

Cost Overruns and Procurement Competence in Sweden

Giancarlo Spagnolo

SNS, Stockholm, June 2, 2020



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Public Procurement

About 15% of GDP in developed countries, 683 billion SEK/year in Sweden...

If conducted poorly, lots of taxpayers' money could be wasted.

- Cost overrun/too high prices
- Low quality of crucial public goods
- Slower innovation



Very Complex Activity

Procurement now recognized as core strategic function crucial to firms' success (Toyota/GM)

Main difference in my view

Legal rules for accountability make public procurement much more complex

- Rigid competitive mechanisms
- Little discretion to reward performance

EU and US reforms in opposite direction.



Specific Competence is Crucial

Good public procurement requires a wide set of interdisciplinary skills: legal, engineering, strategic/economic, marketing, project management...

Bandiera, Prat, & Valletti (2009): if all contracting authorities did as the top 10%, saved 2% GDP each year...

No strong push to improve:

- Government has no competitors, procurement waste have little consequences, particularly if not observed (for lack of data).
- Suppliers may be happy to earn more.



Procurement issues in Sweden?



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Procurement Issues in Sweden and Abroad

Recent debate on alleged public procurement failures in Sweden.

- Complaints in all directions. In the examples we discuss:
 - cost overrun (NKS, Förbifart Stockholm),
 - low quality (SCB statistics, NKS),
 - poor work safety (Förbifart Stockholm),
 - too few high bids (NKS),
 - too risky low bids (SCB, Förbifart Stockholm),
 - too much reliance on consultancies (NKS).

More recently: delays and low rate of testing for coronavirus, shortages of ppe...



My View

Insufficient procurement competences in Swedish contracting authorities behind all these cases.

Performing public procurement well under strict procedural rules requires wider interdisciplinary skills.

Instead, often considered basic bureaucratic function, needing little specific training.

Particularly bad for large projects and PPPs:

- unbalance of competences between public and private parties extreme
- compare process followed for NKS with that followed for Arlandabanan (Arlanda Express)



Survey on Cost Overrun



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Cost Overruns in Mega and Normal Projects

- Cost overruns are frequent everywhere, for larger projects they are the norm rather than exception.
- Can be due to a wide range of factors:
 - Negative: optimism bias, poor forecasting, political reasons, corruption.
 - Positive: new information and efficient adaptation or add-ons.



Cost Overruns in Mega and Normal Projects

- Sweden does not appear an outlier in this respect, nor does NKS (yet).
- Since it can be good or bad, complaints about cost overrun need to be specific:
 - Due to add ons required by buyer?
 - Caused by poor initial planning/budgeting?
 - Or by strategic supplier behavior?
- Overrated w.r.t. less visible quality under-provision/underrun (or lack of safety at work).



Quality Under-provision and Past Performance



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Quality Under-provision and Past Performance

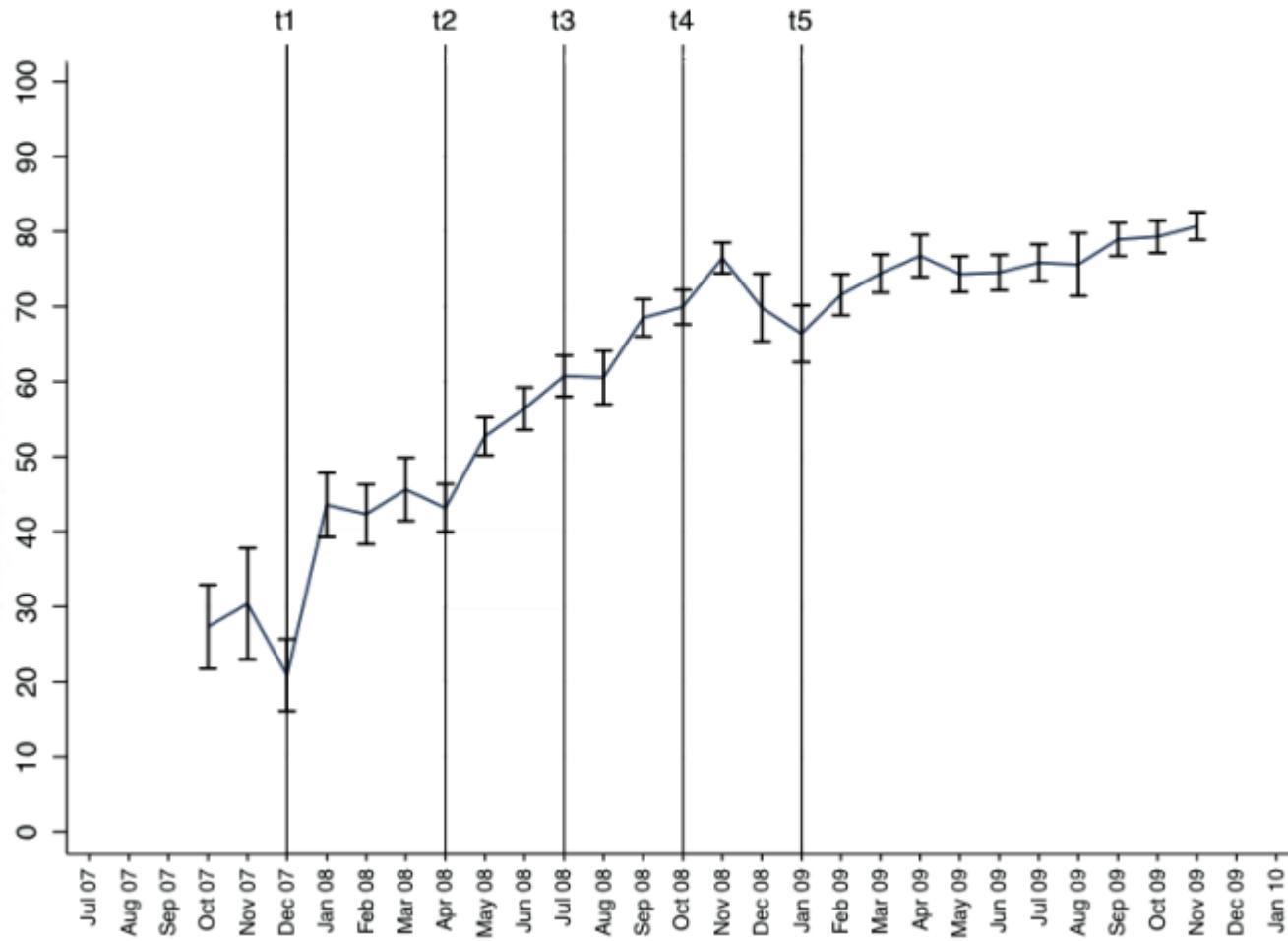
Years ago I helped a large utility provider (Acea) subject to public procurement rules in its experimental attempt to improve quality and work safety.

- Designed and implemented advanced rating system for suppliers linking its moving average to the scoring rule of future tenders.
- Details in Decarolis, Pacini and Spagnolo (2016/19).



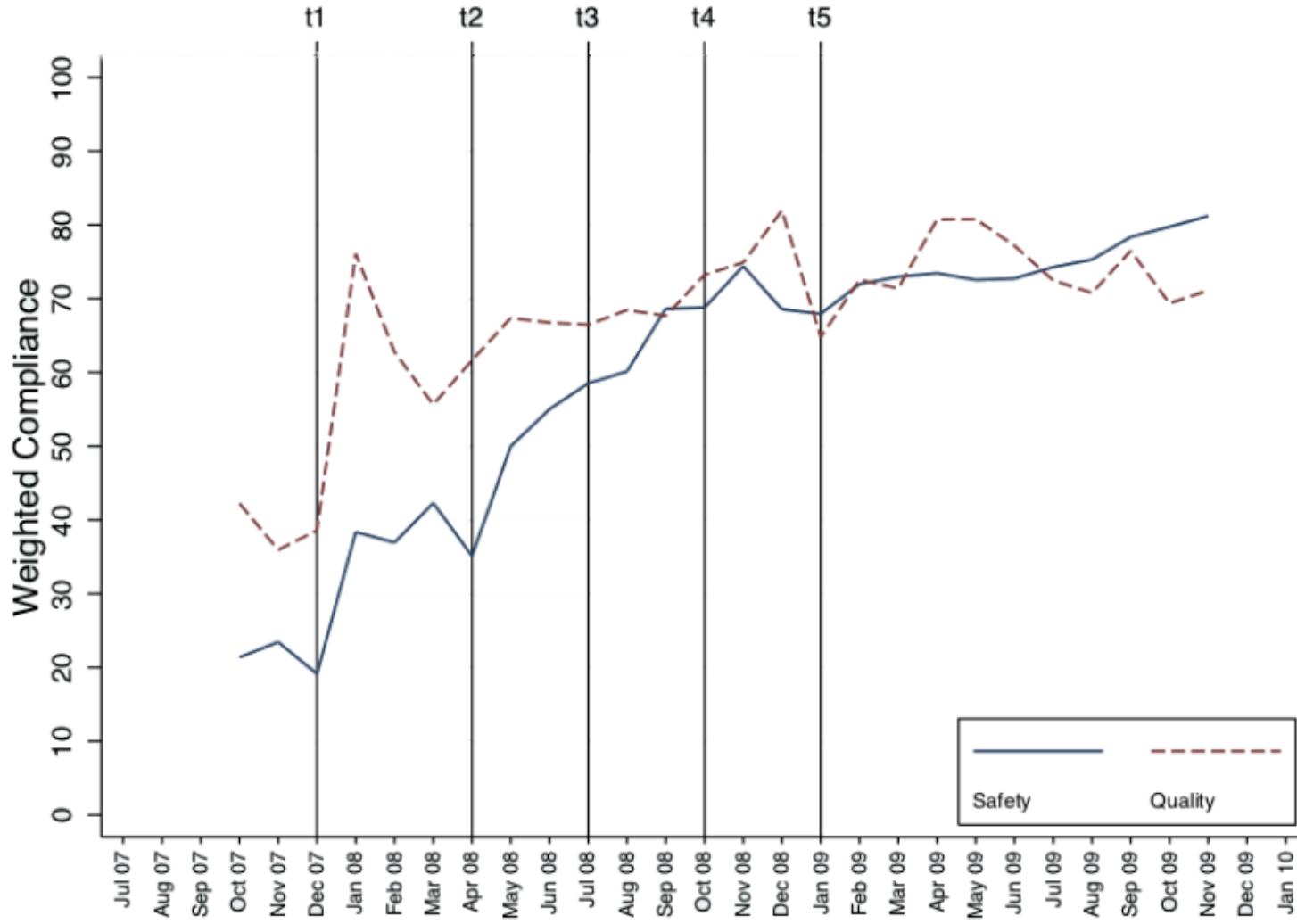
Experiment: Past Performance Mechanism

Average Compliance



Experiment: Past Performance Mechanism

Safety and Quality: Evolution of Compliance over Time



Experiment: Past Performance Mechanism

Summing up on intervention:

- Compliance with quality and safety requirements more than doubled.
- Prices did not increase significantly.

→ before intervention, quality and safety less than half of what they could have been

To design and properly implement these advanced mechanisms you need advanced competences and good data.



Recent Research on Competence in Public Procurement



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Examples of Recent Research 1

Decarolis, Giuffrida, Iossa, Mollisi, and Spagnolo (forthcoming in the JLEO):

- On US data for complex services and works
- one standard deviation improvement in competence:
 - Reduces delays by 23%,
 - Cost overruns by 29%,
 - Renegotiations by half.



Examples of Recent Research 2

Best, Micheal, Hjort, Jonas, Szakonyi, David.
(2019):

- On Russian data, standardized goods.
- About 40% of the variation in quality-adjusted prices of standardized goods is attributable to the ability of procuring body managing the process.
- Individuals and organizations each contribute roughly half to this 40% variation.



Competence Frameworks in Public Procurement



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Improving the Competence Framework

Research says that advanced procurement competence is very important, could save taxpayers' money, improve quality of public goods, and stimulate innovation

How do you strengthen competences in the public sector?

You need to work on the whole framework.



Improving the Competence Framework II

- Contracting authorities must have incentives and resources to train employees and/or hire individuals with advanced procurement expertise.
- Training opportunities in advanced procurement must be available.
- Public employees and new graduates need incentives from current or future employers to take these opportunities.
- To reward good public bodies that acquire and use these competences systematic DATA are needed on all public procurements of decent size.
- 'Chicken and egg' problem for universities, students and administrations: the government must start the process, nobody else has incentives to start.

Improving the Competence Framework III

Some countries have done or are trying to do it.

- US have done it since WW2: high level procurement skills needed in military/cold war/innovation race.
- UK did it through the Chartered Institute of Procurement and Supply system of certifications of skills.

(Details in report and slides at end of the presentation).

In Italy

Big reforms since 1999 centralization, pushed by past waste and needs to save (public debt).

2 (now more) universities have been offering in the last decades Interdisciplinary public procurement management masters, both in to new students and public employees (one week per month), now also in eastern countries (with EBRD).

Under discussion (before Covid) proposals to:

- Limit contracting authorities' ability to purchase complex goods if they do not have the necessary skills, as for PPPs (expert central technical unit needed to approve, as in UK).
- Introduce rating systems both for suppliers and for contracting authorities.
- Further improve the extensive data collection already present for over 4 decades (this is why there is so much research on Italy, 'knowledge is measurement').



Conclusions and Recommendations for Sweden



Nothing Really New

- Extensive 2013 report (SOU, 2013) emphasized that competence in public procurement needs to be improved in Sweden.
- Recommendations by OECD and EU from 2015 and 2016 have emphasized the importance of improving public procurement competence after EU directives and procurement markets opening.
- Several reports emphasized the lack of data in Sweden, making identifying waste and rewarding good procurement impossible (See e.g.: Bobilev et al. (2015), Molander et al. (2002), Nilsson et al. (2012), Tukiainen and Halonen (2020) among others).



In Practice

The Government or Parliament can break the 'chicken and eggs' problem. It could:

1. Start extensive data collection on public procurement.
2. Start to use these data to measure and reward public bodies that procure high quality goods and service at good prices, or just publish the results regularly so that citizens can see them.
3. Subsidize one or two educational institutions to create certified advanced public procurement programs for existing and perspective public employees.
4. Create specialized positions in the central government for the first cohorts and career/wage incentives for existing public employees that take this opportunity.
5. Create a technical task force to supervise large infrastructure projects and PPPs as in UK.



Costs appear very limited compared to benefits...

Thank you!



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In the US

High quality Public Procurement crucial to Innovation, mostly military reasons, then quality spilled over and stimulated the ITC revolution.

The Federal Acquisition Institute:

- Offers a range of different certifications of public procurement competences at different levels.
- Accredits many masters' programs able to teach them around the country.
- Incentives are present in terms of eligibility for more advanced positions to manage larger and more complex procurements.
- This increases private sector value of these **expertises** as well.
- Large data collection expanding and made publicly available (see e.g. Decarolis et al. Forthcoming).



In the UK

Chartered Institute of Procurement and Supply (CIPS):

- Offers a set of certifications corresponding to level of procurement education and experience.
- Accredits masters' program in procurement and supply change management.
- Most job advertisements in public procurement in the UK require specific levels of CIPS certification.
- Lots of data and performance evaluation of public bodies.
- Sometimes provided excessive incentives (new public management vs intrinsic doctors' motivation... lively academic debate).

