

Public Procurement: Free Software's Wild Frontier

By Karsten Gerloff

The Stakes

Public procurement makes up 19.4% of EU-wide GDP⁶¹. The public sector's procurement choices therefore have very real effects on the economy, and play a significant role in determining the sort of firms that thrive in the market.

Even with current procurement practices, Free Software⁶² is already delivering very significant benefits to the European economy. Based on the evaluation of several code reuse surveys, Daffara (2012) estimates that Europeans enjoy 114 billion EUR per year in direct cost savings thanks to Free Software. In addition, reinvestment of these savings leads to an increase in

⁶¹ Open Forum Europe (2013): OFE Procurement Monitoring Report 2012, 2nd Snapshot, p. 2. http://openforumeurope.org/openprocurement/open-procurement-library/Report_2012_2ndSnapshot%20final.pdf/at_download/file

⁶² <http://www.gnu.org/philosophy/free-sw.html> Free Software is sometimes referred to as "open source". While the terms encompass an identical set of licenses and programs, "Free Software" emphasizes the need for users to be in control of their computing, enabled by the freedoms to use, study, share and improve the programs they use.

productivity and efficiency worth at least 342 billion euro a year.⁶³

Anecdotal evidence points in the same direction. To pick just some recent examples, the city of Arles (France) saved EUR 450,000 by replacing its proprietary database system with Free Software alternatives.⁶⁴ The Hungarian city of Miskolc reduced its annual cost per user by EUR 3,000 thanks to Free Software.⁶⁵ The regional government of the Canary Islands (Spain) was able to reduce its IT budget by 70% after deploying Free Software, saving EUR 700,000 over three years.⁶⁶

On purely budgetary terms alone, there is thus a clear economic case to be made for Free Software both at the macro and the micro level. Free Software in the public sector is also crucial to ensuring that citizens are not forced to use non-free programs in order to interact with their governments. Free Software further secures strategic independence of public bodies' IT systems, and helps them break out of vendor lock-in.

Despite this evidence, most European public bodies continue to rely mainly on non-free software. Public procurement practices represent a major hurdle for the wider adoption of Free Software.

⁶³ Carlo Daffarra (2012): Estimating the Economic Contribution of Open Source Software to the European Economy. In: Shane Coughlan (ed.)(2012): The First OpenForum Academy Conference Proceedings, pp. 11-14

⁶⁴ <https://joinup.ec.europa.eu/news/city-arles-pleased-savings-open-source-enterprise-software>

⁶⁵ <https://joinup.ec.europa.eu/elibrary/case/hungarian-city-miskolc-saving-%E2%82%AC3000-user-year-licenses>

⁶⁶ <http://joinup.ec.europa.eu/community/osor/news/canary-islands-save-70-cent-switching-open-source-virtualisation>

We therefore need to investigate in which ways these practices fall short, and how they can be improved.

Minimum Requirements: Through The Floor

The minimum requirements for correct procurement practices are laid down in the Directive 2004/18/EC of the European Parliament and of the Council of 1 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts, in particular in Article 23(8):⁶⁷

“Unless justified by the subject-matter of the contract, technical specifications shall not refer to a specific make or source, or a particular process, or to trade marks, patents, types or a specific origin or production with the effect of favouring or eliminating certain undertakings or certain products. Such reference shall be permitted on an exceptional basis, where a sufficiently precise and intelligible description of the subject-matter of the contract pursuant to paragraphs 3 and 4 is not possible; such reference shall be accompanied by the words "or equivalent".”

The rule is clear: Procuring authorities must not refer to a trademark unless there is absolutely no other way to describe the sort of product or service they are seeking. In spite of this clarity, a substantial share of calls for tender systematically prevent companies offering Free Software from participating in calls for tender by making reference to trademarks.

⁶⁷ See <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004L0018:EN:HTML>

According to the latest regular procurement report by Open Forum Europe, during the period of October to December 2012, 19% of tendering notices made reference to trademarks.⁶⁸ Among the 148 notices containing trademark references, those references in 41 cases essentially said "the new product must be compatible with our current trademarked product".

Yet the other 107 notices explicitly to discriminate against other offers. In other words, roughly one in seven tender notices for software is anti-competitive.⁶⁹ The single most frequently used trademark was Microsoft's (in 73 notices), followed by IBM (in 21 notices)⁷⁰.

Keeping trademarks and other references to "a specific make or source" out of procurement notices is not optional; it is the minimum of neutrality required by European law. As the figures cited above demonstrate, this rule is frequently honoured more in the breach than in the observance.

Actual repercussions for the procuring authorities are rare. Many potential bidders rely on public bodies as a substantial source of business. In the absence of an effective anonymous complaints procedure, they are understandably loth to take steps which might alienate potential future customers.

⁶⁸ In total, 785 tendering notices were analyzed.

⁶⁹ Open Forum Europe (2013), pp. 8f.

⁷⁰ *supra*, p10.

Deficient Practices And Practical Solutions

In the following section, a series of case descriptions provide a basis for assessing both common problems in the public procurement of software, and potential solutions.

European Commission: Do As I Say, Not As I Do

A highly visible example of exclusionary practices in procurement was provided by the European Commission itself. In December 2010, one day before publishing a revised European Interoperability Framework urging European governments to build interoperable IT systems based on Free Software, the Commission decided in a closed-door meeting to extend its own use of of proprietary desktop operating systems and office productivity software.⁷¹ Besides the more than 36,000 desktop computers at the Commission itself, 55 other European institutions were included in the contract.

When this decision was challenged by questions⁷² from a member of the European Parliament, EC Vice-President Maroš Šefčovič argued that "[t]he Commission does not rely on (or is locked into) one single software vendor", citing the fact that the Commission's IT infrastructure uses software from many different vendors⁷³.

⁷¹ <http://www.nytimes.com/2011/01/27/technology/27msft.html>

⁷² See <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+WQ+P-2011-003807+0+DOC+XML+V0//EN&language=EN>

⁷³ See <http://www.europarl.europa.eu/sides/getAllAnswers.do?reference=P-2011-003807&language=EN>

This reply, however, misses the point.⁷⁴ For one, the Commission was not looking for software in general. It specifically asked for an "office automation platform". Such a request is certainly "sufficiently precise and intelligible" in the sense of Directive 2004/18/EC Art. 23(8).

Šefčovič's claim that the Commission is not locked into any particular software vendor's offerings is led *ad absurdum* by the explanation he gives for avoiding a public call for tender:⁷⁵

“A change of supplier would oblige the contracting authority to acquire equipment having different technical characteristics which would result in incompatibility or disproportionate technical difficulties in operation and maintenance.”

Šefčovič effectively argues that it would be just too difficult and expensive for the Commission to switch to a different supplier --- which is exactly the meaning of vendor lock-in. As a result, the European Commission and the other 55 institutions participating in the contract will now generate several years' worth more of files in secret, proprietary formats. This will drive them even deeper into lock-in, and will present a substantial barrier to choosing a different vendor (and perhaps even a Free Software solution) at the end of the current contract period.

⁷⁴ Karsten Gerloff (2011): The European Commission's locked-in syndrome. <http://blogs.fsfe.org/gerloff/2011/06/06/the-european-commissions-locked-in-syndrome/>

⁷⁵ *supra*

Ironically, Commission Vice-President Neelie Kroes pinpointed exactly this problem in a speech in June 2010:⁷⁶

“After a certain point that original choice becomes so ingrained that alternatives risk being systematically ignored, no matter what the potential benefits. This is a waste of public money that most public bodies can no longer afford.”

The Helsinki Case: High Costs Or Lack Of Motivation?

The actual tendering process is only one building block in the process of adopting Free Software, and not necessarily the most important one. A crucial role is played by the competence and inclination of the relevant departments of the public body in question.

The public sector's complicated relationship with Free Software in procurement is not limited to the actual tendering process. The city of Helsinki provides an example of how a potential move towards Free Software can fail in the pilot stage despite the absence of technical problems.⁷⁷

In January 2011, the Helsinki city council decided to conduct a pilot project in the use of the Free Software office suite OpenOffice. The program would be installed on the laptops of all 600 city board members. If the pilot was successful, a full roll-out to all 21,000 of the city administration's computers would follow.

⁷⁶ See http://europa.eu/rapid/press-release_SPEECH-10-300_en.htm?locale=en

⁷⁷ For a full discussion, see Otto Kekäläinen (2012): Executive summary and analysis of the Helsinki City and OpenOffice case in 2010-2011. <http://fsfe.org/news/2012/news-20120412-02.en.html>

During the pilot phase, users did not receive support from the city's IT department, and had to interact with the rest of the city's administration, which continued to use proprietary formats for document exchange. Even so, only 25% of users said in an email survey that they wanted to return to using the previous proprietary office suite.

At the end of 2011, the IT department distributed a report on the pilot to the city council. The report, a three-page document without any actual calculations, claimed that migrating to OpenOffice would cost the city EUR 21.5 million over a seven-year period.

According to the report, this cost figure was based on a "toolkit" provided by a consultancy firm. The Free Software Foundation Europe filed a freedom of information request asking for the formula by which the notional costs were calculated; that request was denied.

In preparing the report, the city's IT department obtained cost figures only from proprietary software vendors and resellers. Companies providing Free Software solutions were not contacted to ask for their cost projections.

The overall impression is that the IT department wanted to stick with its current proprietary solution regardless of the cost. The department created unfavourable circumstances for the OpenOffice pilot program. When the pilot was successful in spite of these obstacles, the IT department proceeded to prepare a report which was apparently biased in favour of the current solution. The denial of FSFE's freedom of information request indicates that the department would not be comfortable seeing its calculation methods discussed in public.

Similarly half-hearted attempts at self-justification are often used by public administrations that decide to abandon Free Software pilots or even full deployments, such as the German city

of Freiburg⁷⁸ and the German Foreign Office⁷⁹. Such course changes tend to coincide with changes in political control of the relevant organisation, rather than with any specific technical challenges.

Munich: The Thorough Approach

In contrast, the German city of Munich has long served as a prime example of a Free Software migration done right. The LiMux project has been discussed extensively elsewhere⁸⁰. Crucial factors for the project's success are strong political backing and systematic planning of the migration. The city government also views the administration's use of Free Software as an important factor for developing the region's technological capabilities. Recently the project team has identified procurement as a crucial challenge, and is working to design procurement practices which are suited to the city's Free Software needs.

Sweden: Scaling Up

Public sector staff in both the IT department and in the procurement department may lack the knowledge even to know what to ask for. This adds to the difficulty of overcoming the challenges presented by entrenched suppliers.

⁷⁸ <http://joinup.ec.europa.eu/news/advocacy-groups-decry-freiburgs-stealth-return-proprietary-office>

⁷⁹ <http://fsfe.org/news/2011/news-20110511-01.en.html>

⁸⁰ e.g. <https://joinup.ec.europa.eu/elibrary/case/declaration-independence-limux-project-munich-0>

In contrast, an example from Sweden highlights how skilled procurement personnel with sector-specific expertise can deliver solid solutions and substantial cost savings.

One of Sweden's two central public sector procurement organisations, Statens Inköpscentral, in April 2011 published a framework agreement for Free Software and related services for the country's public sector.⁸¹ This is likely the first such framework agreement in Europe, and possibly still the only one.

While most of the agreement consisted of standard language, some clauses were radically different. The procurement authority applied innovative and rigorous criteria in selecting the suppliers under the agreement. The selected suppliers would have to be able to supply both software under an OSI-approved license⁸², and all important services related to the software, such as maintenance, migration, support and training.

The customers receive non-exclusive and indefinite rights to the software, including a right to copy, modify, correct, and further develop it. The customer has the right to hire third parties in order to utilise the software in accordance with the specified terms of use.

The supplier also must indicate to what extent the software license affects the customer's rights to the software. Suppliers are barred from imposing on customers any restrictions that go beyond the terms of the Free Software licenses involved. In addition, suppliers are obliged to make the source code for the resulting software publicly available on their website.

⁸¹ Daniel Melin (Nov 12, 2011): Free Software in the Swedish public sector. Presentation at Free Software Conference and Nordic Summit, Gothenburg, Sweden. http://joinup.ec.europa.eu/sites/default/files/FSCONS_2011-11-12.pdf

⁸² See <http://opensource.org/licenses>

Suppliers were carefully examined to determine their competence in the area for which they were bidding. Among other things, the successful bidders had to demonstrate their active participation in the upstream Free Software projects, both in terms of software contributions and involvement in the project's mailing lists.

Most of the procurement authority's framework agreements are challenged in court by unsuccessful suppliers. In the case of the Free Software framework agreement, there was no court challenge.

Among other things, this case highlights the important role of subject matter expertise in designing procurement actions. The framework agreement was only possible because the procurement authority had at its disposal staff who had both the necessary Free Software knowledge to develop and design innovative terms, and substantial experience in public procurement.

What Role For Policies?

Public procurement is subject to regional, national and European policies, and a number of governments and administrations have adopted policies calling for greater use of Free Software and Open Standards. However, it is doubtful whether these policies are making much of an impact in practice.

More recently, a number of countries have published policies relating to Free Software in the public sector, and to procurement in particular. For the most part, their implementation, where it is under way at all, is still in its early stages.

Netherlands

The Netherlands in 2007 released an "action plan", aimed at increasing interoperability through greater use of Open Standards, reducing supplier dependence through more use of Free Software, and promoting a level playing field in the software market⁸³.

While this policy has been widely referenced in discussions around Open Standards and Free Software, actual implementation in the Netherlands has fallen far short of expectations.⁸⁴ Paapst concludes that "the mere use of the legal instrument (e.g. the European procurement guidelines) is not enough to change behaviour"⁸⁵.

A clear demonstration of how substantially the Dutch policy has failed to take root is the attempt, in the fall of 2011, to deploy a mandatory online environment for all Dutch schools and students, based on the proprietary Microsoft Silverlight platform⁸⁶ – something which is clearly unacceptable under the official policy.

⁸³ Mathieu Paapst (2013): Barrieres en doorwerking : een onderzoek naar de invloed van het open source en open standaarden beleid op de Nederlandse aanbestedingspraktijk. Dissertation, University of Groningen. Available at <http://irs.ub.rug.nl/ppn/353037710>

⁸⁴ Indicating just how insignificant the policy has become, a recent overview of Free Software procurement policies (by a Dutch author, no less) fails to even mention the Netherlands: <https://joinup.ec.europa.eu/software/studies/issues-open-source-procurement-european-public-sector-ii>

⁸⁵ Paapst (2013), p206

⁸⁶ <http://fsfe.org/campaigns/nledu/nledu.en.html>

European Union

After a long and hard-fought discussion process, the European Commission published a revised European Interoperability Framework in December 2010⁸⁷. The document aims to guide public bodies across all member states into making their IT systems more interoperable. Open Standards and Free Software are natural components of this effort.

Compared to the original European Interoperability Framework⁸⁸, published in 2004 by a public sector expert group, the new document uses an understanding of Open Standards⁸⁹ which is substantially watered down. In Action 23 of its "Digital Agenda", the European Commission also promises to "[p]rovide guidance on ICT standardisation and public procurement"⁹⁰; a document to this effect is currently pending publication.

UK

Driven by austerity, the UK government has developed a relatively coherent set of policies relating to the procurement of Free Software, and the use of Open Standards in the public sector, such

⁸⁷ http://ec.europa.eu/isa/strategy/doc/annex_ii_eif_en.pdf

⁸⁸ http://www.fsfe.org/projects/eu/EIF-Brochure_corrected-web.pdf

⁸⁹ There is no universally accepted definition of what represents an Open Standard. Free Software Foundation Europe proposes a strong definition at <https://fsfe.org/activities/os/def.en.html>.

⁹⁰ See <http://ec.europa.eu/digital-agenda/en/pillar-ii-interoperability-standards/action-23-provide-guidance-ict-standardisation-and-public>

as the Government ICT Strategy (March 2011)⁹¹ and a set of "Open Standards Principles"⁹² (November 2012).

To appearances, these policies have not survived contact with reality. In January 2013, the UK government signed a framework contract with Oracle for GBP 750 million.⁹³ This was exactly the type of contract which was no longer considered acceptable. The UK policy has thus comprehensively failed its first big test. It remains to be seen whether implementation will improve with time, but there are substantial grounds for pessimism.

Portugal

Portugal is perhaps the European country which has gone farthest in this regard. In October 2012, the government published a list of Open Standards which public bodies will be required to use in future⁹⁴, as part of a broader Open Standards policy. This policy rests on a relatively strong definition of Open Standards⁹⁵. It

⁹¹ <http://www.cabinetoffice.gov.uk/content/government-ict-strategy>

⁹² <http://www.cabinetoffice.gov.uk/sites/default/files/resources/Open-Standards-Principles-FINAL.pdf>

⁹³ <http://blogs.computerworlduk.com/open-enterprise/2013/02/uk-government-fails-its-first-big-procurement-test/index.htm>

⁹⁴ <http://dre.pt/pdf1sdip/2012/11/21600/0646006465.pdf>

⁹⁵ Under the definition, exclusive rights such as patents reading on the standard must be irrevocably made available royalty-free to the Portuguese state, but not necessarily to others.

remains to be seen what the impact of this policy will be in practice.

Basque Country

The Basque Country region in Spain has taken another interesting approach. It requires that all software developed for public bodies be published in a state-run repository under a Free Software license, in order to enable reuse by other public bodies and local companies.⁹⁶ Interestingly, this initiative was backed by local IT companies, who had observed how similar policies in other parts of Spain had helped companies in those regions to grow and develop valuable expertise.

France: Ayrault Memorandum

The Ayrault memorandum⁹⁷, released by France's prime minister in September 2012 and targeting the country's ministries highlights in detail the benefits of Free Software for the public sector. It:

- sets out a framework for inter-ministerial collaboration on Free Software development.
- calls for the creation of a network of experts to provide specific expertise to the administration.
- points to a framework contract for Free Software support, set up by the central procurement agency, which covers all ministries

⁹⁶ <http://blogs.fsfe.org/gerloff/2012/06/04/common-sense-in-the-basque-country/>

⁹⁷ http://circulaire.legifrance.gouv.fr/pdf/2012/09/cir_35837.pdf English translation: <http://www.april.org/en/french-prime-minister-instructions-usage-free-software-french-administration>

- urges ministries to contribute 5-10% of their cost savings to the upstream Free Software products they are making use of, in order to enable further development of those products.
- orders ministries to remain in regular contact with important Free Software development groups in order to gauge the further course of development. The memorandum specifically names the Mozilla foundation (Firefox and other products) and the Document Foundation (LibreOffice).

Where most Free Software-related policies in EU member states provide a set of rules, which public bodies then may or may not follow, the Ayrault memorandum takes a uniquely practical approach. It provides a series of concrete measures to be taken, many of them assigned to a few specific ministries.

The memorandum is also unique in calling on public bodies to financially support the Free Software development groups which provide the programs used in the ministries.

Italy

In August 2012, Italy's parliament adopted some important changes to the country's Digital Public Administration Act ("Codice dell'amministrazione digitale"). In particular, it revised article 68, which deals with Free Software, open file formats and open data.

The article's new wording requires that before procuring non-free software, public bodies must demonstrate that it is impossible

for them to use either a Free Software solution, or one that has been developed within the public sector.⁹⁸

Free Software, as well as solutions developed in-house at a public body, thus legally take precedence over proprietary offerings.

Analysing the new text, Aliprandi/Piana (2013) conclude that:⁹⁹

“To our knowledge, Italian law is the farthest-reaching law to date favouring the use of FOSS in the Public Administration and the general openness of their IT systems to create a public commons created by public money. The decision was made in a dire situation of the national economy and inspired by practical reasons (spending review) rather than idealistic ones. It seems however a new direction that can hardly be changed. Only it can be made less compelling by a slack implementation, if not outright non compliance. Vigilance is therefore required.”

How To Fix It

Policy makers, administrators, regulators and supervisors are currently failing to adequately address unfair procurement practices. This leads to serious distortions in the software market, making it even easier for entrenched software suppliers to keep

⁹⁸ Aliprandi, Simone and Piana, Carlo (2013) 'FOSS in the Italian public administration: fundamental law principles', *International Free and Open Source Software Law Review*, 5(1), pp. 43 – 50 DOI: 10.5033/ifosslr.v5i1.84. Available at <http://www.ifosslr.org/ifosslr/article/view/84/150>

⁹⁹ *supra*, p.6

their public sector customers locked into proprietary programs and file formats. Public administrations which make use of Free Software, on the other hand, are generally finding that things work as expected, if not better.

As a first step, public authorities need to ensure effective supervision of procurement practices. Procurement actions that fall short of legal requirements need to be fixed, and their retraction ordered if necessary.

Even slightly better monitoring might potentially lead to a significant improvement in procurement practices. For public bodies, procurement requires a significant effort. Having to retract a call for tender, due to complaints from either an excluded competitor or a supervisory body, is a worst-case scenario for many of those working in procurement. An increased risk of such "failure" due to complaints should therefore lead to a higher degree of compliance with the rules.

Monitoring could be improved by increasing the capacity of public sector supervisory bodies. In addition, governments could make independent monitoring of procurement more effective by increasing transparency (publishing more procurement-related data systematically and in open formats), and by giving independent monitoring bodies (whether run by the public sector or by civil society) legal standing to go to court over procurement actions which fall short of the legal requirements.

Frequently, however, legal deficiencies in procurement actions are not due to a desire to exclude competing offerings. Instead, they may stem from a lack of knowledge on the part of a public body's procurement and/or IT staff. This problem can be alleviated through clearer guidance from supervisory authorities and more frequent training of such staff on procurement-related issues. The costs for such measures will be quickly recovered

through the savings generated by more competitive procurement processes.

Setting incentives for good procurement practices may also provide a cost-effective route to improvements. For example, the government of a country or region might award a prize for the best call for tender. Even a reward consisting mainly or exclusively of public recognition would likely prove attractive.

Policies can provide a helpful foundation for efforts by public bodies to improve procurement practices. It is however worth noting that many of the most successful instances of Free Software use in the public sector have occurred in the absence of an effective policy to incentivise them. This is true for both Munich and Sweden. In France, the Ayrault memorandum came at a time when Free Software was already widely used in many public sector organisations; the policy appears to be an effect rather than a cause of the significant use of Free Software.

What avenues are available to ensuring that such practices meet at least the minimal legal requirements of fairness, or perhaps even exceed them?

Policies still matter, because they lay the foundations for improved epractices on a broader scale beyond localised successes. Strong and clear requirements for Open Standards in public sector IT, as exemplified by Portugal, are an important first step.

The Swedish example shows what is possible when public bodies can make use of procurement staff with expert knowledge in both Free Software and procurement processes. It is safe to assume that if Sweden's Free Software framework contract was underpinned by a strong Open Standards policy, many more of the country's public bodies would make use of the arrangement.

In practice, public bodies considering a migration to Free Software are frequently faced with a veritable onslaught of

lobbying from proprietary software vendors, who fear a loss of revenue. As Munich shows¹⁰⁰, strong and consistent political backing is a critical success factor particularly for highly visible migration projects.

Public sector organisations would further be well advised to consistently contribute a percentage of the budget savings which they achieve thanks to Free Software back to the groups developing the products which are being used. Far from being a charitable donation, this would constitute an investment to ensure the long-term development of these products. Such an approach would also give public bodies significant influence on the future direction of the product's development.¹⁰¹

Most of these measures are easy to implement. Their costs, if any, would soon be recouped several times over through the substantial savings they generate. All of them are well within the reach of governments determined to make IT spending more effective, curb the waste of public funds, and promote competition and fairness in the software market.

There is no shortage of ideas which are not only good, but already tried and tested in practice. All that is currently lacking for their wider adoption is political will.

¹⁰⁰ The city administration has certainly seen its share of lobbying, from a visit by Microsoft founder Bill Gates soon after the decision to migrate, to period bouts of publicity along the lines of "Munich's migration is failing". In fact, the project is fulfilling all expectations, and is on track for completion.

¹⁰¹ Some private companies which rely on Free Software make this a regular practice.

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In the course of this mission, Karsten Gerloff works together with developers, activists, business leaders and high-level political decision makers in order to create an environment where Free Software can reach its full potential as the foundation of a free digital society. He leads FSFE's participation in community and policy processes at the European and global level, and is a frequent speaker at a wide variety of conferences and events.

Karsten Gerloff has conducted extensive research on the economic and social effects of Free Software for the European Commission and other clients, and has led the development of training materials for Free Software entrepreneurs in Southern and Eastern Africa.