Supplement to ITSSD Comments Concerning the WIPO Report on Standards and Patents (SCP/13/2) Paragraph 44

I. Introduction – Overview of Standards, Patents, Trade & Government Procurement

Paragraph 44 of the WIPO Report on Standards and Patents (document SCP/13/2) provides, in part:

> Generally speaking, open-source software refers to software for which the source code (underlying programming code) is made *freely available for use*, reading the code, changing it or developing further versions of the software, including adding amendments to it. Today, ICT standards may be implemented using open source software, proprietary software or, as is increasingly the case, mixed platforms that combine both open source and proprietary software. *When governments and other users are in the process of selecting a specific technology to meet their needs for interoperability and/or free use of that technology, in addition to the open or proprietary nature of any software involved, factors such as overall costs, the maturity of the technology, legal factors and the support offered, should be taken into account*" (emphasis added). [1]

The ITSSD wishes to expand upon the brief discussion in Paragraph 44 of the WIPO Report on Standards and Patents. In particular, the ITSSD is concerned that this passage within paragraph 44 implies that it is justifiable on 'public interest' *interoperability* grounds, for national and/or regional governmental agency procurement regulations and procedures to express a direct or indirect public preference for *royalty-free* patent-rich or *non*-proprietary ICT, medical/health and clean/alternative energy technology-based technical standards. In addition, the ITSSD is concerned that this passage also indirectly enhances, on 'public interest' interoperability grounds, the ability of national and/or regional governments to more liberally (i.e., whimsically) impose exceptions to the temporary but exclusive private property rights associated with the grant of a patent,[2] or to otherwise sanction, by means of intrusive regulation, the reverse engineering of patented software or other hard ICT, medical/health and/or clean/alternative energy patented technologies by a right-holder's competitors, which is akin to a governmental issuance of a compulsory license.[3]

An analogous government procurement-related practice is already permitted by French *copyright* law under the guise of 'consumer protection' and ensuring public systems interoperability.[4] And, it more than possibly influenced the shape of recently proposed interim regulations developed by the Standardization Administration of The People's Republic of China for the purpose of governing the treatment of IP in connection with ICT patent-embedded national standards. Arguably, once such discriminatory and subsidy-minded national or regional rules are enacted, as they already have been in a growing number of civil law preventive justice-based jurisdictions such as those within the European Union, where attenuated private property rights subjugated to government-declared public interests are the norm rather than the exception,[5] they tend to violate the provisions of at least two, and perhaps, three World Trade Organization (WTO) agreements – the Government Procurement Agreement (GPA), the Technical Barriers to Trade (TBT) Agreement and the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement (a discussion of which, however, is beyond the scope of *these* comments).

Recognizing that such practices potentially conflict with international trade law, China, for one, has crafted a utilitarian counterargument, alleging that patent-rich technologies embedded in technical standards impede efficient international standards setting and implementation by WTO Member States. Consequently, China argues that the allowance of strong IPR protections in international standards setting in connection with ICT, medical/health and clean/alternative energy technologies undermines the very purpose of the WTO Technical Barriers to Trade (TBT) Agreement – removal of technical obstacles to trade and technology transfer to developing nations. For example, during 2005 and 2006, Chinese government submissions to the WTO Technical Barriers to Trade (TBT) Committee called for an examination of how standardization *interoperability* needs at the collective societal and corresponding technology user levels can be appropriately 'balanced' with IPR protection needs at the individual innovator level. China rationalized this undertaking by emphasizing the general utility of standards in facilitating and eliminating barriers to international trade, especially in the case of WTO Developing Country Members which typically require technical assistance and capacity building.[6]

China's underlying objective is to create a new international legal framework setting forth a new "common rule to regulate IPRs in international standardization."[7] And, if it is unable to achieve that goal due to the complexities surrounding international diplomacy, China is apparently comfortable with regulating on an exclusively national level foreign-held IPRs so as to ensure that its declared public interest trumps the private interests of foreign IP holders. Clearly, China would gain from such rules to the extent they facilitate much-needed technology transfer[8] and improve China's comparative trade advantage vis-à-vis its developed country competitors.[9]

Does not the WIPO Secretariat fully appreciate the potentially negative downstream impacts that Paragraph 44 and other related passages within the WIPO Report on Standards and Patents[10] are likely to have on the exercise of exclusive private IP rights and the development of new ICT, medical/health and/or clean/alternative energy technologies nationally, regionally and globally, especially by innovative small and medium-sized enterprises and inventors? Does not it also recognize that the WIPO Report on Exclusions from Patentable Subject Matter and Exceptions and Limitations to the Rights[11], within its individual passages and in its entirety, portrays exclusive private IP rights so negatively that it jeopardizes current *and* future economic opportunities for such innovative small and medium sized enterprises and inventors throughout the world? What is the true underlying purpose behind the SCP holding such documents open for further discussions during this week's meetings (Jan. 25-29, 2010)?

II. Standards, Patents & Government Procurement, as Expressed in Intergovernmental Fora

The purpose of this discussion is to document how national and regional governments, especially in developing and emerging economies in Latin America, Africa and Asia,[12] have increasingly advocated that market-based exclusive private intellectual property rights (IPRs) in patented drugs, information and communications technologies (ICTs), and clean and alternative energy technologies retard rather than promote improvements in human health and the environment, knowledge

dissemination and technological development, *in order to justify the enactment of such government procurement rules*. They have done so in multiple intergovernmental fora, such as the World Health Organization,[13] the World Intellectual Property Organization[14], the UN High Commission on Human Rights,[15] the International Telecommunications Union's (ITU's) World Summit on the Information Society (WSIS),[16] the UN Framework Convention on Climate Change,[17] [18]the UN Conference on Trade and Development (UNCTAD),[19] and the International Organization for Standardization (ISO).[20] Indeed, national and regional governments within these fora have also promoted the related controversial view that unless private IPRs in such technologies are exercised consistent with what governments consider to be the *public interest*, they will be appropriated for a public use at less than their fair market values.[21] According to the UNCTAD, which clearly expresses the views of China as well as other developing countries on these matters, the need to ensure interoperability as a *public good* is an 'end-in-itself' that provides ample justification for such a result.

> "Adoption of open standards and *interoperability* among products and services could be promoted in areas where relevant technologies have a networking effect or are essential to the delivery of public knowledge goods such as education or scientific research. *One instrument that still is in the hands of Governments is to provide preferences to products and services that follow those open and interoperable standards in government procurement processes*" (emphasis added). [22]

In addition, as will be discussed below, the regional and national authorities of the European Union and its Member States have begun to officially express within their government procurement rules and regulations a rather clear preference for product bids and contracts that feature royalty-*free* open source software (Free and Open Source Software – FOSS) and open royalty-*free* ICT technical standards. For example, the definition of the term 'open standard' employed by a growing number of academicians,[23] European Union officials and EU Member State governments such as Denmark, France, and Spain, as well as, by the New Zealand and the Venezuelan governments, *precludes* proprietary standards requiring fees for use.[24]

This definition of 'open' standard comports with that being promoted by non-governmental activist organizations (NGOs) at the forefront of the global universal access to (free) knowledge (A2K) and Free and Open Source Software ('FOSS") and royalty-free open standards movements.[25] According to the director of one such group, the Free Software Foundation Europe (FSFE), who has made it his raison d'etre to define the relationship between patents and standards as one of irreconcilable tension and as "fundamentally at odds"[26], "Both patents and standards are instruments from the toolbox of innovation policy, but they are different instruments…Patents are intended for private, personal use [while] standards are intended for public use. They are diametrically opposed in practice…maximising one instrument invalidates the other."[27] The representative of another activist organization, Knowledge Ecology International (KEI), argues that such tensions can be resolved and essential innovation promoted through use of government procurement rules that require "major purchasers t[o] have open standards in some area" of technology, with the purpose of ultimately influence[ing] [downstream] the decisions of private parties."[28] And, the representative of a third activist NGO, the International Centre for Trade and Sustainable Development (ICTSD), has argued that "Government procurement could preference open or interoperable standards".[29]

This definition of 'open' standards also furthers the self-serving objectives of multinational corporations holding portfolios of expired or soon-to-be-expired patents (nonperforming or soon-to-be nonperforming balance sheet assets) in software and hard multi-component products that endeavor to create new economic value capable of securing a commercial market advantage over their competitors. In fact, the literature produced by activist groups like FSFE which are, no doubt, financially supported by such companies, clearly evidences a strategy to alter international IP (patents as well as copyrights) law in a manner that promotes their own narrow agendas/interests, both within Europe and globally:

> "*Governments* can cut through this confusion and support an ecosystem of truly open, adoptable and interoperable IT standards *through their purchasing policies*. Instituting procurement policies in support of open IT standards…*will help shore up the failing IT standards ecosystem against proprietary interests*" (emphasis added). [30]

> "During the software patent debate in the European Union there was consensus among SME, Free Software and big businesses representatives from companies such as *IBM or Sun Microsystems* that *patents which limit or prevent interoperability should be unenforceable*. In the European Union, this could be introduced into the ongoing Community Patent debate. On a global level, WIPO should consider this as part of its ongoing Development Agenda discussions" (emphasis added). [31]

III. Government Procurement Rules at the EU Member State Level Have Increasingly Expressed a Preference for Royalty-*Free* Patent-Rich and/or *Non*-Proprietary Technology Standards

A. German Government's ICT Procurement Policy:

Germany's federal government has been publicly promoting the acquisition and use of open source software within federal governmental agencies since 2001. For example, in 2001, the Bundestag passed a resolution that promoted the use of open source software in the federal administration initially on competitiveness grounds – i.e., "open source [was] a special opportunity for the European software industry."[32] This action led to the preparation of several studies and the development of guideline documents that ultimately resulted in "a key arrangement [being struck] with IBM for discounts on Linux systems".[33] The German government's embrace of open source IT solutions also triggered a series of open source German federal projects involving "the Federal Finance Office, the Bundestag, the German Aerospace Centre, the Foreign Office, Deutsche Bahn, the Employers' Liability Insurance Association, the Monopolies Commission, German air traffic control and the Federal Institute for Geosciences and Natural Resources."[34] And, by late 2008 – early 2009, with the resources of Microsoft competitors Sun Microsystems and IBM squarely behind it, Germany "had joined 14 other national and eight regional governments in *requiring* ODF (open document format), not OOXML, as the format for government documents" (emphasis added).[35]

Indeed, by mid-2009, Martin Schallbruch, Chief Information Officer of the German Federal Ministry of the Interior, had noted that the use of open source IT solutions by Germany's federal public administrations had gained significant momentum,[36] in large part because of the creation of an IT advisory board and the appointment of a Federal government Chief Information Officer. In addition

to user software for Germany's new electronic ID (ePA) having become free software, the city of Munich also had migrated to "a complete open source desktop".[37] In fact, "Munich is probably the most famous Linux deployment project in the world but Germany also boasts projects in Hall, Mannheim, North Rhine Westphalia, Lower Saxony, Heidenheim, Berlin, Treuchtlingen, Osterburg, Stuttgart, Frisia, Friesland, Freiburg, Nordrhein-Westfalen, and the German Alliance of Cities and Communes." [38]

During November 2009, the newly elected German government led by Chancellor Angela Merkel declared its intention to reorient government's IT systems "on open standards, taking open source solutions into account."[39] In response to a question posed by the German online portal Linux community concerning how this would work in practice, Daniela-Alexandra Pietsch, Speaker for the Ministry of Internal Affairs, responded that, "'only through the implementation of open standards and *license-free* standards will today's and future highly complex IT systems be manageable'".[40]

B. **<u>French Government's ICT Procurement Policy</u>**:

The French government has undertaken a number of national open source software projects, involving "the Ministry of Equipment and Transport, the Ministry of Defense, the Family Allowance Agency, the Ministry of Foreign Affairs, the Ministry of Agriculture and Fisheries, the Tax Ministry, the Directorate General for the Modernisation of the State, the Ministry of Education, the Culture and Communication Ministry, the gendarmerie, and the National Assembly…France also has a number of regional projects including Arles, Grand Nancy, Lille, Val d'Oise, Marseille, Brest, Grenoble, Lyon, and Rennes." [41]

In addition, France has pursued the development of open standards during the past 5 years. The French government defined the term 'open' standard in French Law n°2004-575 on the "Confidence in the Digital Economy" (June 21, 2004), as "any communication, interconnection or exchange protocol, and any interoperable data whose technical specifications are public and available without limitations to their access or their use."[42] The French government endeavored to implement this definition in a subsequently enacted Ordinance No. 2005-1516 (Dec. 8, 2005), which governed government-to-private party (businesses and consumers) and government-to-government electronic exchanges. Thereafter, during 2006, the DGME - Directorate General for Modernization of the State) developed a voluntary interoperability framework (Référentiel Général d'Intéropérabilité) (RGI) based on such ordinance setting forth rules calling for the interoperability of different document formats.[43] The RGI recommended that document formats use the OpenDocument format (ODF) favored by the open source community, for office document (word processing and spreadsheets) exchanges, required that document formats accept any other open document format for office document exchanges, and forbid the migration from a commonly used desktop format to a format other than ODF.[44] Version 1.0 of the RGI was officially published on May 12, 2009 and then enacted into law on November 11, 2009.[45] This final version, however, does not require that document formats use only ODF. Rather, it permits, in addition to the nonproprietary ODF, the use of a compatible but distinct proprietary document format developed as an international standard at the ISO, known as OOXML (Office Open XML).[46] It is no exaggeration to say that the open source

community was outraged by the French government's decision to allow the use of *any* proprietary document format at all, even though OOXML satisfies all interoperability requirements.[47]

C. **Spanish Government's ICT Procurement Policy**:

Spanish government efforts to promote open source software have been mostly regional in nature. During 2002, the Extremadura project entailing Linux open source adoption endeavored to rejuvenate the region's ICT industry and boost its literacy rate by "making free software available to everyone and building a regional intranet."[48] In December 2004, "SUSE Linux Enterprise was selected as the chosen operating system for th[at] region's healthcare systems".

In May 2005 the public administration of the city/autonomous region of Valencia announced that it would migrate to open source software, beginning with its regional administration education system as part of project Lliurex. [49] Indeed, "[t]he Ministry of Infrastructure and Transport in Spain's Valencia autonomous region "moved to an almost complete open source IT system" between 2004-2007, resulting in the replacement of Microsoft Access and Oracle proprietary database systems with open source alternatives PostgreSQL and MySQL.[50] As of 2007, "all PCs in the ministry were running the GNU/Lliurex Linux distribution…developed by the government of the Valencia autonomous region…based on the Ubuntu GNU/Linux distribution.[51]

During 2005, the autonomous region of Andalusia began developing its own software which it made available to the public via an open source repository. "As part of the project, Andalusia created Guadalinex, an adapted version of LinEx for its own schools, libraries and public Internet centres."[52]

"Other regional Linux distributions include[d] MoLinux in Castilla-La Mancha, Max in Madrid, and Linuxglobal in Cantabria." Asturias announced its adoption of open source in December 2004, and Galicia launched its Forxa open source repository in January 2007, while the Galician city of La Coruña's Corunix project created…another custom Linux distribution for education.[53] In addition, during 2004, "the Catalan Ministry of Education announced a call for tender for open source software for the region's schools", and thereafter, one "hundred schools began the migration to Linkat, a Linux desktop and server distribution based on SUSE Linux."[54] During July 2005, the University of Zaragoza [located in]…the region of Aragon…began its own open source pilot" promoting the use of open source software. However, rather than develop its own version (a new distribution) of Linux, "Zaragoza opted for SUSE Linux Enterprise Desktop from Novell." [55]

During 2007, a federal Spanish law was enacted (Spanish Law 11/2007 of June 22nd, of the Access of the Citizens to the Electronic Public Services) which affords Spanish citizens access to electronic public services. The law mandates that the technologies underlying such services, among other things, must be delivered via an open standards platform that satisfies all public specifications, *must not be subject to patent fees, must not impose copyright restrictions, and must fulfill free or cheap pricing specifications*. [56] According to one commentator, this law grants Spanish citizens the right to technological neutrality – in other words, "the right to…interoperate (to be served) via open standards"[57] – i.e., to choose their own technology. It thus forces technology providers "to use open standards (regulated by an Interoperability Framework) in the electronic public services." At least one

commentator contends that "It is surely the most advanced law in the world regarding the provision of public electronic services via open standards."[58]

D. **British Government's ICT Procurement Policy:**

Since 2004, the UK government has sought to use open source software wherever "it [provides] the best value for money to the taxpayer in delivering public services.[59] Between 2004 and 2009, federal government departments have deployed open source software in connection with "web services, the NHS [National Health Services] and other vital public services." [60] The UK government has gravitated towards open source software, in part, to ensure "a 'level playing field' between open source and proprietary software and to reali[z]e the potential contribution open source software can make to the wider [social] aims of re–use and open standards."[61]

The UK Government's Open Source Action Plan expresses a clear preference for open source software realized through use of 'open' standards. In general, a particular solution will be selected for government procurement purposes if it satisfies "the minimum and essential capability, security, scalability, transferability, support and manageability requirements", and otherwise provides "the best value for money solution to the business requirement, taking account of total lifetime cost of ownership of the solution, including exit and transition costs". If, however, "there is no significant overall cost difference between open and non-open source products, *open source will be selected on the basis of its additional inherent flexibility*" (emphasis added).[62]

Such preference, furthermore, is implicit in the UK Government's policy of avoiding, wherever possible, proprietary software 'lock-in'. In particular it "will take exit, rebid and rebuild costs into account in procurement decisions and will require those proposing proprietary software to specify how exit would be achieved."[63] And, where the UK Government cannot avoid procuring proprietary products, it will require that licenses be made available for all public sector use or otherwise transferable within the public sector without further cost or limitation. To this end, "[t]he Government will[,] where appropriate[,] seek pan-government agreements with software suppliers which ensure that government is treated as a single entity for the purposes of volume discounts and transferability of licences."[64]

Moreover, the UK Government Open Source Action Plan empowers federal procurement agencies to challenge non-open source (proprietary software) providers about why they are not offering open source solutions. For example, proprietary software provides are required "to provide evidence that they have carefully considered open source alternatives and to explain why they have been rejected." [65]

E. **Danish Government's ICT Procurement Policy**:

Danish Parliamentary Resolution B103, adopted on 2 June 2006, instructed the Danish Federal Government to ensure that the public sector's use of information technology, including the use of software, [was] based on open standards."[66] The Danish Federal Government thereafter established "a framework for drawing up common and open IT standards, known as OIO (Offentlig Information

Online (*Public Information Online*)) standards" to ensure national governmental systems interoperability.[67] As with other EU Member States, the concept of 'open' actually meant *free of charge*.

"The Danish OIO standardization paradigm is based on the completely open standard wherever possible[.]" In other words, it must be *free* in all respects: i) it must be "accessible to everyone free of charge (i.e., it is freely available to all…and no payment or other consideration is charged for using the standard)"; ii) it must "remain[] accessible and free of charge, and access to the standard can also be obtained free of charge (i.e., the owner…renounces the option of limiting access to the standard at a later date)"; and iii) it must be "documented in all its details (i.e., all aspects of the standard are transparent and document, and access to the documentation is also free)".[68] In some cases where public standards are not completely open, the Government will be able to levy charges, as in the case of "recommended security standard DS 484, where a usage charge is paid to Danish Standards, which maintains the standard and issues guidelines on a current basis."[69]

During September 2007, the federal, regional and local governments of Denmark entered into an agreement on the use of mandatory open standards for software in the public sector, which included a proviso that such standards may not be used if it would result in increased costs to the public sector.[70] Since January 1, 2008, all Danish public authorities have been required to use seven sets of mandatory "open standards for all new public IT solutions" and to ensure that "future IT solutions are based on, or support, these mandatory open standards".[71] They include standards for: i) "data exchange between public authorities (OIOXML)"; ii) "electronic record management (FESD)"; iii) "electronic public sector procurement"; iv) "digital signatures"; v) "public websites/homepages and accessibility"; vi) "government sector IT security (DS484)"; and vii) "document exchange (ODF/OOXML)."[72]

F. **Dutch Government's ICT Procurement Policy**:

During late 2005, the Dutch government's Open Standards and Open Source Software (OSOSS) Programme developed a manual instructing government organizations "how to manage Open Standards and OSS in public procurement. Among other things, "[t]he new OSOSS manual state[d] that *it is indeed possible for a government organisation to require or prefer OSS or Open Standards in the procurement documents – under certain conditions*" (emphasis added).[73]

On March 27, 2006, the Dutch Government enacted decree no. 6022730, establishing both a Standardisation Board and a Standardisation Forum charged primarily with defining "what standards should (preferably) be used by public and semi-public bodies in their communications with each other and with citizens and businesses." [74] The Board and the Forum were also charged with coordinating the "availability, the application and – if applicable – the development of open standards and interoperability of information systems", to facilitate efficient electronic data exchange between government bodies and between government bodies and businesses.[75]

During November 2007, the Danish Ministry of Public Affairs published an action plan for promoting the use of open standards and open source software in the public and semi-public sectors.[76] Of the six

agenda items identified the following three were arguably most significant. First, the Standardization Board was instructed to publish an original list and supplementary lists of open standards beginning in January 2008, "for use as a checklist for citizens, businesses and government bodies for ICT tendering and purchasing processes and preparation of an ICT strategy."[77] Second, central and subsidiary government bodies and institutions were held responsible, by April and December 2008, respectively, for applying established open standards to ICT orders for new systems or rebuilds and ICT contract extension, unless one or more of several exceptions applied – either: i) "[n]o open standard was available for the desired functionality;" ii) "[t]he open standard was not supported by multiple suppliers and on several platforms;" iii) "[c]onduct of business and/or service provision would be unacceptably jeopardized, including in terms of security;" and/or iv) international agreements would be broken. *However, where a governmental body gave preference to the application of open standards, the exception criteria would no be longer applicable*.[78] Third, central and subsidiary government bodies and institutions were required to "support ODF alongside existing file formats for reading, writing and exchange of documents" beginning in April and December 2008, respectively.[79]

Interestingly, the Dutch Government defined the term 'open standard' consistent with the European Union's IDABC (Interoperable Delivery of European eGovernment Services to public Administrations, Businesses and Citizens) program,[80] but with two additional terms – 'open specifications' and 'free specifications'. An open specification is one that is published and whose specification document is freely available, copied and/or used or available, copied and/or used for a nominal contribution.[81] A free specification "is an open specification free of legal restrictions making its use and distribution difficult", and which contains patents that are irrevocably made available on a royalty-free basis." [82]

The Dutch Government's affirmative procurement preference action plan, furthermore, called for all Dutch federal ministries and subsidiary government bodies and institutions to develop, by January 2009 and January 2010, respectively, an implementation strategy for tendering, purchase and use of open source software.[83] In other words, Dutch Government departments were *strongly urged* to use open-source software based on open standards *wherever possible*.[84] Lastly, the action plan required the Dutch Cabinet to *actively encourage* the use of open standards and open source software in a European context – both, in preparing European policy and in introducing specifications for EU Commission eGovernment awards.[85] Indeed, even before September 2008, the Dutch Government had already "submitted its public procurement guidelines to the European Commission…[with] the Commission repl[ying that] it broadly supported the approach adopted in the guidelines."[86]

G. **Belgian Government's ICT Procurement Policy**:

Not surprisingly, during April 2009, the Belgian and the Dutch administrations entered into a memorandum of understanding pursuant to which they agreed "to coordinate their national policies on open standards and open source" software and to "promote open standards and open source internationally".[87] Although the details of the agreement have yet to be worked out, "the Dutch government's resource centre on open standards and open source, NOIV [is] already working with [its] counterparts at the Federal ICT advisory, Fedict, on implementing the open document format

ODF. The cooperation will entail more than an exchange of documentation, said the spokesperson. 'We expect the two countries will agree on policy developments regarding open standards and open source in the European Union.'"[88] As a result, since September 2008, "all document exchanges within the services of the Belgian government…have [had] to be in an open, standard format…*ODF is the only accepted standard in the proposal*" (emphasis added).[89]

H. **Hungarian Government's ICT Procurement Policy**:

On December 14, 2009, the Hungarian Parliament voted in favor of amending amended Act LX of 2009 on electronic public/government services, such that open standards are now "mandatory for the IT systems of Hungary's public administrations".[90] In particular, the amendments to the law "prescribe[e] the use of IT standards that are publicly accessible and *without any restrictions such as royalties*" (emphasis added).[91] According to a representative of "the Open Standard Alliance, a Hungarian advocacy group that lobbied in favor of the amendments",[92] "the specifications [for] the portals of [software interfaces with] the central system are public, anybody can access them free of charge...The sockets can not only be known publicly, but also *used royalty-free and without any other restriction. Nobody can charge fees for the use of the socket standards…The law explicitly states that no fees may be charged for the use of the sockets* (that is, the system interfaces of the administrative and client portals)."[93] In other words, "the Alliance compares open standards to wall sockets for the electricity grid. 'Any device using a standard plug can be connected to the electric power supply by means of a wall socket…[T]he two types of portal set out by Hungarian legislation, the administrative portal and the client portal serving individual users, will function as statutory standard sockets in intercommunication between computers."[94]

IV. **Government Procurement Rules at the EU Regional Level Have Increasingly Expressed a Preference for Royalty-*Free* Patent-Rich and/or *Non*-Proprietary Technology Standards**

A. **The Evolution of the EU Interoperability Framework**:

During 2004, the EU established the Interoperable Delivery of European *e*Government Services to public Administrations, Businesses and Citizens (IDABC) program.[95] The IADBC program, among other things, "provides financing to projects addressing European policy requirements, thus improving cooperation between administrations across Europe."[96] The Preamble of the legal framework upon which the IADBC programme is based expressly sets forth the following objective.

> "It is essential to maximise the use of standards or publicly available specifications or open specifications for information exchange and service integration to ensure seamless interoperability and thereby increasing the benefits of pan-European eGovernment services and the underlying trans-European telematic networks." [97] This same document's Annex II(C)(3) provides that "Horizontal measures under the IDABC programme…notably…Support activities undertaken to promote the spread of good practice in the application of information technologies to public administrations, such as…(c) *promotion of the spread of best practice in the use of e.g. open source software by public administrations*" (emphasis added).[98]

The EU Commission subsequently decided to extend the IADBC program to the members of the European Neighborhood Policy Program[99] which had been previously established during 2004, as well.[100]

Also during 2004 (November), the EU Commission published version 1.0 of the European Interoperability Framework.[101]EIF v1.0 defined the term 'open standard' as one where: i) "the specification document [is] available either freely or at a nominal charge…[and]…all [are able] to copy, distribute and use it for no fee or at a nominal fee"; ii) "the patents possibly present [in the standard or part of it are] made irrevocably available on a royalty free basis"; and iii) the standard may be reused without any constraints.[102] It also defined the term 'interoperability' as "the ability of information and communication technology (ICT) systems and of the business processes they support to exchange data and to enable the sharing of information and knowledge."[103] EIF v1.0 attracted the interest of a number of EU Member state governments, including the Dutch Government which later incorporated it its own national interoperability framework, as noted above. The Publication of EIF v. 1.0 also "created a focus for global thinking on the needs of government for interoperability, resulting in many Governments effectively leapfrogging Europe in the definition and implementation of their strategies. Countries like Brasil,[104] Uruguay and South Africa formally adopted policies that either mandated adoption of open standards or gave direct preferences for public procurement."[105]

During July 2007, the EU Commission released a study performed by law firm DLA Piper and researchers from the Universidade Nova de Lisboa and T.U. Delft, which revealed that the European Commission had long sought to use standardization as a tool for reaching two main policy objectives: 1) To complete development of the European internal market; and 2) To support European competitiveness, ICT, public procurement, interoperability, environment policies, etc.[106] Indeed, as far back as 2004, the EU Commission had identified the need to work together with EU Member States and stakeholders to review "how all players involved in standardisation could better match the challenges responding to societal and market needs, thus providing efficiently elaborated specifications in the IT sector".[107] Likewise, the EU Council had then concluded that it was necessary to optimize the EU standardization system. The 2007 report identified two actions "as possible additional success factors for advancing the uptake of EU standards and deliverables…'*Public procurement*' and '*Free* availability of standards'" (emphasis added).[108]

> "*Public procurement is an important sector of the European economy, entailing 16.3% of the Community GDP*" (emphasis added). [109]

> …"[T]he ultimate objective (and ideal) of the current EU standardisation policy is to elaborate standards that *reconcile in a rational way industry's priorities with public interest objectives* so that the end-deliverables of standardisation could be used *without unrealistic proprietary restrictions* as widely as possible" (emphasis added). [110]

> …"*Exceptions to the unlimited right of creators* to determine the way in which their deliverables can be used, as well as to take the moral and material benefit from their commercial exploitation, are inserted in the law itself. Such a well-defined case is determined, for example, in Directive 91/250/EEC (the Software Copyright Directive) whereby *exceptions to the exclusive right of copyright holders are justified for interoperability reasons*" (emphasis added). [111]

The study, furthermore, pointed out that the EU had previously (during 2000) used government procurement policy to indirectly express a mandatory preference for the use of open, nonproprietary GSM standards with which even Motorola, a US company, voluntarily complied to ensure its participation in a 'promising market'. The invitation for tender tied corporate bidders to a memorandum of understanding signed in September 1987, which provided generally that "*the signatories shall coordinate their policies on intellectual property rights as far as possible*", and specifically, within its Article 5 that "the signatories '*shall support the open (non-proprietary)… interfaces'*".[112]

During 2008, the "European Commission launched the 'Open Source Observatory and Repository' (OSOR), with the intention of *supporting open source software* as the epitome of collaborative development of software *in the European public sector*." "The OSOR.eu platform - particularly the OSOR.eu Repository and the OSOR.eu Forge - supports and encourages the re-use of *publicly-financed* Open Source Software developments, focusing on those of use to European public administrations."[113] As a result, European governments began to increasingly consider [] the use of Open Source Software (also known as Free Software or Libre Software, or FLOSS) as a means of reducing costs, increasing transparency and sustainability" (emphasis added). [114]

In furtherance of that effort, a report was prepared by instructors at the UNU-MERIT, "a joint research and training centre of United Nations University (UNU) and Maastricht University, The Netherlands".[115] Released during October 2008, it strongly recommended that European "*e*Government provide access based on 'open standards'", that governmental 'best practices' should dictate that "public authorities [] implement software based on open standards", for government procurement purposes, and that "public administrations should use open standards wherever supported by the software they implement, <u>in preference to any other technologies supported by such software</u>" (underlined emphasis added).[116] The definition of 'open standards' for purposes of this report was borrowed from the European Interoperability Framework EIF v1.0. It bears repeating that, among this definition's several components, an 'open standard', at a minimum, is said to be one with respect to which "The intellectual property rights [are] made *irrevocably available on a royalty-free basis*" and that "There are no constraints on the re-use of the standard" (emphasis added).[117] In essence, this definition conveys the policy position (belief) that "The main advantage of open standards is the capacity to be interoperable with other software systems. Thus, a software application based on open standards is fully interoperable with any other application using the same standards, and it is possible for any other application to use the same standard."[118] This EIO v1.0 definition is said to have sparked a debate within the EU concerning whether an 'open' standard is one that is "unencumbered with patents".[119]

Interestingly, a prior 2005 European Commission report prepared by one of the same UNU-MERIT authors (Rishab A. Ghosh) of the 2008 report,[120] specifically linked open standards with free and open source software in its recommendations. First, "open standards should be defined in terms of a desired economic effect…[Second,] *open standards for software markets should be defined in order to be compatible with FLOSS licenses*,[121] to achieve this economic effect…[Third,] *compatibility with proprietary technologies should be explicitly excluded from public procurement criteria*...[Fourth,]

open standards should be mandatory for *e*Government services and preferred for all other public procurement of software and software services" (emphasis added).[122]

During July 2008, the EU Commission released a draft of EIF v2.0,[123] that had developed in close consultation with EU Member state national governments, "many of which ha[d] already drafted their own guidelines based on what ha[d] been agreed [to] at the EU level."[124] Like EIF v1.0, this new version concluded that "Interoperability should be embedded as standard criteria (among others) within public procurement processes, giving preference to open standards and open specifications where possible."[125] But that is where the resemblance between these two documents ends.

For example, EIF v2.0 defined the term 'interoperability' less definitively than did EIF v1.0.[126]

> "Interoperability is the ability of disparate and diverse organizations (principally administrations) to interact towards *mutually beneficial and agreed common goals*, involving the sharing of information and knowledge between the organizations via the business processes they support, by means of the exchange of data between their respective information and communication technology (ICT) systems…Interoperability is not integration…*not* compatibility…[and]…*not* adaptability." [127]

A review of EIF v2.0 (July 2008) reveals that this lack of definitiveness actually translates into a narrower definition of 'interoperability', especially when read together with the new obtuse definition of 'open standard' which the EU Commission unsuccessfully took great pains to explain. First, the EU Commission noted how both "well-established standards-setting organizations including consortia" and "formal standards bodies" have "outputs, [that] in principle, can be considered as open to one degree or another," and that consequently, "there is no universally accepted "open standards" definition that covers all openness aspects."[128] Therefore, in EIF v2.0, the EU Commission called for a broader approach than merely satisfying the four minimal characteristics of an 'open standard' articulated in EIF v1.0.[129] And, such approach necessarily entailed a new process "by which standards or technical specifications appropriate for the context of any given Member State's environment and for any specific PEGS (Pan-European eGovernment Services) context can be assessed and selected in a systematic and structured way, taking into account the current environment and market conditions."[130] [131]

Although "EIF V2.0 call[ed] for open standards [it] stop[ped] short of requiring [EU regional] public offices to buy open-source software[132]…[Yet,] [n]ational governments, including…the Netherlands, [have continued to] go a step further by instructing software purchasers in public offices always to pick open standards and open-source software when possible."[133] Notwithstanding the indefiniteness of the term 'open standards', at least one industry group criticized that EIF v2.0's discussion of that term as being too narrow and dismissive of standards that have long been recognized by respected standards bodies around Europe and the world.

> "[T]he definition of open standards in the document is so narrow that it would exclude many common technology standards such as MP3 and USB, standards for music files and port interfaces on computers respectively…The BSA has serious concerns that if the current EIF definition of 'open standards' is adopted, policies of most leading international standards bodies would not qualify as open, and numerous standards that have been developed by these and other bodies and widely deployed in the marketplace could be rejected by European governments…"[134]

In effect, the Business Software Alliance (BSA) effectively argued that the narrow definition indirectly expressed a *preference* for royalty-*free* or *non*proprietary, and a *bias against proprietary*, technologies, including software, whether incorporated in whole or in part within a standard or technical specification.

Similarly, Jonathan Zuck, the President of the Association for Competitive Technology (ACT) cited the narrowness of the definition of 'open standard' contained within EIF v2.0 as a reason why innovative small and medium-sized enterprises (SMEs) should oppose it.

> ["'EIF v2.0] aims to facilitate digital cooperation among European administrations, but in effect it excludes many well-established technologies from being used for e-Government services due to a narrow definition of open standards. This will hurt first and foremost innovative tech start-ups that rely on patent protection to establish themselves in the marketplace…Contrary to what is often said, commercial software is not the playground of big business, but primarily of inventive SMEs thriving in niche markets. Only the protection of their intellectual property permits those innovators to create growth and jobs. Commercial software must be allowed to compete on a level-playing field with other software types. Public procurement decisions should be based on technology neutrality. Governments ought to buy software on its merits and not through categorical preferences. To demand anything else is to impose one business model over another.'" [135]

Not unexpectedly, the European Committee on Interoperable Systems (ECIS), an NGO advocating in favor of interoperable ICT solutions[136] and funded by the likes of multinational companies such as Adobe Systems, Corel, IBM, Nokia, Opera, Oracle, RealNetworks, Red Hat, and Sun Microsystems,[137] did not agree. Predictably, the ECIS and its members, which believe that "technologies developed on proprietary standards hinder competition and do not allow the entry of new market players", agreed with the broad definition of 'open standards' contained in EIF v2.0, as the comments they submitted to the EU Commission during February 2009 clearly revealed.[138]

In light of the concerns voiced by many in industry that the broader definition of 'open standard' contained in the EIF v2.0 (July) was unworkable in practice and susceptible to administrative manipulation, the EU Commission sought once again to revise it. However, its supposedly confidential efforts were recently disclosed in November 2009, when an unofficial (leaked) copy of the reworked v2.0[139] was appeared on a Polish Ministry website.[140]Apparently, the free/open source software community 'fears' that this iteration of EIF v2.0 (November), even more than EIF v2.0 (July), would "allow patented, proprietary solutions *as part of* the 'open [government procurement] continuum'" (emphasis added) identified by the EU Commission, which, in turn, "would mean that free software could not compete." [141] The specific operative language about which they are concerned is as follows:

> "While there is a correlation between openness and interoperability, it is also true that interoperability can be obtained without openness, for example via homogeneity of the ICT systems, which implies that all partners use, or agree to use, the same solution to implement a European Public Service."[142]

Similarly, according to Free Information Infrastructure (FFII) president Benjamin Henrion,

> "*Until now*, the EIF has required that standards be developed by non-commercial organisations and published either free of charge or for a nominal fee. *IP rights, in particular patent rights, which impact a standard must also be made 'irrevocably available on a royalty-free basis.'* This is important for ensuring that standards can be implemented in both proprietary and open source software *without being restricted by commercial property rights.*" [143]

In other words, these activists will continue to oppose the EIF v2.0 as long as any *proprietary* software or other related ICT product, even if compatible with open source software, could be incorporated within a technical standard that is included in a government procurement contract.[144] Hence, many, if not most, of these activists will be satisfied only if the "strong definition of 'open standards and specifications'" set forth in EIF v1.0 is retained.[145]

B. **EU National and Regional Government Procurement Preferences for Royalty-*Free* Patent-Rich and/or *Non*-Proprietary Technology Standards Have Been Influenced by Industry-Backed NGO Campaigns:**

As can be gleaned from above, multinational companies that have had an economic interest in promoting the sale of open source software have also had a large role to play in such debates. They have often financially supported activist NGOs and been behind EU Commission political efforts to enact government procurement rules that establish such preferences and biases. For example, During October 2008, one open source activist NGO, OpenForum Europe (OFE), which includes corporate multinational members IBM, Google and Oracle, released a study that evaluated 136 government calls for tender made by 27 EU Member state governments.[146] The study found that approximately 25 percent (%) or 34 of the total tenders reviewed cited brands names including Microsoft.[147] [148] Its intended political effect was to prompt the EU Commission to draft government procurement guidelines favoring open source software bids. According to OFE's chief executive, Graham Taylor,

> "'The use of trademarks in public calls for tender discriminates against other suppliers and contractors and is prohibited by E.U. public procurement laws, except in some exceptional cases. OFE is calling on the European Commission, the E.U.'s executive body, to take action to stop the naming of suppliers in public tenders', Taylor said."[149]

Coincidentally, during the same month, the EU Commission's IADBC announced the results of its own study prepared by other advocates of royalty-free open source software and open standards (Prof. Rishab A. Ghosh). This study surveyed 3615 calls for software tenders made by European national and regional governments between January and August 2008. [150] It found that 16 percent of such calls, or 567/3615, expressed an explicit preference for specific proprietary software vendors, and that of those, 90 percent, or 512/567, named top software companies Microsoft, Oracle, IBM, SAP and Adobe, amounting, in total, to approximately 14 percent of all the tenders studied.[151] Based on these data, the study's authors drew the following sweeping conclusions: 1) Such procurement practices favored 'compatibility' with proprietary standards over 'interoperability' with open standards in violation of EU government procurement laws (e.g., EC Directive 93/36/EEC on public supply contracts); 2) Such procurement practices were discriminatory and anti-competitive in effect; and 3) Procuring "additional services for previously acquired products [could] lock-in the proprietary

standards in place well beyond the period that may have been intended (and announced) at the time of procuring the initial software." [152]

> "'Many people assume there is a level playing field and that measures to promote Open Source are no longer needed. In fact, there is widespread bias in favour of proprietary applications', said *Rishab Ghosh*, one of the authors of the Guidelines…*According to Gosh*, software tenders often have either implicit or explicit bias for software brands or even specific applications. Of a thousand government IT organisations, 33 percent said compatibility with previously acquired software is the most important criterion when selecting new applications. *Ghosh*: 'This implicit vendor-lock in means that a tender, meant to last for only five years, leads to a contractual relation lasting ten, fifteen years or more'…Software tenders by European public administration often may not comply with EU regulations, illegally favouring proprietary applications." [153]

Apparently, in response, Karel De Vriendt, head of the EU Commission's IDABC unit (Interoperable Delivery of European *e*Government Services to public Administrations, Businesses and Citizens) responsible for the EU's Open Source Software Observatory and Repository (osor.eu) had warned that "These tenders could be protested against, and if necessary, the tendering organisations could be taken to court". [154]

Indeed, a number of open source companies successfully litigated against the Swiss national government during 2008-2009 alleging as grounds the lack of transparency and public openness in procurement procedures.

> "18 open source companies (including Red Hat) have challenged successfully in the Federal court a three-year contract between the Swiss Federal Bureau for Building and Logistics (BBL) and Microsoft for the provisions of Windows desktops and applications, including support and maintenance. The total value of the contract was estimated at about 27.8 million euro. The preliminary ruling of the Federal court from 28 May 2009 was based on the fact that the BBL disregarded the procurement rules and did not issue a call for tender." [155]

Similarly, the Swiss open source advocacy group CH/open initiated litigation "in the Bern canton, where a 18 million euro contract was attributed directly for Microsoft software licences, without a public auction. CH/open criticized the lack of transparency of the deal and explained the current action: 'Without any public process, contracts are awarded to a proprietary software vendor. This makes public administration increasingly dependent on Microsoft, giving it again no other option in eight years time'". [156]

In addition, the Spanish government's decision "to install Microsoft software on the 420,000 laptops for students" also created a public (civil society group – e.g., Hispalinux) furor.[157] And, the Romanian Government's announcement "that it ha[d] mandated the Ministry of Communications to buy Microsoft licences of 100 million euros for the Ministries and Governmental Agencies in the period 2009-2012, [triggered civil society group criticism from the likes of Free Software Foundation Europe, a]though the government press release talk[ed] about obtaining these licences through a possible auction…"[158]

Another such NGO, the Open Document Alliance European Action Group (ODF Alliance), has campaigned "within national governments and European standards bodies to ensure that standards are truly open, and there is an even playing field for competitors that benefit business, education, government and consumers alike."[159] In one such campaign, ODF lobbied the ISO to ensure that "the proprietary MSOOXML standard developed by Microsoft, with hidden elements protected by unfriendly patents and licences, [was] not adopted by ISO when a fully agreed and widely used ISO XML standard already exists."[160]

C. The EU Commission's New White Paper on ICT Standardization Recommends Reformation of EU ICT Standards and Government Procurement Policy to Allow Greater Inclusion of and Increased Preference for *Non*proprietary ICT and Software Providers

During July 2009, the EU Commission released a white paper entitled, *Modernising ICT Standardisation in the EU - The Way Forward***.**[161] It is part of a broad review being undertaken by the EU Commission of the current European standardization system. It is supposed to have culminated in an Expert Panel's preparation of strategic recommendations by the end of 2009, and in the presentation of any necessary policy and legislative proposals in 2010. [162]

The white paper's stated intention is to improve EU competitiveness and innovation in the private and governmental sectors by tapping into the region's growing free/open source software community in connection with the development of ICT standards related to government procurement activities.

> "Referencing of standards in public procurement can be an important means of fostering innovation while providing public authorities with the tools needed to fulfil their tasks, especially in lead markets such as e-health." [163]

It attempts to achieve this objective by modifying EU ICT standardization policy so that it ensures the increased public use and implementation of standards that "are publicly available…at reasonable terms (including for a reasonable fee or free of charge)", and the licensing to applicants of "IP essential to the implementation of standards…on a (fair) reasonable and non-discriminatory basis ((F)RAND), which includes, at the discretion of the IPR holder, licensing essential IP without compensation." [164]

In effect, this entails legislatively carving out an increased share of the EU ICT regional market for the growing number of European ICT companies that have adopted *royalty-free* standards incident to their membership within less formal standards fora and consortia, such as W3C (World Wide Web Consortium), OASIS (Organization for the Advancement of Structured Information Standards) and ECMA (European Computer Manufacturers Association). According to the EU Commission, the report's purpose is to "improve the possibilities to use and reference [EU] recognised standards in legislation *and public procurement*" in order to ensure that "European information and communication technology (ICT)…remain[s] relevant and globally competitive."[165]

It is not difficult to see how the reformulation of European regional EU ICT standards policy as it relates to government procurement activities, in a way that reduces the importance of IP rights (both

patents in multi-component product standards and patented or copyrighted software) and accommodates open source developers, avails European companies employing a *royalty-free business model* greater government procurement opportunities.

> "The European Commission wants to update its IT standards policy to accommodate open source…In its policy paper 'Achieving A Modern ICT Standardisation Policy' the Commission writes that the IT standards policy needs clarification 'especially concerning the Intellectual Property Rights (IPR) policies in order to accommodate emerging software developing approaches such as the open source model.' *The EC is concerned that when licencing is needed for patents which are essential to certain IT standards, this can hinder the uptake of open source*." [166]

To this end, the EU Commission recommends "updating the public procurement provisions of Council Decision 87/95/EEC so that public authorities can more easily acquire ICT services, applications and products that fulfil their specific requirements and in particular an adequate level of interoperability."[167]

The EU white paper, furthermore, emphasizes how, notwithstanding any efforts that could be made to improve ex ante disclosure of restrictive licensing terms and maximum royalty rates before adoption of a standard, reforming the (F)RAND (fair, reasonable and non-discriminatory) concept which has long been embraced by the standards community could enhance systems interoperability.[168] In fact, the EU Commission believes that "[a] majority of IT stakeholders…in the software industry and among its users are of the opinion that a more satisfactory level of interoperability can be achieved using IPR policies which could be perceived to differ from a (F)RAND approach."[169] In support of this proposition the EU Commission cites two examples: i) fora and consortia covering software standardization [that]…require IPR in standards to be the subject of royalty-free licensing"; and ii) "SME stakeholders [and] consumer organisations [that] support a royalty-free approach, often described as RF on (F)RAND, especially for standards which are to be referenced in legislation and policies."[170]

As in the case of the WIPO Report on Standards and Patents (SCP13/2), there is an unstated assumption that an inherent tension exists between intellectual property rights and standards that can only be reconciled by modifying the IP legal framework, through either internal or external measures. And, one such external measure is competition law.[171] In this regard, the white paper goes on to say that, while EU standardization policy generally "allows proprietary technologies, protected by IPR, to be incorporated in standards…EU competition rules provide, however, that standard setting should not lead to a restriction of competition, and ought to be based on nondiscriminatory, open and transparent procedures."[172]

In addition, the policy shift recommended by the EU Commission in this white paper has likely been motivated, at least in part, by the current financial crisis and the associated and increasing EU regional and national government focus on the creation of new jobs. The EU Commission is well aware that "In 2007 the European ICT industry had a turnover of €670bn and accounted for over 5% of total employment in the EU." [173]

One may credibly argue, therefore, that such a policy shift has disguised trade protectionist undertones.

> "Since ICT tools are used in *all* economic sectors, an effective EU ICT standardisation policy can encourage the faster uptake of new technologies and applications thereby contributing to the competitiveness of the European economy as a whole."[174]

> "Without decisive action the EU will fail to master the information society, will not realise a number of important European policy goals which require interoperability such as e-health, accessibility, security, e-business, e-government, transport, etc. and will face obstacles to being a driving force in the development and promotion of international standards for personal data protection". [175]

Predictably, European FOSS and royalty-free standards (RFS) advocates, such as Open Forum Europe, were pleased with this result.

> "Open Forum Europe (OFE), an industry group that takes a pro-open-source view, welcomed the move…The Commission 'recognises the importance of global open standards as well as important Intellectual Property Rights (IPR) concerns like transparency through *mandatory* ex ante declaration of licensing terms *and royalty free licensing* to enhance software interoperability,' OFE said. Open standards, stimulating global standard setting and standardization based on openness criteria across domains 'can help usher Europe into a new era of competitiveness and growth,' said OFE's chief executive, Graham Taylor." [176]

The Association for Competitive Technology (ACT), however, complained that the white paper's emphasis on open standards "amounts to a [government] bias in favor of open-source software." And, according to ACT President Jonathan Zuck, the white paper's governmental policy framework "seems to favor open source software over proprietary software to achieve more interoperability…Our key policy objective should be the removal of systemic bias, not its introduction".[177]

At least some of ACT's concerns were previously expressed during November 2007, by the Brussels Chapter of the Business Software Alliance, which had then commented on a final *EU Study on the Specific Policy Needs for ICT Standardisation*[178]and on its proposals to implement it in an earlier version of the EU White Paper *The Way Forward*.[179] The BSA's comments, in part, focused on the confusing definitions of 'open standards' being promoted at the EU and EU Member State levels, and the need for the concept to remain within the province of standards development organizations and the marketplace, rather government, to ensure that some standards are not favored over others.[180]

The comments also focused on the importance of IP to innovation, as reflected in the third criterion of the proposed definition of 'open standard': "Any patent rights necessary to implement the standard are available to all implementers on reasonable and non-discriminatory (RAND) terms, *either with or without* payment of a reasonable royalty or fee" (emphasis added).

> "We particularly welcome the Commission's recognition of the importance of RAND-based licensing. *The vast majority of ICT standards incorporate essential technologies subject to intellectual property rights; the majority of these IPRs are subject to RAND-based licensing*. RAND-based licensing has proven effective at striking a balance between licensors of essential technologies in a standard and

licensees interested in implementing the standard, while at the same time encouraging the contribution of the best state-of-the-art technologies to a standard" (emphasis added). [181]

The BSA report, furthermore, admonishes the EU Commission against adopting an interventionist posture consistent with the report's conclusion that there are problems with IPR use in standards which suggest the need for greater Commission intervention in the marketplace to establish a harmonized IPR standardization policy that adequately addresses the perceived conflict between standardization and IPRs. In this regard, the BSA emphasized that "IPR policies are best left to the determination of standards development organizations, each of whom currently has their own member-determined IPR policy (sometimes employing different rules for different projects)."[182]

Other industry and civil society concerns were expressed during the EU's online consultation within submitted questionnaires.[183]

V. Recent Efforts to Promote US Government Procurement of Open Source Health IT Solutions and to Modify OMB Circular A-119 Undermine the US Government's Ability to Protect Private IP Rights Abroad

A. Efforts to Promote US Government Procurement of Open Source Health IT Solutions:

It would appear from all of the above evidence, that European governments, working together with the open source community, certain industry members and academicians,[184] both here and abroad, are endeavoring to persuade the U.S. federal government to express a public preference for royalty-free open source software based on royalty-free open standards, and to thus migrate to such an ICT platform as a matter of government procurement policy. To this end, at least some such stakeholders recently formed the nonprofit organization Open Source America (OSA). OSA is described as "a broad cross-section of more than 50 companies, academic institutions, communities, related groups and individuals that serve as a unified voice for the promotion of open source in the U.S. Federal government sector." [185]

"*More than 70 major companies, academic institutions and high profile technologists have launched a campaign to educate US government agencies about the benefits of open source technology*. Announced earlier at the O'Reilly Open Source Convention, *groups such as Google, RedHat, Novell, Linux, Mozilla, Sun Microsystems and the Electronic Frontiers Foundation* have teamed up to create Open Source For America. The joint effort is a coalition aimed at lobbying the US Federal government to consider using open-source software over proprietary code… Nevertheless, lobbying will be no easy feat…[I]n the past government officials have expressed security concerns with open source code. Critics argue that exposed source code can be examined by attackers and therefore poses a risk. Nevertheless, another argument for exposed code can be made in ensuring security. By moving away from proprietary software models and giving free access to a system's source code, governments are no longer dependent on a select few contractors for their defense. Instead, an entire programming community can be deployed to defend against attacks. One of the government's key open source projects is actually with the National Security Agency. The agency already employs open source technologies to address multi-level security on government machines through SELinux" (emphasis added). [186]

A review of the OSA website reveals that its mission is to: 1) "effectuate changes in U.S. Federal government policies and practices so that that all the government may more fully benefit from and utilize free and open source software" – in other words, it is to cause the U.S. Federal government to migrate from proprietary software to open source software; and 2) "participate in standards development and other activities that may support its open source mission."[187] OSA cites successful OSS projects with the U.S. National Security Agency,[188] the U.S. Navy[189] and the U.S. Veterans Administration, the latter of which specifically entailed the creation of a national Veterans healthcare patient e-records system – the open source-based *VistA* electronic health record system.[190]

Apparently, during 2006, *VistA* received the U.S. Department of Veterans Affairs Innovation award, and was recognized as

> "help[ing] VA save 6,000 lives by improving rates of pneumonia vaccination among veterans with emphysema, cutting pneumonia hospitalizations in half and reducing costs by $40 million per year…In addition to saving money, VistA save[d] lives and ensure[d] continuity of care even under the most extreme circumstances. Many of the thousands of residents who fled the Gulf Coast because of Hurricane Katrina left behind vital health records. Records for the 40,000 veterans in the area were almost immediately available to clinicians across the country, even though the VA Medical Center in Gulfport, Mississippi, was destroyed and the New Orleans VA Medical Center was closed and evacuated." [191]

And, not surprisingly, Advanced Micro and Sun Microsystems, two promoters of royalty-free OSS and open standards in Europe, are founding OSA members,[192] while Rishab Aiyer Ghosh, UNU-MERIT researcher and author of several studies recommending European Union government migration to royalty-free open source software and open standards, is a member of OSA's Board of Advisors.[193]

What is more, it appears rather clear that the President, like his European counterparts, favors the use of open source software (e.g., *VistA*) over comparable proprietary software to create a national US federal government-directed e-healthcare system within five years.[194]

For example, during January 2009, it was reported that, "the House Ways and Means Committee [had] completed the Health Information Technology for Economic and Clinical Health Act (HITECH),[195] as part of the American Economic Recovery and Reinvestment Plan. The HITECH had "codifie[d] the Office of the National Coordinator (ONC) "responsible for creating a nationwide health information technology infrastructure", and provided that "the National Coordinator shall support the development and implementation of a qualified electronic health records (EHR) platform (*imagine an open source software as a service system for the country*), unless the Secretary of HHS determines that the needs concerning EHRs are met in the private market" (emphasis added).[196]

For example, during April 2009, despite industry misgivings about VistA's reliance on commercially unproven open source software,[197] it was reported that,

> "President Obama announced *the government will use open source software to create a national electronic health records system for the military*. By pursuing two open source options -- *the Department of Veterans Affairs' VistA medical records system and Connect from Sun Microsystems* --

> proponents hope the Obama administration is sending a signal that open source software could become a vital part of national reform. How big a role open source may play could be determined by a study in its formative stages now. *The American Recovery and Reinvestment Act [P.L. 111-5] calls for a study of open source health IT to be completed by October 2010*. [198] How that study is formed and who takes charge may have a lot to do with open source's fate" (emphasis added).
>
> *…Although both the VistA and Connect systems predate his administration, Obama's willingness to pursue them with a relatively loud public endorsement gives open source advocates reason for hope…*' Eventually, health IT is going to have to be open source to be *interoperable*. That seems like the only logical place to start,' said Mike Doyle, president and CEO of Medsphere Systems Corporation, a provider of open source health IT…*VA's VistA system, considered by many to be one of the nation's most advanced EHR systems, can share data between any VA hospital or health care facility around the world, according to VA officials*. The larger, newly announced system will add DOD to the equation, allowing military personnel to be electronically entered and followed in the system from the start of their military life to the end" (emphasis added). [199]

Another open source advocate/ journalist, however, expressed a less sanguine view towards the President's communication. He believes only that

> "The President promised to 'link' the VA's current VistA system with the military's AHLTA system, and he promised our heroes interoperability, but that is all. The same is true in the larger health IT stimulus plan, HITECH. CCHIT [the Certification Commission for Health Information Technology][200] still controls functional requirements needed for certification, which in turn is needed to get paid. But as Fred Trotter notes, *whether CCHIT will actually certify open source solutions remains unclear* [201]…So far, under the Obama Administration, open source has been riding momentum generated during the second Bush Administration[202]…What open source seems to be getting from the Obama Administration is a shot, a chance, a foot in the door. But there is a big distance between being allowed to present and being given a contract…*What we need are policy statements favoring a 'build' process over a 'buy' process, and demanding open standards, preferably royalty-free standards*, for government contracts. We don't have them yet, so the jury is still out on the Obama Administration and open source in health IT" (emphasis added). [203]

In fact, such a 'build' process was revealed during early April 2009 with the federal government's release for download and public use of the "*federally developed, free and open-source software*…called *Connect*" (emphasis added). "[*Connect* was] created under the auspices of the Federal Health Architecture initiative led by the Office of the National Coordinator at HHS…[According to Robert Kolodner, the outgoing head of the ONC…The result is a software gateway made available to 'any public or private-sector organization that wants to use the solution in the future to tie into the NHIN'".[204] *Connect* is "an open technology platform using Sun's open source software… Sun's GlassFish, the Java Composite Application Platform Suite (CAPS) SOA Platform, and the Sun Java Identity Management suite…to connect federal government agencies and health information exchanges…[It]…shows [t]he United States Department of Health and Human Services (HHS)…commitment to using open source technologies…[and]… President Obama's commitment to healthcare reform…" [205]

A second provision within the American Recovery and Reinvestment Act of 2009 has "earmarked nearly $20 billion in stimulus funds as an incentive for hospitals to use electronic records by 2011. And it will penalize those who don't use them, cutting a percentage of their Medicare payments

starting in 2015…[which amounts to] about $6 million by the fourth year for the same hospital." [206] Apparently, the costs of installing and implementing *VistA* and its 'enhanced' version *OpenVistA* continue to be debated, with proponents arguing that such software would be less expensive, more reliable and easier to install than competing proprietary health IT solutions.[207] At least one major healthcare IT industry association, the Healthcare Information and Management Systems Society (HIMSS),[208] has come out in support of these final provisions. [209]

Previously, however, HIMSS vigorously opposed a provision introduced during September 2008 by California Congressman Peter Stark, Chairman of the House Ways and Means Health Subcommittee, which would have explicitly "create[d] a low-cost, open-source EHR system—much like the one used in the Veterans Affairs Department—*as an alternative to* vendor-developed ones."[210] The relevant portions of the Stark bill read as follows:

> "(A) The National Coordinator shall provide for coordinating the development, routine updating, and *provision of an open source health information technology system* that is *either new or based on an open source health information technology system*, such as VistA, that is in existence as of the date of the enactment of this title and that is in compliance with all applicable standards (for each category described in paragraph (2)(A)) that are adopted under this subtitle. The National Coordinator shall make such system publicly available for use, after appropriate pilot testing, as soon as practicable but not later than 9 months after the date of the adoption by the Secretary of the initial set of standards and guidance under section 3003(c)…(B) In order to carry out subparagraph (A), the National Coordinator shall establish, not later than 6 months after the date of the enactment of this section, a consortium comprised of individuals with technical, clinical, and legal expertise open source health information technology…(D) In this paragraph, *the term 'open source' has the meaning given such term by the Open Source Initiative*" (emphasis added). [211]

As industry correctly emphasized, "the Stark bill would have 'dismantle[d]' previous government work done by the American Health Information Community and undercut open-market principles with the called-for development of a low cost, open-source health IT system."[212] Notwithstanding these political sensitivities, Senator Jay Rockefeller subsequently (during April 2009) introduced the Health Information Technology (IT) Public Utility Act of 2009. This piece of legislation called for the creation of a Federal Consolidated Health Information Technology Board within the office of the National Health Coordinator.[213] It also "called for *the government to create an open-source electronic health-records solution*" (emphasis added)[214] and to "offer it at little or no cost to safety-net hospitals and small rural providers."[215]

> "The Health Information Technology Public Utility Act of 2009 *will build upon the successful use of 'open source' electronic health records by the Department of Veterans Affairs as well as the 'open source exchange model,' which was recently expanded among federal agencies through the Nationwide Health Information Network-Connect initiative*. Open source software refers to a computer program with unrestricted source code that does not limit the use or distribution by any organization or user. Senator Rockefeller continued, '*Open source software is a cost-effective, proven way to advance health information technology* – particularly among small, rural providers. This legislation does not replace commercial software; instead, it complements the private industry in this field – by making health information technology a realistic option for all providers'" (emphasis added).[216]

Indeed, the Rockefeller bill is viewed by members of the open source community as a broad nuanced "resurrection of an open-source support provision in healthcare IT legislation proposed last year by Rep. Pete Stark (D-Calif.) [which]…ran into opposition from the Healthcare Information and Management Systems Society [HIMSS] and wound up being deleted from the IT provisions of the American Recovery and Reinvestment Act of 2009."[217] However, whether S.890 and the ARRA will succeed in promoting widespread use of electronic health records may ultimately depend on State privacy laws.[218]

The parallels between the health IT interoperability frameworks proposed by the Obama administration and the European Union and some of its Member States are not coincidental. The EU policy objective of ensuring 'interoperability' has been similarly applied beyond the ICT sector to more broadly "facilitate the implementation of EU policies and initiatives"[219] relating to other industry sectors, such as healthcare – i.e., "*e*health interoperability".[220] For example, it would appear that Europe's e-Health Action Plan "Advocates the development of *common interoperability approaches and standards* for patient identifiers, medical data messaging, [and] electronic health records" (emphasis added),[221] based on adoption of Open Source reference implementations for care services…[and]…open and more free access to future and existing e-Health standards…taking inspiration from models such as the World Wide Web Consortium."[222] And, it would seem that, in addition to the emphasis placed on information-based ICT and *e*healthcare product-service standardization, other product-service industry sectors have also been targeted for 'interoperability' standardization improvements to ensure *universal access* to 'essential services' and so-called 'user rights'.[223] These sectors include energy, transport and broadcasting, among others. European "public authorities [have] classif[ied these product-services] as being of general interest and subject to specific public service obligations. This means that it is essentially the responsibility of public authorities, at the relevant level, to decide on the nature and scope of a service of general interest."[224]

B. **Efforts to Modify OMB Circular A-119:**

The US National Technology Transfer and Advancement Act of 1995, Public Law 104-113 (the "NTTAA") reflects the America's innovative sectoral approach to balancing the respective roles of the public and private sectors in the area of technical standardization.[225] The NTTAA clearly favors, where feasible, the use of private sector developed and voluntarily adopted consensus-based standards and conformity assessment procedures for both federal agency regulatory and procurement purposes, over government-created standards or regulations. It also directs the National Institute of Standards and Technology ("NIST") to "bring together federal agencies as well as state and local governments to achieve greater reliance on voluntary standards and decreased dependence on in-house standards."

The NTTAA was implemented via an updated OMB Circular A-119: *Federal Participation in the Development and Use of Voluntary Consensus Standards in Conformity Assessment Activities*, through which the US government proceeded to systematically replace thousands of public sector-created standards with more market-relevant and cost-effective privately-developed standards.[226] Pursuant to amended OMB Circular A-119, the US government also enshrined as federal public policy a participatory process of national consensus that called for extensive written public comments

as well as open and inclusive public hearings to promote the private standards development process. In addition, Circular A-119 encouraged, and US private standards development organizations have continued to pursue, a unique 'multiple path' approach to technical standardization that promotes extensive collaboration within the diverse private standards-setting community and the full participation of all interested parties in technical standards development, to ensure the efficient and cost-effective development and dissemination of market relevant industry-based standards, consistent with free market and principles and private property rights, for use within domestic and international markets.

As the result of US government encouragement, different private standards-setting organizations throughout the US have improved their cooperation and established closer relationships, and this, in turn, has facilitated even greater interactions and coordination between and among the public and private sectors overall. Indeed, the broad, flexible, nimble and versatile bottom-up US national approach to technical standards development has been quite successful in responding to rapidly changing technologies as well as to consumer needs and demands in the US and global marketplaces. The market-based approach to US standardization has also proven itself resilient against the challenges of globalization, including the proliferation of top-down government centralized regulation and standardization policies within other countries, and has continued to enable the US to maintain a comparative and competitive advantage in international trade and innovation. Consequently, the US should change *neither* its successful current policy of fostering and supporting development of private-sector *IP-rich technology standards, nor the respective roles of the private and public sectors in the US standards development process*.[227]

During November 2008, a cross-section of stakeholders consisting of companies, academic institutions, communities, related groups and individuals from around the world convened at Yale Law School for the Yale Information Society Project's Standards on Standards Summit.[228] The apparent goal of the summit was "to discuss problems and recommend solutions in the current global context of technical standardization…This gathering was an outgrowth of a six-week online standards forum facilitated by IBM in the summer of 2008…through a wiki format [the purpose of which]…was to assess whether standards and standards-setting institutions are keeping pace with contemporary technical, social, legal, and political realities in the global information society project."[229] The day's discussions were divided into three working groups: Standards and the Role of Government; Quality and Creation of Standards; and Standards and Intellectual Property.[230]

The Standards and the Role of Government Working Group made the following selected recommendations to governments that are related to the subject matters discussed in this paper: i) "Establish policies to procure and use only information technologies based on open standards"; ii) "*Call on lawmakers to regulate intellectual property component of standards*" (emphasis added); iii) "Call on governments to review their national standards bodies and require them to adopt process rules that assure accountability and transparency and that limit vulnerability to undue vendor influence"; iv) "*Raise government awareness throughout the world to the deliverables of the Interoperable Delivery of European eGovernment Services (IDABC)*" (emphasis added).[231] The Standards and the Role of Government Working Group suggested two recommendations specifically to the Obama administration that are related to the discussion in this paper: i) "*US should establish a*

government procurement policy to prefer open standards that are implemented by at least two independent organizations"; and ii) "*There should be greater U.S. government concern about IPR in standards*. The Patent and Trademark Office, in particular, should have greater expertise (More standards expertise in key technology agencies, beginning with the PTO)" (emphasis added). [232]

The Standards and Intellectual Property Working Group made the following selected recommendations to the Obama Administration relating to standards: i) "Patent quality is of special concern to standards" ii) "Administration policy should promote integrity and certainty of the standards development process"; and iii) "Standards and open source should be able to peacefully coexist; leadership is needed to educate and supply solutions to achieve this goal".[233]

The Standards and Intellectual Property Working Group also suggested several specific ways in which standards policy could contribute to the economic recovery. They included (i) "*a public registry indicating licensing commitments for patents and associated standards*" (emphasis added); (ii) "actions that might help address third party patent issues"; (iii) "*promote Agency guidance with respect to Standard body IP policies*" (emphasis added); and iv) "*re-opening OMB Circular A119 [which] discusses open standards and transparency*" (emphasis added). In this regard, the following next steps were recommended: i) "*Consider revisions to OMB Circular A119 on what is an open standard*" (emphasis added); ii) "Consider measures to address *essential patents* that are not subject to license commitment…[i.e., where the] SDO has no control over patent holders" (emphasis added).[234] Apparently, this working group recognized how the "*European Commission seems way ahead of [the] U.S. in assessing standard policy*]" (emphasis added).[235]

On March 2, 2009, the Yale Information Society Project then submitted high-level standards strategy recommendations to the Obama administration, "which [d]eem[ed] consistent with the [administration's] technology policy directions."[236] In particular, it was recommended that the administration "strengthen the legitimacy and transparency of the diverse international standards-setting processes and redouble efforts to ensure that standards and the underlying intellectual property arrangements of standards are not used to close markets, restrict freedoms, limit competition, or create barriers to trade."[237]

In sum, it is quite clear that two of the three working groups participating in this summit had proposed substantial modifications to US standards policy, including a revision of OMB Circular A119, which would bring US standards policy a great deal closer to that of the European Union. EU government procurement laws, regulations and procedures expressing preferences for royalty-free patent-rich or *non*-proprietary ICT, medical/health and clean/alternative energy technology-based technical standards are arguably biased against the liberal exercise of exclusive private IP/patent (proprietary) rights enjoyed in the US. Therefore, the US government should tread very carefully before undertaking any transatlantic or global harmonization efforts involving such rules.

ENDNOTES

[1] *See* WIPO Report on Standards and Patents, Standing Committee on the Law of Patents of the WIPO Secretariat SCP 13/2, par. 44 (Feb. 18, 2009) at: http://www.wipo.int/edocs/mdocs/scp/en/scp_13/scp_13_2.pdf .

[2] *See* WIPO Report on Exclusions from Patentable Subject Matter and Exceptions and Limitations to the Rights, Standing Committee on the Law of Patents of the WIPO Secretariat SCP 13/3 (Feb. 4, 2009) at: http://www.wipo.int/edocs/mdocs/scp/en/scp_13/scp_13_3.pdf .

[3] In the United States, this is referred to as a governmental 'taking' of private property for a public use, which requires that a federal, state or local government provide a right-holder with full, adequate and just compensation, within the meaning of the 5th Amendment to the Bill of Rights of the US Constitution. *See* Lawrence A. Kogan, *Brazil's IP Opportunism Threatens U.S. Private Property Rights*, 38 UNIV. OF MIAMI L. REV. 1 (Fall 2006) 102-114, at http://www.itssd.org/Publications/IAL105-II(frompublisher)[2].pdf .

[4] *See, e.g.*, Jean-Baptiste Soufron and Anna Fielder, Software Interoperability and Open Standards, TransAtlantic Consumer Dialogue Briefing Paper (March 14, 2008) at: http://tacd.org/index2.php?option=com_docman&task=doc_view&gid=33&Itemid . "For example the French intellectual property law contains a copyright exception allowing software reverse engineering to ensure interoperability with other software. In the specific case of DRM, this provision has been further extended by the French revised copyright act, the DADVSI…French Law now requires access to DRM information that is 'essential for interoperability.' DRM owners cannot refuse to divulge their codes. A new regulatory body was created in order to mediate refusals by DRM owners to comply with requests for source code information." *Id.*, at p. 6. "The debate over DRM showed the importance of intellectual property exceptions to avoid lock-in situations. Consumers should not be kept prisoners over the limitations of the file format chosen by their music player vendor. That issue is addressed by reverse engineering provisions that allow competitors to develop interoperability. Such exceptions that protect consumers should be defended." *Id.*, at p. 10.

[5] *See* ANNEX III COMMENTS ON THE REPORT ON THE INTERNATIONAL PATENT SYSTEM RECEIVED FROM MEMBERS AND OBSERVERS OF THE SCP, SCP/12/3 Rev.2, pp. 18-26, at: http://193.5.93.80/edocs/mdocs/scp/en/scp_12/scp_12_3_rev_2-annex3.pdf .

[6] *See* INTELLECTUAL PROPERTY RIGHT (IPR) ISSUES IN STANDARDIZATION, Communication from the People's Republic of China G/TBT/W/251(25 May 2005) at: http://sms.mofcom.gov.cn/table/0527_wto_en.doc . ("PROPOSAL 6...China is of the view that, IPR issues in preparing and adopting international standards have become an obstacle for Members to adopt international standards and facilitate international trade. It is necessary for the WTO to consider negative impacts of this issue on multilateral trade and explore appropriate trade policies to resolve difficulties arising from this issue… 8. Therefore, China proposes that TBT Committee should take advantage of the discussion nature of the Triennial Review and discuss this issue so as to develop proper approaches and policies to promote the development and implementation of international standards as well as more effective implementation of the TBT Agreement. 9. IPR issue in standardization has important development implications. The TBT Committee should fully discuss this issue. This will help enhance developing Members' participation in the work of international standardization and in international trade.") (emphasis added).

[7] *See* INTELLECTUAL PROPERTY RIGHT (IPR) ISSUES IN STANDARDIZATION, Background paper for Chinese Submission to WTO on Intellectual Property Right Issues in Standardization (G/TBT/W/251), Communication from the People's Republic of China – Addendum, G/TBT/W/251/Add.1 (9 Nov. 2006) at: http://chinawto.mofcom.gov.cn/accessory/200702/11713465789 55.doc . ("2. Combination of IPRs with standards may be problematic and thus by have negative impact on standardization and international trade…12.When IPR holders refuse to license their proprietary technologies on RAND terms, standardizing efforts will confront crises. In accordance with the prevailing patent policies of SDOs, if the identified patent holders refuse to license on RAND terms and conditions, the SDOs can alter the standard around the proprietary technology. Yet it should be noted that some essential technologies are hard to avoid. If that is the case, the standard at issue may have to be withdrawn. Standard setting works have suffered, are suffering and will continue to suffer such inefficiency. As a commentator put it, "One of the most difficult areas in standards development these days is that of intellectual property rights (IPR)…13. In light of foregoing facts, *including IPR into standards may have serious impact on the international standards setting efforts and the corresponding implementations*. As TBT Agreement aims at boosting production efficiency and facilitating international trade by

encouraging the adoption of international standards, such objectives can be frustrated and therefore international trade retarded...14.The impacts of IPRs on economic and trade development and the urgency to address them had been widely recognized. Related actions have been taken or are being taken…18. The discussion on IPR issues in Standardization does not mean that IPR holders will lose and the IPR users will gain. The real problem stands now is that there are no sufficient rules to respond to IPR issues in standardization within international community, including WTO framework. Without well-defined rule to follow, inefficiency arises and disputes result to the detriments of both IPR holders and IPR users, who come from both developing and developed Members. *While it is important to protect the rights and interests of IPR holders, it's equally significant that new international standards and advanced IPR technologies are applied as widely as possible in order to enhance efficient, high quality production and to facilitate world trade to the interests of consumers worldwide*…20. From the governmental level, as well as the company level, there exists the kind of unwillingness of adopting international standards as the basis of their national standards and technical regulations if there is no common rule to regulate IPRs in standardization*" (emphasis added)).*

[8] *See* Regulations for the Administration of the Formulation and Revision of Patent-Involving National Standards (Interim), Standardization Administration of The People's Republic of China, English Translation (Nov. 2009) at: http://www.ipprospective.com/wp-content/uploads/2009/11/091118chinastandard_e1.pdf . These proposed rules reflect that only patented technology that is 'essential' to the implementation of a standard may be incorporated into the development of a national standard. Art. 3. They also provide that "[a] patentee and its affiliate taking part in the drafting of a standard will be deemed as having granted a free license by failing to make disclosure", and will be held legally responsible in the event that such disclosure failure is found to be a 'purposeful concealment'. Art. 8. A patented technology may be included in a national standard *only if the patentee chooses either to "license, on a free-of-charge, reasonable and nondiscriminatory basis" or "on a reasonable and nondiscriminatory basis…at a price significantly lower than the normal royalties*" Art. 9 (emphasis added). A "compulsory national standard" generally shall not involve any patents. Art. 12. However, where "a compulsory national standard…indeed needs to involve a patent, *the patentee shall grant license free of charge…If the related departments…[of] the national administration department of standardization…fail to agree with the patentee on the disposal of patent, the approval for release of the national standard will be temporary withheld or a compulsory license will be granted according to law*" Art. 13 (emphasis added).

[9] *See* Lawrence A. Kogan, *Rediscovering the Value of Intellectual Property Rights: How Brazil's Recognition and Protection of Foreign IPRs Can Stimulate Domestic Innovation and Generate Economic Growth*, International Journal of Economic Development (IJED), Vol. 8 No. 1-2 at pp. 127-128, and accompanying endnotes 505-520. http://www.spaef.com/article.php?id=970; www.itssd.org/White%20Papers/ijed-8-1-2-kogan.pdf .

[10] *See* ITSSD Comments Concerning SCP/13/2 – Standards and Patents, *infra*.

[11] *See* ITSSD Comments Concerning Document (SCP/13/3) Patent Exclusions, Exceptions & Limitations, *infra*.

[12] *See* Lawrence A. Kogan, *FORCED LICENSING OF DRUG PATENTS REFLECTS "IP COUNTERFEITING" EFFORTS ON WORLD STAGE*, Wash. Lgl. Fdn. Backgrounder Vol. 22 No. 22 (June 22, 2007) at: http://www.wlf.org/upload/06-22-07kogan.pdf .

[13] See *ITSSD Response to the Draft Global Strategy and Plan of Action* of the World Health Organization Commission on Intellectual Property Rights, Innovation and Public Health (CIPIH) (Sept. 30, 2007) at: http://www.who.int/phi/public_hearings/second/contributions_section1/Section1_ITSSD_Full%20Contribution.pdf .

[14] Cf. *ITSSD Response To The WIPO Report on the International Patent System* (Document SCP/12/3), Institute for Trade, Standards and Sustainable Development (Oct. 31, 2008) at: http://www.wipo.int/export/sites/www/scp/en/meetings/session_13/pdf/itssd.pdf *; Supplement to ITSSD Response to the WIPO Report on the International Patent System*, Institute for Trade, Standards and Sustainable Development (Nov. 7, 2008) at: http://www.wipo.int/export/sites/www/scp/en/meetings/session_13/pdf/itssd_supplement.pdf ; *ITSSD Response to Annex III - "Comments on the Report on the International Patent System Received from Members and Observers of the SCP"* (SCP/12/3 Rev.2), Institute for Trade, Standards and Sustainable Development (Feb. 24, 2009) at: http://www.wipo.int/export/sites/www/scp/en/meetings/session_13/pdf/itssd_annex3.pdf .

[15] Cf. *ITSSD Response to the Desk Review of the Intergovernmental Working Group on Public Health, Innovation and Intellectual Property from a Right to Development Perspective* - A/HRC/12/WG.2/TF/CRP.5 Human Rights Council (27 March 2009) (April 6, 2009) at: http://www.itssd.org/ITSSD%20comments%20on%20Desk%20Review%20of%20IGWG%20CIPIH%20from%20a%20Rt%20to%20Development%20Perspective%20_2_.pdf ; *Desk Review of the Intergovernmental Working Group on Public Health, Innovation and Intellectual Property from a Right to Development Perspective* - A/HRC/12/WG.2/TF/CRP.5,

Fifth session of the High-Level Task Force on the Implementation of the Right to Development, Office of the United Nations High Commissioner for Human Rights, at: http://www2.ohchr.org/english/issues/development/right/docs/A-HRC-12-WG2-TF-CRP5-Rev1.pdf .

[16] *See* Lawrence A. Kogan, *Brazil's IP Opportunism Threatens U.S. Private Property Rights*, supra at pp. 89-95.

[17] *See e.g.*, Kaitlin Mara, *Panel Calls For An Ethical Framework For IP And Climate Change*, IP Watch (Oct. 16, 2009) at: http://www.ip-watch.org/weblog/2009/10/16/an-ethical-framework-for-ip-and-climate-change ; Kaitlin Mara, *Bangkok Climate Meeting Leaves Political Issues, Compulsory Licences Unresolved*, IP Watch (Oct. 12, 2009) at: http://www.ip-watch.org/weblog/2009/10/12/bangkok-climate-meeting-leaves-political-issues-unresolved-compulsory-licence-debate-rising ; Tim Wilson, *Fighting Climate Change With Patents*, Wall Street Journal (July 15, 2009) at: http://online.wsj.com/article/SB124760260278140953.html ; Sangeeta Shashikant, *No Patents on Climate-friendly Technologies, Says South*, SUNS #6718 (June 12, 2009) at: http://www.twnside.org.sg/title2/intellectual_property/info.service/2009/twn.ipr.info.090609.htm ; Dalindyebo Shabalala, Cooperation Not Compulsion on Clean Technology Transfer, Science and Development Network (June 3, 2009) at: http://www.scidev.net/en/climate-change-and-energy/adaptation/opinions/cooperation-not-compulsion-on-clean-technology-tra.html ; Rajesh Chhabara, *From Politics to Business: Technology Transfer to Asia*, Climate Change Corp Climate News for Business (Dec. 9, 2008) at: http://www.climatechangecorp.com/content.asp?ContentID=5830 .

[18] *See* Lawrence A. Kogan, *Climate Change: Technology Transfer or Compulsory License?*, Institute for Trade, Standards and Sustainable Development presentation at the American National Standards Institute Monthly Caucus Luncheon, National Press Club, Washington, DC (Jan. 15, 2010) at: http://itssd.org/LKogan%20-%20Climate%20Change%20-%20Technology%20Transfer%20or%20Compulsory%20License%20-%20ANSI%20Luncheon%201-15-10.doc .

[19] See *Addressing the Interface between Patents and Technical Standards in International Trade Discussions*, UNCTAD - ICTSD Project on IPRs and Sustainable Development, Policy Brief No. 3 (Feb. 2009) at: http://www.iprsonline.org/New%202009/Policy%20Briefs/policy-brief-3.pdf . ("*[P]otential conflicts between patents and standards occur when…compliance with a particular standard requires access to technologies that may be intellectual property protected*. In such situations, the potential of anticompetitive practices, exclusion of competitors and high licensing costs increases. While there is in the literature a great deal of analysis over the links between patents, copyright protection and standards in software, the objective of this note is to provide a clearer perspective of the problem from the point of view of standards setting, manufacturing and trade, and suggest policy options") (emphasis added). *Id*., at p.1.

[20] During 2005, the EU apparently sought to require open source and royalty-free software 'inter-operability' standards at the International Organization for Standardization (ISO). *See* Nicos L. Tsilas, *The Threat to Innovation, Interoperability, and Government Procurement Options From Recently Proposed Definitions of 'Open Standards'*, 10 INT'L J. COMM. L. & POL'Y 8 (2005), abstract available at http://www.ijclp.net/ijclp_web-doc_8-10-2005.html (discussing mandatory royalty-free licensing and unfettered sublicensing and prohibition of other reasonable licensing terms in favor of 'FRAND' – fair, reasonable and non-discriminatory).

[21] Cf. *ITSSD Comments Concerning Document (SCP/13/3) Patent Exclusions, Exceptions & Limitations*, Institute for Trade, Standards and Sustainable Development (March 27, 2009) at: http://www.wipo.int/export/sites/www/scp/en/meetings/session_14/studies/itssd_2.pdf .

[22] See *Addressing the Interface between Patents and Technical Standards in International Trade Discussions*, UNCTAD - ICTSD Project on IPRs and Sustainable Development supra, at "Key Conclusions", p. 9.

[23] *See e.g.*, Standards for Standards Summit at Yale Law School, Yale Information Society Project (Nov. 21, 2008) at: http://www.law.yale.edu/documents/pdf/News_&_Events/Standards_Summit_Proceedings.pdf , discussed *infra*.

[24] See *Open Standard*, Wikipedia at: http://en.wikipedia.org/wiki/Open_standard ; Cf. *ITSSD Comments Concerning SCP/13/2 – Standards and Patents*, Institute for Trade, Standards and Sustainable Development (March 23, 2009) at: http://www.wipo.int/export/sites/www/scp/en/meetings/session_14/studies/itssd_1.pdf. ; http://www.itssd.org/ITSSD%20Comments%20-%20SCP%2013-2%20Standards%20and%20Patents%20-%203-23-09%20-%20II.doc .

[25] *See* James Love, *Patents and Standards: the Role for the WIPO SCP*, WIPO SCP, (23 March 2009) at: http://www.keionline.org/misc-docs/1/kei.patents.standards.scp.13.pdf (discussing "IGF DCOS proposals for government agreement on procurement and open standards") at p. 5. *See also* Knowledge Ecology International (KEI), *IPRs and Standardization: A perspective from the Internet Governance Forum*, the WIPO SCP and the WIPO Development Agenda, presented at South Centre (June 30, 2008) at: http://www.southcentre.org/index.php?option=com_docman&task=doc_download&gid=857&Itemid . ("KEI is

considering working with others on a plurilateral agreement on government procurement to promote open standards and interoperability. One possible for a for this is the UN's Internet Governance Forum (IGF)…"). *Id*., at pp. 4-5.

[26] See *Analysis on Balance: Standardisation and Patents*, The Free Software Foundation Europe (Dec. 2, 2008) at: http://www.fsfe.org/projects/os/ps.en.pdf .

[27] *See* Kaitlin Mara, *Concerns Voiced At WIPO Over Potential Conflicts Between IP And Standards*, Intellectual Property Watch (March 25, 2009) at: http://www.ip-watch.org/weblog/2009/03/25/concerns-voiced-at-wipo-over-potential-conflicts-between-ip-and-standards .

[28] *Id*.

[29] *Id*.

[30] *See* Susy Struble, James Love, Manon Ress, Robin Gross and Rishab Aiyer Ghosh, *A Positive Role for Government Procurement in Promoting Open IT Standards, the Network Effect and the Information Society***,** contributed to the Internet Governance Forum (August 2006) at p. 4, at: http://www.sun.com/software/standards/IGF_paper_submission.pdf . ("An open standard…must [render it] possible for anyone to obtain *free (no royalties or fees; also known as 'royalty free'), worldwide, non-exclusive and perpetual licenses to all essential patent claims* to make, use and sell products based on the standard" (emphasis added)). *Id*., at p. 7

[31] See *Analysis on Balance: Standardisation and Patents*, The Free Software Foundation Europe, *supra* at p. 5.

[32] *See* Matthew Aslett, *Open Source Champions of Europe*, The 450 Group (June 30, 2008) at: http://blogs.the451group.com/opensource/2008/06/30/open-source-champions-of-europe . See also, Matthew Aslett, *Open Source Tour of Europe: Germany*, The 450 Group (June 26, 2008) at: http://blogs.the451group.com/opensource/2008/06/26/open-source-tour-of-europe-germany .

[33] *Id*.

[34] *Id*.

[35] *See* Charles Babcock, *Open Document Format Has Been Accepted By 16 Governments*, Information Week (Jan. 2, 2009) at: http://www.informationweek.com/news/software/enterpriseapps/showArticle.jhtml;jsessionid=HQ4RSPUPWYZ14QSNDLPSKH0CJUNN2JVN?articleID=212700444&cid=RSSfeed_IWK_Windows&_requestid=405835 . ""The ODF Alliance, with Sun Microsystems (NSDQ: JAVA) and IBM (NYSE: IBM) as principal backers, announced at the end of December that Germany and Uruguay had joined 14 other national and eight regional governments in requiring ODF, not OOXML, as the format for government documents. The ODF format was standardized by Oasis, an international standards body…[These governments]… include Belgium, Brazil, Croatia, Denmark, France, Germany, Japan, Malaysia, Netherlands, Norway, Poland, Russia, South Africa, Switzerland, Uruguay, and Venezuela. In addition, Andalucia and Extremadura, both states in Spain, require ODF, as do Assam and Kerala, states in India; Parana, a state in Brazil; Hong Kong, a state of China; and Misiones, a state in Argentina." *Id*.

[36] *See* Gijs Hillenius, *DE: 'Public Administrations' Move to Open Source is Gaining Momentum'*, Open Source Software Observatory and Repository (June 30, 2009) at: http://www.osor.eu/news/de-public-administrations-move-to-open-source-is-gaining-momentum .

[37] *Id*.

[38] *Id*.

[39] See *German Government Wants Open Standards and Open Source*, OSOR.eu (Nov. 9, 2009) at: http://www.osor.eu/news/de-german-government-wants-open-standards-and-open-source .

[40] *Id*.

[41] *See* Matthew Aslett, *Open Source Champions of Europe*, supra.

[42] *See* Jean-Baptiste Soufron and Anna Fielder, *Software Interoperability and Open Standards*, TransAtlantic Consumer Dialogue Briefing Paper, *supra* at p. 4.

[43] *See* GIR (General Repository for Interoperability), April at: http://translate.googleusercontent.com/translate_c?hl=en&sl=fr&u=http://www.april.org/fr/print/13135&prev=/search%3Fq%3Denglish%2Btranslation%2Bof%2BR%25C3%25A9f%25C3%25A9rentiel%2BG%25C3%25A9n%25C3%25A9ral%2Bd%25E2%2580%2599Int%25C3%25A9rop%25C3%25A9rabilit%25C3%25A9%26hl%3Den&rurl=translate.google.com&usg=ALkJrhjyvaIsQ82BPPS-7JiyP3Z17cCWVQ .

[44] *Id*.

[45] *Id*; Arrêté du 9 novembre 2009 portant approbation du référentiel général d'interopérabilité, JORF n°0262 du 11 novembre 2009 page 19593 texte n° 32, at :

http://www.legifrance.gouv.fr/affichTexte.do;jsessionid=?cidTexte=JORFTEXT000021254225&dateTexte=&oldAction=rechJO&categorieLien=id .
[46] *Id*.
[47] See *RGI: the gift of François Fillon to Microsoft*, April (Nov. 12, 2009) at: http://www.april.org/en/rgi-francois-fillons-gift-microsoft ; *See also* Bertrand Lemaire, *Exclusive: The Hidden Scandal of RGI*, CIO Magazine (May 14, 2008).
[48] *See* Matthew Aslett, *Open Source Tour of Europe: Spain*, Thee 450 Group (June 27, 2008) at: http://blogs.the451group.com/opensource/2008/06/27/open-source-tour-of-europe-spain .
[49] *Id*.
[50] *See* Gijs Hillenius, *ES: 'Fear of Change Biggest Problem When Moving to Open Source'*, Open Source Software Observatory and Repository (2007) at: http://www.osor.eu/news/es-fear-of-change-biggest-problem-when-moving-to-open-source .
[51] *Id*.
[52] *See* Matthew Aslett, *Open Source Tour of Europe: Spain*, supra.
[53] *Id*.
[54] *Id*.
[55] *See* Matthew Aslett, *Open Source Tour of Europe: Spain*, supra.
[56] *See* Alberto Barrionuevo, *European Parliament, Open Parliament*, presented at the eAdministration & Open Standards Conference (Brussels, April 17, 2008) at pp. 22-23, at: http://www.davidhammerstein.org/documentos/Ponencia_AlbertoBarrionuevo.pdf .
[57] *See* Alberto Barrionuevo, *European Parliament, Open Parliament*, presented at the eAdministration & Open Standards Conference (Brussels, April 17, 2008) at pp. 22-23, at: http://www.davidhammerstein.org/documentos/Ponencia_AlbertoBarrionuevo.pdf .
[58] *See* Alberto Barrionuevo, *Responses to Human rights violations: Cannot access a public service on Linux!*, Void Life Blog (March 10, 2009) at: http://homembit.com/2009/03/human-rights-violations-cannot-access-a-public-service-on-linux.html .
[59] See *Open Source, Open Standards and Re–Use: Government Action Plan – Background*, Cabinet Office, UK Government (Feb. 24, 2009), at: http://www.cabinetoffice.gov.uk/government_it/open_source/background.aspx . "The licensing policies of software suppliers, particularly where government is not treated as a single entity, and the lack of cost transparency in the supply chain, have created issues in the progress towards greater cost reduction and joining-up of services across government." *Id*.
[60] *See* Tom Watson MP, UK Minister for Digital Engagement, *Open Source, Open Standards and Re–Use: Government Action Plan – Foreward*, Chief Information Officer Council, Cabinet Office, UK Government (Feb. 24, 2009) at: http://www.cabinetoffice.gov.uk/government_it/open_source.aspx ; Cabinet Office (March 27, 2009) at: http://www.cabinetoffice.gov.uk/cio/transformational_government/open_source.aspx .
[61] See *Open Source, Open Standards and Re–Use: Government Action Plan – The Way Forward*, Cabinet Office, UK Government, *supra*. ("1.[T]he Government adopts open standards and uses these to communicate with the citizens and businesses that have adopted open source solutions; 2. [O]pen source solutions are considered properly and, where they deliver best value for money (taking into account other advantages, such as re–use and flexibility) are selected for Government business solutions; 3. [T]he skills, experience and capabilities within Government and in its suppliers to use open source to greatest advantage are strengthened; 4. [A]n 'open source' culture of sharing, re–use and collaborative development across Government and its suppliers, building on the re–use policies and processes already agreed within the CIO Council [is] embed[ded]; 5. [T]here are no procedural barriers to the adoption of open source products within government, paying particular regard to the different business models and supply chain relationships involved; 6. [S]ystems integrators and proprietary software suppliers demonstrate the same flexibility and ability to re–use their solutions and products as is inherent in open source.") *Id*.
[62] See *Open Source, Open Standards and Re–Use: Government Action Plan*, Chief Information Officer Council, UK Government (March 27, 2009) at: http://www.cabinetoffice.gov.uk/media/123372/090224opensource.pdf ; http://www.cabinetoffice.gov.uk/cio/transformational_government/open_source/policy.aspx ; See also, *Open Source, Open Standards and Re–Use: Government Action Plan*, Chief Information Officer Council, UK Government (Feb. 24, 2009), at p. 6, at: http://www.cabinetoffice.gov.uk/media/141716/090224opensource.pdf .
[63] See *Open Source, Open Standards and Re–Use: Government Action Plan*, Chief Information Officer Council, UK Government (March 27, 2009) at:

http://www.cabinetoffice.gov.uk/cio/transformational_government/open_source/policy.aspx ; See also, *Open Source, Open Standards and Re–Use: Government Action Plan*, Chief Information Officer Council, UK Government (Feb. 24, 2009), at p. 6, at: http://www.cabinetoffice.gov.uk/media/141716/090224opensource.pdf

[64] *Id*.

[65] See *Open Source, Open Standards and Re–Use: Government Action Plan*, Cabinet Office, UK Government *supra*. ("Government Departments will challenge their suppliers to demonstrate that they have capability in open source and that open source products have been actively considered in whole or as part of the business solution which they are proposing. Where no overall open source solution is available suppliers will be expected to have considered the use of open source products within the overall solution to optimise the cost of ownership. Particular scrutiny will be directed where mature open source products exist and have already been used elsewhere in government. Suppliers putting forward non-open source products will be asked to provide evidence that they have carefully considered open source alternatives and to explain why they have been rejected.")

[66] See *Guide on How to Use Mandatory Open Standards for Software in the Public Sector*, National IT and Telecom Agency, Ministry of Science, Technology and Innovation (Oct. 2007) at p.6, at: http://en.itst.dk/the-governments-it-and-telecommunications-policy/file-archive/Guide%20on%20Mandatory%20Open%20Standards.pdf .

[67] See *Measures to Promote Interoperability via Common Open Standards, Report from the Committee on Better Interoperability*, The National IT and Telecom Agency, Ministry of Science, Technology and Innovation, Ministry of Finance; Local Government Denmark, and the Danish Regions (Dec. 2006) at p. 4, at: http://en.itst.dk/the-governments-it-and-telecommunications-policy/file-archive/interoperabilitet_EN%20.pdf .

[68] *Id.*, at p. 11.

[69] *Id*.

[70] See *Agreement Between the Government, Local Government Denmark and Danish Regions About Open Standards for Software*, National IT and Telecom Agency, Ministry of Science, Technology and Innovation (2007) at: http://en.itst.dk/the-governments-it-and-telecommunications-policy/open-standards .

[71] See *Guide on How to Use Mandatory Open Standards for Software in the Public Sector*, National IT and Telecom Agency, supra at p.6.

[72] *Id*., at p. 7.

[73] See *Dutch Manual on Open Standards and Open Source Software in the Procurement Process*, Synergy – the IADBC Quarterly No. 5 (Jan. 2006) at p. 12, at: http://ec.europa.eu/idabc/servlets/Doc?id=23833 ; http://ec.europa.eu/idabc/en/document/5244/5584 .

[74] *See* Decree by the Minister of Economic Affairs, 27 March 2006, no. 6022730, regarding the establishment of the Standardisation Board and the Standardisation Forum (*Decree establishing the Standardisation Board and Standardisation Forum*), at: http://www.open-standaarden.nl/fileadmin/OVOS/Instellingsbesluit_engels.pdf .

[75] *Id*.

[76] See *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*, Ministry of Economic Affairs, The Hague (Nov. 2007) at p. 5, at: http://www.ostp.gov/galleries/opengov_inbox/nl-in-open-connection.pdf .

[77] *Id*., at p. 12.

[78] *Id*.

[79] *Id*.

[80] The IADBC "encourage[s] and support[s] the delivery of cross-border public sector services to citizens and enterprises in Europe, to improve efficiency and collaboration between European public administrations and to contribute to making Europe an attractive place to live, work and invest." See *IADBC – The Programme*, at: http://ec.europa.eu/idabc/en/chapter/3.

[81] *Id*., at p. 27.

[82] *Id*., at p. 28.

[83] *Id*., at pp. 18-19.

[84] Paul Meller, *Study Finds Open Software Excluded From EU Procurement*, supra.

[85] *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*, Ministry of Economic Affairs, *supra* at p. 21.

[86] *See* Paul Meller, *European Public Sector Open-source Guidelines Spark Debate*, IDG News Service (Sept. 25, 2008) at: http://pcworld.about.com/od/businesscenter/European-Public-Sector-Open-so.htm .
[87] *See* Gijs Hillenius, *Belgium and Netherlands Join Forces on Open Standards and Open Source*, Open Source Software Observatory and Repository (April 30, 2009) at: http://www.osor.eu/news/belgium-and-netherlands-join-forces-on-open-standards-and-open-source . ("'We will promote open standards and open source internationally', the Dutch minister for Foreign Trade Frank Heemskerk said in a statement. A memorandum of understanding was signed on 9 April by the Belgian minister for Economy and Reform Vincent van Quickenborne and his Dutch colleague Heemskerk during a meeting in Brussels.")
[88] *Id.*.
[89] *See* Dominique Deckmyn, *Belgian Government Chooses OpenDocument*, CNet News (June 23, 2006), at: http://news.cnet.com/Belgian-government-chooses-OpenDocument/2100-7344_3-6087275.html .
[90] *See* Gijs Hillenius, *HU: Open Standards Made Mandatory for Public Administrations*, OSOR.eu (Jan. 15, 2010) at: http://www.osor.eu/news/hu-open-standards-made-mandatory-for-public-administrations .
[91] *Id*.
[92] *See* Gijs Hillenius, *HU: Open Standards Made Mandatory for Public Administrations*, supra.
[93] *See* Peter Mazsa, *10 points on the Mandatory Use of Open Standards in Hungary*, Nyílt Szabvány Szövetség, - Open Standards Alliance Blog (Dec. 17, 2009) at: http://nyissz.hu/blog/10-points-on-the-mandatory-use-of-open-standards-in-hungary .
[94] *See* Gijs Hillenius, *HU: Open Standards Made Mandatory for Public Administrations*, supra, quoting the Open Standards Alliance website.
[95] The IADBC "encourage[s] and support[s] the delivery of cross-border public sector services to citizens and enterprises in Europe, to improve efficiency and collaboration between European public administrations and to contribute to making Europe an attractive place to live, work and invest." See *IADBC – The Programme*, at: http://ec.europa.eu/idabc/en/chapter/3.
[96] *Id*.
[97] *See* "Preamble Par. 17, 'DECISION 2004/387/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on interoperable delivery of pan-European eGovernment services to public administrations, businesses and citizens (IDABC)" (4/21/04) at: http://eur-lex.europa.eu/LexUriServ/site/en/oj/2004/l_181/l_18120040518en00250035.pdf .
[98] *Id*., at "Annex II(C)(3)(c) – Horizontal Measures: Strategic and Support Activities".
[99] See COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND TO THE EUROPEAN PARLIAMENT on the general approach to enable ENP partner countries to participate in Community agencies and Community programmes, COM(2006) 724 final at p. 9, at: final http://ec.europa.eu/world/enp/pdf/com06_724_en.pdf . "The programme on Interoperable Delivery of European e-Government Services to Administration, Business and Citizens (IADBC) foresees international cooperation with third countries including ENP partner countries in line with the provisions of Article 14(2) of Decision 2004/387/EC adopting this programme without prejudice to any other clause of this Decision." *Id*.
[100] See *The Policy: What is the European Neighbourhood Policy ?* European Commission, at: http://ec.europa.eu/world/enp/policy_en.htm . "The European Neighbourhood Policy (ENP) was developed in 2004, with the objective of avoiding the emergence of new dividing lines between the enlarged EU and our neighbours… The EU offers our neighbours a privileged relationship, building upon a mutual commitment to common values (democracy and human rights, rule of law, good governance, market economy principles and sustainable development). The ENP goes beyond existing relationships to offer a deeper political relationship and economic integration… The European Neighbourhood Policy applies to the EU's immediate neighbours by land or sea – Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Israel, Jordan, Lebanon, Libya, Moldova, Morocco, Occupied Palestinian Territory, Syria, Tunisia and Ukraine…The central element of the European Neighbourhood Policy is the bilateral ENP Action Plans agreed between the EU and each partner. These set out an agenda of political and economic reforms with short and medium-term priorities." *Id*.
[101] See *EIF - European Interoperability Framework for Pan-European eGovernment Services*, IDABC website at: http://ec.europa.eu/idabc/en/document/2319 .
[102] See EUROPEAN INTEROPERABILITY FRAMEWORK FOR PAN-EUROPEAN eGOVERNMENT SERVICES Version 1.0 (2004) at p. 9, at: http://ec.europa.eu/idabc/servlets/Doc?id=19528 .
[103] *Id*., at p. 5.

[104] *See* Lawrence A. Kogan, *Brazil's IP Opportunism Threatens U.S. Private Property Rights*, supra at pp. 73-102 and accompanying footnotes ("discussing the Brazilian Government's efforts to both national and internationalize 'open source methods' (OSMs).

[105] See *2008 – A Watershed for 'Openness'?* - Annual Report 2008, OpenForumEurope, at p. 2, at: http://osacademy.hosting.amaze.nl:8060/repository/resources/reports/ofe-2008-external-report.pdf .

[106] *See* Patrick Van Eecke, Paulo Pinto Fonseca and Tineke Egyedi, *EU Study on the Specific Policy Needs for ICT Standardization, Prepared for the European Commission* (July 2007) (hereinafter referred to as the "DLA Piper Study"), at p. 17, at: http://ec.europa.eu/enterprise/ict/policy/standards/piper/full_report.pdf . "This study has been performed by the law firm DLA Piper, together with the Universidade Nova de Lisboa and T.U. Delft, following the invitation to tender for Directorate General Enterprise of the European Commission on the preparation of a Study on the specific policy needs for ICT standardisation (ref. ENTR/05/059). The aim of the study is to analyse the present state of the European ICT standardization policy and to bring forward recommendations for its future development."

[107] *Id*., at p. 2, citing *Commission Communication on the Role of European Standardisation in the Framework of European Policies and Legislation*, COM (Oct. 18, 2004) 674 final, p. 9, at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2004:0674:FIN:EN:PDF .

[108] *See* Patrick Van Eecke, Paulo Pinto Fonseca and Tineke Egyedi, *EU Study on the Specific Policy Needs for ICT Standardization, Prepared for the European Commission*, supra at p. 106.

[109] *Id*., at p. 107 (emphasis added).

[110] *Id*., at p. 108 (emphasis added).

[111] *Id*., at p. 109.

[112] *Id*., at p. 113.

[113] *See* Marco Battistoni, *OSOR.eu Mission Statement* (Oct. 10, 2008) at: http://www.osor.eu/breaking-news/mission-statement . "The Open Source Observatory and Repository for European public administrations (OSOR) is a platform for exchanging information, experiences and FLOSS-based code *for use in public administrations*. The OSOR admits all free, libre, and open source software that is distributed under licenses that are recognised by the Free Software Foundation (FSF) or the Open Source Initiative (OSI), and code that is released under the European Union Public License (EUPL)" (emphasis added). *See* Marco Battistoni, *Welcome to OSOR!*, (Oct. 10, 2008) at: http://www.osor.eu/breaking-news/welcome-to-the-open-source-observatory-and-repository-for-european-public-administrations . *See also* Marco Battistoni, *About OSOR.eu* (Sept. 4, 2009) at: http://www.osor.eu/about .

[114] *See* Rishab Aiyer Ghosh, Ruediger Glott, Patrice-Emmanuel Schmitz and Abdelkrim Boujraf, *OSOR Guidelines Public procurement and Open Source Software* public draft version 1.0: 10 (Oct. 2008) (emphasis added) at p.3 at: http://www.osor.eu/idabc-studies/OSS-procurement-guideline-public-draft-v1%201.pdf . The authors of the document include Rishab Gosh, a member of the board of the Open Source Initiative (OSI) and author of an EU study on the role of open source software in the European economy. *See* Open Source Initiative website at: http://opensource.org/?info=EXLINK.

[115] See *About UNU-MERIT*, at: http://www.merit.unu.edu/about .

[116] *See* Rishab Aiyer Ghosh, Ruediger Glott, Patrice-Emmanuel Schmitz and Abdelkrim Boujraf, *OSOR Guidelines Public procurement and Open Source Software* supra at pp. 8-9.

[117] *Id*. (emphasis added), at p. 10.

[118] *Id*., at p. 9.

[119] See *Draft Report of the Working Group on Standardization, IPR and Interoperability, of the Expert Group on Strategies for Software and Services*, DG INFSO (March 25, 2009) at: http://boycottnovell.com/resources/eu-panel-2009/WG_3_IPR-Standards-and-Interoperability/sswg/index.html .

[120] *See* Rishab A. Ghosh, *Free/Libre/Open Source Software: Policy Support - FLOSSPOLS - An Economic Basis for Open Standards*, a report deliverable of the FLOSSPOLS project, funded under the Sixth framework Programme of the European Union, managed by the eGovernment Unit of the European Commission's DG Information Society (Dec. 2005) at: http://www.flosspols.org/deliverables/FLOSSPOLS-D04-openstandards-v6.pdf .

[121] "This basic definition of FLOSS is equivalent to the Four Freedoms of the Free Software Foundation (FSF, which officially defines '*free software*') and the Open Source Definition maintained by the Open Source Initiative (OSI)" (emphasis added). *See* Rishab Aiyer Ghosh, Ruediger Glott, Patrice-Emmanuel Schmitz and Abdelkrim Boujraf, *OSOR Guidelines Public procurement and Open Source Software* supra at pp. 10-11.

[122] *Id*., at pp. 3 and 21.

[123] *See* EUROPEAN INTEROPERABILITY FRAMEWORK FOR PAN-EUROPEAN eGOVERNMENT SERVICES, DRAFT FOR PUBLIC COMMENTS – AS BASIS FOR EIF 2.0 – (7/15/08) at p.5, at: http://ec.europa.eu/idabc/servlets/Doc?id=31597 .

[124] *See* Paul Meller, *European Public Sector Open-source Guidelines Spark Debate*, IDG News Service (Sept. 25, 2008) at: http://pcworld.about.com/od/businesscenter/European-Public-Sector-Open-so.htm .

[125] *See* EUROPEAN INTEROPERABILITY FRAMEWORK FOR PAN-EUROPEAN eGOVERNMENT SERVICES, DRAFT FOR PUBLIC COMMENTS – AS BASIS FOR EIF 2.0, supra at p. 35. "The EIF should be explicitly linked to procurement on the basis of compliance with a set of recommended standards and technical specifications. Publishing a set of open standards and specifications used by government enables suppliers to build applications that best fit government requirements. 'General' interoperability requirements are manifested in procurement processes by preferring open standards and specifications when applicable. In the case where there are no viable open standards available, consensus-driven standards with the greatest degree of openness (based on rational and measurable criteria) should be favoured as an interim measure, but clearly in the context of a wider plan to migrate in the longer terms towards the use of open standards or technical specifications, as soon as practicable. In any case, technology and vendor neutrality should be included in the immediate targets in most if not all cases." *Id*., at p. 59

[126] *See* "Revision of the EIF and AG", IADBC [Interoperable Delivery of European eGovernment Services to public Administrations, Business and Citizens] website (Dec. 2008) at: http://ec.europa.eu/idabc/en/document/7728.

[127] *See* EUROPEAN INTEROPERABILITY FRAMEWORK FOR PAN-EUROPEAN eGOVERNMENT SERVICES, DRAFT FOR PUBLIC COMMENTS – AS BASIS FOR EIF 2.0, supra at pp.4-5.

[128] *Id*., at p. 54.

[129] "[O]penness touches upon many aspects of the definition, adoption and use of standards or technical specifications. First of all, openness might address additional *process-related characteristics* such as being subject to a non-discriminatory conformance process" (emphasis added). *Id*., at p. 55.

[130] "The proper selection of standards and technical specifications relies first of all on a clear assessment process taking into account a set of objective criteria. Such criteria can be grouped in several categories, addressing both Public & Private Value of the standard or technical specification in question…The 'suitability' criteria reflect the ability to fulfill a public administration's 'business' needs… The 'potential' criteria cover non-functional characteristics such as scalability, maturity, stability and maintenance…The 'openness' criteria cover aspects such as: [openness of the production and maintenance process of the documents], [openness of access to the documents], ability to implement the standard and openness of implementation, and the degree to which costs [may be] limited in all steps in the process…The 'market' criteria reflect the industrialization of a standard or specification, its alignment with best practices, its reusability, the number of competing implementations available, and the degree of market adoption and support available." *Id*., at pp. 56-57.

[131] "Public administrations should take into account the minimal level of openness required for each specific PEGS use in order to ensure interoperability…Public administrations should consider support for open data formats as a prerequisite at the procurement stage…Public administrations should target procurement at standard-based sets of services, with reuse potential in an open standards or technical specification based environment…Public administrations shall link in their procurement terms final payments with a third party confirmation that the delivered solution complies with interoperability requirements (such as open standards or technical specifications or references to interoperability frameworks or architecture guidelines referenced in the tender, or related procurement terms) and entities mandated to conduct such audits shall receive the corresponding authority…Public administrations should set up procurement procedures ensuring that optional or additional components coming along with a product should not affect the evaluation, especially if they induce the use of specifications or formats that have not been requested….Public administrations should ensure that, whenever possible their procurement process does not result in an obligation to citizens, businesses or other partners to acquire for a fee specific product in order to be able to use the service offered by the public administrations." *Id*., at pp. 59-60

[132] "Public administrations should develop in-depth understanding of the inner working methods of the open source community. Public administrations should also develop metrics that can be applied to both closed and open source. Public administrations should adapt their internal processes to deal adequately with open source mechanisms (e.g. Bug report, testing / troubleshooting, contribution of changes, licensing, security accreditation, etc.)…Public administrations should consider Open source solutions on an equal footing with proprietary solutions (which implement the open standard or standards in question) during public procurement procedures." *Id*., at pp. 63-64.

[133] *See* Paul Meller, *European Public Sector Open-source Guidelines Spark Debate*, IDG News Service (Sept. 25, 2008) at: http://pcworld.about.com/od/businesscenter/European-Public-Sector-Open-so.htm .

[134] *Id*. In other words, the BSA and its members were concerned that, by emphasizing those standards developed at less formal standards development fora and consortia, such as the Internet Engineering Task Force (IETF), W3C (World Wide Web Consortium), OASIS (Organization for the Advancement of Structured Information Standards) [and ECMA (European Computer Manufacturers Association)], known throughout the ICT industry to work only with *royalty-free* and/or *non*proprietary standards and open source software, over those developed by recognized standards organizations such as the International Standards Organization (ISO), its equivalent European Standards Organizations, and the International Telecommunication Union (ITU), EIF v2.0, in effect, expressed *a bias against proprietary software and patent-rich standards*.

[135] See *EU Interoperability Framework Scores Own Goal*, Statement by Jonathan Zuck, President of the Association for Competitive Technology, Press Release (June 25, 2008) at: http://www.actonline.org/press-releases/eu-interoperability-framework.html .

[136] See *About ECIS*, European Committee for Interoperable Systems website at: http://www.ecis.eu/about/index.html .

[137] See *Membership*, European Committee for Interoperable Systems website at: http://www.ecis.eu/about/membership.html .

[138] See *ECIS input for DG INFSO WG on Standards, IPR and Interoperability, SSEG WG 3*: Working Group on Standardization, IPR and Interoperability (Feb. 26, 2009) at: http://boycottnovell.com/resources/eu-panel-2009/WG_3_IPR-Standards-and-Interoperability/sswg/090226-ECIS.html . "ECIS is a firm believer that open standards, if properly defined, enable any vendor of IT equipment or services to implement all standardised technologies necessary to interoperate with all other vendors. In turn, consumers of these products can choose the product that meets their needs and switch at will without fear of losing functionality or control of their data. *In contrast, technologies developed on proprietary standards hinder competition and do not allow the entry of new market players*. A prime example of the key role of open standards in interoperability is reflected in the draft European Interoperability Framework ('EIF') v2.0 published in July 2008. Open standards have a central role to play in attaining inter alia interoperability within public administrations across Member States. In general, ECIS aligns with the Commission's position on open standards within the European Interoperability Framework and accedes to most of the characteristics of an open standard listed in the draft EIF v2.0." *Id*.

[139] *See* European Interoperability Framework for European Public Services (EIF) Version 2.0 (Nov. 2009) at: http://www.bigwobber.nl/wp-content/uploads/2009/11/European-Interoperability-Framework-for-European-Public-Services-draft.pdf .

[140] "A draft 2.0 of the EIF has been under discussion since 2007, and has been awaiting the Lisbon Treaty amendments before starting the process of formal ratification. Now, a document that purports to be a newly proposed draft of EIF 2.0, appearing for the first time a week ago Monday on the Web site of Poland's Internal Affairs Ministry, would actually strip those OSS references from the framework, in the interest of what it calls, among other things, "administrative simplification". Although the text of the Polish Ministry document differs substantially in both content and size (it's 56 pages shorter) than the Draft for Public Comments on version 2.0…, published in July 2008. But the Ministry is seeking public comment on the document, ahead of a meeting scheduled for November 12 in Malmo, Sweden, where the Ministry says the actual latest text of EIF 2.0 will be unveiled." *See* Scott M. Fulton, III, *On the Eve of a New EU Constitution, Poland Suggests Distance from 'Open Source'*, BetaNews (Nov. 3, 2009) at: http://www.betanews.com/article/On-the-eve-of-a-new-EU-constitution-Poland-suggests-distance-from-open-source/1257286785 ; See also *News*, Ministry of the Interior and Administration of Poland website (Dec. 28, 2009) at: http://www.mswia.gov.pl/portal/en/1/603/quotInteroperability_a_challenge_for_Polish_and_European_public_services_suppli.html and http://www.mswia.gov.pl/download.php?s=1&id=10012 . *See also* Ministerial Declaration on *e*Government, approved unanimously in Malmö, Sweden (18, November 2009) at: http://ec.europa.eu/information_society/activities/egovernment/conferences/malmo_2009/press/ministerial-declaration-on-egovernment.pdf .

[141] *See* Glyn Moody, *EU Wants to Re-define 'Closed' as 'Nearly Open'*, ComputerWorldUK (Nov. 2, 2009) at: http://www.computerworlduk.com/toolbox/open-source/blogs/index.cfm?entryid=2620&blogid=14 and http://www.computerworlduk.com/toolbox/open-source/blogs/index.cfm?entryid=2620&blogid=14&pn=2 .

[142] *Id*., at p.11. "Interoperability involves the sharing of information and knowledge between organisations, hence implies a certain degree of openness. There are varying degrees of openness. Specifications, software and software development

methods that promote collaboration and the results of which can freely be accessed, reused and shared are considered open and lie at one end of the spectrum while non-documented, proprietary specifications, proprietary software and the reluctance or resistance to reuse solutions, i.e. the 'not invented here' syndrome, lie at the other end. The spectrum of approaches that lies between these two extremes can be called the openness continuum." *Id*.

[143] See *Protests Against Proposed Redefinition of Open Standards Within the EU*, The Open H Blog (Nov. 10, 2009) at: http://www.h-online.com/open/news/item/Protests-against-proposed-redefinition-of-open-standards-within-the-EU-854651.html

[144] *See* Glyn Moody, *EU Wants to Re-define 'Closed' as 'Nearly Open'*, supra.

[145] *See* Dee-Ann LeBlanc, *Dedication to Open Source and Open Standards Threatened in Leaked EU EIF Document*, CMSWire (Jan. 6, 2010) at: http://www.cmswire.com/cms/enterprise-cms/dedication-to-open-source-and-open-standards-threatened-in-leaked-eu-eif-document-006325.php .

[146] See *OFE Monitoring Report: Discrimination in Public Procurement Procedures for Computer Software in the EU Member States*, OpenForumEurope (Oct. 2008) at: http://www.epractice.eu/files/media/media2296.pdf .

[147] *Id*., at pp. 3 and 5.

[148] *See* Paul Meller, *Study Finds Open Software Excluded From EU Procurement*, IDG News (Oct. 22, 2008) at: http://www.pcworld.com/businesscenter/article/152616/study_finds_open_software_excluded_from_eu_procurement.html ; CIO Magazine (Oct. 22, 2008) at: http://www.cio.com/article/455912/Study_Finds_Open_Software_Excluded_From_EU_Procurement?source=home_ln .

[149] See *EU Commission: Open Bids Favor Proprietary Software*, Linux Magazine (Oct. 22, 2008) at: http://www.linux-magazine.com/Online/News/EU-Commission-Open-Bids-Favor-Proprietary-Software .

[150] See *EU Commission: Open Bids Favor Proprietary Software*, Linux Magazine (Oct. 22, 2008) at: http://www.linux-magazine.com/Online/News/EU-Commission-Open-Bids-Favor-Proprietary-Software .

[151] *See* Rishab Aiyer Ghosh, Ruediger Glott, Patrice-Emmanuel Schmitz and Abdelkrim Boujraf, *OSOR Guidelines Public procurement and Open Source Software* public draft version 1.0: 10 (Oct. 2008) at p.110 at: http://www.osor.eu/idabc-studies/OSS-procurement-guideline-public-draft-v1%201.pdf

[152] *Id*., at pp. 102-105.

[153] *See* Gijs Hillenius, *Many Software Tenders in EU Maybe 'Illegal'*, Open Source Software Observatory and Repository (Oct. 2008) at: http://www.osor.eu/news/many-software-tenders-in-eu-illegal (emphasis added).

[154] *Id*; *See also* EU Commission: Open Bids Favor Proprietary Software, Linux Magazine, *supra*.

[155] See *Open Source Supporters Criticize European Govts for Favouring MS*, EDRi-gram - Number 7.11, (June 3, 2009) at: http://www.edri.org/edri-gram/number7.11/open-source-microsoft-europe . *See also* Glyn Moody, *Open Government: the Latest Member of the Open Family*, Linux Journal (May 31, 2009) at: http://www.linuxjournal.com/content/open-government-latest-member-open-family ("The Swiss federal government published in the Swiss Official Gazette of Commerce that it has granted a maintenance contract over CHF 42 million to Microsoft — however, without a prior tender. The monopolist apparently had been granted the contract under exclusion of any potential competition. The Federal Office of Construction and Logistics (BBL) apparently signed the maintenance contract over Windows and Office licenses, SharePoint et cetera in February already. A tender had never been held, so competitors had never been given a chance to demonstrate their own products. This, however, is clearly against the official regulations for acquisition of resources. A speaker of the Open Source corporation group /ch/open announced that the decision would be contested in front of the Federal Court which, incidentally, is a known user of the OpenOffice.org suite."

[156] *Id*.

[157] "After the Spanish Socialist Party supported the idea that laptops should be equipped with Open Source software, the Microsoft's chairman Bill Gates and Spain's Prime Minister José Luis Rodriguez Zapatero met on 26 May 2009 to decide on the new software for this project. The project was criticized even earlier this year by open source organisations such as Hispalinux that pointed out that there was no public tender on this topic." *Id*.

[158] The Romanian government announced its renewal of a framework software licence with Microsoft in the middle of May. The framework licence deal is worth 100 million euro in software licences to be used by government agencies between 2010 and 2012. Romania will also pay the software giant another 58 million euro this fall, as the final payment for the 2004 - 2009 framework licence agreement that expired last month…Georg Greve, the president of Free Software Foundation Europe and a speaker at the same event, commented on the situation: 'Microsoft's deals in new EU member states have raised concerns over corruption before, e.g. in Bulgaria. But while Microsoft seems to raise such questions more often than others, it should be noted that the problem of illegal procurement is larger and not limited to Microsoft.

Nor is the problem limited to the new EU member states, as the recent irregularities and resulting antitrust complaint filed in Switzerland demonstrate.'" *Id.*

[159] See *Welcome to the Open Document Alliance European Action Group*, ODF Alliance website at: http://www.odf-eag.eu .

[160] *Id*.

[161] See *EU White Paper: Modernising ICT Standardisation in the EU - The Way Forward* (7/3/09) at: http://ec.europa.eu/enterprise/ict/policy/standards/whitepaper.pdf .

[162] *See* Axel H. Horns, *EU Consultation - Modernising ICT Standardisation in the EU*, IP-Jur (July 6, 2009) at: http://www.ipjur.com/blog2/index.php?/archives/95-EU-Consultation-Modernising-ICT-Standardisation-in-the-EU.html .

[163] See *EU White Paper: Modernising ICT Standardisation in the EU - The Way Forward* (7/3/09) *supra*, at p. 6. "Standards and specifications covering the interfaces between organisations or between ICT systems and services will, as a prime objective, need to fulfil the specific business needs of public authorities and thus implement their ICT strategies and architectures." *Id*., at p. 7.

[164] *Id*., at p. 6.

[165] "Currently, government bodies are limited in their choice of ICT suppliers to ones that are registered with a short list of *recognized standards organizations*, including ISO, the International Standards Organization, its European equivalents the ESOs and the International Telecommunication Union (ITU). The private sector has moved beyond this short list. Fora and consortia such as the W3C, OASIS and ECMA are all standards organizations and are widely recognized in the industry, *but they cannot be referenced when a firm bids for a public sector contract, or when an authority is setting public policy*" (emphasis added). *See* Paul Meller, *Open-source Bias Cheered, Booed in Planned EC Rules Review*, IDG News Service (July 6, 2009) at: http://www.pcworld.com/article/167910/opensource_bias_cheered_booed_in_planned_ec_rules_review.html .

[166] *See* Gijs Hillenius, *EC: IT Standards Policy Should Accommodate Open Source*, Open Source Software Observatory and Repository (July 24, 2009) at: http://www.osor.eu/news/ec-it-standards-policy-should-accommodate-open-source (emphasis added).

[167] See *EU White Paper: Modernising ICT Standardisation in the EU - The Way Forward*, supra at p. 7.

[168] *Id.*, at pp. 8-9.

[169] *Id*., at p. 9.

[170] *Id*.

[171] *See* World Intellectual Property Organization Secretariat, *Standards and Patents*, Standing Committee on the Law of Patents (SCP/13/2), supra at pars. 144-161.

[172] *Id*. at p. 8. "In general, the European standardisation policy allows proprietary technologies, protected by IPR, to be incorporated in[to] standards. EU competition rules provide, however, that standard setting should not lead to a restriction of competition, and ought to be based on nondiscriminatory, open and transparent procedures. Standards that are available unconditionally and can be implemented by all interested parties allow for effective competition…There are many different IPR policies adapted to individual circumstances to be found among standards-developing organisations. In particular, software standardisation in support of interoperability requirements seems to follow its own approach. These differences do not in themselves pose a problem, provided that IPR relevant to the standard are given proper consideration in the process and policies comply with competition rules." *Id*.

[173] See *Adjusting EU ICT Standardisation Policy to the Realities of 21 Century*, Europa Press Release P/09/1085 (7/3/09) at: http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/1085&format=HTML&aged=0&language=EN&guiLanguage=en ; *EU White Paper: Modernising ICT Standardisation in the EU - The Way Forward*, supra at p. 2.

[174] See *EU White Paper: Modernising ICT Standardisation in the EU - The Way Forward*, supra at p. 2 (emphasis added).

[175] See *Adjusting EU ICT Standardisation Policy to the Realities of 21 Century*, Europa Press Release, supra.

[176] *See* Paul Meller, *Open-source Bias Cheered, Booed in Planned EC Rules Review* Id.

[177] *Id.*

[178] See Patrick Van Eecke, Paulo Pinto Fonseca and Tineke Egyedi, *EU Study on the Specific Policy Needs for ICT Standardization, Prepared for the European Commission* (July 2007) supra, in Section IV(A) of this paper.

[179] See *BSA Comments on Final EU Study on the Specific Needs for ICT Standardisation and EU Commission document The Way Forward*, Business Software Alliance (Nov. 5, 2007).

[180] "*We…encourage the Commission to consider carefully whether the concept of an open standard — regardless of how it is defined — should be codified in European law. Rather, we would welcome a reaffirmation that there is no authoritative Commission open standards definition and that none is warranted*…We would much welcome a clarification from the Commission that it unequivocally endorses already existing international open standards definitions in line with the practices of European and international Standards Development Organisations. The BSA has long believed that governments should take care not to place too much emphasis on the particular way in which a standard is developed, and instead should focus on whether a standard serves to achieve the desired level of interoperability. *Rather than endorsing some standards over others, Commission policy should promote the ongoing development of a broad range of voluntary, market-led standards* — which will ensure that consumers continue to have a choice of multiple standards solutions from multiple sources that have been developed using a variety of methods." *Id*., at p.2.

[181] *Id*., at pp. 1-2.

[182] "The final report recommends that the EU establish a harmonised IPR standardisation policy. BSA has long believed that IPR policies are best left to the determination of standards development organisations, each of whom currently has their own member-determined IPR policy (sometimes employing different rules for different projects). While we are not convinced about the necessity for Commission action in this field, we are pleased that the Commission at least proposes to study this issue, rather than to adopt the final report's recommendation. Should Commission decide to pursue its contemplated study, we strongly encourage to focus the study on the various IPR policies currently employed by SDOs, including the mechanisms available to resolve issues between licensors and licensees, taking a neutral stance and without predetermining the outcome — and not, as The Way Forward suggests, to look only at "problems" related to the use of IPR in standards. Indeed, the proposed emphasis on "problems" could lead the Study to mistakenly conclude that standardisation and IPRs are in conflict, despite the overwhelming evidence to the contrary." *Id*., at p. 4.

[183] See European Commission, EU Enterprise and Industry Newsroom at: http://ec.europa.eu/enterprise/newsroom/cf/itemlongdetail.cfm?item_id=3263&tpa_id=133&lang=en; *White Paper Modernising ICT Standardisation in the EU The Way Forward*, Online Questionnaire, at: http://ec.europa.eu/enterprise/newsroom/cf/document.cfm?action=display&doc_id=3150&userservice_id=1&request.id=0 .

[184] See, e.g.,

[185] See *Open Source for America Welcomes Lucid Imagination as Its Latest Member in Advocating Open Source in the U.S. Federal Government*, MarketWire (July 22, 2009) at: http://socialmedia.ulitzer.com/node/1044612 .

[186] *See* Dana Oshiro, *Open Source for America: The New Government Accountability*, Read, Write Web (July 22, 2009) at: http://www.readwriteweb.com/archives/open_source_for_america_the_new_government_account.php .

[187] See *Our Mission*, Open Source America website at: http://www.opensourceforamerica.org/mission .

[188] See *NSA – The National Security Agency's Challenge*, Open Source America website at: http://www.opensourceforamerica.org/case-studies/nsa .

[189] See *US Navy Story*, Open Source America website at: http://www.opensourceforamerica.org/case-studies/navy .

[190] See *Veterans Administration*, Case Studies, Open Source America Case website at: http://www.opensourceforamerica.org/case-studies .

[191] See *VA Receives 2006 Innovations in Government Award*, Office of Public and Intergovernmental Affairs, United States Department of Veteran Affairs, Press Release (July 10, 2006) at: http://www1.va.gov/opa/pressrel/pressrelease.cfm?id=1152.

[192] See *About Us*, Open Source America website at: http://www.opensourceforamerica.org/about .

[193] See *Board of Advisors*, Open Source America website at: http://www.opensourceforamerica.org/board .

[194] *See* K.C. Jones, *Obama Wants E-Health Records In Five Years*, Information Week (Jan. 2, 2009) at: http://www.informationweek.com/news/showArticle.jhtml?articleID=212800199 .

[195] See *Health Information Technology for Economic and Clinical Health Act or HITECH Act*, House Committee, Ways and Means, at: http://waysandmeans.house.gov/media/pdf/110/hit2.pdf . The HITECH Act comprises Title IV - Health Information Technology of the American Recovery and Reinvestment Act of 2009. See *The American Recovery and Reinvestment Act of 2009*, online at: http://waysandmeans.house.gov/media/pdf/110/sbill.pdf

[196] *See* John D. Halamka, *The Greatest Healthcare IT Generation*, Technology Review (Jan. 19, 2009) (emphasis added) at: http://www.technologyreview.com/blog/guest/22513 .

[197] "The VA's system, dubbed VistA for the Veteran's Health Information Systems and Technology Architecture, includes those benefits and another that private commercial vendors don't have: standardization that allows hospitals to share

information seamlessly. So when you break your leg in Vail, Colo., doctors there can easily retrieve your complete medical biography from your doctor in Minneapolis if both are using an open system. Much in the same way Microsoft guards its proprietary software, commercial systems made by vendors including McKesson Corp. and Cerner Corp. are proprietary technology that don't always allow them to easily talk to other vendors' systems. By contrast, open source providers can share information freely and a worldwide network of software developers, WorldVistA, has emerged to offer new features, much like the community that supports the free Linux computer operating system. But commercial vendors, noting a common complaint against open-source software that is developed by engineers here and there, say that they can provide a more reliable soup-to-nuts system and offer many features that users of the VA system have to tack on, notably billing and financial programs that commercial hospitals need to run their business. PricewaterhouseCoopers consultant Dan Garrett says that while the VA software holds promise for some hospitals, it has not been widely commercially proven, unlike vendor systems." *See* Laura Landro, *An Affordable Fix for Modernizing Medical Records* (April 30, 2009) at: http://online.wsj.com/article/SB124104350516570503.html .

[198] See Section 4104(b)(1) - STUDY AND REPORT ON AVAILABILITY OF OPEN SOURCE HEALTH INFORMATION TECHNOLOGY SYSTEMS, of TITLE IV—MEDICARE AND MEDICAID HEALTH INFORMATION TECHNOLOGY; MISCELLANEOUS MEDICARE PROVISIONS of the American Recovery and Reinvestment Act of 2009, P.L. 111-5 (Feb. 17, 2009) accessible at: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_bills&docid=f:h1enr.pdf . The study will focus on the following issues: "the current availability of *open source health information technology systems* to Federal safety net providers (including small, rural providers); (ii) *the total cost of ownership of such systems in comparison to the cost of proprietary commercial products available*; (iii) the ability of such systems to respond to the needs of, and be applied to, various populations (including children and disabled individuals); and (iv) *the capacity of such systems to facilitate interoperability* (emphasis added). "Not later than October 1, 2010, the Secretary of Health and Human Services shall submit to Congress a report on the findings and the conclusions of the study conducted under paragraph (1), together with recommendations for such legislation and administrative action as the Secretary determines appropriate." *Id*., at Section 4104(b)(2).

[199] *See* George Lauer, *Military E-Health Record Plan Gives Open Source a Boost*, iHealthBeat (April 16, 2009) (emphasis added) at: http://www.ihealthbeat.org/Features/2009/Military-EHR-Plan-Gives-Open-Source-a-Boost.aspx .

[200] CCHIT "is a nonprofit, 501(c)3 organization with the public mission of accelerating the adoption of health IT…CCHIT [has been] certifying electronic health records (EHRs) since 2006, [and]…established the first comprehensive, practical definition of what capabilities were needed in these systems. The certification criteria were developed through a voluntary, consensus-based process engaging diverse stakeholders, and the Certification Commission was officially recognized by the Federal government as a certifying body… In February 2009, Congress acknowledged the value of certification in the language of the American Recovery and Reinvestment Act (ARRA) aimed at stimulating the nation's economy. The law offers a multi-year series of incentive payments to providers and hospitals for the meaningful use of certified EHR technology." See *About the Certification Commission for Health Information Technology*, Certification Commission for Health Information Technology website at: http://www.cchit.org/about .

[201] "As open source gains popularity, it'll have to contend with certification issues. By its nature, the community-based technology is constantly evolving, which makes it difficult to certify by today's standards. The Certification Commission for Healthcare Information Technology (CCHIT) is currently the main certifying body for EHRs, but its criteria do not accommodate the open source approach, critics say." *See* Cheryl McEvoy, *Open Source EHRs Set to Grow* Advance Web (June 17, 2009) at: http://health-information.advanceweb.com/editorial/content/editorial.aspx?cc=200988 .

[202] See e.g., *Comments of the Initiative for Software Choice Regarding MITRE'S Use of Free and Open Source Software (FOSS) in the U.S. Department of Defense/ Open Source FAQ Comments* (Nov. 26, 2002) at: http://www.softwarechoice.org/download_files/MITRE.Final.Web.pdf ("[T]he ISC does not believe that the DoD should openly promote the use of OSS because in each instance, the DoD should choose the software that best meets its needs and acquisition requirements for the particular environment in which the software will be used… Each software development model – i.e., OSS, hybrid and proprietary – provides its own mix of benefits to the industry, government and taxpayers. No one benefits when otherwise viable software options are completely removed from competition and evaluation by procurement officials… Perhaps more troubling, however, is the framing of the hypothetical itself, which suggests a certain mutual exclusivity not mirrored in the software industry. The hypothetical perpetuates the 'either-or' supposition being advanced by the marketers of OSS products and services that OSS and proprietary products cannot – or rather, should not – operate together, in heterogeneous environments. Though the viral nature of some OSS licenses, such as the GNU General Public License (GPL), remains a point of concern for many in the industry (even the Study cautions

against accidentally invoking the GPL), it is clear that all models can 'get along.' The ISC believes that painting the hypothetical in such stark terms serves only to divide communities that, on their own, already co-exist. Together, the entire industry has benefited and evolved through vigorous, hyperactive competition."). *See also* MITRE, *Use of Free and Open Source Software (FOSS) in the U.S. Department of Defense, Version 1.2.04* (Jan. 2, 2003) at: http://www.terrybollinger.com/dodfoss/dodfoss_pdf.pdf .

[203] *See* Dana Blankenhorn, *What Obama promised open source health IT*, ZDnetHealthcare (April 21, 2009) (emphasis added) at: http://healthcare.zdnet.com/?p=2164 .

[204] *See* Joseph Conn, *Feds Release Open-source NHIN Gateway Software*, ModernHealthcare.com (April 7, 2009) (emphasis added) at: http://www.modernhealthcare.com/article/20090407/REG/304079996 .

[205] See *Nationwide Health Information Network Relies on Sun's Open Source Software: NHIN-CONNECT Gateway Solution Links Federal, Local and Private Sectors*, SUN Systems News (April 8, ,2009) at: http://www.sun.com/aboutsun/pr/2009-04/sunflash.20090406.1.xml ; *HHS Taps Sun For Nationwide Health Information Network NHIN*, SUN Systems News (April 7, 2009) at: http://www.outlookseries.com/N/Infrastructure/3138_HHS_Taps_Sun_Nationwide_Health_Information_Network_NHIN.htm.

[206] *See* Laura Landro, *An Affordable Fix for Modernizing Medical Records* supra. *See also* Section 4102 - INCENTIVES FOR HOSPITALS, of of TITLE IV—MEDICARE AND MEDICAID HEALTH INFORMATION TECHNOLOGY; MISCELLANEOUS MEDICARE PROVISIONS of the American Recovery and Reinvestment Act of 2009, P.L. 111-5, *supra.*

[207] "Mike Kappel, senior vice president of government and industry relations at McKesson, says once hospitals pay companies to deploy the VA software and the necessary service, training and upgrades it requires, the cost won't be much different than that of a commercial electronic medical- record system. Big vendors can work with hospitals to provide more reliable systems within their budget, he adds. Many start-up companies adapting VistA for commercial use, including Blue Cliff Inc., MELE Associates Inc., Sequence Managers Software and Medsphere Inc., say their systems will still be less expensive for hospitals to deploy. Medsphere, which put together the system for Midland Hospital, says OpenVistA enables hospitals to run system checks for security problems and bugs. And Chief Executive Mike Doyle says the open-source software community can quickly share information and patches to fix or correct them. Medsphere Chairman Kenneth Kizer, the former undersecretary for health at the VA who oversaw the development of VistA before joining the company, says its enhanced version of the software, called OpenVistA, 'can be installed in one-third the time and for about one-third the cost of the big-name proprietary systems.'" *See* Laura Landro, *An Affordable Fix for Modernizing Medical Records* supra.

[208] "The Healthcare Information and Management Systems Society (HIMSS) is the healthcare industry's membership organization exclusively focused on providing global leadership for the optimal use of healthcare information technology (IT) and management systems for the betterment of healthcare." See *About HIMSS*, at: http://www.himss.org/ASP/aboutHimssHome.asp .

[209] "HIMSS supports the provision to require the Secretary, along with federal counterparts, to conduct a study on the availability, costs, and benefits for providers concerning open source health IT. HIMSS agrees the Secretary ought to make recommendations for such legislation and administrative action, as appropriate. Open source technology provides valuable options for the healthcare industry and health information exchange. HIMSS recommends the Secretary to assess the costs of implementing open source and explore how best to utilize its benefits." See *The American Recovery and Reinvestment Act of 2009 - HIMSS Legislative Overview, Policy Implications, and Healthcare Ramifications* (March 10, 2009) at p.115 at: http://www.med.miami.edu/hipaa/public/documents/HIMSS_ARRA.pdf; *HIMSS Open Source Fact Sheet* at: http://www.himss.org/content/files/HIMSSOpenSource.pdf ; *Evaluating Open Source Software for Health Information Exchange*, HIMSS Healthcare Information Exchange Open Source Task Force White Paper (June 2008) at: http://www.himss.org/content/files/HIE_FY08_Open_Source.pdf .

[210] *See* Matthew DoBias, *Stark Offers Bill to Expedite E-record Adoption*, ModernHealthcare.com (Sept. 16, 2008) (emphasis added) at: http://www.modernhealthcare.com/article/20080916/REG/309169997.

[211] *See* H.R.6898, Section 3001(a)(4)(A),(B) and (D) - FEDERAL OPEN SOURCE HEALTH IT SYSTEM, of the Health-e Information Technology Act of 2008, (emphasis added) at: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:h6898ih.txt.pdf .

[212] *See* Matthew DoBias, *HIMSS Letter Opposes Pieces of Stark's IT Legislation*, ModernHealthcare.com (Sept. 26, 2008) at: http://www.modernhealthcare.com/article/20080926/REG/309269993. *See also* George Lauer, *Industry Gives Stark's*

Health IT Bill Mixed Reviews, iHealthBeat (Oct. 1, 2008) at: http://www.ihealthbeat.org/Features/2008/Industry-Gives-Starks-Health-IT-Bill-Mixed-Reviews.aspx .

[213] *See* Section 3 (a) of the Health Information Technology (IT) Public Utility Act of 2009 (S.890) at: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_bills&docid=f:s890is.txt.pdf .

[214] *Id*., at Section 3(c).

[215] See *Rockefeller Introduced Legislation Calling for Universal Adoption of Electronic Health Record*, Press Release, United States Senator Jay Rockefeller for West Virginia, at: http://rockefeller.senate.gov/press/record.cfm?id=311951 .

[216] *Id* (emphasis added). "The legislation—the first Rockefeller has introduced on open-source technology—springs from the successful experiences of West Virginia providers with open-source healthcare IT systems…Seven state hospitals in West Virginia are running on a version of VistA developed by Medsphere Systems Corp. and about 30 to 40 federally qualified healthcare clinics in the Mountain State run on RPMS...In West Virginia, the RPMS software is distributed to the clinics via an application service provider, or ASP, model of delivery supported by the not-for-profit Community Health Network of West Virginia, based in Scott Depot." *See* Joseph Conn, *Bill Would Boost Open-source EHRs for Rural Use*, ModernHealthcare.com (April 28, 2009) at: http://www.modernhealthcare.com/article/20090428/REG/304289994 .

[217] *"People in the open-source community who were excited by Stark's bill see the stimulus language as 'a vague reference to open source,'* [Peter] Groen [director of the Shepherd University Research Corp., Shepherdstown, W.Va.] said. Having seen the legislature maw, chew up and spit out the earlier version of an open-source funding bill, Groen said he's hopeful about the Rockefeller bill, but wary about getting his hopes up too high. *'It's similar in nature, which is why it always leads me to be cautious,' Groen said. 'The open-source community still could use as much of a boost as they could get in terms of funding, political support, visibility, you name it. This is just one more piece of the puzzle. Who knows if this will ever pass, but it might influence other legislation'"* (emphasis added). *Id*. "The most recent gust of federal support hails from West Virginia; Sen. John D. Rockefeller IV proposed legislation in April that promotes open source technology as a way to help providers -- especially small and rural organizations -- launch EHRs that meet government requirements. The Health Information Technology Public Utility Act calls for a new grant program to fund open source implementations and continued conversations among open source suppliers. The legislation now awaits debate…*'I think it's a broader move and a very wise line of thinking at the federal level to support open-source projects,'* said Rick Jung, chief operating officer, Medsphere Systems Corp., noting that the Nationwide Health Information Network, a government pilot for health information exchange, was recently open sourced. It's proof the industry is at a 'tipping point,' according to Jung" (emphasis added). *See* Cheryl McEvoy, *Open Source EHRs Set to Grow* supra.

[218] *See* Sindya Bhanoo, *EHR Adoption Inhibited by State Level Privacy Laws*, The Industry Standard (May 13, 2009) at: http://www.thestandard.com/news/2009/05/13/ehr-adoption-inhibited-state-level-privacy-laws .

[219] *See* Francisco García Morán, *European Interoperability Strategy*, European Commission Directorate General, Informatics (June 13, 2008) at p. 2, at: http://ec.europa.eu/idabc/servlets/Doc?id=31154 ; Francisco García Morán, *Proposal for a Community Programme on Interoperability Solutions for European Public Administrations (ISA)*, European Commission Directorate General, Informatics (June 20, 2008), at p.2, at: http://ec.europa.eu/idabc/servlets/Doc?id=31160 .

[220] *See* Flora Giorgio-Gerlach, *European Commission Strategy for European eHealth Interoperability*, DG Information Society and Media, ICT for Health, European Commission (Oct. 2008, Calliope, Crete, Greece) at: http://www.calliope-network.eu/Portals/11/assets/documents/Crete_Presentations/CAL%202008-10-09%20s11%20Giorgio%20%20EC%20Strategy%20Interoperability.pdf .

[221] *Id*., at p. 8 (emphasis added).

[222] *See* COMMUNICATION FROM THE COMMISSION TO THE COUNCIL, THE EUROPEAN PARLIAMENT, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS COM (2004) 356 final (4/30/04), "e-Health - Making Healthcare Better for European Citizens: An Action Plan for a European e-Health Area", at pp. 16-17, at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2004:0356:FIN:EN:PDF . "The exchange of experience in the use of open standards and open source solutions among health administrations in Member States should be promoted." *Id*., at p. 17.

[223] *See* COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS COM(2007) 725 final (11/20/07), "Accompanying the Communication on 'A Single Market for 21st Century Europe' -

Services of General Interest, Including Social Services of General Interest: A New European Commitment", at pp. 7-10, at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0725:FIN:EN:PDF.
[224] *Id*., at pp. 3-4.
[225] *See* P.L. 104-113, National Technology Transfer and Advancement Act of 1995 (enacted Mar. 7, 1996), reproduced at: http://www.nist.gov/director/ocla/Public_Laws/PL104-113.pdf .
[226] *See* Circular No. A-119 Revised - Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities (Accompanying Federal Register Materials - 2/10/98), Office of Management and Budget, EOP, accessible at: http://www.whitehouse.gov/omb/rewrite/circulars/a119/a119.html .
[227] *See* Institute for Trade, Standards and Sustainable Development Contribution to *A National Survey of United States Standardization Policies*, The Center for Global Standards Analysis (Donald E. Purcell, Ed.) (Aug. 2009) at pp. 57-58, at: http://publicaa.ansi.org/sites/apdl/Documents/Standards%20Activities/Critical%20Issues/Survey-US%20Standards%20Policies/Center's%20Survey%20Report%20(August%202009).pdf .
[228] See *Standards for Standards Summit at Yale Law School*, Yale Information Society Project (Nov. 21, 2008) at: http://www.law.yale.edu/documents/pdf/News_&_Events/Standards_Summit_Proceedings.pdf .
[229] *Id*., at p. 3.
[230] *Id*.
[231] *Id*., at p. 9-10.
[232] *Id*., at p.13.
[233] *Id*., at p. 23.
[234] *Id*., at p. 24.
[235] *Id*.
[236] See *Technical Standards Recommendations for the Obama Administration*, The Information Society Project at Yale Law School (March 2, 2009) at:
http://www.law.yale.edu/documents/pdf/News_&_Events/Standards_RecommendationsREV.pdf.
[237] *Id*.