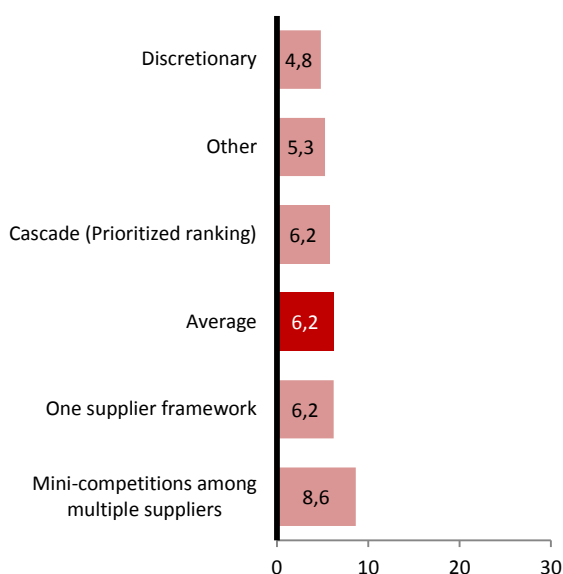
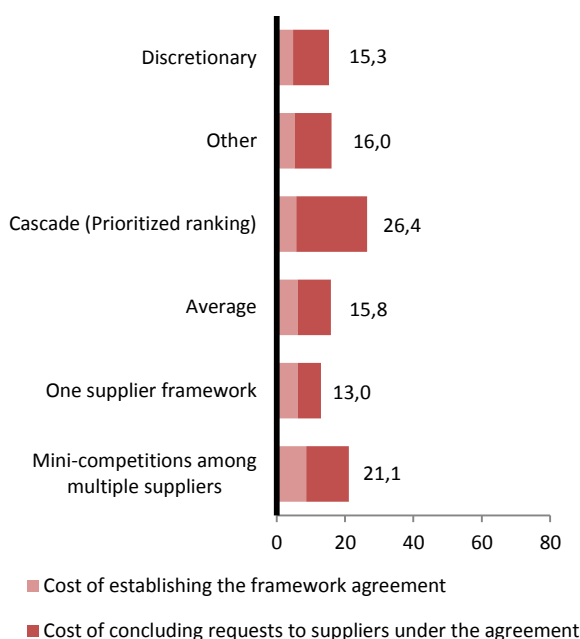


Exhibit 4-21: Cost according to different types of calls (median, in thousand euros)



Source: Proprietary survey with 748 respondents; Team analysis

⁸² Random and Rotation second-stage award schemes are taken out of this analysis due to few data on award schemes.

⁸³ Median cost of establish a framework agreement.

Maximizing aggregation over time – four years

The maximum permitted duration of a framework agreement is four years. This four-year rule exists to ensure that EU public procurement markets are opened up periodically to competition. If the contract authority use the maximum duration of the framework agreement it will save even more costs compared to an average procurement since the cost of establishing the contract are covering more call-off over a longer period of time.

When finding the process cost of framework agreements over the maximum duration of four years, we have used the person-day cost reported by the respondents and the average number of call-offs over one year, aggregating up to the maximum length of four years.

Exhibit 4-22: Total cost of a framework agreements with a duration of four years (median, in thousand euros)

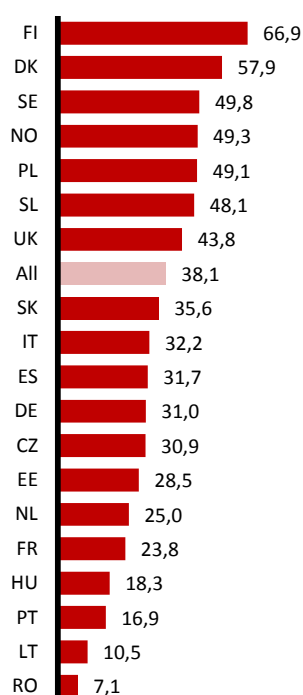


Exhibit 4-23: Yearly cost of a framework agreements with a duration of four years (median, in thousand euros)

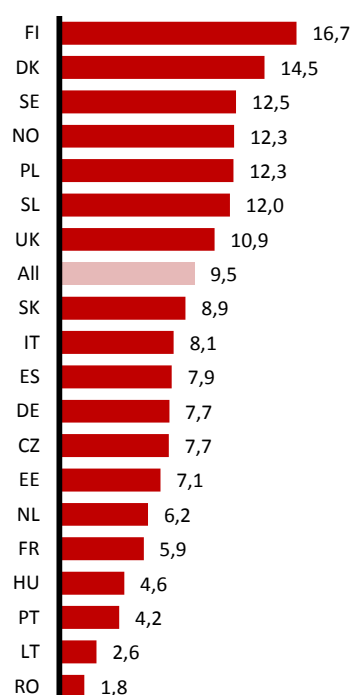
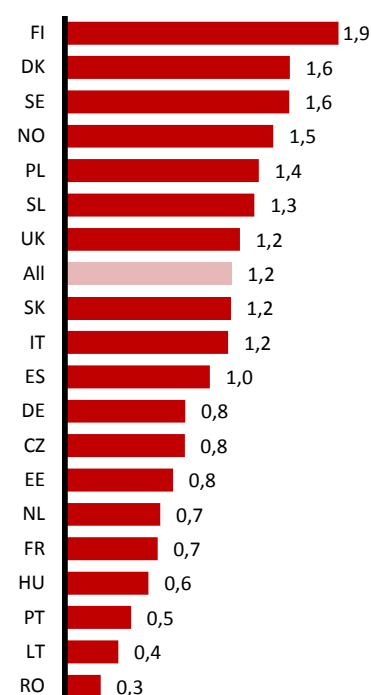


Exhibit 4-24: Total cost per request of a framework agreements with a duration of four years (median, in thousand euros)



Source: Proprietary survey with 748 respondents; Team analysis

The total cost of a framework agreement in the EU with duration of four years is 38.100 euros. This accounts for an average annual cost of 9.500 euros. However, from Exhibit 4-22 and Exhibit 4-23 we can see large differences between the countries. Finland has the highest cost of using a framework agreement over the maximum duration, closely followed by the other northern countries due to their higher daily rates. Romania, Lithuania, and Portugal have the lowest process cost of using a framework agreement with duration of four years.

When breaking the process cost down to cost per request we found an average cost of 1.200 euros per request of a framework agreement over the maximum duration of four years for all the countries.

4.3.3 The effect of aggregation on realised savings

When analysing the typical costs of different aggregation techniques against typical procurement costs, we have used the median values. We have estimated the unit costs by dividing the total cost of a framework agreement with a maximum duration with the average number of requests under the agreement. Similarly, we have divided the total cost of a centralized purchase with the average number

of participants in the contract, giving the average cost per authority. However, the cost of centralized procurement does not include the cost of implementing the contracts for all the authorities participating. By doing this we can analyse the effect of aggregation on savings.

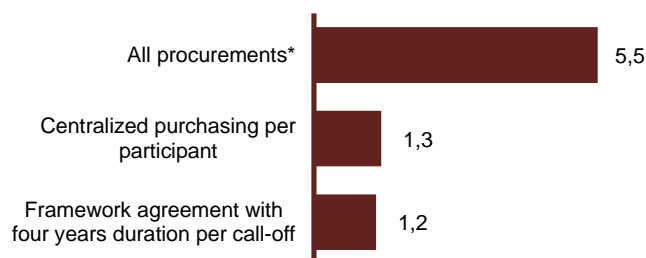
There are large differences between the different aggregation techniques and a typical procurement. A typical procurement has a cost of 5.500 euros⁸⁴ for the CAE involved. This is more than the cost of both framework agreements and centralized purchases. Centralized purchasing has an average cost of only 1.300 euros while framework agreement has an average cost of 1.200 euros.

Even though framework agreements appear to be most commonly used in high wage countries, it seems to offer savings opportunities. Framework agreements are closely followed by centralized purchasing with only 100 euros difference. The CAEs have potential to save cost by using techniques for aggregating demand.

It is important to be aware that the cost of centralized procurement includes the pre-award process including the award itself, but does not include the cost of post-award activities like implementing and operating the contract for each of the authorities involved in the centralized procurement. Experience from implementation of centralized awarded contracts shows that each participating authority has to allocate some local resources to administer and implement the agreement. These implementation costs are not implemented in the calculation above. Other local post-award costs e.g. integration with local financial or ICT systems are not included in the calculations. Hence, we will expect the cost to be higher for these contracts. The level of these post-award costs will vary from each authority.

The cost of framework agreement will decrease with the time duration of the contract. The cost of the framework agreement the first year is 3.000 euros compared with a framework agreement with the maximum duration of four years with a cost of 1.200 euros.

Exhibit 4-25: Average cost per CAE of one procurement with different techniques of aggregation (in thousands euros)



Source: Proprietary survey with 1.198 respondents; Public procurement in Europe, Cost and effectiveness, 2011; Team analysis

⁸⁴ Estimated cost of all procurements from Public procurement in Europe, Cost and effectiveness, 2011

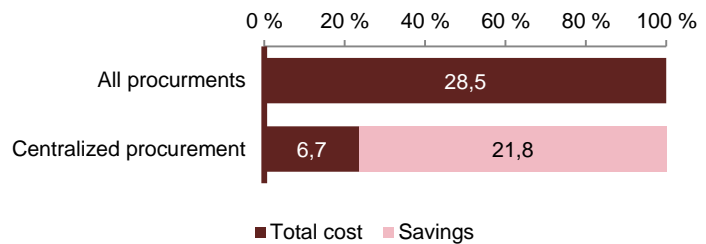
Possible savings for CAEs only

When estimating the total savings of using centralized procurement and framework agreement for CAEs, we compare the use of centralized procurement against all procurement and then calculate the potential comparing costs of framework agreement with all procurements. The typical procurement has a cost of 5.500 euros⁸⁵ for the CAE involved.

1. Using centralized procurement

To calculate the comparable cost of all procurement with centralized procurement we found the number of typical contracts a centralized procurement contract can replace. A proxy for this number is the average number of authorities that are included in a centralized procurement contract. We calculate the cost of centralized procurement (1.300 euros) with the average number of participants (5,2). Also, we calculate the average total cost of all procurement with the average numbers of participants of a centralized procurement contract (5,2). Doing this we find that all procurement has a total cost of 28.500 euros while the total cost of centralized procurement has a total cost of only 6.700 euros.

Exhibit 4-26: Total cost of all procurements compared with centralized procurement (in thousand euros)



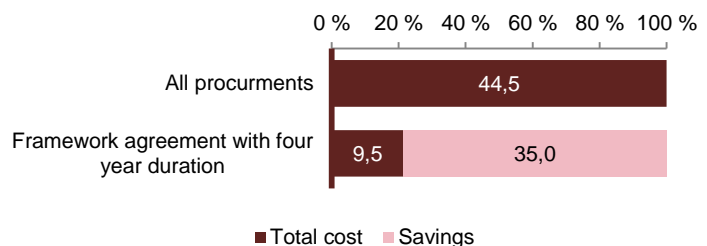
Source: Proprietary survey with 450 respondents; Team analysis

When comparing the total cost of all procurements with the total cost of centralized procurement we find that the CAEs have the potential to save around 80 percent of the process cost attached to awarding the contracts if using centralized procurement instead of typical procurement contracts for each of the CAEs

2. Using framework agreements

To calculate the comparable cost of all procurement with framework agreement, we found the average number of call-offs of a framework agreement over the maximum duration of four years to be used as a proxy for the number of typical procurements a framework can replace. Analogous to the comparison of centralized procurement and all procurement we calculated the average cost of framework agreement per request (1.200 euros) with the average number of call-offs (8,1) – giving a total of approx. 9.500 euros. Then, we calculate the average total cost of all procurement (the typical procurement has a cost of 5.500 euros⁸⁶ for the CAE involved) with the average numbers of call-offs in a framework agreement (8,1) to find the total cost of all procurements. Our analysis finds that all procurements have a total cost of 44.500 euros, while the total cost of framework agreements is only 9.500 euros. Based on the calculation the total savings for CAEs using framework agreement compared to typical procurements can be about 80 percent.

Exhibit 4-27: Total cost of all procurements compared with framework agreement with maximum duration 4 years (in thousand euros)



Source: Proprietary survey with 748 respondents; Team analysis

⁸⁵ Estimated cost of all procurements from Public procurement in Europe, Cost and effectiveness, 2011

⁸⁶ Estimated cost of all procurements from Public procurement in Europe, Cost and effectiveness, 2011

4.4 Competition

To assess the level of competition in procurement in the EU we look at the behaviour of the number of bids and different contracts characteristics. The number of bids can be interpreted as an indicator of the strength of competition. We expect that when the competition is strong there will be better procurement outcomes. Further, we expect that high competition will lower the price level. It is also expected that more transparency would give more competition for public contracts. For now, we will concentrate on analysing the level of competition. We will discuss gain and loss of transparency in the public procurement process in chapter 4.7

When analysing the number of bids we report both median and mean levels. The mean is a less reliable measure of the typical number of offers because it is greatly influenced by a small number of contracts with relatively high number of bids.

Most EU advertised tenders receive between 4 and 6 with an average of 5 bids⁸⁷. One in five tenders receives only one bid. The averages for the open and for the restricted procedures are higher, indicating that these procedures attract more competition than negotiated procedures, and this is not surprising as the access to the negotiated procedure is conditional.. We also find that framework agreements and centralized purchasing attract more bids.

Exhibit 4-28: Number of bids for framework agreements by year (mean and median)

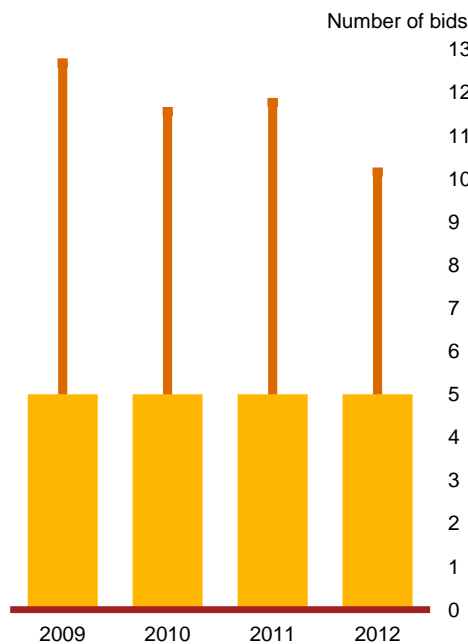
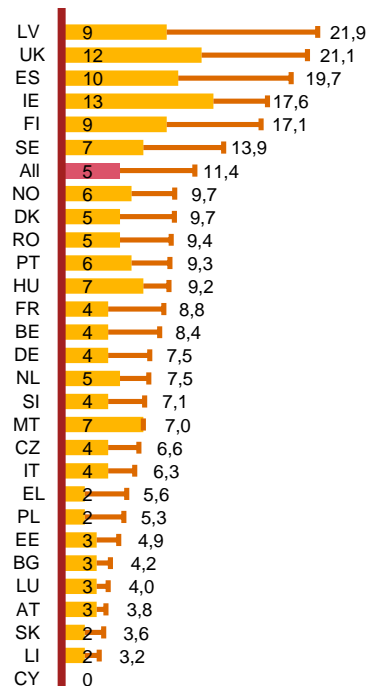


Exhibit 4-29: Number of bids for framework agreements by country: 2009-2012 (mean and median)⁸⁸



Sources: The TED database; Team Analysis. Note: Bids calculation with 1 percent of awards with highest bids excluded.

First stage competition of a framework agreement is more intense than average. The first stage of framework agreements is possibly the most competitive tool in the European procurement markets. The average (mean) number of bids in some countries exceeds 20. The median for the region is 5 with a mean value above 10 and with an average of 11,4 for the period. This is one more bid in average

⁸⁷ Median number of bids for all procurements in Europe, 2011

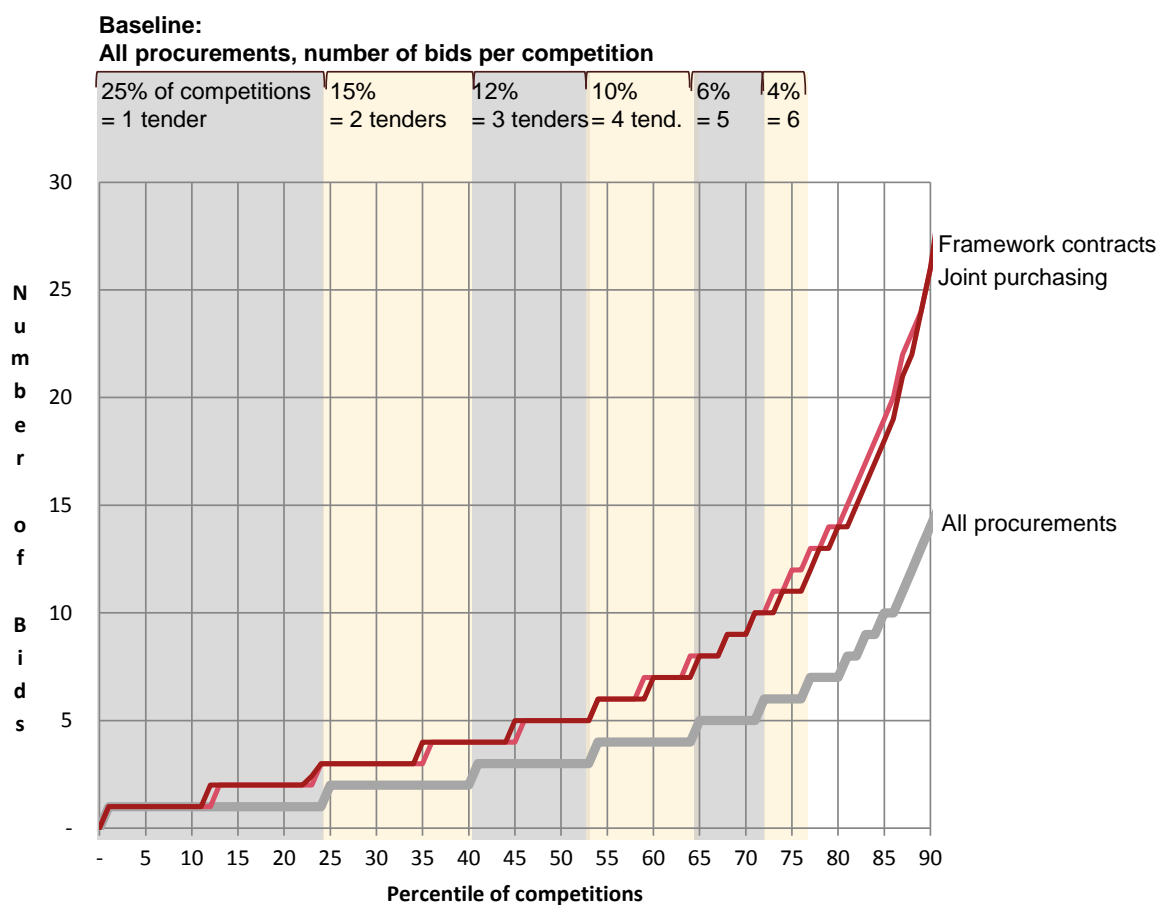
⁸⁸ Lithuania and Iceland are taken out of this exhibit due to uncertainty in the data

than for the average procurement, meaning that framework agreement aggregate more competition than an average procurement contract.

There are also large differences between Member States. The number of bids received varies dramatically between groups of countries. While the top group receives an average of eight or more bids for each invitation to tender, the bottom group only receives three or less. Such large differences in degree of competition could significantly affect the outcomes of public procurement procedures.

When analysing the percentile distribution of bids, it becomes even more apparent that frameworks are highly competitive. 25 percent of contracts are awarded in Europe without competition. For frameworks the percentage is less, at about 10 percent. Competition stays more intense throughout the percentile distribution of competitions. 20 percent of framework contracts are awarded on the basis of more than 15 bids.

Exhibit 4-30 Percentage of competition per type of procurement



Source: The TED database; Team Analysis

The nature of the contract may however differ from open contracts. First, framework contracts may not specify all requirements up front. As such, a competition may be more about demonstrating general experience and qualifications and less about specificity. While this could entail that such competitions are simpler and less of a burden on suppliers than regular competitions, we have earlier found that framework competitions, at the 1st stage, are more costly for firms than the average contract.

The first stage of framework agreements is a competition in line with the general rules in the EU. This includes publications, timelines and other requirements as for any other procurement above the EU threshold level.

The second stage is more varied and is depending upon the selected methods for call-offs in the framework. There could be one or more suppliers, and there could also be a prioritized call-off schedule (cascade). The different mechanisms have great impact on the degree of competition. The specific requirements for call off competitions are not specified and leave a great deal of flexibility to the CAE.

Second stage competition processes is regulated in less detail than the first stage and are therefore more flexible. In principle, the award scheme can use a wide range of mechanisms as long as they are determined in advance, that is that the terms are made clear to participants during the tender process for the master framework agreement. There are little, if any, specific regulations as to how the second stage awards should be conducted. Basic principles of transparency, traceability and non-discrimination will apply, but there are no detailed provisions for i.e. notice periods, nature of competition, etc.

There exist several methods aligned with the general principles to carry out the second stage competition. Where the framework agreement is awarded to one provider, the purchasing authority can call-off the requirement from the successful supplier when it is needed and there is no competition. Where the framework is awarded to several suppliers, there are mainly two ways to carry out a call-off.

- If the terms laid out in the framework agreement are detailed enough for the purchasing authority to be able to identify the best supplier for that particular requirement, then the authority can award the contract without re-opening competition. This can be done through a prioritized call-off schedule (cascade), rotation, discretionary or random.
- However, if the terms laid out in the framework agreements require a mini-competition, the competition should be held with all suppliers within the framework agreement capable of meeting the particular need. The mini-competition scheme will take advantage of the actual market dynamic between the selected suppliers.

The CAE sets a time limit according to the complexity of the call-off. The authority should award the contract to the supplier who fulfils the criteria and has the economically most advantageous tender or offers the lowest price.

When analysing the second step of framework agreements it becomes clear that there is less competition in this phase compared to the first phase of establishing the agreement. Only 1 of 5 framework agreements opens up for competition among suppliers through mini-competitions. The share is considerably higher for works contracts where it reaches 37 percent. Overall, there is no competition in about 80 percent of all call-offs in framework agreements.

Exhibit 4-31: Types of award schemes⁸⁹ used in the second stage of framework agreements (percent of total)

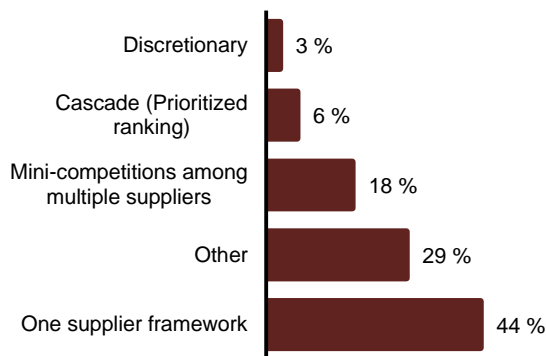
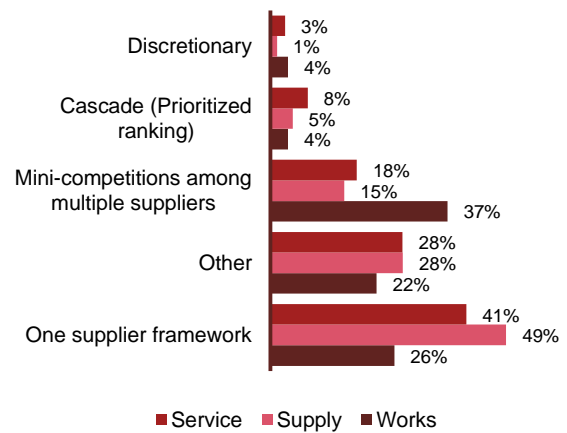


Exhibit 4-32: Types of award schemes⁹⁰ used in the second stage of framework agreements amongst types of contract (percent of total)



Source: Proprietary survey with 748 respondents; Team analysis

Nearly half (44 percent) are one-supplier frameworks. This is more prevalent in supplies contracts. Nearly a third are categorized as other, meaning some other mechanisms (in many cases variations of the main mechanisms shown in the figure).

Framework agreements with competition has in average (median) a higher value than non-competition. Especially cascade, prioritized ranking, stands out. While the other methods have an average (median) value of between 440 000 euros, cascade has an average (median) value of 2,7 million euros.

Exhibit 4-33: Value of contracts with competition (mean and median)

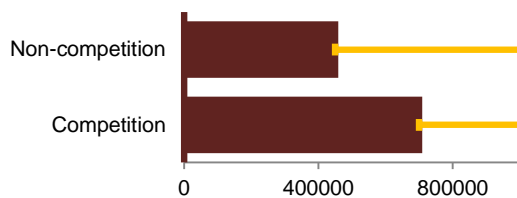
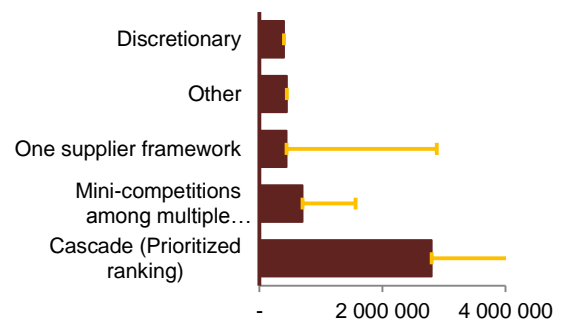


Exhibit 4-34: Value among types of contracts⁹¹ (mean and median)



Source: Proprietary survey with 748 respondents; Team analysis

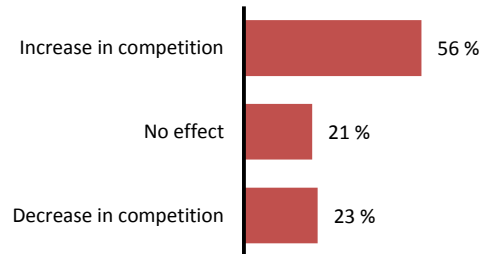
⁸⁹ Random and Rotation second-stage award schemes are taken out of this analysis due to few data on award schemes.

⁹⁰ See footnote 87.

⁹¹ See footnote 87.

Also, the use of **framework agreements** leads to an increase in competition according to a small majority of the interviewees. The main reason behind this increased competition is the increased value of the procurement under framework contracts. A quarter of the interviewees see no differences, while another quarter of the interviewees believe demand aggregation lead to a reduction of competition. This latter group mainly points to administrative burdens that accompany framework contracts, which leads to a reduced interest from competing firms.

Exhibit 4-35: The effect of the use of demand aggregation techniques, like framework agreement, on the level of competition



Source: Proprietary survey with 215 respondents; Team analysis

The question of whether use of framework contracts leads to market barriers received a mixed opinion. About half of the interviewees see no increase in barriers, while the other half indicated increased market barriers as a result of higher contract values, which often lead to stronger selection criteria and higher administrative burdens. Also a temporary foreclosure of the market for companies that did not qualify for the framework was identified as a potential market distortion. It was noted that the issue of foreclosure particularly plays a role for framework contracts on national levels. For framework contracts on a regional level, the situation under a framework agreement is often comparable to the alternative situation where a single supplier has a long-term contract.

Centralized purchasing reflects almost exactly the same pattern as framework agreements. Recall that the two techniques are not mutually exclusive. Nearly half of centralized purchasing contracts are framework agreements.

Exhibit 4-36: Number of bids for centralized purchasing agreements by year (mean and median)

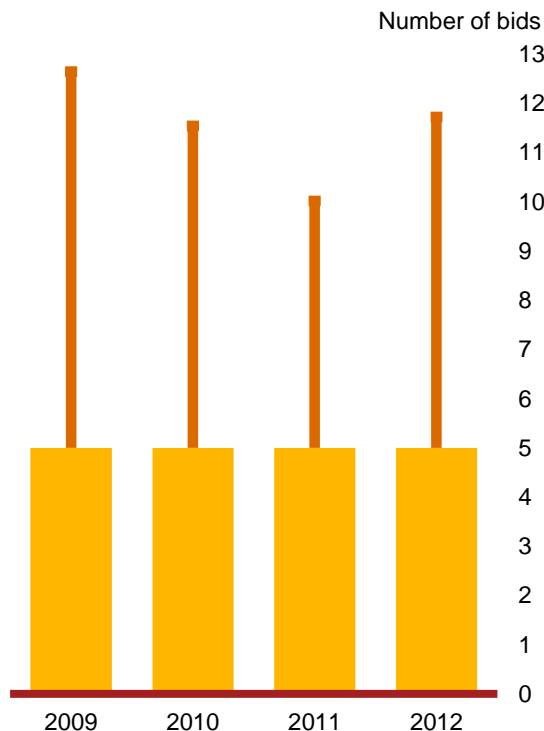
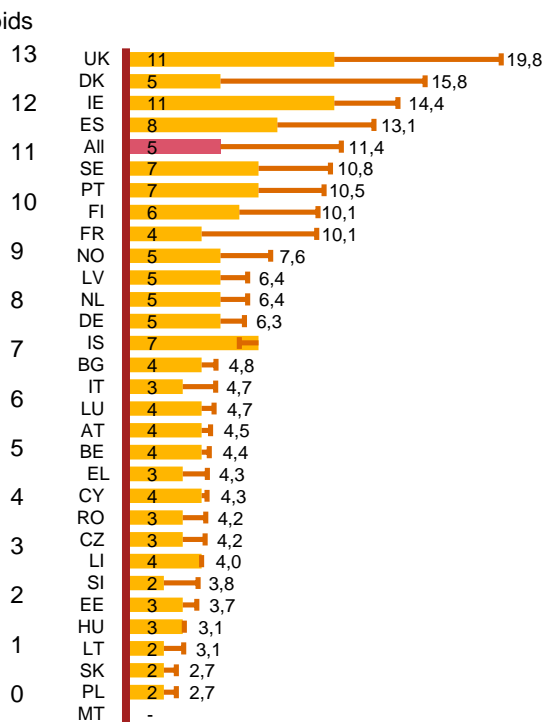


Exhibit 4-37: Number of bids for centralized purchasing agreements by country (mean and median)



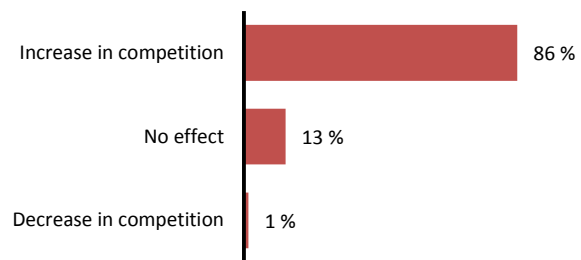
Sources: The TED database; Team Analysis. Note: Bids calculation with 1 percent of awards with highest bids excluded.

Like framework agreements, centralized purchases are more intense than the average procurement contract. These contracts have an average number of bids of 5 (median) and are like framework agreement a competitive tool in the European procurement markets.

However, the average (median) number of bids varies between an average of two and eleven bids across the region. Not surprisingly, UK tops the list. As mentioned in chapter 3, centralized contracts are high in value especially in UK high value contracts attract more bidders resulting in more bids per contract. More than half of the countries have a lower average of bids on centralized procurement than the average procurement in Europe.

Also, the use of CBPs leads to an increase in the level of competition according to 86 percent of the interviewees. Only one percent means that the use of CBPs will decrease competition. Large procurement volumes, offered by CBPs, will normally increase competition in the market, affecting prices and other terms in ways that are favourable to the purchaser. An individual authority will rarely have a procurement volume large enough to generate prices that are comparable to those obtained in a situation where an aggregation of needs among many procuring entities has been made. The potentially large sales volumes that can be expected under centralized procurement mean that economies of scale can be exploited by economic operators.

Exhibit 4-38: The effect of CBPs on the level of competition



Source: Proprietary survey with 215 respondents; Team analysis

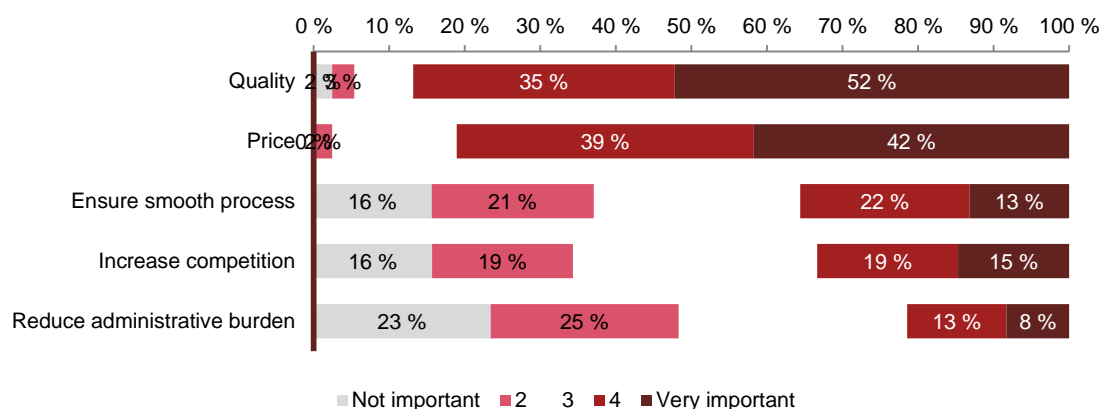
It should be noted that arguments against centralized purchasing has also been raised. Large volumes may also restrict competition by favouring larger supplier rather than small suppliers. As discussed in chapter 2, the SMEs opportunities to participate in larger tenders also fall within this category of small suppliers. We will come back to how centralized purchasing affects the competition for SMEs.

4.5 Potential gain/loss in quality by use of market aggregation

This section looks at the quality of procurement procedures. Authorities attribute high importance to quality in the procurement process. A large majority of entities do not see any disadvantages in the use of a centralized procurement or framework agreement, and believe that aggregation of demand can deliver benefits through better quality management information. Most of the identified disadvantages are related to the addition of an extra layer (the CPB) in the procurement process. According to the interviewees, this may lead to a slower overall process. Also, the chances of miscommunication increase. The addition of an extra layer can result in a reduced control of the CAE, for example on the extent of involvement of local suppliers or SMEs. More generally, cooperation issues may arise. Interviewees have indicated the need to compromise on their wishes, especially were the CPB had a framework agreement in place that did not suit the needs of the CAEs. Finally, CAEs have pointed out that the use of a CPB means that there is no know-how developed within the CAE, resulting in an increased dependency on the CPB.

The two main objectives of procurement that were mentioned by interviewees are achieving the best quality and lowest price. Achieving the best quality was considered as the most important aspect for in the procurement with 87 percent of the interviewees rating quality as important to very important. Only 5 percent considered it not important (not important and little important). The importance of reduction of administrative burdens, increasing competition or ensuring a smooth process received a more mixed view from the interviewees, with a majority taking a neutral view on these objectives and roughly similar share of interviewees labelling the object as important or not important.

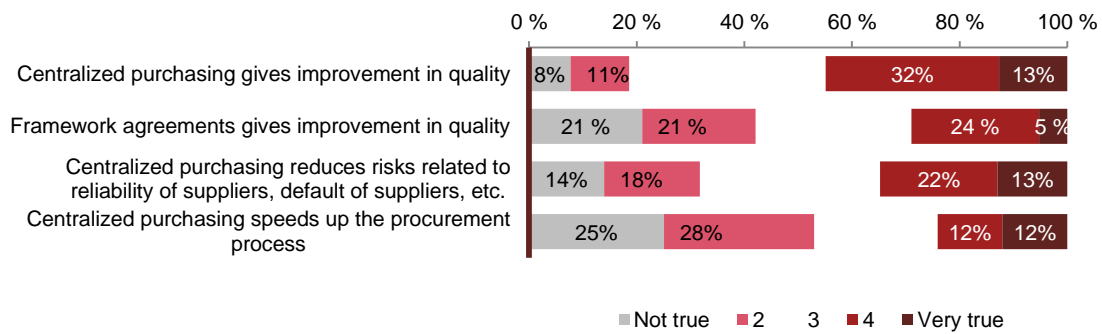
Exhibit 4-39: Importance of various qualitative aspects of market aggregation in procurement



Source: Interviews with 215 respondents

We also found that between 45 percent and 29 percent of respectively the entities and CAEs stated that centralized purchasing and framework agreement gives improvement in quality of the level of procured works, goods, or services. Also, the standardisation of procedure is considered to be a contributing factor to the effect. 35 percent of the authorities felt that centralized purchasing reduce the risk related to reliability of suppliers, default of suppliers, etc. However, only 24 percent stated that centralized purchasing speeds up the procurement process.

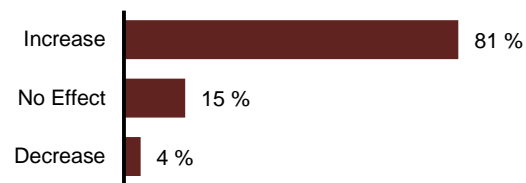
Exhibit 4-40: Qualitative aspects of centralized purchasing



Source: Proprietary survey with 450 respondents; Team analysis

We also asked the interviewees about the effect of CPBs on quality of procurement. More than 80 percent believe that involvement of a CPB leads to an increase in the quality of the procured works, goods or services. The main driver behind this result is the expertise and professionalism available at the CPB. Also, standardisation of procedures is considered to be contributing to the effect. Only 4 percent of the interviewees stated that involvement of a CPB leads to a decrease in the quality of procured works, goods or services.

Exhibit 4-41: Effect of CPB on quality



Source: Interviews with 215 respondents, Team analysis

4.6 Potential gain/loss in compliance

On compliance, 86 percent of the respondents believed that the level of compliance increased due to involvement of a CPB. Especially the development of expertise at the CPB plays a role in this respect. Their professionalism i.e. dedicated legal departments and procurements experts may be an additional driver for the increased level of compliance at CPBs.

We will address two risk elements related to compliance. First the risk of breach of procurement legislations and internal routines and second the risk of breach of compliance to the awarded contract. The respondents' comments in the survey will be the main source for the discussion below.

Compliance to legislation, internal rules and procurement procedures

The 86 percent response on increased compliance indicates that the CAEs expect high level of professionalism from the CPB. It is argued that due to the professionalism and increased compliance the poor suppliers will weed out and as such secure deliverables during the contract period. It is also reported that increased visibility and standardization of processes have positive effects on the compliance.

On the other hand some reports that the formalities increase with coordination (the administrative burden and paper work) and combined with too detailed specifications this might effect and reduce the competition. In the long run some are sceptical about the cost level at the CPB due to all the formalities and paperwork. Process cost may increase.

In addition some CPBs have procurement processes quality assured or certified from monitoring agents. Some CPBs are even certified according to ISO-standards and have their own internal auditor for the monitoring of compliance according to legislation and internal regulations. The use of certified and professional CPBs will contribute to reducing both financial (professional contracts) and reputational risks (breach of procurement laws) for the participating authorities.

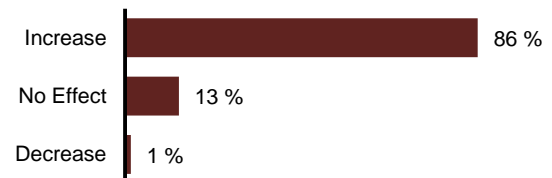
It is recommended to enter into a service level agreement (SLA) between the CPB and participating CAEs to regulate and coordinate activities and clarify the priorities and responsibilities.

Compliance to the CPB awarded contract

In some situations the CPB can be perceived as an additional level (CPBs) between the CAE and the supplier. Some respondents state this as a possible reason for reduced ownership of and compliance to the contract. It occurs that a CPB awarded contract is apprehended by the CAE as too expensive or the selected products/services have too poor quality. To mitigate these risks the CPB and CAEs should collaborate and focus on the implementation and dissemination of the contract clauses among the users in the CAE organisation to ensure ownership and compliance to the agreement. The interviews indicate also that disagreement in the pre-award activities either selection and/or prioritization of award criteria (quality vs. price) in the specification process is a possible area of disagreement and can challenge the users' compliance to the contract. To achieve consensus among several CAEs on these issues, may challenge the work of the CPB. The strategy of selecting CPB should be well implemented in the CAEs organisation and service level agreement (SLA) between each CAE and the CPB should regulate the business relation.

The increase in CPBs use of resources i.e. coordination, of several CAEs is shown in Exhibit 4-2: CPBs total person-day staff time according to number of CAEs acting on behalf of. The exhibit shows that an increase of CAEs to be coordinated from the 1-5 level to 6-10 level doubles the use of resources for the CPB. It is likely that the same approach can be used about ensuring CAEs' use of the contract, though not quantified. It is supposed that the CPBs and the CAEs have to increase the use of resources to ensure local ownership and implementation of the contract, if the number of CAEs increases above 6.

Exhibit 4-42: Effect of CPB on compliance



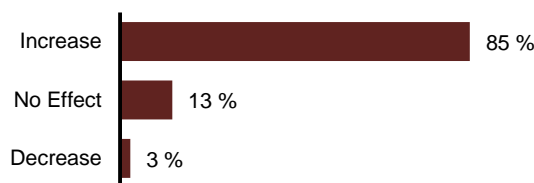
Source: Interviews with 215 respondents, Team analysis

4.7 Potential changes in the level of transparency

Overall, the respondents identified a positive effect on the level of transparency using a CPB. Around 85 percent of the CAEs doing centralized purchasing saw an increase in transparency in the procurement process due to the involvement of a CPB.

The use of eNotification among the CPBs increases their professionalism and it is clearly stated from respondents from different countries that mandatory use of eNotification systems has increased the transparency. Though the rules of the Directives are the same for CPB and CAEs, it seems that the role "to act on behalf of" increases the level of both compliance and transparency compared to the CAEs. This professionalism includes increased legal certainty as a main advantage resulting from the improved expertise at the CPB.

Exhibit 4-43: Effect of CPB on transparency



Source: Interviews with 215 respondents, Team analysis

As discussed earlier in this report the value of the contract increases by the use of CPBs. It is also a notion that higher value contracts tends to promote the need for greater transparency, exemplified by the proper and more organized administration of paperwork and the swift response to tenderers to supply documents if any supplier asks.

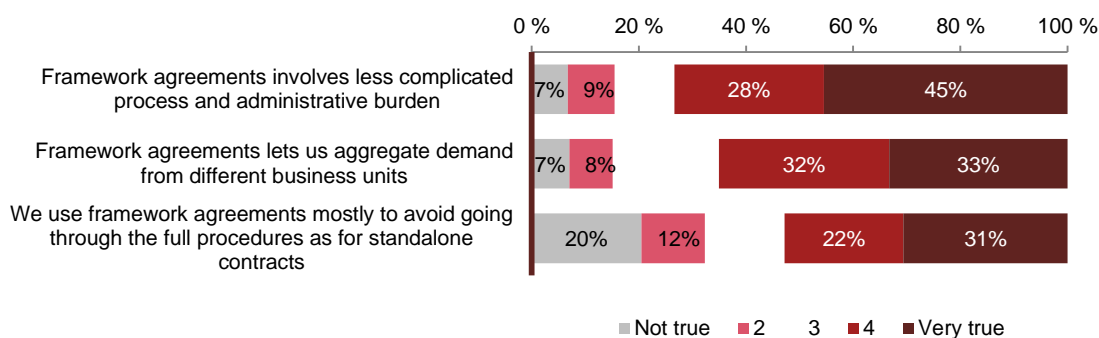
Some nations have introduced legislation or control mechanisms for monitoring the compliance of the procurement legislation. These "watchdogs" are reported to have an educational effect on the transparency. Summarized the use of CPBs is reported to have a significant impact on the transparency.

Increased use of framework agreements – effect on transparency

As reported in chapter 3.4.2, about 23 percent of contract awards in Europe is through framework agreements. The use of frameworks has increased in the past years and especially since 2009.

Close to 75 percent of the authorities argue that framework agreements involve less complicated process and administrative burdens and more than 50 percent use framework agreements as a tool to avoid going through the full procedure as for standalone contracts.

Exhibit 4-44: Aspects of framework agreement



Source: Proprietary survey with 748 respondents; Team analysis

The Exhibit 4-44 is confirmed by the respondents with the following comments:

"The use of framework contracts allows more flexibility and reduces time administrative effort and costs. Another advantage is the reduction of tendering cost, having to go through the tender procedure once rather than several times. Furthermore, the use of framework contracts supports the close work between client and contractors with a mutual continuous improvement in the long term."

"The flexibility provided; the ability to behave as a commercial buyer in the market; administrative costs are saved; better value of money; adaptation according to the product and the market; it is easier to apply uniformly social, environmental and SMEs support policies; better communication between buyers and sellers."

"Competitive framework contracts lead to the right price. They give flexibility and security against companies going bankrupt for example."

"Standardize contracts across large geographical area ensuring firms can deliver where we need the goods/services ensuring entry for SME's into contracts in line with national policy."

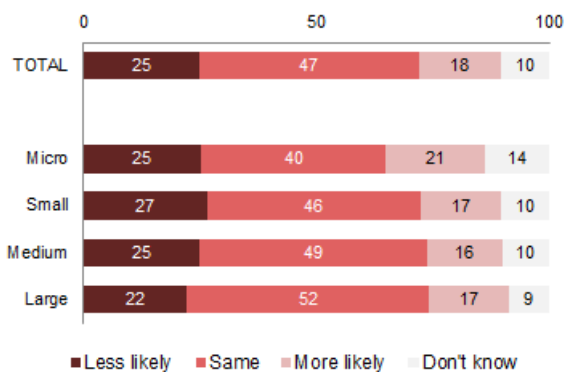
Generally the use of CPBs increases the transparency. On the other hand with the development in the use of framework agreements (broader use, larger contracts and increased competition in stage 1, combined with limited or no competition in stage 2, (44 percent one-single supplier award scheme) with no required award notice for call-offs, the transparency will be reduced, and there is the responsibility of the CPB and CAE to ensure the transparency that the call-offs are within the limitation and scope (amount and type of goods/services/works) of the awarded framework agreement.

4.8 Aggregation and impact on SME market access

The online survey among enterprises tendering for public procurement contracts addressed the topic of views on different aggregation techniques related to the market access for SMEs. The results from the survey suggest that tenderers are only marginally less active in pursuing framework agreements opportunities than bidding for single contracts. Most of the companies (47 percent) reported no preference over bidding for framework contracts as oppose to single contracts. 25 percent of the companies reported that they are less likely to bid for framework agreements, compared with 18 percent of respondents who are more likely to bid. These figures do not vary greatly depending on the class size of the company. (See Exhibit 4-45)

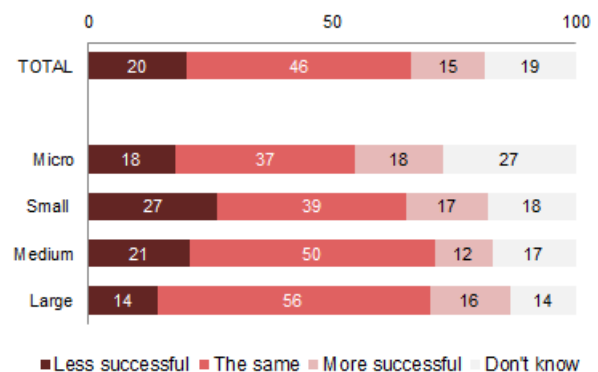
There is also little difference between the overall successfulness of tenderers in winning framework agreements vs. single contracts. 46 percent of respondents did not perceive any difference in the success rate, whilst 20 percent are less successful and 15 percent are more successful in bidding for framework agreements than for single contracts. However, when looking at the success rate of bidding for the framework agreements, statistically significant differences between different company class sizes may be observed⁹²: SMEs report to be less successful in bidding for framework contracts than large enterprises.

Exhibit 4-45: The likeliness of bidding for framework agreements as opposed to single contracts by size class (percent)



Proprietary survey with 1,353 respondents

Exhibit 4-46: The success rate of bidding for framework agreements as opposed to single contracts by size class (percent)



Proprietary survey with 1,345 respondents

Note: Percentage missing from 100 percent = "Don't know"

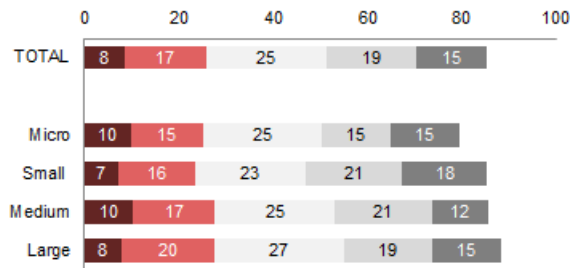
Views were mixed about possible practical advantages of framework agreements. They are seen as being cheaper, less complicated, imposing a lower administrative burden upon tenderers, and giving more flexibility than single contracts. Less than a third of the surveyed companies agreed with these advantages; the majority of surveyed enterprises were neutral or disagreed, without significant differences between enterprise size classes.

On average, only 25 percent of the survey respondents agreed fully or partly that bidding and managing framework agreements is cheaper for them; 25 percent said that framework agreements are less complicated. 27 percent held the view that administrative burden under framework agreements is lower, and 29 percent agreed that working under framework agreements gives them more flexibility. (See: Exhibit 4-47)

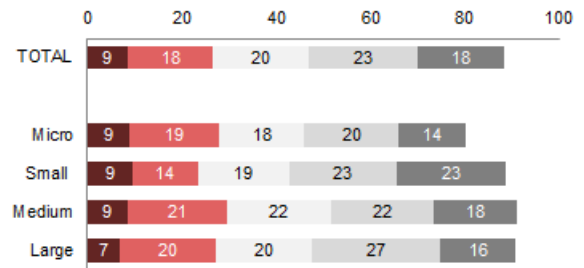
⁹² Statistical significance was calculated using Fisher's exact test and Chi square test.

Exhibit 4-47: Views of survey respondents on perceived advantages of framework agreements (percent)

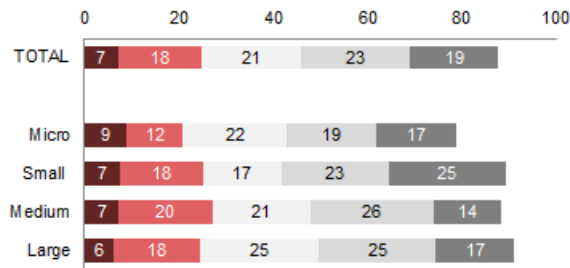
'Bidding for and managing framework agreements are cheaper'



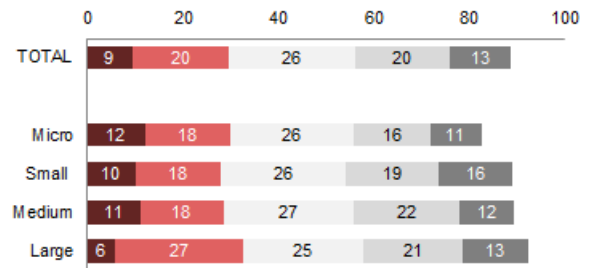
'Administrative burden under framework agreements is lower'



'Procedures under framework agreements are less complicated'



'Working under framework agreements gives us more flexibility'



Note: Percentage missing from 100 percent = "Don't know"

■ Fully agree ■ Rather agree
■ Neither agree nor disagree ■ Rather disagree
■ Fully disagree ■

Differences between different enterprise size classes become notable in the barriers to participation framework agreements. In general, micro- and small enterprises more frequently agreed that the level of technical capacities, the mix of skills and capabilities and the level of financial capacities required under framework agreements are too high (and the difference is statistically significant).

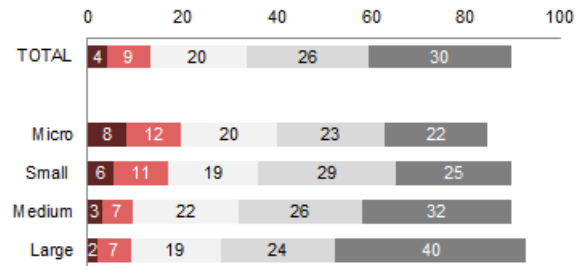
20 percent of micro-enterprises and 17 percent of small enterprises agreed fully or partially that technical capacities required for framework agreement are too high, compared to only 10 percent of medium-sized enterprises and 9 percent of large enterprises.

Micro- and small enterprises were also more likely to agree that the mix of skills and capabilities required for framework agreement is too broad. 20 percent of the micro enterprises agreed or fully agreed with the statement as opposed to only 9 percent of large enterprises.

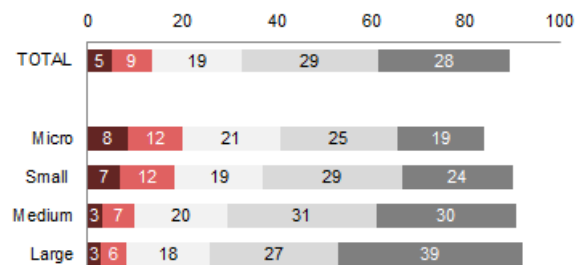
The largest volatility of opinions on barriers to access was observed when asked about the financial qualification levels required for the framework agreement. 38 percent of the micro enterprises and 29 percent of the small enterprises agreed or fully agreed that financial qualification levels required for framework agreement are too high. In contrast, only 6 percent of large enterprises and 12 percent of medium enterprises viewed this as an obstacle. The differences are statistically significant.

Exhibit 4-48: Views of survey respondents on access barriers to framework agreements (percent)

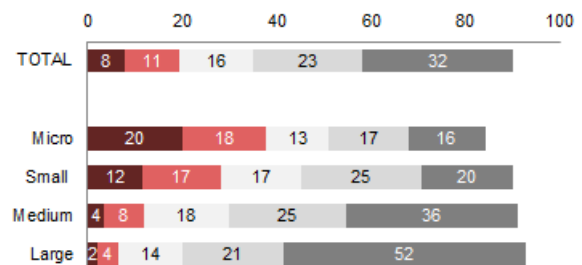
'Level of technical capacities required for framework agreements is too high'



'Mix of skills and capabilities required for framework agreements is too broad'



'Financial qualification levels required for framework agreements are too high'



Note: Percentage missing from 100 percent = "Don't know"

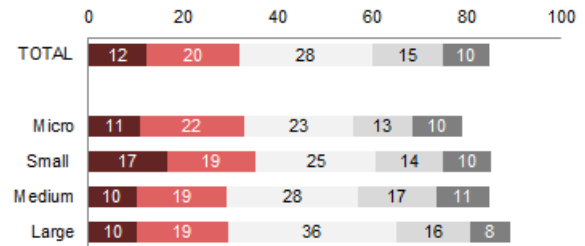
Framework agreements are expected to have a positive effect on competition among shortlisted suppliers for each specific request. The increased competitiveness is expected to result in lower prices and higher quality of goods and services. This is partly confirmed by tenderers' views: in total, more than a third of survey respondents (32 percent) agreed or fully agreed that the competition among shortlisted suppliers is higher. The views of different respondents on the effects on competition were homogenous.

However, fewer respondents (26 percent) thought that the prices offered by the suppliers under framework agreements are lower.

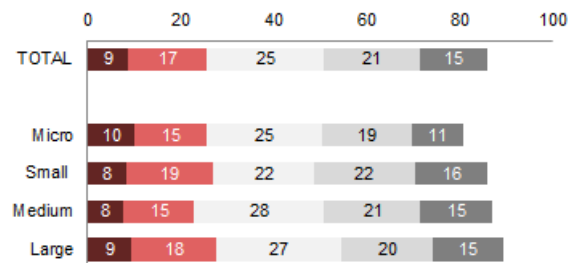
Even lower per cent of the respondents (15 percent) agreed that the quality of goods and services offered under framework agreements is higher. The opinion among different class sizes did not vary greatly.

Exhibit 4-49: Views of survey respondents on market effects of framework agreements (percent)

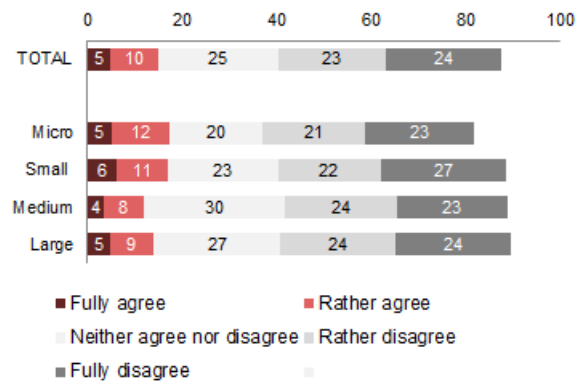
'There is more competition among shortlisted suppliers for each specific request'



'Suppliers offer better prices under framework agreements'



'The quality of goods or services is higher under framework agreements'



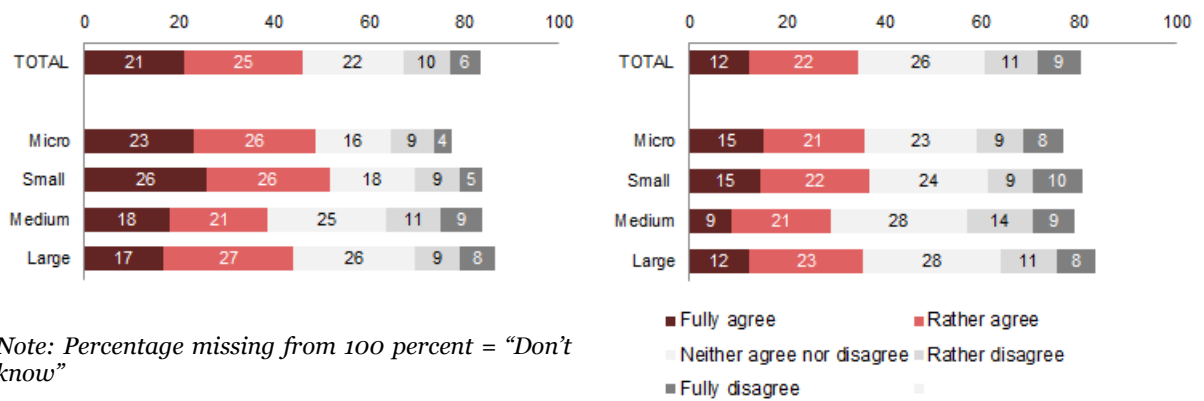
Note: Percentage missing from 100 percent = "Don't know"

Although it could be hypothesised that framework agreements may close the market for several years, which is especially disadvantageous for smaller enterprises not being selected, there are no marked differences in the views on this subject between company size classes. Around half of the respondents (46 percent altogether) agreed or fully agreed with the statement that framework agreements close the market for non-participants more effectively, and no statistically significant differences between smaller and larger companies can be detected. 34 percent of respondents agreed that framework agreements let CAEs aggregate demand at a higher level without significant differences between company size classes.

Exhibit 4-50: Views of survey respondents on aggregate market effects of framework agreements (percent)

‘Framework agreements close the market for non-participants more effectively’

‘Framework agreements let CAEs aggregate demand at a higher level’



In general respondents disagreed that selection of providers under framework agreements is transparent.

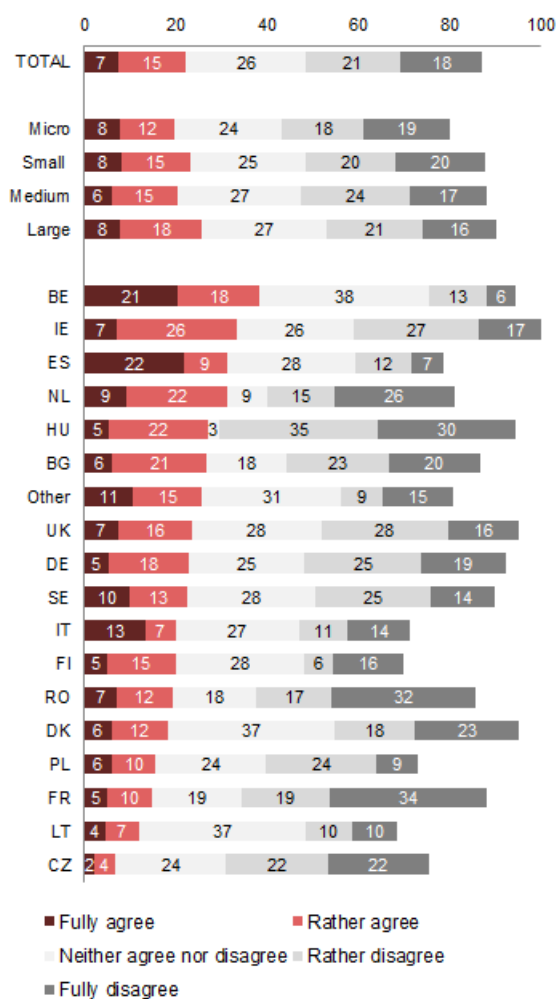
In total, 39 percent of respondents disagreed or fully disagreed that the selection of providers under framework agreements is transparent. Only 22 percent of the respondents agreed or fully agreed with the statement. The opinion did not vary greatly among different class sizes.

However, when analysing the opinion on the transparency of selection process under framework agreements by country of respondent, the views of respondents differ.

66 percent of survey respondents from Hungary disagreed or fully disagreed that the selection process under framework agreements is transparent. High share of doubt on the transparency of the framework agreement process was also expressed by respondents from France (55 percent of the respondents) and Romania (48 percent of the respondents).

Companies from Belgian Italy, Finland, Lithuania, and Spain were less likely to express negative opinions towards the transparency of framework contracts. In Belgium, only 19 percent of the respondents believed that the process is not transparent and 39 percent agreed that the process is transparent.

Exhibit 4-51: Share of respondents by size class and by country disagreeing that selection of providers under framework agreements is transparent (percent)



4.9 Enhancement in competition by use of eProcurement tools

The survey indicates that from the CAEs point of view 73 percent (CAEs only) use online procurement tools and 27 percent are still dealing with manual procurement processes. The figures in Exhibit 4-52 and Exhibit 4-53 give a high-level approach on the usage from eProcurement tools, but do not indicate what kind of tool or which part of the procurement process that will have most effect on competition and aggregation of demand.

Exhibit 4-52: Usage of online procurement tools by CAEs

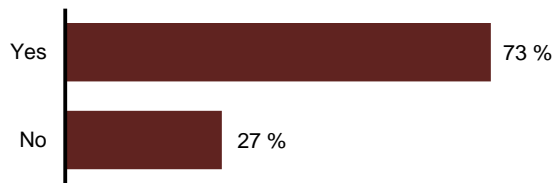
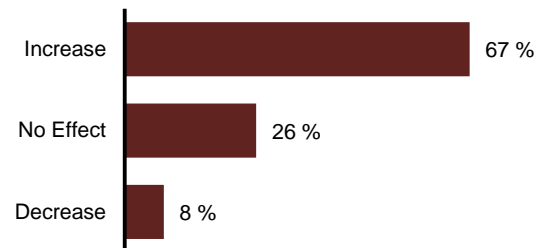


Exhibit 4-53: Effect of eTools on competition according to CAEs



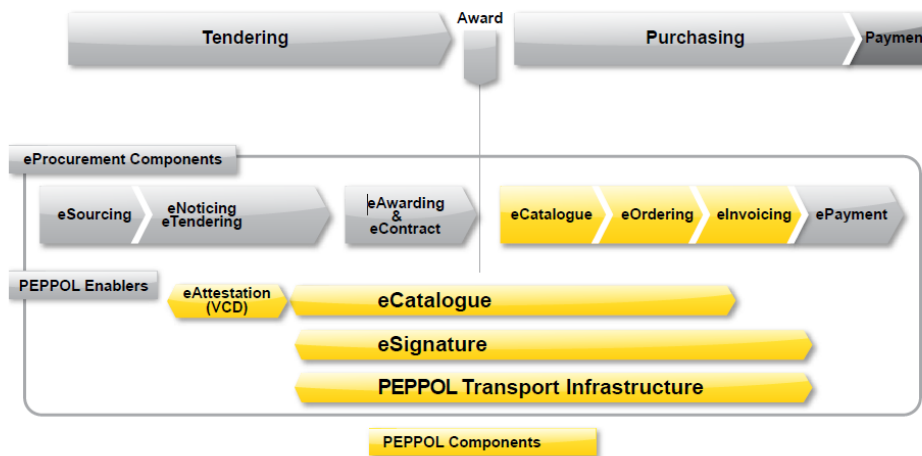
Source: Interviews with 215 respondents, Team analysis

In this chapter we will elaborate on the various eProcurement tools and their impact on competition for SMEs and aggregation of demand for CAEs. It is important to underline that there are several suppliers to the various eTools described below. This report will not promote any specific supplier, but we will use the infrastructure design from the EU initiated and funded large scale PEPPOL project⁹³ to describe the eTools available through an entire electronic procurement process. The PEPPOL-project ended December 2012, and the results and governance/maintenance of the developed infrastructure and specifications were transferred to the OpenPEPPOL AISBL, a non-profit association under Belgian law. In the final report from the PEPPOL project the PEPPOL transport infrastructure⁹⁴ is described in addition to the various eProcurement tools supporting documents (protocols) to be transported through the transport infrastructure. The procurement value-chain from the previous PEPPOL-project is illustrated in Exhibit 4-54 and shows the generic value-chain of procurement including the eProcurement tools.

⁹³ The PEPPOL's transport infrastructure is based on a set of standardised communication protocols which ensure the interoperable, secure and reliable exchange of electronic documents between buyers and sellers within the EU. PEPPOL seeks to join the islands of e-procurement that currently operate across Europe by defining profiles based on common and nationally compatible standards and providing tools for interoperability, on both a national and cross-border scale.
<http://www.peppol.eu>

⁹⁴ The ICT Policy Support Programme (ICT PSP) – one of the three specific programs within the Competitiveness and Innovation Programme (CIP) – aims at stimulating innovation and competitiveness through the wider uptake and best use of Information and Communication Technologies (ICT) by citizens, governments and businesses and in particular SMEs. –
<http://www.peppol.eu>

Exhibit 4-54: PEPPOL Components and enablers in the eProcurement value chain (from the PEPPOL - final report⁹³)



The PEPPOL transport infrastructure and components are expected to have the following impact on the SME-market with new business opportunities and increased competitiveness, while lowering costs with automated tendering solutions. By breaking down the barriers to seamless electronic communications across borders and communities, PEPPOL can enable suppliers to realise significant benefits. For the CAEs the main impact is the significant reduction of administrative and transaction costs through standardised, speedy and streamlined procedures.

To better understand each element in the total eProcurement process a short description of each of the components and other eProcurement tools (not supported by the transport infrastructure) is necessary. In Exhibit 4-55 the roles of each eTool, the impact on competition and the impact on aggregation of demand are described.

Exhibit 4-55: ETools impact on the competition and aggregation of demand

E-procurement tools:	Role:	Impact on competition for SMEs	Impact on aggregation of demand
eSignature	Electronic validation of documents <i>"The aim is to create interoperability between the different e-signature schemes, so that any CAE can validate certificates issued in other EU member states, enabling electronic submission of tenders and signing of contracts across borders. This means that an economic operator can use the e-signature of its choice when submitting an offer or signing a document to any public sector awarding entity."</i> ⁹⁵	Reduce cost and simplify procurement process, increase market potential across border.	No effect on aggregation, but simplify processes and reduce cost
eSourcing tool	Aggregation of demand from any user with connection and	More accurate specifications in the	Increase the possibility to aggregate demand from several partners.

⁹⁵ PEPPOL-project Final report to the EU: <http://www.peppol.eu/news/openpeppol-news-2013/peppol-final-report-a-story-of-success/peppol-final-report-pdf/view?searchterm=final+report>

	availability to the eTool (CAE specific eTool aggregating both historical data and future prognosis)	RFPs for decision of GO or NOGO. If used by CPBs could have negative effect on competition due to aggregation of demand.	The use of this tool by CPBs can be efficient in gaining economy of scale.
eNoticing and eTendering	The aim is to create and increase competition by publishing tendering documents and fulfil the tendering process electronically, incl. notifying the market, transfer data to TED and ensure legally correct documentation. Various process tools have been developed and are available to the market -for the process from notifying to contract award.	Increase market possibilities for all SMEs.	Limited effect on aggregation, as the aggregation has been clarified in the eSourcing tool.
eAttestation (Virtual Company Dossier or VCD)	Qualification criteria <i>"The aim of the VCD is to provide an inter-operable electronic document solution that supports the exchange of evidences across borders during the qualitative selection process of public procurement."</i> ⁹⁶	Significant cost reduction and simplify procurement process by reducing administrative burden for the SMEs	No effect on aggregation, but simplifies the qualification process.
eAwarding and eContract	Electronic tool for evaluation and contract validated by eSignature, including eAuction programs	Reducing administrative burden for the SMEs and increased transparency on detailed level about the selection criteria.	Substantial impact on price by use of e-Auctions and simplify the process for contract administration
eCatalogue	An e-catalogue to submit offers about goods and services in a standardised format. <i>"The aim is for any company in the EU to easily, securely and seamlessly create, validate and send an electronic catalogue of goods and services offered, either as part of a procurement tender issued by any European CAE or in response to an awarded contract. They can be a component of the pre-award tendering process or the post-award purchasing process."</i> ⁹⁷	Increase market possibilities Catalogues are used by economic operators to describe goods or services offered for sale and may be used by CAEs to source goods or services, or to obtain product or pricing details. The catalogue input is reusable for the ordering and invoicing process	Limited effect on aggregation, as the aggregation has been clarified in the eSourcing tool. But standardization has substantial impact on process improvement in the entire post-award process.
eOrdering and eInvoicing	e-ordering and e-invoicing providing the buyer and suppliers		Limited effect on aggregation, as the aggregation has been

⁹⁶ PEPPOL-project Final report to the EU: <http://www.peppol.eu/news/openpeppol-news-2013/peppol-final-report-a-story-of-success/peppol-final-report-pdf/view?searchterm=final+report>

⁹⁷ PEPPOL-project Final report to the EU: <http://www.peppol.eu/news/openpeppol-news-2013/peppol-final-report-a-story-of-success/peppol-final-report-pdf/view?searchterm=final+report>

with defined procedures to exchange common business documents.		clarified in the eSourcing tool. But standardization has substantial impact on process improvement in the entire post-award process.
<i>"The aim is to develop solutions that make it possible for economic operators to exchange cross-border electronic orders and invoices with any CAE within Europe. Electronic ordering is the automated process of sending, receiving, acknowledging and processing of orders for goods or services while electronic invoicing is the automated process of issuing, sending, receiving and processing of invoice data by electronic means."</i> ⁹⁸	Reduce process cost and increase transparency for any economic operator – reduce administrative burden.	

In Exhibit 4-56 we have summarized pros and cons comments from the survey regarding eTools effect on competition.

Exhibit 4-56: "Statements" from the respondents' experience from eTools⁹⁹

Pros.	Cons.
<i>"We are convinced that online tools get advantages for SMEs. If the use of such tools is mandatory SMEs have the same starting conditions according to the tender process like big players."</i>	<i>"We have the impression that it scares small enterprises who don't have much administrative personnel or knowledge. The paper version is often easier for them."</i>
<i>"EProcurement could help small and medium enterprises significantly reduce expenditure incurred when drawing up contracts and/or entering into transactions (e.g. expenditure incurred when submitting requests, tenders for contractors) by possibly reducing the length of the procurement procedure, as compared to procurement using paper documents. Moreover, e-procurement could encourage small and medium enterprises to participate, because it would be easier for them to find the announcements and participate in the procurement procedures using electronic tools."</i>	<i>"More difficult for SMEs, because of the lack of resources for good online procurement."</i>
<i>"More transparency, simplification of process. A clear guide as to how to submit a tender."</i>	<i>"It will be more expensive for the SMEs."</i>
<i>"Nowadays, the majority of companies have</i>	<i>"SMEs have less experience in using the online</i>

⁹⁸ PEPPOL-project Final report to the EU: <http://www.peppol.eu/news/openpeppol-news-2013/peppol-final-report-a-story-of-success/peppol-final-report-pdf/view?searchterm=final+report>

⁹⁹ Answers from question in the survey to CAEs: What is your opinion on the effect of eTools on competition? More specifically, does it increase or reduce competition?

<i>access to online services therefore there should not be really any barriers which would affect the position of SMEs."</i>	<i>tools. So the bigger companies have an advantage in that respect."</i>
<i>"SMEs are probably not aware of this tool since it is not well advertised; it is only used by organizations used to reacting to tenders. So it has no effect or little effect on SMEs' position."</i>	<i>"No, as there is not a good enough structure in place for these online procurement tools to have an effect on SMEs."</i>
<i>"This does not affect a lot SMEs. Everybody have today capability use e-channels."</i>	<i>"There is a significant barrier to using those online tools."</i>
<i>"SMEs have more trouble with the use of online tools, but we give seminars and educate SMEs to make it better. I think they can handle it. I also believe that you can simplify the process by decreasing the number of documents."</i>	<i>"There is still a language barrier for SMEs as the procurement officers often write the request for proposals (RFIs) in their national language. The translation cost and risk are at the SME."</i>
<i>"Easier for SMEs, because they don't know when they have to buy and with online tools, the process becomes easier."</i>	<i>"There are risks because small companies don't have trained staff for these procedures".</i>
<i>"For the first uses it creates a barrier, because of lack of experience working with online tools and thus reduces competition. But as the usage of the online tools increases, so does the experience in using it, then it increases competition."</i>	
<i>"Very good, more and more small companies want to leave their contracts online."</i>	

The received Cons are mostly about cost and competence concerns for the SMEs and the ability and willingness to change. The Pros are about the SMEs' possibilities and increased equality and transparency.

From the survey 67 percent indicated that the use of eTools will increase the competition for the SMEs. This requires knowledge and competence of the e-Tools at the SME side and professionalism from each procurement officer. Still one-third of the respondents do not see the positive effect of eTools.

The ability and willingness to implement eTools are barriers both at the economic operator and CAE side, and the organisations experiences from early use of procurement eTools are still associated with "not user friendly" processes. However, the PEPPOL solutions give any economic operator the possibility to communicate with any CAE using their own procurement or ERP-system. The infrastructure has been established for increasing the markets for SMEs and the CAEs.

The main impacts for the usage of eTools are the reduction of process costs by establishing lean-procurement processes and reuse of data in the complete electronic procurement process. In addition the eTools will contribute to increase competition and possibilities for SMEs to compete the cross-border. For the CAEs the eTools have marginal effects on the aggregation of demand. The aggregation of demand will be decided in the evolution of the procurement strategy of each category, depending on the business ambition of the CAE.

SMEs' access to public procurement markets and aggregation of demand in the EU

5 Concluding remarks

This study investigate and describes SMEs presence in the overall public procurement, trends and techniques of marked aggregation and the impact on the way public procurement is carried out, in addition to the cost-effectiveness of market aggregation and its impact on competition and market access. Our analysis is based on a large empirical basis covering all contracts in the TED database in the period 2009-2011, two surveys including 2.573 respondents, both CAEs and suppliers and about 215 semi-structured interviews with authorities and businesses.

SMEs involved in about 46 percent of public procurements above EU-thresholds

In the reference period between 2009 and 2011, an estimated 56 percent of all public procurement contracts above the EU-thresholds were awarded to SMEs (or groupings of companies led by an SME). In terms of the aggregate value of contracts awarded, this corresponds to a 29 percent market share. This figure is slightly below the estimates of the previous three-year period (2006-2008), although it cannot be determined whether this marks a genuine negative trend or merely indicates random fluctuations of the market or bias coming from a refined estimation methodology. In addition to being awarded a contract directly, SMEs do benefit from public procurement above the EU-thresholds also through other channels (e.g. as a member of a joint bid arrangement or as a subcontractor). It is estimated that when these additional channels are factored in, SMEs' actual share in the total number of public contracts above the EU-thresholds is 17 percentage points higher than the volume of contracts they are directly awarded: 46 percent of aggregate contract value versus only 29 percent market share of direct contracts.

The resulting figure of SMEs' participation in below-threshold procurement is, not surprisingly, higher with just between 58-59 percent of contracting value.

Aggregation of demand - technics increasingly used

Aggregation techniques are used to improve cost-savings (market power and economy of scale) and efficiency of procurement (process improvement). We found basic support for the idea that centralized purchasing and framework agreements are tools CAEs use to aggregate their demand. The use of these aggregation tools have increased substantially (in terms of value) in the period from 2006 to 2011. Centralized purchasing constitutes about 20 percent of total value of contract awards in recent years. There has been remarkable growth in value terms. By number of contract awards, we find that the concept is much less frequently used and only constitute about 5 percent of awards in the last few years. Framework agreements constitute nearly 1 in 4 of all contract awards with regards to value. In terms of numbers they represent about 1 in 6 of all contract awards.

Consequently, we also found that competitions by centralized purchasing and framework agreements are fiercer as indicated by the larger number of offers for these contracts, but that holds only for the larger contracts. More effective competition is also ensured by more professional procurement. This is visible by the reduced number of awards with limited competition.

There are multiple factors both driving centralized purchasing and framework agreements. There are country specific factors that influence the decision, but also the sector and type of work influences whether the contract is centralized purchased or not. The use of framework agreements is most popular at national levels and is used with higher value there. Further, there are some few high value contracts that dominate the market.

There are basically four factors that drive both the use of centralized purchasing and use of framework agreements. First is the cultural environment, captured by country specific effects. Mostly Northern and North-Western Europe shows an inclination towards using centralized purchasing and framework agreements while Southern Member States use it less, but there are exceptions.

The second factor for which might explain the use of centralized purchasing and framework agreements, is budgetary restrictions. We see a tendency to conduct more centralized purchasing procurements from 2008 onwards. As from 2008, many (if not all) Member States saw reducing budgets, driving the search for opportunities to reduce the price of goods and services procured. One of those measures is aggregation in the form of centralizing procurement to harvest the economy of scale. The number of large contracts from UK supports this.

The third factor is the level of standardization, or similarity of the procured goods and services. The more similar the procured products are, the easier it is to aggregate it without too much loss of flexibility in meeting the demands of individual authorities. This is supported by the fact that framework agreements are mostly about supplies and commodities.

The fourth and perhaps the most important, though illusive, factor is professionalism of procuring authorities, for which we found several indications to be important in explaining the use of centralized purchasing. Firstly, the more professional a procurement authority is, the more likely other authorities are willing to take advantage of their expertise. Alternatively, the more professional an authority is in its procurement procedures, the more likely it is to engage in centralized purchasing. Nevertheless, despite several indications for this trend in our analyses, we stress that we could not test for this factor. Consequently, we are reluctant to state this conclusion with great confidence.

An additional fifth driver for the use of only framework agreement is the experienced flexibility of the regime. It is an aggregation technique over time, maximum four years, which reduces the administrative burdens for the CAEs.

Calculation of potential for savings

The study shows large differences between the aggregation techniques and the typical procurement. The typical procurement has an average cost of 5.500 euros¹⁰⁰. This is more than the cost of both framework agreements and centralized purchases. Centralized purchasing has an average cost of only 1.300 euros per contract/CAE, while framework agreement (four year duration) has an average cost of 1.200 euros per call-off.

The study indicates that there are significant savings in aggregating demand either in centralized purchasing and/or by framework agreements compared to ordinary open procedure competitions. Compared to an optimal structure of organization of the CPB and maximum duration of the framework agreements, the CAEs have the potential to save around 80 percent of the pre-award process cost attached to awarding the contracts, if using centralized procurement or framework agreements instead of typical open procurement procedure. For one CAE using open procedure competitions for all procurements (8,1 procurement/year) have a total yearly cost of 44.500 euros while the total cost of respectively centralized procurements and framework agreements is only 6.700 and 9.500 euros. (See chapter 4.3.3 The effect of aggregation on realised savings explaining the comparison)

It is important to underline that the price effect from the economy of scale (using CPBs) is not a part of the calculated savings.

EProcurement tools affects competition, but not aggregation of demand

The main impacts for the usage of eTools are the reduction of process costs by establishing lean-procurement processes and reuse of data in the complete electronic procurement process. In addition the eTools will contribute to increase competition (eNotification) and possibilities for SMEs to compete cross-border. For the CAEs the eTools have marginal effects on the aggregation of demand. The aggregation of demand will be decided in the evolution of the procurement strategy of each category, depending on the business ambition of the CAE.

Use of CPBs increases professionalism

The study reflects that the transparency has increased (80 percent) by the use of centralized purchasing. However, the execution of stage two in framework agreement is important for the transparency and

¹⁰⁰ Estimated cost of all procurements from Public procurement in Europe, Cost and effectiveness, 2011

competition. The selection of procedures for call-offs in stage two (see chapter 4.4) decides the distribution of call-offs among the supplier(s). The call-offs is just distributed to the awarded suppliers and in that case less transparent to the market, than an open procedure. For call-offs there are no required award notice. The survey for enterprises confirms that 39 percent of respondents disagreed that the selection of providers under framework agreements is transparent. Only 22 percent of the respondents agreed with the statement.

Regarding compliance the increased professionalism in CPBs would increase the compliance to the legislation. In addition the CPBs and the CAEs have to increase the use of resources significantly to ensure ownership and compliance to the awarded contract if the number of CAEs increases above 6.

The results of the study indicate that the professionalism of the procurement activities is not only concentrated to the improvement of the processes and reducing the process cost. By implementing the theory of portfolio models and smart procurement with category strategies as tools for public procurement can reduce cost and meet budget challenges.

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