

The Promise of Procurement for Stimulating Innovative Firms: Size and Innovation

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Procurement “refers to the function of purchasing goods or services from an outside body” (Arrowsmith, 2005, p. 1). Public procurement occurs when this function is performed by a public agency.

Synonymous with e.g. purchasing, buying, or sourcing

The assumed agent, if the term is used without a qualifier (e.g. private, public), is usually a public agency. Takes place at any level in society – in a department of a local council of a municipality, or on the regional, national or even supranational level.

Public procurement is the central sourcing mechanism evoked to directly secure the delivery of public services (Thai and Grimm, 2000).

Public Procurement of Innovation (PPI)

Purchasing activities carried out by a public agency that lead to innovation

- Satisfies a social need not previously satisfied by the market
- Supplier needs to conduct Research and Development in order to deliver

The Win-Win-Win Game

PPI → Private sector R&D → Competitive advantage → Growth

PPI → More efficient public services → Saving public resources → ...

Firm growth → More tax-money → Increased public purchasing power →



99% of firms in the non-financial business sector in the EU28 are SME's (European Union, 2014).

SME's are considered the “backbone of the European economy” contributing to more than half of European GDP (Wessel Thomasson et al., 2014)

It comes therefore naturally that many countries have developed a policy interest for SME's and also a concern for involvement of SME's in public procurement (Zheng, Walker and Harland, 2006; Loader, 2013).

“...there is a need to develop a more SME-friendly approach to public procurement among contracting authorities by promoting the possibilities offered by the Public Procurement Directives to facilitate access by SMEs to public procurement opportunities... (European Commission, 2008, p. 5).

Basic assertions:

1. Policies should address a problem or failure of some kind.
2. Public procurement contracts should be given to the most competitive (innovative) bid.

In terms of innovation policy: Should public procurement support SME's because they are (already) innovative?

If, yes, the question emerges: Are SME's innovative?

Are SME's more innovative than larger firms?

Is public procurement of innovation a useful innovation policy tool in this context?

Estimation of SMEs' share of contract value awarded

Country	Above threshold %	Below threshold %
Germany	48	75
Denmark	36	65
Estonia	24	51
Finland	29	57
Lithuania	30	59
Latvia	74	90
Poland	25	53
Sweden	19	44
Total EU	29	58
27		

Based on years 2009-2011 (Wessel Thomassen et al., 2014). Depending on what is procured thresholds range from EUR 134000 to EUR 5186000

Involvement = being a contract owner

What about large firms with sub-contracted SME's?

If SME involvement through sub-contracting is also taken into account, SME involvement appears quite significant.

Not all SME's wishes to grow: The local junk-food shop argument: Freeman (2013, p. 9) notes that "it is far from obvious that SMEs as a group are in fact major contributors to economic growth".

What is the adequate level?

Loader (2013), provides a list of twenty-three barriers faced by SME's:
E.g.

Cultural barriers such as risk-averse attitudes among public procurers.

Lack of knowledge on procedures and challenges regarding the requirement to demonstrate a track record, or negative consequences of (too large) contract volumes.

Karjalainen and Kemppainen (2008): lack of legal expertise and lack of administrative resources

The question remains

1. regarding perceived barriers are justifiable?
2. if they apply to SME's only.

R&D typically involve large fixed costs, which can only be covered if sales are sufficiently large,

Scale and scope economies in the production of innovations

Large firms can undertake many projects at any one time and hence spread R&D risks

Large firms have better access to external finance, better able to finance R&D from own inputs

On the other hand...

Less managerial control and bureaucracy associated with larger firms would decrease returns of scale;

The absence of competition, i.e. in monopolistic situations, may lead to innovation inertia

Pavitt et al. (1987) found the size distribution of innovative firms to be U-shaped, i.e. suggesting smaller firms and larger firms to be the most innovation intensive.

Sector specific differences: In mining and defence, most innovations were conducted by large firms (50000 employees)

Smaller firms were relatively more innovation intensive in the service, R&D and instrument sector (ibid, 1987).

Acs and Audretsch did however not find variation related to firm size. “It is conceivable that larger firms may tend to focus on innovations with a higher market value” (Acs and Audretsch, 1988, p. 681).

Pavitt et al (1987): “[O]ur findings do not point to easy or obvious prescriptions.... Given the high variance in the size distribution of innovating firms both within and between sectors, grand generalisations are often likely to be wrong, and grand policies often likely to be inappropriate. It is tempting to conclude that, under such circumstances, *diversity and pluralism should be the only objectives of policy.* (Pavitt et al., 1987, p. 314, italics added)”

Case studies in the context of the HealthPort project co-funded by the European Development Fund, aiming at facilitating ‘business acceleration’ to strengthen the Baltic Sea Region health economy.

- a. Candidates should be in project status (not incorporated) or SMEs in the life-science sector;
- b. They should be involved in innovative products developed in cooperation with hospitals;

Innovation
Cloud-based IT system for patient management
Personalized diabetes treatment system
Intelligent container for transporting organic samples
Angiogenesis inhibitor, which starves tumors by cutting off their blood supply
Tele medicine solution
Catheter with impregnated anti-microbial protection

Barriers identified by firms

<i>Encountering regulations</i>	Handling patient data – data protection, cross-border setting; Tests and trials
<i>Exploring and exploiting international markets</i>	National pride Differences in health systems
<i>Negotiating oligarchical markets</i>	Market opportunities “blocked out” by big firms
<i>Funding</i>	Getting funding meant engaging in “side-projects” Funding available for domestic firms only. + Funding legitimized the innovation
<i>Interaction with public customers</i>	International differences in funding systems Lack of understanding on how the public sector is organized, how the decision making process works and who influences this process.

Barriers: specific to SME's/ justifiable?

More accurate ways of measuring

Policy development towards diversity

Case study research suggests Public Procurement of Innovation might be a relevant policy area for innovative SME's, but other challenges appear to be more important.

Promotion of Public Procurement of Innovation may take place as awareness creation among innovative firms.

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