Ministry of Economic Affairs

The Netherlands in Open Connection

An action plan for the use of Open Standards and Open Source Software in the public and semi-public sector

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Contents

a. Interoperability, open standards and open source software (introduction)

The Cabinet intends to achieve a number of goals during this cabinet session, such as good participation from citizens, sustainability of information and innovation, and a reduction in administrative burden (by supplying information only once, for example). With the aim of realising these goals in an efficient manner, the Cabinet intends to use competition in an effort to encourage parties to realise or help realise the goals listed. Interoperability between businesses and governments, between citizens and governments, and between the government bodies themselves is a necessary condition for achieving these social goals.

The Cabinet refers to interoperability as the power of systems and information systems to be able to exchange data and information by electronic means within and between organisations. Interoperability is an essential prerequisite for a future-proof development of services and applications directly or indirectly enabled by ICT. The Dutch Lower Chamber, with an eye on these social goals, has announced that it considers the use of open standards and open source software by the government and the public and semi-public sectors to be important. For this reason the Lower Chamber has asked the Cabinet to prepare a plan for this. The Cabinet is fulfilling the wishes of the Lower Chamber with this action plan.

1. Introduction and Cabinet policy line

Open standards and open source software are often mentioned in a single breath. They are actually two different topics for which separate actions have been formulated in sections 3 and 4 respectively. The reasons why this action plan addresses open standards and open source software together is that they are both essential for achieving increased openness in ICT systems.

Open standards are about making and applying agreements on the specifications for the interfaces between applications, services, systems and networks that interact. Agreements may relate to technology, semantics (unity of language) and business processes. By definition, open standards have no barriers to the use of the standards by ICT users and ICT providers. Open standards are necessary to achieve interoperability and supplier-independence.

Open source software is software which has freely available source code enabling the licensee to inspect, use, improve, expand and distribute the source code. There are no licence costs involved with open source software (although there are introduction and maintenance costs just as for closed software). The range of open source applications available doubles every two years. Much of the development in open source software is taking place within Europe. Although the software is made available for use free of charge, the replacement value of open source software is estimated at this moment to be 12 billion euros. Open source software therefore has a real economic value. Encouraging the use of open source software can improve innovation and competitiveness in the ICT sector[1].

Both open standards and open source involve an open decision-making process, few or no intellectual property restrictions and supplier-independence[2]. If software uses open standards it becomes possible to involve different suppliers in the development and implementation of ICT systems that connect to each other.

The use of closed and restricted specifications for ICT standards often involves associated limitations such as confidentiality declarations and licensing agreements. Such limitations hinder the freedom of choice of software (both open and closed). Such problems do not occur with open standards. The use of open standards therefore has a threshold-lowering effect on the introduction of (open source) software.

An increasing number of government organisations are taking initiatives to ensure openness in their ICT systems.

Manifesto of the Open Government Organisations

Forty-seven government organisations, including a large number of local authorities, have already signed the 'Manifesto of the Open Government Organisations' to achieve increased openness in their ICT systems in the following areas:

- supplier-independence;
- transparency, controllability and manageability;
- interoperability;
- digital sustainability

1 UNU-MERIT research from November 2006, commissioned by the European Commission, into the economic impact of open source software on the innovation and competitiveness of the ICT sector in the European Union, which indicated that open source ("free") software makes a large contribution to the European economy (http://ec.europa.eu/enterprise/ict/policy/doc/2006-11-20-flossimpact.pdf).

2 See appendix A for a more detailed description and a summary of advantages and disadvantages of open standards and open source software.

The 'open' government organisations demand that their ICT suppliers take note of these wishes. These government organisations want to retain sufficient freedom in the use of their ICT systems and to ensure effective accountability in terms of policy and implementation.

b. Analysis

The Cabinet has recently recognised that interoperability is crucial for achieving certain social goals. Immediate advantages are for example improved government services through better accessibility and exchangeability of information. For these reasons the Cabinet[3] has recently encouraged the application of open standards in the implementation and renewal of ICT systems for government applications, to increase freedom of choice in the use of software, particularly by considering open source software as a valid alternative during sourcing[4].

From 2003 to 2005 the OSOSS programme – conducted by the ICTU foundation by order of the Ministry of the Interior and Kingdom Relations and the Ministry of Economic Affairs – encouraged government organisations in the application of open standards in their information systems and informed them about the possibilities of open source software. In 2006 the Standardisation Board and Forum were set up to make clear which standards should (preferably) be used by public and semi-public bodies in their communication both internally and with citizens and businesses[5]. The OSOSS programme[6] was extended to 31 December 2007; this now focuses on the application of open source software by government organisations in their information systems. Research into the current usage of open standards and open source software presents the following picture[7]:

- Nearly 60% of government and semi-government organisations have stated that they are using open standards. Open standards are included in tendering procedures and protocols in almost 55% of government and semi-government organisations. In around 27%, open standards are always included and in around 38% they are sometimes included.
- Around 47% of the government and semi-government organisations questioned claim to be working with or using open source software. This is a high market penetration compared with the national average.

Since 2002, the Syntens programme OASE (Open Aanbod Software Expertise – Open Supply of Software Expertise) has encouraged the application of open source software in SMEs. Since the middle of 2004, with subsidy from Economic Affairs, the Media Plaza Foundation has organised freely accessible seminars and workshops "To Business with Open Software" for a wide target group of SMEs and government bodies.

Despite these apparently well-appreciated initiatives and the results achieved, they have not yet secured the intended result. The possibilities of switching to open alternatives or considering

3 SEO, Costs and benefits of open standards and open source software in the Dutch public sector. Amsterdam, 2004.
4 Letter dated 9 October 2003 from the Minister for Governmental Reform and Kingdom Relations to the Lower House re "Action Programme Electronic Government"; Lower House, business year 2003-2004, 26 387, no 20
5 Dutch Government Gazette 7 April 2006, no 70 p. 8 (Decision to institute Standardisation College and Forum)
6 www.ososs.nl
7 Marketcap, Survey on use of open standards and open source software in government and the public and semi-public sector, 2007.

these as serious alternatives in policy or business decisions (for example new tenders) have not proved to be so easy. The Cabinet has identified the following causes for this (some of which may be more applicable to either open standards or open source software):

- the occurrence of a "legacy" problem, stemming from legal and financial obligations in existing, sometimes long-running contracts with suppliers, technical dependence on existing, old systems ("installed base") and the long lifespan of customised software;
- Suppliers' efforts to offer integrated solutions and the application of selective discounts to protect their own market, which create "vendor lock-in" situations (open standards and architecture are prerequisites for migration to open source software);
- Reluctance among system administrators and ICT managers to migrate to open alternatives, partly due to unfamiliarity or misapprehensions on the subject and partly to ambiguity about the business case (in which efficient operations are paramount and there is not always room for additional costs to achieve a benefit, given the financial structure on an annual basis);
- The fact that usable open standards are not available in every situation;

c. Relevance of action plan

The Lower Chamber and the Cabinet agreed during the general meeting on 21 March 2007[8] to accelerate the use of open standards and open source software within the public and semi-public sector. The practice built up over the years with a range of working provisions in a complex and system-dependent ICT infrastructure must be modified to make a migration to open solutions possible and more automatic. Both a high degree of persuasion and a change of behaviour will be necessary to break through the growing practice of "relative independence" on the introduction of open standards and open source software. The Cabinet sees this action plan as a new step by Central Government to take tighter control of this point.

The policy of the Cabinet rests on six pillars, as indicated in the Coalition Agreement of 7 February 2007. Both in Pillar 2, an innovative, competitive and enterprising economy, and in Pillar 6, the government as ally and a service-oriented public sector, the Cabinet sees important starting points for tightening policy on open standards and open source software.

The objectives of this action plan are applicable to the national government, subsidiary government bodies and the public and semi-public sector:

1. *increase in interoperability between and with the different building blocks and forms of service provision of eGovernment by accelerating the use of open standards;*
2. *reduction in dependence on suppliers in the use of ICT through faster introduction of open standards and open source software;*
3. *promotion of a level playing field in the software market and promotion of innovation and the economy by forceful stimulation of the use of open source software and by giving preference in contracts to open source software if equally suitable.*

Important general conditions for this action plan are:

- the continuity and dependability of electronic government services for citizens and businesses must not be jeopardised;
- the administrative burden on citizens and businesses must not increase.

8 Lower Chamber, business year 2006-2007, 26643, no 90

d. Cabinet Policy Line

Acceleration and encouragement are now necessary in order, effectively and permanently, to take up the opportunities made possible by open standards and open source software. The momentum to accelerate is good: the supply of open standards and open source software[9] has grown, which means that more usable, open instruments are becoming available for the use of the society. Besides this, understanding of the possibilities of open standards and open source software has increased significantly, and the number of projects and initiatives, both at ICT providers and in government organisations, is growing in practice[10]. However, there are also risks associated with open standards. For example, open standards are not always available, or an open standard may not yet enjoy sufficient market support. In any assessment, the advantages of open standards in terms of interoperability (but also other social effects) generally outweigh the disadvantages (see also appendix A). This requires good conditions for switching from a policy of familiarisation and knowledge-sharing to a policy directed at actual application.

The Cabinet recognises the social importance of interoperability and proposes the use of open standards as the norm. Migration can also reduce costs for ICT usage by a governmental organisation. This will often mean that migration of ICT systems in government organisations will be necessary. Such migration processes are time-consuming , complex and demand considerable effort. Costs can be limited by choosing the correct moment for planned construction or replacement of ICT systems. In the view of the Cabinet, investment costs incurred during migration must not in principle form an obstacle to migration to an interoperable ICT system based on open standards. These migration costs should be met by the organisation concerned. The use of open source software is strongly encouraged by the Cabinet, but not proposed as the norm. The costs and benefits of migration must be considered in a business case, in which the Cabinet expresses the preference for open source software in the case of equal suitability. Savings realised by implementation of open standards and open source software will be credited to the organisations concerned.

To achieve the objectives mentioned, the Cabinet is making an active start on the following policy highlights:

1. for general application of open standards the "comply or explain, and commit" principle will be applied to orders from Central Government departments from April 2008 and from December 2008 for general departments and institutions. For this a basic list (January 2008) and an interoperability framework (draft version June 2008) have been formulated by the Standardisation Board with advisory choices about interoperability and the development and use of standards;
2. implementation strategies for the tendering, purchase and use of open source software will be realised by all ministries (January 2009) and by subsidiary government bodies and institutions in semi-public sectors (education, healthcare, social security) in January 2010.
3. the ODF open standard will be implemented step-by-step for reading, writing, exchange, publication and receipt of documents (to be supported by all ministries and subsidiary government bodies at the latest by January 2009) on the way to large scale use of "open document formats" for governmental applications.

9 According to an IDC survey the world market for open source software is 1.8 billion dollars, with an expected growth of 25% annually.
10 According to eGovernment provisions. See also www.ososs.nl for reference and sample projects.

e. From plan to implementation and result: a process of change

The variety of existing ICT applications within the public and semi-public sector is large and complex at present. It is obvious that change cannot happen overnight in this situation; it should be considered a growth process. Besides this, in the migration to open standards and open source software costs must be incurred before receiving any benefit. It is important that the Cabinet, with this in mind, creates such an irreversible snowball-effect that at the end of the Cabinet session the public and semi-public sector is using open standards (with considered exceptions), so that government bodies and public institutions can choose freely as users and end-users and open standards and open source software are "business as usual".

To achieve this, changes in practice will be necessary, for example in new ICT investments. For this, the approach is more than merely instrumental and it goes further than the technology alone. Leadership and commitment at a policy or management level will be sorely needed to enable the actions to succeed. It is essential that managers in the public and semi-public sectors shoulder their responsibilities jointly. The Cabinet is therefore making an active start in tackling all parties involved on their responsibilities and securing agreements about implementation.

The Standardisation Forum has published advice about the introduction of open standards and open source software and experience and policy experience in other countries[11]. The Standardisation Forum's advice is very useful and is incorporated into the action plan. The Standardisation Forum has approached the advice request from the interoperability standpoint.

Supplier-independence is also an important target for the Cabinet. Therefore this action plan goes further than the Standardisation Forum's advice on the point of the principle 'comply or explain, and commit'. The Cabinet has also received many constructive suggestions from the market of which grateful use has been made[12].

The line chosen by the Cabinet is described in broad outlines. In the following two sections lines of action are described and explained for open standards and for open source software respectively. In this way the Cabinet has sketched out the contours of the action plan. The months September to December will be used to come to a concrete implementation plan with the relevant parties. In the coming months the policy rule adopted for the Nation and the agreements with the subsidiary government bodies and the public and semi-public sectors will be further developed. For open standards this includes the following: specific lists with the open standards to be used, a framework for interoperability, target figures, means of central support, means of enforcement and monitoring. For open source software it means, for example: the approach to be adopted for implementation strategies, consideration of possibilities for means of support for sector communities, opportunities for government software.

The period will also be used to set up a new programme office, to consider how open standards and open source software can be actively encouraged in a European context and to reinforce collaboration with the ICT business world.

11 See Appendix B.

12 See Appendix B.

Open standards are becoming more important in line with the trend toward client-friendly service provision and service-oriented architecture, increased cooperation between departments and the business world and between departments themselves, more functional rather than technical specification in tendering, more subcontracting of ICT tasks and the increased use of pre-completed forms for citizens and businesses. The safeguarding of interoperability between systems within government departments and the exchange of information with applications in the business world (using for example XBRL) is the starting point for achievement of ICT solutions by government departments.

In the context of the Dutch Taxonomy Project, the ministries of Finance, Justice, Internal Affairs and Kingdom Relations, and Economic Affairs together with VNO-NCW (Confederation of Netherlands Industry and Employers) and MKB Nederland (Dutch Federation of Small and Medium-Sized Enterprises) have signed a covenant for the electronic exchange of financial data between the Dutch business world and government organisations. With an eye to reducing administrative burdens it was agreed to make use of the open standard XBRL from 2007. This enables entrepreneurs to submit annual accounts simply and automatically straight from their own bookkeeping or via their accountant to the government for the Chamber of Commerce, the "Business Profit" return, company taxation and statistical data for the Central Statistics Office. The annual saving for the Dutch business world is estimated to be 350 million Euros.

2. Actions on Open Standards

The Cabinet intends to encourage the use of open standards within the public and semi-public sector. The key focus here is: use open standards, or come up with a very good reason why this is not possible, and indicate when open standards will indeed be implemented. This is the principle of "comply or explain, and commit". Through this the use of open standards will be given a firm foundation.

Action Line 1
The Standardisation Board will publish a basic list of open standards (checklist) in January 2008 for the benefit of citizens, businesses and government bodies. This list will then be maintained and further supplemented.

Action Line 2
Government departments and institutions in the public and semi-public sectors will introduce the "comply or explain, and commit" principle for ICT orders (purchase and tender) from 2 April 2008 (Central Government) or 31 December 2008 (subsidiary government bodies and other departments) for the application of open standards to new systems, modifications or contract extension.

Action Line 3
On the instructions of the Standardisation Board, for further preparation by NORA, an interoperability framework has been prepared that presents starting points for the application of standards to ensure that interoperability is promoted. The draft version will be available in June 2008.

Action Line 4
ICT orders can be voluntarily submitted to a programme office (see section 4) in good time before the required publication for advice about open standards.

Action Line 5
Enforcement of the introduction of open standards will occur on a high trust basis with soft measures such as monitoring and ranking tailored for the purpose.

Action Line 6
Central Government Departments will from April 2008 support ODF[13] alongside existing file formats for reading, writing and exchange of documents. Subsidiary government bodies and general institutions will follow as soon as possible, at the latest by December 2008.

Notes on the Action Lines

Action Line 1 (publishing draft list on open standards)
For implementation of the "comply or explain, and commit" principle it is necessary to have a list available with open standards, application areas and target groups. The Secretary of State for Economic Affairs will ask the Standardisation Board in collaboration with the Standardisation Forum to present a draft list of open standards by January 2008 (first version) and to advise on agreements about this and the maintenance of the list. This list will be made available via the Standardisation Forum website for use as a checklist for citizens, businesses and government bodies for ICT tendering and purchasing processes and preparation of an ICT strategy. NORA[14] and the interoperability framework to be prepared (action 3) lay the foundation for the general development and application of standards and principles for eGovernment applications.

13 Open Document Format ISO 26300
14 Nederlandse Overheid Referentie Architectuur (Dutch Government Reference Architecture), www.e-overheid.nl.

Action Line 2 (comply or explain, and commit)
Government bodies and institutions are themselves responsible for the application of "comply or explain, and commit". The Cabinet is here considering self-policing measures. This complies with a policy of high trust in the spirit of the Coalition Agreement of 7 February 2007. If from assessments in January 2009 this is revealed to have had insufficient effect[15], which the Cabinet does not expect, the opportunities and benefits of legal enforcement of the principle for the public and semi-public sector will be further investigated.

The principle "comply or explain and commit" will be applied by the Cabinet to future ICT tenders and ICT purchase processes for new systems, modification and contract extension. This principle will come into effect from 2 April 2008 for Central Government and from 31 December 2008 for general government bodies and institutions. For the application of this principle it is assumed that open standards will be selected at a natural moment in the economic life-cycle of ICT solutions so that government departments will not have to deal unnecessarily with high implementation costs. This also means that existing contracts with agreed licence periods do not have to be broken.

The principle "comply or explain, and commit" will be incorporated as a policy rule and enshrined as far as is suitable within the framework of tendering law. Departments and NDPBs allied to them are themselves responsible for making agreements together about the use of open standards, because policy rules are not generally applicable to NDPBs.

15 For example if the number of government departments and public institutions that have actually conducted tendering processes and have adhered to the principle falls below 75%.

The Cabinet intends to work within the spirit of the principle until the moment of initiation.

Procedure "comply or explain, and commit"
- "Comply": apply established open standards to ICT orders for new systems or rebuilds and ICT contract extension.
- "Explain": exception criteria are:
  - No open standard is available for the desired functionality;
  - The open standard is not supported by multiple suppliers and on several platforms;
  - Conduct of business and/or service provision would be unacceptably jeopardised, including in terms of security;
  - Agreements made internationally would be broken.
- "Commit": give preference to the application of open standards so that an exception criterion is no longer applicable.

Enforcement will take place in the following manner
- At Central Government level a proposed policy rule will be laid before the Council of Ministers. The Secretary of State for Economic Affairs carries responsibility for this. When awarding subsidies for projects and so on which feature a large ICT component, the "comply or explain, and commit" principle will be applied to the project proposals and specifications.
- At provincial level via the upcoming Administrative Agreement of the Minister for Internal Affairs and Kingdom Relations and the Interprovincial Committee and the associated Implementation Plan.
- At local government level via the Policy Agreement of the Minister for Internal Affairs and Kingdom Relations and the Association of Dutch Local Authorities (Vereniging van Nederlandse Gemeenten, VNG) and the associated Implementation Plan.

- With the Water Board Union via separate agreements to be made by the Minister for Internal Affairs and Kingdom Relations.
- With sectors via covenants to be made by the departmental ministers or implementation agreements with the sectors and NDPBs, starting with healthcare, education and social security. The Secretary of State for Economic Affairs is coordinating this. Finally the open standard criterion will be included as an additional criterion in the competitive tender for the action programme Social Sectors and ICT.

Action Line 3 (interoperability framework in association with NORA)

The Standardisation Forum has announced that it will develop an interoperability framework for citizens, businesses and government bodies. An interoperability framework is a tool to enable information to be exchanged electronically via ICT systems between government organisations and citizens and businesses, and between government organisations themselves. This concerns clear starting points for linked applications, the use of eGovernment provisions and the use of standards. The Standardisation Forum has issued advice related to development to deal with the definition of open standards[16] for example. From an international viewpoint, governments (Denmark, Belgium, Germany) apply a somewhat broader definition of open standards than the strict definition (appendix A). For example: for document processing it is not only about the ISO standard ODF, but also the widely-applied standard PDF. Further, experience shows that real progress in the area of interoperability only happens if government organisations and their interoperability partners make agreements with each other about collaboration and the standards to be used in linked applications and work processes. New open standards almost always emerge from collaborating parties as part of a growth process and often from specific requirements and applications.

The interoperability framework forms the foundation for the arrangement, classification and development and the use of standards in the area of technology, semantics (unity of language) and organisation (tailoring of business processes) as adjunct to or reinforcement of the Dutch Government Reference Architecture (Nederlandse Overheid Referentie Architectuur, NORA). European developments on the European Interoperability Framework 2.0 will also be closely watched. The interoperability framework (basic version) will be available in June 2008.

Action line 4 (advice on tendering)

A programme office will be set up to advise on implementation of the "comply or explain, and commit" principle in specific tendering and purchase processes. Tendering services will be advised (on a voluntary basis) to request advice from the programme office in good time on intended tendering and purchase processes.

Action line 5 (maintenance)

Enforcement of the use of open standards will occur via monitoring and ranking and reference measurements. Annually from October 2008 a national monitor will be published about the use of open standards and a ranking will be prepared based on this. The Minister for Internal Affairs and Kingdom Relations will convert the information from the annual monitor into the progress report eGovernment in the Lower Chamber. The General Chamber of Auditors and the government audit services also generally have an informative role in enforcement. It will be investigated whether the Chief Procurement Officer appointed by the Minister of Economic Affairs can also have a role in the implementation of the policy rule "comply or explain, and commit"

16 See appendix B for the complete advice of the Standardisation Forum.

(Central Government level). The programme office will conduct a spot-check on government bodies and public institutions that have actually conducted a tender. It will be investigated whether the soon to be updated TenderNed, the new electronic tendering system for all tendering services and wherever tenders are announced[17], can include a "comply or explain, and commit" paragraph for the purposes of transparency.

Action line 6 (ODF)

The processing and exchange of documents via ICT supports the core processes of all government organisations. Open document standards are very important for this. ODF is a new open document standard.

The Cabinet will start the introduction of ODF as the format for reading, writing, exchange, publication and receipt of documents internally and with subsidiary government bodies and citizens and businesses. As such, the Netherlands remains in step with international developments. Denmark and Belgium (international leaders) have also chosen to introduce ODF for governmental applications. ODF is therefore currently available alongside and in addition to other, already-used, file formats (such as DOC and PDF) and any new future open standards.

The objective for ODF is that Central Government services will support ODF[18] from April 2008, along with the current file formats, for the reading, writing and exchange of documents. Subsidiary government bodies and general institutions will follow as soon as possible, at the latest by December 2008. The envisaged objective is that in 2015 government organisations will use open document standards only for electronic processing and exchange of documents.

The Cabinet will monitor the use of ODF annually. The Cabinet will, subject to the monitor results, ask for the advice of the Standardisation Board on the definitive use of file formats for documents by the government.

17 Based on the new Tendering Act. Most important advantages: reduction of burden on all users; reduced chance of mistakes; once-only entry of company details; uniformity in tendering; virtual marketplace.
18 Open Document Format ISO 26300

In the case of open source software there will be need for a significant effort. At all levels within the public and semi-public sector contracts exist with suppliers that cannot or cannot easily be broken. In order to increase the market for open source software in the Netherlands the Cabinet wishes the providers of open source software to have the same opportunities in practice, and in the case of equal suitability, the preference in tendering and purchase processes for software for new systems, renewal and contract extensions.

Government bodies continue to retain freedom of choice whether to use or not to use open source platforms and applications. The use of open source software offers advantages in certain situations. There are also situations where this is not the case, for example the realisation of an ICT solution on an own-budget and risk basis from supplier-developed applications or components. Such a solution can make use of generically developed components that are purchased multiple times under licence. For applications that are realised by order of the government at its cost and risk, the starting point must be that these products are made freely available under an open source software licence.

3. Actions on Open Source Software

The free availability and modifiability of the software make it an important platform for further innovation. On a small scale it can form the basis for customised applications by businesses and institutions. On a large scale open source software forms a foundation for commercial applications and service provision. This market continues to increase in size and provides an important open alternative to the strongly monopolised closed software market. The openness of the software also makes it an important source of knowledge, for example in education.

In 2003 *Vaals* local authority switched over to OpenOffice, an open source software office application. The impetus for this was the high licence costs for non-open source software. Experiences with the product have been very positive. Product support has been found to be a good deal better than commercial software companies. The most important supplier of software to Vaals (PinkRoccade) rapidly began to support OpenOffice. For business-critical applications Vaals has started to use MySQL, an open source software database. The saving on office applications alone is 50,000 euros per year which is not offset by any extra costs. The open source products are maintained by normal suppliers who also think the same way as the authority.

S&L zorg in Roosendaal, a care institution for people with a mental handicap, started releasing increased financial resources for care years ago by improving ICT provisions. This saves S&L zorg 40% of its ICT budget which can then be put into healthcare provision. Applications are set up to be "web-based" so as to reduce the dependence on the desktop. During the most recent effort, desktops, email, Office packages and telephony have been replaced by open source alternatives.

ICTU is the ICT implementation organisation where joint ICT-oriented projects are carried out for all government departments securing renewal and improvement in electronic service provision to citizens and businesses. ICTU had already decided early in 2006 to migrate to more open source solutions, and for the desktop chose to replace application software step-by-step so that later the introduction of an open source operating system would be straightforward. ICTU chose a hybrid ICT solution. Now, ICTU is already using OpenOffice.org for word-processing and open source software for web-browsing, websites, CRM and document management. At the back-end several servers are running under Linux. Linux desktops have been brought in earlier specially for software developers, alongside the already existing systems for some programmes. Besides all this a practical test of ODF is also taking place.

By using more open source software itself, the Dutch government can stimulate activity in the field of open source software. This provides social and economic benefits[19]. To make this possible, steps must be taken to replace the current dependence on closed solutions with freedom of choice.

Action line 7

All ministries will have developed an implementation strategy by January 2009 for tendering and purchase and the use of open source software – by June 2008 more than half of the ministries. This may also relate to communal or inter-departmental implementation strategies.

19 R.A. Ghosh et al., UNU-MERIT (2006). Study on the: Economic impact of open source software on innovation and the competitiveness of the Information and Communication Technologies (ICT) sector in the EU. http://ec.europa.eu/enterprise/ict/policy/doc/2006-11-20-flossimpact.pdf

Action line 8
Subsidiary government bodies and general institutions (education, healthcare, social security) will have developed an implementation strategy by January 2010 for tendering, purchase and the use of open source software.

Action line 9
A good example tends to be followed. Initiative-takers should be encouraged.

Notes on the action lines

Action line 7 (strategy)

The development of a strategy is a sound basis for encouraging the inclusion of open source software as a serious, permanent alternative to other forms of software. At the Ministries of Economic Affairs, Social Affairs and Employment, Justice, and Transport, Public Works and Water Management, strategy processes are ongoing. Before June 2008 another four ministries must join them and the other ministries by January 2009 at the latest.

Possible starting points for the strategy are:

- Instigating planning two years before current licences expire.
- Developing architectures based on NORA and migration paths: if desired and relevant distinguishing between migration processes for the desktop, back office, databases, operating systems, etc.
- Selecting open standards to minimise dependence on specific suppliers.
- Choosing open source software in the case of equal suitability.
- Requesting expertise from the programme office.
- Implementing the strategy, firstly in renewal processes, secondly in other processes.

Action line 8 (subsidiary government bodies)

The Cabinet takes the view that subsidiary government bodies and other institutions will follow the Cabinet. In the signed Administrative Agreement with the local authorities and the Administrative Agreement with the Provinces that is in preparation a passage has been formulated that deals with open standards and open source software. The Minister for Internal Affairs and Kingdom Relations will also keep this under consideration in the Implementation Plans associated with the agreements. Separate agreements will be made with the Water Boards and sectors. At the same time, planning and intermediate objectives will be set out in these agreements and the Implementation Plans.

Action line 9 (new forerunners)

In the last few years a number of projects with open source software have been started up (see www.ososs.nl). This action line directs focuses on governmental applications of these new forerunners.

The *Dutch Patent Office* has resolved to migrate its desktop environment plus a number of other applications to an open source alternative. The basis for this is a feasibility study that indicates that this migration is possible from technical and organisational viewpoints and that there is a positive business case for an open source alternative. Investment and operation costs have also been considered. These work out cheaper for the open source alternative than the other options. However before starting the migration a number of points must be investigated according to the recommendations. A definitive decision can be made in the first half of 2008 about the starting date and the method of migration to open source.

Central Government Workstation
For government employees, flexible working interdepartmental collaboration and working from different locations are becoming ever more

prevalent. The Central Government Workstation programme intends to ensure that central government employees can cooperate safely from any location with colleagues from other departments. The ICT provision must be seamlessly embedded within this process. Thirteen ministries are collaborating in the Central Government Workstation programme. It is a complex operation, given the diversity of ICT solutions currently in use in government departments. A final position is being aimed at with the goal of ensuring a uniform ICT workplace for the core departments by 2012, based on open standards and where possible open source software. The Central Government Workstation programme already underway will be taken into consideration in the preparation of an integral approach for renewal of the business practices of Central Government (contribution to the Renewal of Civil Service Programme). In this, two parallel, intertwined development tracks in the ICT field will be followed. The first track (project GOUD, Rijkswerkplek 1.0) has already been running for some time. The second track (Rijkswerkplek 2.0) has recently started. In this track the Ministries of Foreign Affairs and Defence are the forerunners. It goes without saying that open standards are applied here and the principle of "comply or explain" is employed as a starting point. At the same time in the case of equal suitability open source software will be preferred to "closed source" software.

The current ICT infrastructure of *Defence* is heavily linked to closed solutions at the moment and this is seen as an undesirable situation. To bring an end to this, this research was conducted in 2005/2006 together with the Tax Authorities into the possibilities of a completely open source desktop that could be connected to the existing network of both the Tax Authorities and Defence. The results demonstrated that it was not possible at that time to apply this solution for all employees in all situations. Nevertheless the vision still exists to migrate to open standards and open source. Recently Defence started to develop a strategy together with the OSOSS programme office for further application of open standards and open source software. An important point for consideration here is future strategy, making use of open standards in the long term in a beneficial business case to secure the transition to open source software. Defence will share the knowledge accumulated with the other departments.

10. Communication and collaborative agreements

In the autumn of 2007 and the spring of 2008 the Ministry of Economic Affairs together with the Ministry of Internal Affairs will organise communication meetings with businesses, suppliers and various government target groups to explain the plans and reach practical agreements for their implementation.

11. Promotion of open standards and open source software policy in Europe

The Cabinet will, where relevant and possible, be actively involved in encouraging the use of open standards and open source software in a European context. Not only in the various committees and work groups preparing European policy, but also in the introduction of specifications for the eGovernment Awards of the European Commission.

12. Setting up of Programme Office

From January 2008 a programme office will be set up to support the action lines actively. The office will be the driving force behind the introduction plans with guidance, result-oriented advice and customised practical support to Central Government, provinces, local authorities and other public institutions, to accelerate the actual use of open standards and open source software. The office will also conduct measurements to gauge the progress of the actions and will report on this for the purposes of the annual National ICT Plan Progress Report and the annual eGovernment Progress Report. A ranking will be maintained and a prize will be offered annually for the Most Open Public Organisation.

4. Ancillary tasks

The Cabinet will make a decision in December 2007 about the setting up and accommodation of the programme office. At the same time, the follow-up to the OSOSS programme[20], that ends on 31 December 2007, will be further elaborated. The Secretary of State for Economic Affairs and the Secretary of State for Internal Affairs and Kingdom Relations will be responsible for the proposals.

13. Discovering new forms of business cases

By choosing the right moment and making a good business case unnecessary migration costs can be avoided. This concerns (new) tenders with regard to new ICT systems and rebuilds and contract extension. New systems will also include replacements. For parts of government service that want to migrate (further) to open standards and open source software as forerunners, it will be considered how this can be achieved during the preparation of the implementation plan. As regards the business case and financial construction the Cabinet draws attention to two inspirational, local authority examples.

For example, *Amsterdam* local authority approved a business case in which the saving on licences can be employed for development of and migration to an open source desktop for around 10,000 work stations. As background for the Amsterdam business case it was considered that the break-even point should be reached within five years. The decision-making in Amsterdam was conducted on the basis of an integral business case with four objectives and prerequisites stated at the outset: interoperability, supplier-independence, continuity of conduct of business and costs. Amsterdam made all four objectives measurable and thus came up with an integral impetus that led to Amsterdam being the third large authority in Europe to develop an open source desktop. Central to this were the four strategic software objectives and not the choice for or against open source.

Groningen local authority also decided to cancel the contract with its supplier and to employ some of the released resources to work on an (operating-system-independent) standard workstation based as far as possible on open standards and open source software. Another portion of the resources has been put aside in case licences are unexpectedly needed from its original supplier. An important step is that the Groningen Council approved not allowing the released resources to flow back into general resources but to retain them temporarily with an upper limit. A second important step is the agreement to apply a multi-year plan, with a phased time sequence in which transfers are made at natural time points so that the chance of success and user acceptance is as high as possible.

14. Joint Declaration on ICT~Office and Open Government Manifesto

On 24 May 2007 the Ministry of Economic Affairs together with ICT~Office signed a declaration to improve cooperation between the national government and the ICT business world. In this it is stated that given the importance to the government of the use of open standards, the government will work towards maximising the use of open standards for ICT systems for communication with citizens and businesses. In the associated "programme of headlines" the government applies the following starting points: Supplier-independence, Interoperability, Transparency, Checkability and Manageability

20 "OSOSS" means here: "Open Source als Onderdeel van de Software Strategie" ("Open Source as Part of the Software Strategy").

and Digital sustainability. It is expected that the declaration will have national support before the end of 2007. The intention is that the Manifesto Group of organisations which will implement this will also sign the declaration this year.

It is expected that the ICT managers of government services will sign the Manifesto of Open Government Departments[21] on 17 September 2007. The Cabinet calls on subsidiary government bodies and other institutions in the public and semi-public sector to sign the manifesto too.

15. Software in use in government

The Cabinet intends to investigate to what extent all software under its control or developed on its order (as a follow-up, for example, to the electronic provisions for the use of the Business Desk [Bedrijvenloket] and eForms) can in principle be released under an open source software licence, so that more software becomes available for re-use by the Dutch economy, government openness is reinforced, and the connection to electronic government service provision further improved. This could mean that the government would have make tenders conditional on its obtaining the Intellectual Property for the software developed. For example the Linked Informatics Office Work and Income from the Ministry of Social Affairs and Employment (SZW) has made its software available to the education world to allow it to develop its Electronic Learning Dossier quickly and cheaply. Exceptions could apply to software in use for vital and nationally sensitive purposes. In this context developments connected with the European Union Public License 1.0 (EUPL) will be followed.

16. Investigation into functioning of software market

To discover whether further actions are needed in due course, supplementary to the action lines listed earlier, the Cabinet will instruct the Dutch Competition Authority (Nederlandse Mededingingsautoriteit, NMa) to investigate the functioning of the Dutch software market. The Cabinet draws attention in this connection to the call by the NMa in its annual report for 2006 to parties in the software industry to provide the NMa with indications, tips and complaints.

17. Investigation into economic effects of open source software

The Bureau for Economic Policy Analysis (CPB) has been instructed to conduct an economic investigation into the relationship between the promotion of open source software and the effects of this on innovation and competition in the ICT sector. There is increasing academic interest in the economic impact of the introduction of open source software. It is sensible to survey what these effects are, particularly on the functioning of software markets (for example to what extent customers profit).

21 See http://www.ososs.nl/feedback/manifest_open_overheidsorg

Figures in thousands of Euros				
Tasks	2008	2009	2010	2011
1. Advice and promotion	1000	1100	1000	1000
2. Pilots, practical tests	700	700	350	0
3. Expertise task, incl. monitoring and legal advice	350	350	350	350
4. Programme costs	300	300	300	300
Total (in thousands of Euros)	**2350**	**2450**	**2000**	**1650**

Notes
Advice and promotion means the efforts of advisors to help parties in OS processes for purchase and tendering and the introduction of ODF and OSS processes for implementation strategies, TCO development, demand bundling and helping to realise sector covenants etc.

The budgets for *pilots* are to support forerunners.

The *expertise task*, by which is to be understood knowledge development and knowledge-sharing is an important key to attract parties to more OS and OSS. It concerns financing of research and presentations to congresses.

The *programme costs* are tailored to the costs for bureau costs and facilities.

5. Financial aspects

The items and resources listed are applicable to generic support connected with implementation of the action plan and are not intended for financing the implementation of migration plans. The item 'Pilots, practical tests' gives limited space to a few forerunners to enable them to start work quickly and fulfil the forerunner role. The total costs for ICT after migration are expected to be lower in due course, in which context it must be noted that 'payment precedes benefit'. The item 'advice and promotion' is intended for example to support organisations in preparing business cases for migrations.

The resources listed for generic support will be financed from the budgets of the Ministry of Economic Affairs and the Ministry of the Interior and Kingdom Relations.

1. Open standards

Open standards comply with the definition by the European Commission (IDABC programme):

- the standard is approved and will be maintained by a non-profit organisation, and ongoing development will be on the basis of an open decision-making process that is accessible for all interested parties (consensus or majority decision, etc.);
- the standard is published and the specification document for the standard is freely available or can be obtained for a nominal contribution. It must be possible for everyone to copy it, make it available and use it, free or for a nominal price;
- the intellectual property – regarding any patents that may be present – of the standard or parts thereof is irrevocably made available on a royalty-free basis;
- there are no restrictions on reuse of the standard.

In addition to this definition, the government uses the following two specifications in elaborating the action plan:

- Open Specification: an open specification is one that is published and whose specification document is freely available. Alternatively, it may be available for a nominal contribution. It must be possible for everyone to copy it, make it available and use it, free or for a nominal price.

Appendix A: advantages and disadvantages of open standards and open source software

- Free Specification: a free specification is an open specification that is free of legal restrictions making its use and distribution difficult. The intellectual property – regarding any patents that may be present – of the standard or parts thereof is irrevocably made available on a royalty-free basis.

The advantages and disadvantages of open standards and open source software have been investigated by various parties, including the Economic Research Foundation (SEO)[22]. The research concludes that the advantages of open standards are greater than the disadvantages. This appendix focuses in particular on the findings of the research.

Advantages of open standards:
- improved exchangeability of data;
- better accessibility to data (e.g., on websites);
- independence from suppliers encourages the market;
- reduced software production costs;
- greater independence from hardware systems and operating systems;
- reduced monopoly formation on the ICT supply side;
- potential positive effect on the trade balance and local knowledge economy.

Disadvantages of open standards:
- open standards are not available for all applications;
- open standards are not broadly supported in all cases by software suppliers, which limits the options for ICT support.

Many of the disadvantages described in the research are not exclusive to open standards and also apply to non-open standards, such as the need for migration costs for adapting existing software to open standards (or new open standards).

2. Open source software

Open source software holds a licence approved by the Open Source Initiative (OSI)[23], thereby fulfilling two characteristics:
- the source code of the software is freely available;
- the licence model regulates intellectual property and use/reuse of the software and its source code so that the licensee may view, use, improve, add to and distribute the source code.

Advantages of open source software:
- reduced dependence on suppliers;
- more flexibility in the use of software;
- increased transparency of government actions (functioning of computer applications);
- more competition and innovation in the software market;
- strengthening the local knowledge economy.

Disadvantages of open source software:
- lack of knowledge, e.g., on software selection, legal issues and costs (total cost of ownership);
- additional attention needed by users for software development, management and support.

22 Costs and benefits of open standards and open source software in the Dutch public sector. Economic Research Foundation, Amsterdam, 2004.

23 OSI was established to promote open source software and has developed into the organisation that approves licences on 10 openness criteria. See http://www.opensource.org/

In the aforementioned research, certain aspects of open source software are characterised as both advantages and disadvantages. These are: the cost, quality and security (or lack thereof), availability (and support) and innovation of the software. The authors put this in relative terms by pointing out that this often depends on the specific situation and the specific software product. MERIT, a research firm, has indicated that the less knowledge parties had about open source software, the more negative perceptions they had about it. The reverse probably also occurs, but has not been investigated.

Open source software calls for a different business model from other forms of software. It is still a young industry, which causes uncertainty among users. For example, the cost of open source software is often initially unclear to users. The licence cost is nil, therefore open source software is cheaper by definition, if all other circumstances are unchanged. However, the circumstances do not remain unchanged and related activity must be paid for, such as training costs and support and administration. The legal status of open source software licences is not always clear either. Others point out that licences for proprietary software may be clear but software manufacturers waive liability for the functioning of their software. Opinions are divided on security (or lack thereof) and quality. On one hand, some groups believe the openness of the source code gives miscreants opportunities to abuse errors in the software. Other groups believe that openness means that errors are reported and resolved more quickly.

Open source software is often, but not always, developed in communities of actively participating developers (programmers). This means that software users are themselves strongly involved in the deployment of the required software. The disadvantage of this may be increased uncertainty about the future availability (and keeping up with innovation) of the software for future users and the role of market parties in this. Commercial ICT providers are also increasingly becoming active in the market for open source software.

The argument is sometimes raised that the absence of the possibility of asking for financial compensation for licence rights generally counteracts innovation. However, there are also opposing opinions.

Open source software clearly differs from closed-source software in one area: the source code is open and the software, along with its functioning, is transparent. This may be desirable in some cases: software for the remote voting system (KoA) was made public to show clearly that the software was secure and did not contain 'back doors'. Complaints in this regard fell silent as soon as the software was open. GBA modernisation established the core of a self-developed GBA system. Because the code is open, the market can easily develop additions, which is the intention.

What constitutes advantages and disadvantages of open source software is usually closely related to the specific situation of the users. Whether open source software is more expensive for a user can be determined by a through investigation of all relevant costs (total cost of ownership), including the legal aspects of licences.

B0.1 Letter from the Standardisation Forum to the Secretary of State for Economic Affairs, including appendix and underlying advisory report by Verdonck, Klooster & Associates BV., http://gbo.overheid.nl/nieuws/artikel/114/

B0.2 Consultation results from Internet Society Nederland (ISOC.NL), the Livre foundation, Media Update trade publications and the Holland Open foundation, http://www.isoc.nl/info/pers/2007-resultaten-consultatie.htm

B0.3 Market investigation of open standards and open source software by the Ministry of Economic Affairs, available at www.ez.nl.

B0.4 Research into use of open standards and open source software in government and the public and semi-public sector, MarketCap, on behalf of the Ministry of Economic Affairs, guided by the OSOSS programme office, available at www.ez.nl.

Appendix B: Relevant recommendations and research

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