



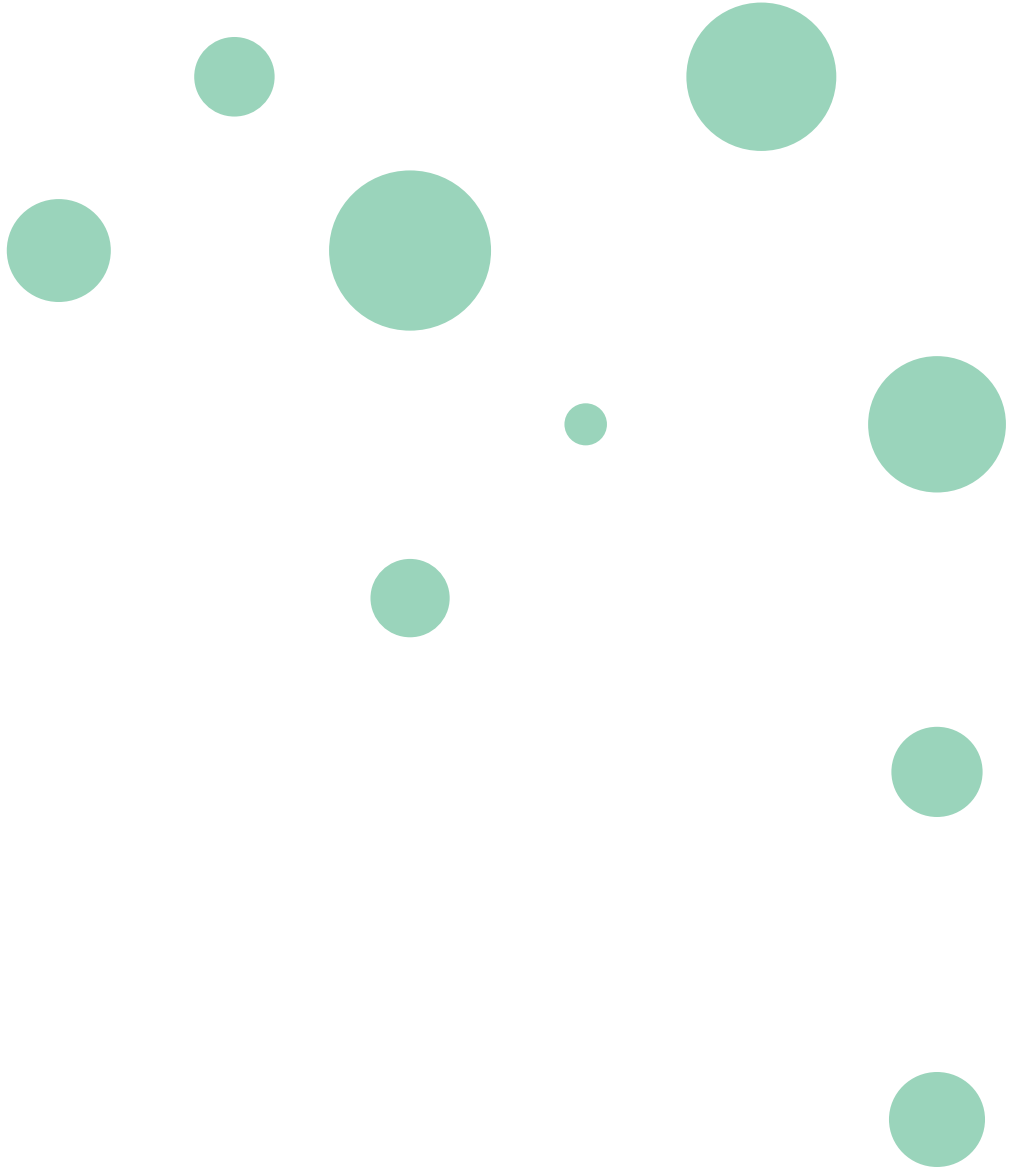
The acquisition of (open-source) software

A guide for ICT buyers in the public and semi-public sectors





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The following existing OSOSS documentation was consulted in creating this document. Unfortunately this documentation is only available in Dutch:

- OSOSS (2004). Open source – a legally sensible choice.
- OSOSS (2004). Software licences. To continue with open-source software, or not?
- OSOSS (2004). Guide to managing legal risks of the government in OSS.
- OSOSS (2005). Manual of Open Standards and Open-Source Software in tenders. Open standards and open-source software and tendering rules.

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Since January 2008 the OSOSS programme office has been succeeded by the programme office Netherlands in Open Connection (NOiV). This programme office facilitates the execution of the action plan Netherlands in Open Connection and is responsible for the translation of this manual into English. Some small corrections were made.



Foreword

The Dutch government has devoted attention to the use of open-source software and open standards for some time. Initially especially in its service to citizens and businesses, but also increasingly as a means to facilitate cooperation between governments. IT systems simply work better if standards are open and software can easily be adapted to the changing needs of users. Many decision-makers feel that open-source software and open standards are above all a subject for and of information technologists.

With this guide, we are attempting to make it clear that opting for open-source software is primarily a sourcing issue. It is an issue that can and must be addressed by budget owners, supported by IT staff and buyers. Only if the budget owner and/or user of a system endorses the necessity and usefulness of openness will open-source software be successful.

With the action plan Netherlands in Open Connection, attention to acquiring and using open-source software will again be increased. The goals of this action plan apply to the state government, local governments and the (semi-)public sector; in short, all principals from the primary process and in the ICT departments of all government organisations must consider:

- increasing interoperability between and with the various elements and forms of service of the eGovernment by accelerating the use of open standards
- reducing dependence on suppliers in the use of ICT by accelerating the deployment of open standards and open-source software
- promoting a level playing field in the software market and also promoting innovation and the economy by strongly encouraging the use of open-source software and by a preference for open-source software in the case of equal suitability.

This policy is not without obligation and to be able to start work, the OSOSS programme office has described two scenarios for the acquisition of software. Both scenario's give great attention to the role of open-source software. In one scenario, purchasing and tendering is not required; in the other, open and closed software solutions must be compared equally.



This document is intended for everyone in the public sector dealing with software purchasing. This is usually the ICT department, purchasing department and the internal client. Given this target group, the document assumes some familiarity on the part of the reader with the purchasing process as well as with tendering rules. For this reason, the document does not contain a complete description of the purchasing process; it discusses only those elements that are relevant to the purpose of this document.

I hope this guide will assist you in consciously applying government policy regarding open-source software and open standards, thereby contributing to an open government that is accessible.

Siep Eilander

Chief Procurement Officer,
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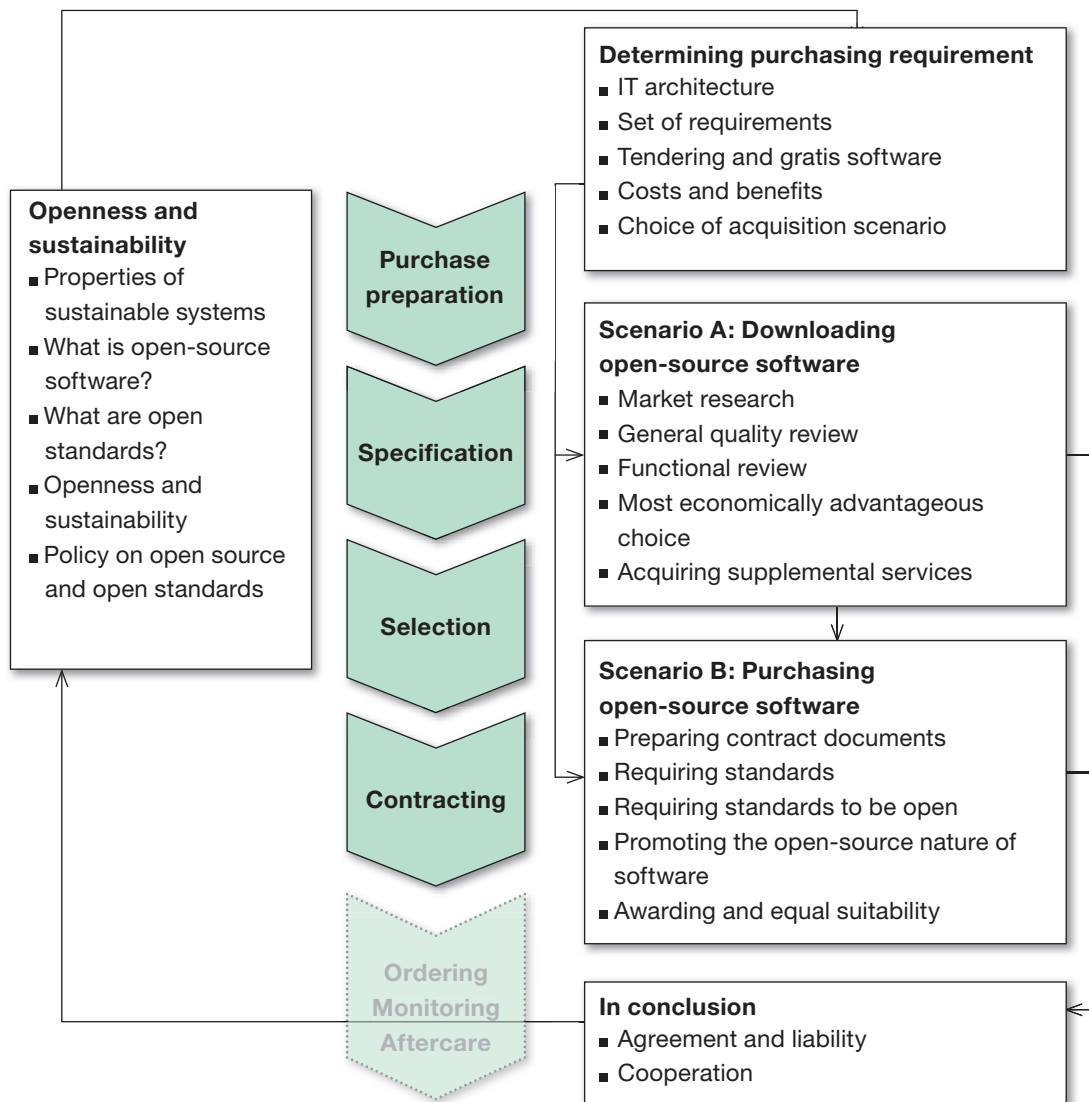
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Reading guide

The relationship between the subjects in this document is presented below. The principles that governments may use in acquiring IT facilities are given first. These principles recur emphatically in the concepts of open-source software and open standards. The purchasing process is represented at the bottom; only a few components are discussed. The core of this document is the two acquisition scenarios, containing practical tips on how software can be acquired.



1.1 Properties of sustainable systems

Some properties consistently recur when discussing software in government:

- Interoperability – information in the system must be available and accessible
- Flexibility – the system must be able to be adapted to new requirements
- Transparency – the operation of the system must be discernible

Each of these properties is at the core of at least two of the following documents: the *action plan Netherlands in Open Connection*, the European Commission's *European Interoperability Framework*, the ICTU foundation's *Netherlands Government Reference Architecture (NORA)*, the OSOSS *Manifesto of Open Governments* and finally the principles of appropriate IT use (or governance) formulated by Prof. Hans Franken, described in *Computer en Recht (Computing and Law)*.

Open-source software and open standards prove to be very well suited to providing these properties. This makes it more than worthwhile to consider using open-source software. It is also the reason that the government has previously decided that the use of open-source software must be encouraged.

The importance of these properties depends on the specific situation in which the software will be used and by whom. It remains up to the tendering department to determine the extent to which these properties are needed at the time of the actual acquisition. A specific determination of needs will indicate how the need can be fulfilled with open-source software and open standards. These principles recur as a guideline in the scenarios discussed in this document.

1.2 What is open-source software?

The idea behind open-source software is that the user of the software has certain freedoms in applying the software. Whereas software licences commonly limit the rights of the user regarding copyright, open-source licences in fact grant the user additional rights. The most significant freedoms offered by open-source software are:

- i. The user may use the software freely and without restriction
- ii. The user may view the source code
- iii. The user may improve and add to the source code

iv. The user may distribute the source code

The terms under which software may be used are always set out in software licences. Commonly used open-source licences are the GNU General Public Licence (also known as GPL), the GNU Lesser General Public Licence (LGPL), the BSD licence, the Mozilla Public Licence (or MPL) and finally the Apache licence.

All open-source licences, however, offer the user the above freedoms by definition. These freedoms are subject to some basic conditions in practice. Together with the freedoms, these basic conditions have been set out by the *Open Source Initiative* in the *Open Source Definition*. Every licence complying with this standard is an open-source licence. Licences presented to the *Open Source Initiative* and approved are *OSI certified*.

The most important basic conditions of the *Open Source Definition* are:

1. The licence must not forbid anyone to give away at no charge, or to sell, the software or part thereof.
2. The licence may not discriminate against users or groups of users and may not prohibit a particular application of the software.

1.3 What are open standards?

The European Interoperability Framework includes the following definition for open standards:

1. The standard is adopted and will be maintained by a not-for-profit organisation, and its ongoing development occurs on the basis of an open decision-making procedure available to all interested parties (consensus or majority decision etc.).
2. The standard has been published and the standard specification document is available either freely or at a nominal charge. It must be permissible to all to copy, distribute and use it for no fee or at a nominal fee.
3. The intellectual property - i.e. patents possibly present - of (parts of) the standard is made irrevocably available on a royalty-free basis.
4. There are no constraints on the re-use of the standard.

The last two criteria are explicitly included to ensure that open standards can always be implemented in open-source software. These criteria ensure that everyone can apply the standard freely and that no one has a preferential position. Open standards thereby offer everyone the same opportunities.



Open-source software and open standards often go hand in hand. This is because open-source software generally uses open standards more than closed software does. There are several causes of this. The development of an open standard often results in an initial reference implementation of the new standard in open-source software. Open-source software projects also frequently result in new open standards. Finally, many open-source projects have the explicit purpose of using open standards.

1.4 Openness and sustainability

Some properties of sustainable systems were described earlier in this chapter, followed by a description of what open-source and open standards are. In practice, these issues are very closely related.

1. **Interoperability.** This property ensures that people have access to their own data and can connect systems to each other without technical or legal obstacles. Open standards are required for interoperability. Especially where governments work together, store data for longer periods or communicate with citizens, interoperability is necessary. For example, there is a European directive regarding the reuse of information. This states that governments must make their documents available in formats that are not bound to specific software, where possible and where appropriate. Open standards fulfil this requirement.
2. **Flexibility.** This property means that systems can be adapted and expanded for new wants and needs. IT systems usually last a long time, often much longer than originally budgeted. Therefore it is important for an IT system to be able to grow with an organisation. This is easily achieved with open-source software because the source code is available and can be freely adapted.
3. **Transparency.** For some systems, it is important to be able to understand their operation. The Dutch Information Security Code, for example, points to the fact that the availability of the source code is an advantage from a security perspective. The government can actively investigate the quality of its software and report problems early. Sometimes the availability of the source code is in fact required. The Personal Information Protection Agency (College Bescherming Persoonsgegevens), for example, requires a code review for systems working with sensitive personal information. Auditing is also compulsory when systems deal with state secrets, based on the Dutch Government Service Information Security Ordinance – special information (VIR-BI).



1.4 Openness and sustainability

4. **Supplier independence.** In the case of open-source software, the free source code means that open-source software can be developed by multiple parties and that various service providers have the ability to support the software fully or offer training and custom work. Governments are not dependent on a single supplier in this case. If a supplier decides to stop developing or supporting a particular package, governments have the last resort of finding another supplier. This guarantees continuity. The Dutch Personal Information Protection Agency also indicates that the source code should be available for certain systems working with personal information, for reasons of continuity.

Regarding open standards, each supplier can support them in an effective manner. End users can thereby potentially choose from software packages from more software suppliers. Closed standards, in contrast, often limit end users in their choices. Because closed standards are often made available to only one or a few suppliers, the range of software supporting the standard is artificially limited.

The above includes general considerations. These indicate the importance of open-source software and open standards. Obviously, government organisations must determine on a case-by-case basis how important these properties are. For a system that is used only once for a non-critical purpose, many of these requirements are not relevant. For systems used intensively for longer periods, these properties are much more important.



1.5 Policy regarding open source and open standards

In September 2007, the secretaries of state of the Ministry of Economic Affairs and the Ministry of Internal Affairs and Kingdom Relations sent an action plan to the house, titled *Netherlands in Open Connection*. In the action plan, the government expresses 'a preference for open-source software in the case of equal suitability'.

This policy is intended to strongly encourage the use of open-source software. The underlying goal is the 'promotion of a level playing field in the software market and promotion of innovation and the economy.' This guide explains how open-source can specifically be included as an equivalent option.

This action plan presents new policy regarding open standards. Starting in 2008, the public sector is working on the principle of '*comply-or-explain* and commit' regarding open standards. Governments must use open standards unless there are significant arguments not to do so. In that case, the organisation must commit to the intention to apply open standards as soon as the arguments no longer apply.

One open standard is mentioned by name: the *Open Document Format*. This open ISO standard is intended for office documents such as text documents and spreadsheets. Governments will be introducing this standard in stages in 2008 for reading, writing and exchanging documents.

Governments will be able to rely on experts of the Dutch government when implementing this new policy. They will be able to draw from the basic list of open standards and be able to use an interoperability framework.



2.1 IT architecture

IT facilities support the goal and processes of an organisation. For this reason, it is important for IT purchasing to be done from a broad perspective on the organisation as a whole. Such a broad perspective is also known as an organisation architecture, in which the goals of the organisation are described, the composition of the organisation, the processes it performs and the IT facilities used in doing so.

These aspects of an organisation are strongly interrelated. A change regarding one aspect has consequences for another. An organisation architecture can describe how these aspects are to develop with regard to each other in a controlled manner, so that the organisation can operate even better in the future.

Closely related to this organisation architecture is the IT architecture. This describes in more detail the available IT facilities and the processes and departments that it supports. The IT architecture should be the starting point in determining an IT need.

An example of an IT architecture is the Netherlands Government Reference Architecture (NORA), developed by the ICTU foundation for the electronic government initiative. The purpose of NORA is to promote coherence and cooperation between governments. NORA is a reference architecture, meaning that governments can base their own architecture regarding e-government on NORA, translating the principles of NORA to their own situation.

2.2 Set of requirements

The purpose of acquiring software is to fulfil an IT need. Making a good choice requires a description of this need in a set of requirements. This set can be used to compare alternative solutions. The set of requirements is the basis for acquiring software, regardless of how the software is acquired.

The set of requirements should also consider the desired openness of the software. The previous chapter indicated the importance of open-source software and open standards for the sustainability of IT systems in terms of interoperability, flexibility, transparency and supplier-independence. The use of open standards is the norm. Open-source software must be considered seriously, so governments must consider the question of the importance of the properties of open-source software previously discussed, given the IT need.



2.3 Tendering and gratis software

Generally, government organisations are free to use gratis software without tendering. This also applies to open-source software, provided, therefore, that it is free of charge (see A.1). In practice, however, that is not always the case. Open-source software licences state that open-source software may be used freely and at no charge. Therefore there is no licence fee attached to open-source software. This does not mean that providers of open-source software should offer their software free of charge.

Providers are free to request other types of compensation than a fee for the right of use, such as a fee for making the software available on a carrier or via the Internet, or for providing manuals and user support.

In the event that acquiring the open-source software costs money, the normal purchasing procedure must be followed for the acquisition of the open-source software and any accompanying services and the question of whether there should be a tendering requirement should be asked. In the event that the open-source software is acquired free of charge, the tendering legislation does not apply and the software can be freely downloaded, i.e., without any form of tendering. This, however, says nothing about the acquisition of accompanying services, which are subject to tendering legislation.

2.4 Costs and benefits

The right to use software may be free of charge, but the actual use of software is never gratis. Licensing fees are just part of the total cost of using software. Hence the *total cost of ownership* (TCO) is often mentioned regarding software. Ideally, a TCO calculation includes all costs of the software, allowing software to be compared objectively regarding costs.

Costs that can be included in a TCO calculation include the acquisition cost of the software, the cost of required hardware, cost of installing and administering the software, cost of training employees, etc. In addition to these direct costs, indirect costs can be included, such as the cost as a result of loss of the software.

Three important notes can be made regarding the practical applicability of TCO studies. First, there is no consensus on which costs are to be included in calculating TCO. This sometimes makes it difficult to compare TCO studies. Second, a TCO study provides no insight into



Het bepalen van de inkoopbehoefte

benefits such as productivity gains. Finally, TCO studies are about money, whereas some costs and benefits are of a qualitative nature, such as flexibility and supplier-independence.

It is therefore much better to analyse all costs and benefits associated with an IT system during the entire period of use. Such an analysis can in part be determined using offers from a tender. In the event that government organisations switch to using software without tendering, it is advisable to conduct an analysis.

2.5 Choice of acquisition scenario

In terms of software acquisition, the government has two possible acquisition scenarios. In one, the software is downloaded free of charge, in the other the software is obtained through a tendering procedure. It is up to each individual government organisation to determine which scenario is most desirable in which situation. Each scenario has advantages and disadvantages.

In the case of tendering, all activities related to finding, describing and evaluating software are actually carried out by the suppliers of the software. The results are then presented free of charge to the government organisation in the form of offers. Based on this, the government can evaluate functionality as well as estimate the costs and benefits of using the software.

In the case of a government organisation acquiring the software itself by downloading, it relies on its own expertise. Knowledge is required, and possibly a large amount of time, to find all available gratis software and analyse it in terms of function and quality. Depending on need, this package could also be compared with available software packages that are not free. Finally, governments themselves must analyse the costs and benefits, as gratis software is not always cheaper. On the other hand, governments could of course contract out these activities.

Finally, there is a difference in acquiring accompanying services. When software is downloaded free of charge, any supplementary services must be tendered separately. In the event of software being tendered, any services can be included in the tendering.

In summary, the two scenarios have the following properties:

Downloading gratis software	Purchasing software
Large emphasis on market research	Large emphasis on specification
Knowledge required	Market does some of the thinking
Services to be tendered separately	Services can also be tendered immediately



The scenarios are described in more detail in the subsequent chapters. This involves standard *off-the-shelf* software and both scenarios are intended to reach a transparent and objective choice. The scenario of downloading software, however, assumes that governments have come to the conclusion, based on the set of requirements, that the properties of open-source software are particularly important.



3.1 Market research

Tendering legislation prescribes a number of procedures intended to enable governments to select the best possible product or service under the most favourable terms. Since tendering legislation is not applicable to the acquisition of gratis open-source software, governments themselves must carefully examine the manner in which they obtain gratis open-source software.

This activity is intended to determine the supply of open-source software. In the normal purchasing process, the government organisation receives a number of offers based on the specifications in the contract documents. These offers describe software packages that the suppliers consider suitable. Without such offers from the market, a government organisation must seek suitable software packages itself. There are various places on the Internet where information on available open-source software packages can be found:

Freshmeat.net – Overview of software, particularly open source

OpenSourceXS.info – Overview of open-source software

OSAIt.com – List of open-source alternatives to well-known closed software

The OSOSS website also has a summary of open-source products and reference projects in which this software is used within the government. This enables a government organisation to create a total overview of software that is able, at first glance, to fulfil the set of requirements.

3.2 General quality review

Market research can result in a range of open-source software packages, which can compel a government to pre-select from among them. For offers based on a set of specifications in the contract documents, the market has already pre-selected a number of software packages based on the desired functionality and quality. If governments are to obtain open-source software themselves, they will have to determine functionality and quality themselves, or have it determined for them. Generally, the more easily an open-source software package can be found, the more likely it is to be a high-quality product.

To objectively assess the quality of open source software, governments can use open source software quality models. These models contain criteria allowing governments to compare open-source software packages with each other. Some common criteria are the age of the software package, the degree to which it is actively developed, the availability of documentation, the existence of a clear project plan, the number of users and support by service providers.



Information on service providers can usually be found on the websites of the open-source software packages. OSOSS also has a page on its website with an overview of service providers that have experience with open-source software as well as the government.

The need for these properties, however, depends on the type of software and the type of user and will need to be determined separately for each case.

3.3 Functional review

The last step in determining potentially suitable open-source software packages is evaluating functionality. In the case of open-source software, functionality can be determined based on different sources. The website and documentation for the software often make a good first impression. The software can of course also be downloaded free of charge and tested in a test environment. Finally, the open-source software packages that are left at this stage of the process probably have a very active user group that can be queried about functionality.

Based on a functional comparison, a further choice can be made of a number of open-source software packages that comply demonstrably with the set of requirements in terms of quality and functionality.

3.4 Most economically advantageous choice

The last step in the process is choosing a specific software package based on the list that was obtained in the previous steps. As indicated in the previous chapter, governments should not be distracted by the fact that the software has no licence fees as such. All costs and benefits related to the various software packages, both quantitative and qualitative, must be analysed thoroughly. If the result of the analysis is very negative, a government organisation can revert to the normal purchasing process as described in scenario B.



Scenario A: Downloading open-source software

3.5 Acquiring supplemental services

Although open-source communities are known for their great informal support ability, this is not a replacement for intensive professional support. Once a government organisation has selected and downloaded an open-source software package, it is free to acquire any supplemental services. These services may consist of installing the software, management and maintenance and making custom adjustments to the open-source software package.

These services are acquired through the normal purchasing process: by tendering the services or by purchasing them from existing umbrella organisations. If the cost of the services is below the threshold in effect, a government organisation is free as always to award the contract, provided the principles of tendering legislation are observed.

Open-source software is open and independent of suppliers. Where pre-existing and freely available open-source software is involved, every supplier is able to offer the same services. Should it be the case, however, that there are still few suppliers who can offer services for the software package, a government could decide to build time into the tendering procedure so that the market can develop the requested services. The government organisation can also opt to tender the software and the services as a single contract at the same time, so that the choice of product does not present an obstacle in terms of competition law in any event (see Appendix A).

Furthermore, in the event of doubt regarding competition in view of the product choice made, taking the safe route is recommended. Little effort will be required to place the software and the services in the market as a single contract. The set of requirements is available at this stage and there is usually a tender to acquire the services nonetheless.

4.1 Preparing the contract documents

This chapter addresses the normal procedure for purchasing software and any supplemental services. Here as well, government organisations have the option of assigning special value to the properties of open standards and open-source software.

For the purpose of elaboration, it is important to make a distinction between open-source software and open standards. Standards refer to the functioning of the software. These are technical specifications. Open standards are standards complying with certain non-technical conditions. The concept of open-source software refers to the licence under which the software is provided.

The following sections will discuss in more detail how governments can support the importance of the properties of open-source software and open standards in their contract documents as a need or want. Such supporting arguments are always required in view of the required proportionality.

4.2 Requiring standards

Standards are technical specifications and as such as part of the set of requirements. Standards of an official European nature may be included in the contract documents as needs or wants without further discussion. In addition to official European standards, there are official national standards. These may be used if there are no European standards. The government can also choose to describe the technical characteristics of the desired standard (see B.2.i).

Standards are often mentioned by name in contract documents because it is virtually impossible to describe the underlying specifications of the standards. Standards corresponding to the stated standard in terms of functionality but having a different name, however, should not be immediately excluded. Therefore in contract documents the name of a standard must always be followed by the phrase 'or equivalent'. This prevents discrimination. Room for alternatives is limited by the detail with which the need is expressed.

Scenario B: Purchasing open-source software

4.3 Requiring standards to be open

In terms of using open standards, the ‘*comply or explain and commit*’ applies. This means that when tendering software, governments must refer where possible to open standards and avoid closed standards. To prevent suppliers offering an ‘equivalent’ closed standard nonetheless, it may be necessary to indicate in the contract documents why it is important for the desired standard and any alternative ‘equivalent’ standard to be an open standard (B.2.iii).

The first chapter described the properties of open standards. These properties are briefly summarised below. For each property, a text is included enabling the contracting authorities to provide evidence as to why the desired standards must be open standards:

1. *Open decision-making procedure*

This property ensures that the contracting authorities are not dependent on one party for the administration and continued development of the standard. The open decision-making procedure makes it possible for different interests to be considered in administration and continued development. It offers the tendering government organisation itself the option to exert influence on the direction in which the standard develops.

2. *Specification readily available*

Publishing a standard allows the standard to be implemented by independent of the administrator of the standard. This increases the independence of the tendering government organisation. Particularly in information chains involving many parties, publishing the standard promotes accessibility. When information is stored for longer periods of time, the availability of the specification of the document format ensures that the information can be read at a later date.

3. *No intellectual property claims*

No licence fees based on intellectual property rights are charged for the use of standards. The royalty-free basis for use means that there is no financial barrier for other participants in the information chain and other software developers to implement or even use the standard. Therefore, this is an important prerequisite for the future accessibility of government information. This is also a prerequisite for implementing the standard in open-source software.



4. *No restrictions on reuse*

Restrictions on reuse of the standard can exclude some parties in the information chain from using the standard in question. For example, a standard could apply only for government parties. If there are market parties in the information chain, these would then be excluded from using the standard in that case. For a tendering government organisation, this may mean that the organisations and institutions to which the tendering government organisation provides data or from which the tendering government organisation receives data cannot use the standard. In that case, the standard may have much less added value for the tendering government organisation. This property is also a prerequisite for implementing the standard in open-source.



Scenario B: Purchasing open-source software

4.4 Promoting the open-source nature of software

It is not possible for contract documents to simply express a demand or desire for software to be open source. Instead, a government organisation must specifically argue why the individual properties of open-source software are required or desired for the government organisation. (See Appendix A.2)

The previous chapter described the importance that the properties of open-source software may have. The degree to which the properties of open-source software can be desired or demanded depends on the type of application. These requirements or wishes can then be included in the contract documents as award criteria.

Government policy is intended to prefer open-source software in the case of equal suitability. This guide indicates in a general sense how open-source software can be incorporated. Governments can, however, also include this principle very explicitly in the contract documents and refer to the reason underlying the policy, which is the 'promotion of a level playing field in the software market and promotion of innovation and the economy'.

4.5 Awarding and equal suitability

At the end of the tender, a government must choose from the various offers. There are two potential award criteria: the most economically advantageous offer and the lowest price. Only software that fulfils the requirements will be eligible. In the case of the most economically advantageous offer, the wants are also included in consideration to arrive at a total score. In the case of the lowest price, only the price of the offer is examined.

In the case of equal suitability, open-source software is preferred. Software is equally suitable if it has the same price if the lowest price is chosen, or if the result is the same if the most economically advantageous offer is chosen.

5.1 Agreement and liability

Open-source licences, like almost all closed-source software licences, exclude the liability of the provider to a large degree if not entirely. The software is supplied as is. Any risks are thereby for the software user, as is customary with closed software.

A first category of risks is that the government as the user may be liable if it appears that the open-source software package infringes on third-party intellectual property. A second category of risks is damage arising from shortcomings, faults or use.

If the software is acquired through a tendering procedure, the offer may include exemptions and guarantees. If the government puts open-source software to use without the involvement of a supplier, it is difficult to designate a third party with which the government can agree on exemptions or guarantees regarding the open-source software. For more information, see appendices C.1 and C.2.

A major advantage of open-source software is of course that the government has complete control over the software and can audit or adapt the software if desired to avoid risks.

5.2 Cooperation

When a government organisation has acquired open-source software and any supplemental services in one of the two scenarios in this document, an entirely new process may begin. Open-source software offers the software user an active role. This is possible in a number of ways.

In the smallest form, adjustments to open-source software are shared with the open-source community. This allows adjustments and additions made by governments to be incorporated in the basic product. This gives the government's investments a broader purpose. Furthermore, the government's administrative burden on such adjustments and additions is reduced.

In its largest form, governments could develop open-source software together to carry out tasks. An interesting new open-source licence in this context is the European Union Public License (EUPL). This licence has been specially developed by and for the European Commission. The licence is aligned with European legislation and is intended to promote the exchange of open-source software between governments.



In conclusion

But even without developing software and sharing it, governments can play an active part. Many governments face comparable problems and challenges. Sharing knowledge and expertise regarding the use of open-source software can save a great deal of time and money. There are now initiatives to this effect at various levels of the Dutch government.



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Purchasing and open source

OSOSS (2005). Open Standards Manual and Open-Source Software in tenders. Open standards and open-source software and tendering rules (in Dutch). <http://www.ososs.nl/node/12330>

Open source quality models

Open Source Maturity Model by CapGemini: <http://www.seriouslyopen.org>

QSOS by Atos Origin: <http://www.qsos.org>

Open Business Readiness Rating by Carnegie, O'Reilly, Intel and others: <http://www.openbr.org>

Total cost of ownership

OSOSS (2004). Investing in openness (in Dutch). <http://www.ososs.nl/node/7262>



Liability

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<http://www.ososs.nl/node/10045>

OSOSS (2004). Open source – a legally sensible choice (in Dutch). <http://www.ososs.nl/node/15135>



A.1 Tendering obligation for OSS acquisition?

A.1.i. Public contract

Regarding OSS, it is interesting to ask whether its acquisition, i.e., without the acquisition of supplemental services, actually needs to be tendered by the government¹. Generally, a contract must be tendered, aside from exceptions set out in the regulations, if there is (i) a contracting authority and (ii) a contract requiring tendering. Given the context of this Guide, it may be assumed that there are indeed a contracting authority. After all, the Guide has been written for purchasing governments. The question of a contract requiring tendering, however, requires a more critical approach. The main concept to determine the material area of application of the current tendering legislation is 'public contract'. This arises from article 29 of the 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 (hereinafter referred to as Directive 2004/18/EC). The main rule of article 29 is that the government must organise a European tender when awarding a public contract. It should therefore first be determined whether the acquisition of OSS by the government qualifies as a public contract.

Article 2, parts a, b, c, and d of Directive 2004/18/EC indicates that a public contract should be understood as a written agreement for remuneration, or pecuniary interest. The 'pecuniary interest' element in particular may be reason to conclude that the acquisition of OSS does not involve a public contract, the result being that the acquisition does not require tendering. A closer examination follows. However, the 'agreement' element could also lead to the same conclusion. The literature does defend copyright permission for the use of OSS being obtained in the form of a unilateral non-focused legal action by the copyright holders, by which they waive their right to exercise their copyright authority towards 'the user'² (in contrast to a reciprocal agreement between the collective of rights holders and the user of the software).³ If this interpretation is in fact followed, the extension thereof is the conclusion that no agreement arises, therefore there is no public contract and acquisition does not require tendering. However, since views on this interpretation are not uniform, there will be no further discussion of the 'agreement' element here.⁴

¹ There is no concrete jurisprudence available in response to the question as to whether the acquisition of OSS is subject to compulsory tendering.

² For example, see article 9, GNU General Public Licence, version 3, 29 June 2007

³ For an extensive discussion of these two forms, see the NvIR publication edited by Thole, E.P.M., Scholten, R., Seinen, W., Open Source Software: An exploration of the legal aspects of open source software, 2005, p.118 ff.

⁴ For further information, see Thole, E.P.M., Seinen, W., Open-source software licences: a civil-law analysis, in Computing and Law 2004/34.

Appendix A: Tendering legislation aspects of OSS

A.1.ii Pecuniary interest

The words 'for pecuniary interest' mean that if there is to be a tendering obligation, contracting authorities must provide consideration that is monetary, or able to be valued monetarily, on awarding a contract. In other words, if a gratis service or delivery is obtained, the 'contract' in question need not be tendered. This also applies to acquisition of gratis OSS.⁵ The question, however, is when a gratis service or delivery is involved, or – more specifically – gratis acquisition of OSS.

It can be derived from relevant jurisprudence and literature⁶ that the concept of 'for pecuniary interest' requires a functional explanation. In other words, it should not be decided too hastily that there is no counter-performance that can be valued monetarily.

With OSS, there is in any event one conceivable specific situation that does involve pecuniary interest. It is not inconceivable that a sum of money should have to be paid to acquire OSS. For OSS for which an open-source licence applies that meets the Open Source Definition, no licence fee (compensation for copyrighted use) may be charged for disseminating the relevant software. This, however, does not prevent a party that provides OSS from asking for compensation of a different type. Instead of a licence fee, for example, such a party could ask for compensation for providing a carrier containing a copy of the OSS. Other types of compensation are also conceivable in the relationship between the providing party and the obtaining party. If a fee is requested, it is obviously no longer the case that OSS is acquired free of charge. The amount of money in question will then have to be compared to the applicable threshold amounts to determine whether a contract requiring tendering is involved.⁷

⁵ Consider also a comparable situation, which is gratis acquisition of freeware such as Adobe Acrobat Reader.

⁶ For European jurisprudence, see for example EcoJ 18 January 2007, case C-220/05 (Auroux/Roanne). For Dutch cases, see for example Court of The Hague 31 January 2001, case-list number 00/297, and Subdistrict Section of Court of Amsterdam 17 October 2002, KG 02/2084. Finally see the example cited in Pijnacker Hordijk, E.H., Van der Bend, G.W., Van Nouhuys, J.F., *Aanbestedingsrecht. Handboek van het Europese en het Nederlandse Aanbestedingsrecht.*, Den Haag 2004, p.70

⁷ It could still be conceivable that there is compensation that does not consist as such of the payment of a sum of money but can be valued in monetary terms. This can include the obligation for the acquirer to make every change and addition to the OSS available in source-code form to the original rights holder(s) if the software is adapted. The OSS to be made available, including modifications and additions, represents an economic value. One example in this context is the Reciprocal Public Licence, version 1.1, 1 November 2002. Article 6.0 of the RPL states: 'You hereby grant to Licensor and all third parties a (...) licence (...) to use (...) Your Extensions, in any form.'



A.1.iii Supplemental services

The points discussed above have been consistently based on the assumption that the government has no need for supplemental services and wishes only to acquire OSS. In practice, however, in addition to acquiring OSS, there will also be a need for supplemental services consisting of software configuration, custom development, implementation services, maintenance and administration. What is the influence of this altered set of needs on the answer to the question of whether OSS acquisition should be tendered? The role of the ban on subdivision is particularly interesting in this sense. In the case of a need to acquire OSS on one hand and supplement services on the other, does the ban on subdivision mean that these two parts can only be placed in the market as a single contract?

The ban on subdivision refers to determining the value of the contract to be placed in the market. The essence of the ban is that if the government actually requires a contract to be carried out, for example, consisting of the acquisition of OSS and supplemental services, the individual parts that the contract consists of cannot be placed in the market separately in order to circumvent the effect of the Directive 2004/18/EC, because the individual parts each represent a value below the threshold amount. From this follows that the ban on subdivision refers to situations in which the individual parts of a contract have some value each time but that that value is too low to be able to determine a tendering obligation. Following on from this, it can be observed that the ban on subdivision is not a factor if it has already been determined that OSS is acquired free of charge. After all, even if it is assumed that the two parts (acquisition and supplemental services) logically form one contract, it does not matter in terms of determining the value whether the acquisition portion is split off or not. The total value remains the same. The separate part regarding the acquisition of OSS in fact represents no value at all. In short, the relevant gratis OSS can be acquired without tendering in this situation and it should be determined separately whether the supplemental services exceed the threshold amount, followed if necessary by a tendering of those supplemental services.

The ban on subdivision, however, will be a factor if an amount is to be paid to acquire OSS that is below the threshold amount. As such, the acquisition portion may not require tendering due to its low value, but if acquisition and supplemental services are linked such that there is in fact one contract, the individual values must be added and the contract must then be tendered as a whole if necessary, if the threshold amount is exceeded and no other exemptions apply. By way of illustration, there may be such entanglement if the government needs OSS but it is also known

⁸ See article 9, part 3 of Directive 2004/18/EC

⁹ In that case, a point of interest for the government is often that it has tendered framework agreements for the supplemental services intended here. The required OSS can then be acquired for free and the required supplemental services may be obtained under one of the existing framework agreements



Appendix A: Tendering legislation aspects of OSS

that the OSS in question will require adjustments in some areas to be connected to existing systems.¹⁰

Another question that is a factor regarding supplemental services is whether a product choice does not excessively determine the choice of supplemental-service provider in advance (by means of acquisition without costs of a particular type of open-source software). Furthermore, if so, is this objectionable in terms of competition law. We believe there is nothing wrong with this in principle. One of the properties of OSS is in fact that products and services can be developed, or continue to be developed, on it by everyone, using the freely available source code. If only one provider offers services for an OSS product, it will apparently have been the choice of other suppliers not to develop or offer other products or services.

The answer to the second question, however, is different if there has in fact been insufficient competition, or no competition, on the relevant service market. This situation could occur if the source code for an open-source software product has in fact not been freely available (or not available for long enough) to the relevant service market. Consider a situation in which a provider of newly developed open-source software keeps the software to itself for a while to be able to develop accompanying services at the same time. It would then be possible for the provider to have a more or less exclusive position in terms of a service portfolio just after the software is provided to the government organisation, without the position having arisen in a natural manner. This could also manifest itself in the form of a knowledge advantage for the supplier that did have the source code. In that case, the role of the government is not entirely without obligation. By choosing a product, the government helped to create such a situation.

In this case, there are two ways for the government to cause a level playing field to be created nonetheless. The government can make the open-source software acquired generally available, including the source code, and incorporate sufficient time in the tendering procedure to give other suppliers time to develop the requested services. The government organisation can also opt to tender the software and the services as a single contract at the same time, so that the choice of product does not present an obstacle in terms of competition law in any event.

¹⁰ If the acquisition of OSS is not free and the total value of the contract (acquisition of OSS and supplemental services) is above the applicable threshold amount, existing framework agreements will often be insufficient. After all, the framework agreements usually refer only to services such as programming, maintenance and consultancy. Software acquisition is not covered.



A.2 OSS as a need or a want?

If the government needs to acquire software and fulfils that need by means of tendering, the relevant question arises of whether it may specifically prescribe that it wishes to acquire OSS. In other words, can OSS be incorporated in the tendering documents as a want or a need?

A.2.i Classifying OSS

We believe the various properties of OSS should be qualified in terms of tendering law as award criteria, not as a technical specification. The definition of a technical specification is apparent from Annex VI, article 1, part a and b of Directive 2004/18/EC. The core of the definition (for public contracts for deliveries and services) is that it involves a specification to describe the required properties of a product or service. The properties of OSS refer not to software or its technical characteristics but in fact the terms of use, legal and otherwise. The properties of OSS refer to aspects such as availability of the source code and the conditions for modification and further distribution of the software.

Directive 2004/18/EC recognises two types of award criteria: lowest price and most economically advantageous entry. If the government opts to evaluate the offer on more elements than just price, it will automatically arrive at the most economically advantageous entry. The government is free to apply various subcriteria to determine the most economically advantageous entry, as long as they relate to the object of the tender. Article 53 of the Directive 2004/18/EC mentions as an example 'the quality, price, environmental characteristics, (...) date and deadline for delivery or execution'. The terms of use (legal and otherwise) to which the properties of OSS refer fit these examples. They in fact refer to the object of the tender and serve to define the most economically advantageous offer.¹¹

A.2.ii Basic terms

OSS is not a fixed concept. Simply prescribing OSS as a need or a want in a tender will therefore not be permitted, as this is in conflict with the transparency principle.¹²

¹¹ Furthermore, a contracting authority is free to prescribe or not to prescribe a award criterion in the form of a minimum requirement that the supplier simply must fulfil. The award criterion in that case is a delivery requirement by nature.

¹² See, among other things, ECCJ, 29 April 2004, C-496/99 (Succchi di Frutta). It is established jurisprudence for the European Court of Justice that all terms and conditions of the granting procedure are formulated in a clear, precise and unambiguous manner in the tendering documents so that all properly informed and normally attentive entrants can understand the correct scope and interpret it in the same manner.



Appendix A: Tendering legislation aspects of OSS

The government will therefore need to define, using specific characteristics, what is meant by OSS if the content of the contract is to be clear (or potentially clear) to everyone in the same way.¹³ There then remains the question of whether it is permitted to apply the properties of OSS as a need or want in a tender. The answer to that question is brief in that there are no regulations prohibiting this. However, the following prerequisites must be taken into account:

- The government must always prepare the contract documents as objectively as possible for a tender. The contract may not be written with a particular product and/or a particular supplier in mind. This arises from the principles of objectivity and non-discrimination. The government can comply with these principles by functionally representing its needs in the tendering documentation. The properties of OSS, which are often essentially of a legal nature, must be reviewed in terms of their function. If in fact this functional purpose is presented in the tendering documents, the likelihood is greatest that suppliers of products that the government had initially perhaps not considered can participate in the tender. This is not only in the interest of the relevant suppliers but also that of the government, which will have a broader choice of solutions fitting the contract documents.
- The various characteristics of OSS prescribed in a tender as a need or a want are qualified as award criteria.¹⁴ Directive 2004/18/EC says nothing more regarding award criteria than that the criteria must be related to the object of the tender.¹⁵ Aside from this specific rule, however, the proportionality principle always applies underlyingly.¹⁶ The stated needs and wants must always be proportionate to what contracting authorities wish to obtain by means of a tender and should also not be more restrictive than is necessary. In essence, this involves a weighing of interests between the interests of the government and those of the suppliers. The proportionality principle (together with the transparency principle) means that the government will always have to be able to account for its application of a given need or want, as well as why the goal is presented as a need or as a want. After all, a need has more serious consequences than a want. A need has a 'knock-out' character. If the government cannot provide accountability regarding a given property, or in other words if it follows from the weighing of interests that the importance of stating the need or want is less than another interest belonging to the market, the need or want in question must be abandoned.

¹³ For an elaboration of some of these properties, see the publication by the ICTU foundation, *Manual of Open Standards and Open-Source Software in Dutch and European Tenders*, version 2.1, May 2005, as well as www.opensource.org/docs/osd, which further explains the Open Source Definition.

¹⁴ Further explanation will follow in the next section of part 3 of the Guide.

¹⁵ See article 53, Directive 2004/18/EC.

¹⁶ This principle will be codified in tendering law, at least according to the proposed law currently before the Upper Chamber.



The aforementioned accountability may consist of various arguments often based on the need as such and the circumstances in which it arose. A relevant circumstance might be, for example, that legislation and regulations prescribe certain characteristics of OSS.



B

Tendering legislation aspects of open standards

B.1 What is an open standard?

A standard is an agreement between two or more parties on the configuration and significance of data. Standards are often used in the ICT sector, for example, to make different types of hardware and software components more exchangeable. Where significant here, two types of standard can be defined: open and closed. Open standards are characterised by a number of elements:

1. The standard is adopted and will be maintained by a not-for-profit organisation, and its ongoing development occurs on the basis of an open decision-making procedure available to all interested parties (consensus or majority decision etc.).
2. The standard has been published and the standard specification document is available either freely or at a nominal charge. It must be permissible to all to copy, distribute and use it for no fee or at a nominal fee.
3. The intellectual property - i.e. patents possibly present - of (parts of) the standard is made irrevocably available on a royalty-free basis.
4. There are no constraints on the re-use of the standard.

Closed standards are standards not fulfilling these conditions. Standards may be kept closed because standards, if they are to be designated original under the Copyright Act, should be considered works protected by copyright. This gives the author the option of permitting publication and reproduction by third parties only under certain conditions (such as payment).¹⁷

B.2 Open standards as a need or a want?

B.2.i Rules on technical specifications

Article 23 of Directive 2004/18/EC provides further rules regarding the use of technical specifications in a tender. In essence, the technical specifications applied must be objectively applicable and non-discriminatory. Contracting authorities may not specify a contract such that only one supplier can fulfil it. Article 23 of Directive 2004/18/EC expands this general principle by various specific rules on how contracting authorities should include technical specifications in the tendering documentation. These specific rules seem to pose few obstacles to referring to an open standard in a tender. A new factor compared to the old directives¹⁸ is that contracting authorities are free under Directive 2004/18/EC to refer, in addition to (i) European standards or international standards¹⁹ or (ii) in the absence thereof, nationally established standards, to (iii) performance requirements and functional requirements, provided that such requirements are defined precisely so that entrants can determine the object of the tender and the contracting

¹⁷ See also footnote 16, part A, p. 26 ff.

authorities can award the contract. A reference to standards (i.e., i and ii) must always include the words 'or equivalent'.

Entrants are always entitled to demonstrate that the solution they propose is equivalent to the stated standards, performance requirement or functional requirement. If the government therefore wishes to refer to an open standard, it must determine whether a European or international standard is involved, or, in the absence thereof, a national standard, or a performance requirement or functional requirement. As soon as an affirmative answer can be given, it will be possible – subject to the prerequisite to be discussed below – to use the open standard as a technical specification in a tender. When are these standards or requirements involved?

- The terms performance requirement and functional requirement are self-explanatory. In the context of information technology, these are requirements describing a performance that the technology to be supplied must be able to achieve, and requirements describing a function that the technology to be supplied must contain or be able to perform. According to Directive 2004/18/EC, environmental characteristics are also included in this category of technical specifications.
- A standard is defined in Annex VI, article 2 of Directive 2004/18/EC as: 'a technical specification approved by an accredited standards institute for repeated or continuous application and not required to be observed.' A European, international or national standard is then involved if the relevant standard is established by a European, international or national standards institute and provided to the public.

B.2.ii Prerequisite

Aside from the aforementioned rules regarding the use of technical specifications, the proportionality principle also plays a part in the use of open standards. The needs and wants stated must always be in a reasonable proportion to what the contracting authority wishes to obtain by means of a tender and should also not be more restrictive than necessary. The proportionality principle (together with the transparency principle) means that the government will always have to be able to account for its application of a given need or want, as well as why the goal is presented as a need or as a want. Based on the content of the open standard, the need to place a contract in the market and the use of the open standard in doing so, as well as the circumstances in which that need has arisen, the government must ensure accountability.

¹⁸ Directive on Deliveries (93/36/EEC) and Directive on Services (92/50/EEC).

¹⁹ European standards may also include national standards, but these must be national standards implementing European standards.

Appendix B: Tendering legislation aspects of open standards

B.2.iii Other elements associated with open standards

The aforementioned properties of open standards must be distinguished from the content of an open standard, which therefore qualifies as a technical specification. These properties are not part of the standard itself but determine its open nature. In a given case, the government may have an interest in the open standard in fact being observed by suppliers rather than a closed equivalent, for example. To prevent suppliers having offered a closed equivalent in such a case from demanding acceptance of their solution offered by invoking article 23, part 4 or 5 of Directive 2004/18/EC, the government may also include one or more properties of open standards as part of the award criteria. Obviously, the government must be able to argue for the use of those properties in view of the required proportionality.

In general, the government will acquire open-source software in one of the following ways:

1. the government downloads the open-source software directly from the Internet without the involvement of a third party;
2. the government acquires the open-source software including additional service (through a tender) from a third party.

The following text will discuss how the government can limit the risks of using open-source software as much as possible in both situations. Software may contain errors, resulting in damage. This is true of both closed and open-source software. Virtually all open-source licences exclude liability for this type of damage. Although liability can largely be excluded under Dutch law, liability for intent cannot be excluded. Such provisions are considered void as they are in conflict with morality (art. 3:40 of the Civil Code). What is less clear is whether the restriction or exclusion of liability for damage resulting from gross culpability or deliberate recklessness is also in violation of morality by definition.²⁰

Furthermore, a judge will always consider the circumstances of the case in ruling whether it is reasonable and acceptable to invoke liability limitation. In the event that someone distributes open-source software and has consciously hidden a virus in it, the distributor can probably be charged regardless of the liability exclusion. This is of course on the condition that there is an attributable shortcoming. Open-source projects also often involve many different developers. There is a likelihood that the software contains portions to which third parties hold rights without their having given permission for the use or further use of those portions. This can have negative consequences for the free use of the software.

The question of whether open-source software should be tendered was previously discussed in Appendix A and will therefore not be discussed further in this chapter.

²⁰ It is also important to note that there are various gradations of deliberate recklessness. In any event, the extent to which it is permissible for an OSS supplier/distributor to invoke its limitation of liability must be determined for each case individually. Facts and circumstances that are important in that sense include the price paid and other licence conditions, the relationship (including power relationships) between the parties, expectations created regarding the OSS and the degree to which the scope of the liability limitation/exclusion was known or should have been known to the parties.

Appendix C: Obligation law and copyright law aspects of OSS

C.1 Situation 1: Government downloads OSS without the involvement of a third party

C.1.i Risk-limiting measures in the absence of an implementation partner

After downloading, the government will usually be bound by an open-source software licence. These licences characteristically exclude the liability of the supplier to a large extent, if not entirely, just as with almost all closed-source licences. In other words, the software is supplied as is. In that case, the supplier accepts no liability whatsoever for any shortcomings, faults or damage that may arise from use. In this situation, the government cannot fall back on any contractual assurances it has obtained from an open-source service provider.

Therefore it is important for the government to do extensive product orientation when acquiring open-source software. Such an orientation can involve an examination of the origin and popularity of the open-source software, which indicates the number of interested parties involved. For example, the guarantees built into the open-source project to prevent copyright infringements can be determined. It is also important to establish who is offering the software and which well-known parties are affiliated with the software project. The government will also need to look at the community built around the open-source software. The government therefore has an obligation to investigate in that context, especially when the software is offered free of charge. The government as consumer may be expected to investigate to some extent – by means of tests and audits – the functional properties of a product and the legal conditions under which the software is acquired. Version numbers, readme files and documentation for open-source software, for example, may indicate the stability of the software.

Another way to prevent potential risks is to take out insurance. There are insurers who provide coverage for liability due to infringement of intellectual property rights. Such insurers will assign great importance to the procedures followed in the development of the software. Also important will be the precautionary measures taken by the insured party to limit damage as much as possible in the event of disasters. This can include emergency plans, alternative options, back-up and recovery procedures.²¹

²¹ A.W. Duthler, 'Advantages and disadvantages of open-source software', in: A.W. Duthler (ed.), Privacy, security, efficiency and trust: new challenges for the government, The Hague, June 2003



C.2 Situation 2: Government acquires OSS from an open-source service provider

If the government controls the implementation and administration of open-source software and therefore has not contracted it out to a third party, it is difficult to designate a third party with which the government can agree on exemptions or guarantees regarding the open-source software. This is different with government bodies opting for a tendering procedure regarding the delivery, implementation and administration: these can include the service provider's liability (or increased liability) in tendering procedures. Of course, in the case of open-source contracts below the threshold amount, the government can negotiate with service providers on exemptions and guarantees. In this situation, we assume that the government will sign a contract, whether via a tendering procedure or not, with an open-source service provider that supplies the open-source software and offers additional services.

Note: in this situation as well, it is important for the government, aside from the contractual assurances it may negotiate, to take the precautionary measures discussed for Situation 1, including extensive product selection and investigation of the underlying open-source community.

C.2.i Limiting damage in the event of errors in the open-source software and in the event of infringement on intellectual property rights in the use of open-source software

A government organisation wishing to cover itself for damage caused by software errors will have to make good arrangements with the service provider that implements or administers the software. For example, a government organisation can require its service provider to give certain guarantees regarding the maximum outage period for the information system. Regarding potential infringement of intellectual property rights as well, good arrangements with the service provider implementing the software in the government can contribute to risk management. Open-source licences generally permit additional agreements in this regard. The government can, for example, agree on indemnification with its service provider.



Appendix C: Obligation law and copyright law aspects of OSS

C.2.ii Which specific arrangements could governments make with suppliers regarding guarantees/liability/indemnification?

Subject	Additional arrangements
Guarantee	Guarantee that the service provider is entitled and authorised to supply the open-source software, grant the rights of use and provide the services under the agreement to be signed.
	Guarantee that fulfilment of the agreed performances is not in violation with other agreements signed by or on behalf of the service provider.
	Guarantee that the product supplied fulfils the terms of normal compliance (for instance article 7:17 of the Dutch Civil Code)
	Guarantee that the open-source software is efficient, proper and coherently written
	Guarantee that the open-source software is suitable for use in connection with hardware and software in use in the government
	Guarantee that the open-source software is suitable for the purpose for which the government acquired it
	Guarantee that the open-source software meets technical standards (including international standards) and standards (including open standards)
	Guarantee that the open-source software contains no hidden functionality, including viruses, worms, etc.
Liability	Require that if the service provider demonstrably falls short in fulfilling its obligation(s), it will be liable to the government for compensation of damage incurred or to be incurred by the government
Indemnification	Declaration that the programme does not violate the rights of third parties and that the government is indemnified by the service provider for the consequences of a stated infringement of intellectual (property) rights of said third parties, personality rights and claims regarding knowledge, unfair competition and the like included, regarding the reproduction, publication or use of the open-source software
	The service provider will pay all established judicial and extra-judicial costs and damages or settlement fees inasmuch as they refer to such a claim. The client will report the damage to the service provider in writing as quickly as possible.



Indemnification	The service provider engages to take all measures, at its own expense, that may contribute to prevention of stagnation on the part of the Client and limitation of the additional costs and/or damage to be incurred.
	The Client declares that it is prepared, if it invokes the above indemnification, to leave the handling of the matter, including settlement negotiations, to the service provider provide the cooperation reasonably required to the service provider if requested. The service provider engage to compensate the Client immediately for the costs for the Client associated with the cooperation it requests.

It should be noted that the degree to which the above legal safeguards can actually be agreed on with the service provider obviously depend on the nature (e.g., standard vs custom software) and size of the specific purchase contract. This applies equally to the purchase of closed-source software.

C.2.iii Maintaining open-source software

It is important to reach a good maintenance agreement with the service provider enlisted by the government for implementation. The government may try to divert, by means of the contract, damage that it could incur as a result of maintenance not being continued onto the service provider that has assumed responsibility for the maintenance.

As with closed software, however, it is still important to perform extensive product selection with open-source software. Such a selection can involve an examination of the origin and popularity of the product, which indicates the number of community members involved. These aspects may determine the continuity of maintenance.

But what if the community ceases to exist? The advantage of open-source software is then that the source code is freely available, so that all parties having knowledge of the relevant software can offer support, in principle.²² Now that the government body also has the source code, it can oversee proper documentation of the software and the modifications made to it, so that the government body is less vulnerable as well. After all, the government body may assume maintenance or assign it to a third party.

²² See also footnote 3, p. 21.



Appendix C: Obligation law and copyright law aspects of OSS

C.2.iv Which specific arrangements could governments make with suppliers regarding maintenance?

Subject	Additional arrangements
Maintenance	Guarantee that the open-source software continues to fulfil the specifications set out in writing during the term of the maintenance agreement, including at peak times.
	Obligation for the service provider to inform the government as quickly as possible of errors/faults in the open-source software
	Obligation for the service provider to document user experiences regarding the open-source software and offer modifications or additions to the open-source software by means of new versions
	Guarantee that the open-source software will be fully operational at least . . .% of the time that it is used on government equipment

C.3 Subjects relating to both Situation 1 and Situation 2

C.3.i Will the purchased open-source software be combined with closed-source software?

Before the government acquires open-source software, it will have to determine whether it will distribute the software to third parties in combination with closed-source software. If that is the case, the government must take into account the 'viral/infectious nature' of certain open-source software licences, such as GPL.²³

In short, the viral effect means that if open-source software is combined with closed-source software, the ultimate software product should be covered by the relevant viral open-source software licence if reproduced as a whole. Opponents of open source believe that this viral nature does not acknowledge the intellectual property rights to the closed-source software used. This is, however, not the case at all. The underlying idea with GPL, for example, is that open-source software must always be freely available on redistribution. If the government intends to combined closed-source software with open-source software (provided under a viral licence) to develop a new programme, it must be aware that suitable arrangements may have to be made with the copyright holder to the closed-source software. This can prevent misunderstandings and avoid copyright infringement on this software. Merely bundling GPL-licensed software with another

²³ The fact that this may be a risk in practice is evident from the Progress vs MySQL case, in which open-source software was distributed combined with closed-source software without the source code being released. See <http://www.networkworld.com/news/2002/0305settleopl.html>.

work that is not covered by the terms of GPL, for example, does not cause the other work to be covered by the effect of GPL.²⁴

It should be noted, perhaps superfluously, that modifications made to software distributed under GPL can be applied normally for personal use. Only once the modified software is made public is the government required to distribute the software under the terms of GPL.

C.3.ii In what cases are the adaptations to open-source software subject to a publication obligation?

Whether a publication obligation exists regarding modifications to the open-source software depends on the content of the applicable open-source software licence. Most open-source software licences contain no general requirement to distribute open-source software (modified or otherwise). Only once the government intends, due to its policy, to make open-source software (modified or otherwise) to third parties, should the specific distribution terms of the applicable open-source software licence be observed.

There are, however, open-source software licences, such as the Reciprocal Public Licence, that require the licensee to return modifications made to the open-source software to the community, regarding of whether the modified software is only used internally, or distributed to third parties.²⁵ The BSD licence is a very different example that does not even require the licensee to provide the source code when distributing derived works. When redistributed, the modified software may even, under certain conditions, be converted into close—source software. Therefore it is important for the government to determine for itself when acquiring open-source software whether it wishes to distribute the software further and under what conditions. The consequences of using a particular open-source software licence should therefore be documented at an early stage.

²⁴ See art. 5 of GPL3: 'A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger programme, in or on a volume of a storage or distribution medium, is called an "aggregate" if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this Licence to apply to the other parts of the aggregate.'

²⁵ See www.opensource.org/licenses/rpl.php and http://en.wikipedia.org/wiki/Reciprocal_Public_License.



Afterword

This document has focused on acquisition of *off-the-shelf* software, with an emphasis placed on open-source software and open standards. Two important acquisition scenarios have been discussed. I hope this document thereby answers a number of pressing questions from overnments about open-source software and acqu0sition. I also hope that it may help governments to make the new policy on open-source software and open standards possible.

Of course, some issues have not received sufficient attention. First, not all software used by governments is actually acquired. Software is increasingly being outsourced. In these cases as well, there may be a role for open-source software. Another issue that was not discussed is the sharing of open-source software between governments and the creation of open-source ommunities. These are just two subjects to which a further publication could justifiably be devoted.

This guide is one of the initial resources for governments for starting to work with the new policy. Other resources are also available starting in 2008. Two of these resources are a basic list of open standards and an interoperability framework, focusing on the definitions and role of open and free specifications in addition to open standards.

This guide is indeed not set in stone. Comments, suggestions and additions are therefore greatly appreciated.

December 2007, Maarten Wijnen-Meijer, OSOSS



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