OpenForum Europe White Paper

UK Government Consultation on Open Standards:Open Opportunities

OFE Submission 01.06.2012

Contents

1. Introduction

OpenForum Europe (OFE) has already provided input to the On Line questionnaire in response to the specific questions being asked. To supplement this submission[1] , taking into account the discussion at the April 27th Roundtable and the arguments made by opponents of the policy, we appreciate the opportunity to develop our views in six areas where we believe the debate should be held on a more detailed level and where counter arguments are being expressed. We thank the Cabinet Office for the opportunity to present these views at the meeting[2] held on 27th April.

OFE welcomes full transparency on the debate and is publishing this submission on the OFE website[3].

In summary OFE is very supportive of the UKG Policy, and believes it is a pragmatic approach which will be supportive of more effective, more innovative government IT solutions. To fully effectuate the policy, a substantive education and skills transfer programme will be necessary both to improve knowledge and best practice in the procurement process, notably in the increased use of smaller or modular contracts and less commercial lock-in limiting future choice of vendors with a limited number of large suppliers.

1 Consolidated copy available at http://www.openforumeurope.org/library/comments/OFE%20cons%20questionnaire%20response%20final.pdf/view
2 See Appendix 1 for list of attendees
3 www.openforumeurope.org

OFE is an advocacy organisation, combining both a think tank and campaigning in its support of an 'open, competitive IT market'. OFE sees Open Standards as an essential step in any process to levelling the playing field for both open source and proprietary models, and for moving away from the lock-in to single supplier solutions of the past.

This submission provides OFE's evaluation and conclusions/recommendations in six areas:

- **Impact of the Policy on Market Competition and Innovation for Public Procurement**
- **Compatibility with European Strategy**
- **Open Standards for Public Procurement (Including the Definition)**
- **The Implementation Process of Selection of Standards inc Mandating and Competing Standards**
- **Procurement Practice**
- **Governance**

2. Impact on Market Competition and Innovation for Public Procurement

Public procurement of IT is a significant influence on the market, both in developing strategy and in influencing practice. It is therefore incumbent on Government to ensure that it deploys this power in order not only to maximise the effectiveness of the public purse and the service it can offer to citizens, but also to provide an open and transparent approach to the supply market. Moreover, the Government is a customer, one which has been subjected to a self imposed 'oligarchy' of providers.

In the second of the Consultation workshops an interesting segmentation of the supply side was made by a prominent company – product suppliers, services suppliers and suppliers of technology.
Many other segmentations are of course possible but it is valuable to view the UKG Policy through the eyes of each of these segments and in particular question the competitive and innovative impact on each, with particular interest on SMEs.

Within IT, unlike Telecomms, the product/solution suppliers are nearly all interested in the end result, either as Systems Integrators or as components within the solutions stack. Few are working at the interoperability level, and few are seeking to build a business from the standard itself. Like the Internet and now the Cloud the focus is innovation on top of the standard. By implementing an agreed open standard interoperability is ensured; competitive differentiation takes place on the level of the implementation. Similarly the availability of common standards maximise competition from a technology angle. Small entrants are not faced with the same potential entry costs in the market and without the uncertainty of patent restrictions or threat of litigation.

Alfresco *is an example of a company based in the UK which provides leading open source based Enterprise Content Management Systems. Their experience is worthy of mention since the UK accounts for only 6% of their revenue, despite this being their base. They have specifically related this to two points.*

Firstly the prevalent approach of public procurement practice in the UK, who have, as Alfresco see it, a history of lock-in to single vendor solutions, and have not moved away from insisting on compatibility with those past solutions. As a result, and since no open standards are used as the basis for an open government ecosystem in the specific domain, Alfresco have been forced to restrict such interoperability.

Secondly this has been further reinforced because of either actual or implied patent or litigation threats. Alfresco have been forced to avoid protocols that have Non-Discriminatory Licensing with special provisions for Open Source. Microsoft has a number of patents protocols and file formats that are so ubiquitous that they had to tread very carefully in seeking interoperability. Microsoft has simultaneously made threatening statements toward Open Source and not been clear in which patents they may or may not enforce. The lack of clarity and intentions on the part of Microsoft have meant that Alfresco has been very wary and very careful in how they implement interoperability with Microsoft products, adding time and cost for everyone.

Equally, services suppliers will have lower cost of entry and benefits of open access to solutions. Greatest to benefit will be those able to take advantage of open standards based solutions, through the levelling of the playing field, and the breaking down of single supplier contracts. This includes a level playing field for Open Source technology providers in public tenders.

PIN-SME *represent the interests of Europe's ICT SME sector. Currently twelve national and regional associations are members, representing some 50,000 ICT SME companies that account for around 200,000 jobs. PIN-SME have supported the approach proposed by UKG recognising that open standards are a fundamental step to removing one of the technology barriers to increased competition in the market, reducing the impact of past lock-in and in particular lowering the cost of entry to the market.*

Further examples for the benefit of open standards on competition and innovation are manifold. Service Oriented Architecture (SOA) are based on modular integration of technologies. The use of open standards allow for innovative technologies – be it open source or proprietary solutions – to compete on fair and equal grounds. And they enable governments as clients to choose between competing solutions, take up innovation from whatever source because exit cost are lower and integration of new technologies is possible without encumbrances. Moreover, we must also recognise the massive impact that Cloud Computing will have on the sector over coming years. The offerings will primarily be services led and interoperability at all levels will be fundamental to market growth.

A further impact on the market is the impact on the citizen and individual. Government has a particular responsibility not to impose unnecessary conditions on the citizen and in particular not to impose specific software choices on the citizen by way of access to public services. This has been described as 'democratic lock-out'.

Current practice is poor and effectively mandating the payment of royalties to another party may well be considered a levy or stealth tax on the individual. Without product and method of access choice, as provided by full interoperability, and use of open standards then individual citizen rights will be limited. In the extreme case, given patents are ultimately a means to exclude others from the market, using an encumbered standard is granting a third party the power of veto over whether a given digital channel can be used by the citizen. This is, admittedly the extreme case but the possibility has been demonstrated by the use of proprietary technology in the UK Parliament where the patent holder has only licensed the technology to one other distributor and actively forbids its use by certain other licensing approaches.[4]

In summary, it is open ecosystems that lay the grounds for fair competition and provide stimulus for innovation by giving every supplier a fair and realistic chance to bid and offer their technologies and solutions. Moreover, open standards ensure that for accessing government information and for submitting data to governments citizens are not forced to use specific products and proprietary technologies but that there is choice and competition and that open source implementations as well was free software offerings may exist.

OFE Conclusions

1. **Requiring and mandating open standards in public procurement has positive effects on competition in this field, helps to prevent technology lock-in and creates a level playing field for both open source and proprietary technology providers.**
2. **An open ecosystem built on open standards promotes innovation. Government as a key customer of ICT technologies and solutions can act as a driver by requiring open standards and referencing them in procurement tenders.**
3. **Mandating open standards for public procurement allows that open source alternatives to proprietary technologies can be offered which increase citizens' choice and ensure independence from single vendor offerings.**

4 http://www.linuxuser.co.uk/opinion/the-conflict-between-video-on-the-web-and-open-standards/

3. Compatibility with European Strategy

The European strategy regarding standardisation, interoperability and procurement is comprehensively led and addressed in the **Digital Agenda for Europe (DAE)**. The DAE identifies and lists a number of actions regarding standardisation, interoperability and procurement, some which have been addressed already while others are still in progress. There are essentially three areas of activity that should be looked at with respect to the UKG policy: th**e European Interoperability Framework** (Actions 24, 26, 27); **ICT Procurement Guidelines** (Action 23); the **Horizontal Guidelines** (Action 22) and the **European Standardisation Reform** (Action 21).

It is important to note that with the exception of EIF all of these European strategies are either ICT wide, i.e. cover both software and hardware, and encompass both Telecomms and IT. Even the EIF has limited applicability with its primary focus being on pan European interoperability, and support of national interoperability frameworks.

Compatibility with these strategies can be validated by two questions:

- Does the proposed UKG policy support or conflict with the designated objectives of each of these strategies?
- Is there anything in the wording used by UKG which conflicts with each of these strategies, and any accompanying legislation?

We believe that the UKG policy is fully in line and compliant with the European Strategy as laid down in the DAE and as implemented or under discussion. In fact, the UKG policy furthers the implementation essentials for which the EU strategy and policy has been designed.

3.1 The European Interoperability Framework (EIF) was published in its revised version together with the European Interoperability Strategy (EIS) in October 2010. Compared to the first publication of the EIF in 2004 the EIF v2 lost a bit in clarity regarding Open Standards, e.g. by adopting the terminology to EU common practice and talking about Specifications rather than Standards. Yet, the clear requirement on openness is not under question. As well as being defined as an Underlying Principle, the EIF states "*Due to their positive effect on interoperability, the use of such open specifications, characterised by the features mentioned above as well as the sharing and reuse of software implementing such open specifications, has been promoted in many policy statements and is encouraged for European public service delivery. The positive effect of open specifications is also demonstrated by the Internet ecosystem*"[5].

Equally not under question is the need that there is a level playing field for open source. On this issue the openness principle as outlined in the EIF v2 clearly states: *"Intellectual property rights related to the specification are licensed on FRAND terms or on a royalty-free basis in a way that allows implementation in both proprietary and open source software."*[6] .

Key is not the inclusion of the words FRAND or Royalty-free, but the requirement to allow implementation by both proprietary and open source software. As a largely 'aspirational 'document EIF relies on Member States to determine how to implement that strategy, and as UKG and other Member States have concluded (and as discussed in Section 4 of this document) FRAND can only meet this requirement in very specific and limited scenarios.

Moreover, the EIF has been underwritten by Ministerial declaration (in Malmo and Grenada), which confirmed that all member states will have produced compatible national frameworks by 2013.[7] In this context the **CAMSS project (Common Assessment Method for Standards and Specifications)** provides an important tool for selecting standards and specifications and for assessing their openness.

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5 EIF, Chapter 5.2.1

6 EIF, Chapter 5.2.1.

7 Please also see the National Interoperability Framework Observatory which encourages Member States to work together in order to encourage sharing and compatibility. Some 17 Member States have to date published their Frameworks on the Observatory.

3.2 EU Legal Package on Standardisation: Making the relevant global open ICT standards and specifications available for use in Europe in public procurement is part of the **EU Standardisation Reform**. In June 2011 the Commission presented its legal package consisting of a Communication and a draft Regulation. The latter is currently in final decision making process in the European Parliament and Council. There are a number of key aspects regarding ICT standards and specifications which are addressed in the Communication[8]:

- ICT standards and specifications are key for achieving interoperability. This is a different role of standards than they one they play in meeting legal requirements, e.g. as in the context of the New Approach legislation.
- A key role in developing ICT standards and specifications lies with global fora and consortia.
- The treatment of IP in global ICT standards and specifications is of high importance if they are to fulfil their role in facilitating interoperability.

The draft Regulation aims at recognising fora/consortia specifications for referencing in public procurement provided that they meet a minimum set of criteria which are listed in Annex II of the Regulation. The criteria in this overarching framework are very high level, built on WTO general principles, and thus represent a minimal level of requirement only.
Needless to say that for specific policy area and domains more specific requirements need to made to ensure effectiveness of policy making and procurement in the respective domain. In eGovernment, for instance, the EIF contains the more detailed requirement that open specifications (open standards) need to allow implementation in open source. Several national governments have followed this guidance and implemented similar requirements thus reflecting that software interoperability in these domains is of extreme relevance and requires restriction-free licensing terms if there is to be a level playing field for Open Source in public tenders.

3.3 Horizontal Guidelines. Published in December 2010 this was issued in order to provide clarity of European thinking and direction on the competitive impact relating to standardisation (not just limited to ICT). OFE was one of the broad church of ICT organisations who welcomed the announcement publishing a press release[9]. The support was given because of two key statements, firstly the confirmation that companies working together in fora and consortia for the development of a standard would not normally be viewed as a cartel and anti-competitive, and secondly support for ex-ante disclosure of any patents that might be included in a standard . The concern was to avoid 'patent ambushes' where Standards Organisation rules were insufficiently strong on the subject. There was no distinction on different sectors of the ICT market or for different uses, and the scope is business to business arrangements, not public procurement.

3.4 ICT Standards and Public Procurement. The EC have published draft guidelines on the use of standards within public procurement. Of greatest interest is the high relevance and importance given to the topic. *"Public authorities should make the best use of available standards when commissioning hardware, software and IT services from external suppliers. Yet, the practices of public authorities across the EU vary greatly when it comes to writing tender specifications for public procurement. In some cases, public authorities find themselves unintentionally locked into particular IT solutions for decades, simply because they failed to draft sufficiently flexible tender specifications allowing for open choices in technological evolution.....The Commission will draw up detailed guidelines on how to make best use of ICT standards in tender specifications. For instance, public authorities should select standards which can be implemented by all interested suppliers, allowing for more competition and reducing the risk of lock-in."*.

European public procurement does not have a strong history of adherence to current European legislation. The quarterly OFE Monitoring[10] of Software Tenders record that some 16% (as a minimum) break current procurement rules, and indirectly encourage lock-in and loss of flexibility.

8 See especially Chapter 6 of the Communication.
9 http://www.openforumeurope.org/press-room/press-releases/press%20release%20horizontal%20guidelines%2015.12.10-1.pdf
10 http://www.openforumeurope.org/press-room/press-releases/Procurement%20Monitoring%20Report%20Feb%202012_FINAL.pdf

Within current EC policy, Article 23(2) of 2004/18/EC 12 has been widely referenced : *'Technical specifications shall afford equal access for tenderers and not have the effect of creating unjustified obstacles to the opening up of public procurement to competition.'*
OFE would contest that the use of Open Standards as defined by UKG completely fulfil this definition. Alternative interpretations would appear to confuse the market in the creation and sale of **standards**, with the creation and sale of **products** that implement that standard. In particular any use of any standards with an encumbering patent would have to ensure the patent was licensed in a way completely compatible with open source, non-discriminatory and there was no opportunity for the patent holder to use the powers of exclusion granted by a patent to affect potential suppliers.

On the **draft procurement directive**. OFE would highlight the following from draft recital 54 that clearly recognises and implicitly agrees with the UK proposed approach:
'it is also necessary to empower the Commission to make mandatory technical standards for electronic communication to ensure the interoperability of technical formats, processes and messaging in procurement procedures conducted using electronic means of communication'

Whilst other commentators have pointed out that product standards are required to allow equivalence in draft article 40.3(b) OFE would counter there is a distinct difference between a product standard (eg health and safety) and one for interoperability that affects the interface between two products. Draft article 40.3 allow four distinct approaches any of which may be followed and OFE believes the UK intent can be covered by draft article 40.3(a) :
*'the technical specifications shall be formulated **in one of** the following ways: (a) in terms of performance or functional requirements, including environmental characteristics, provided that the parameters are sufficiently precise to allow tenderers to determine the subject-matter of the contract and to allow contracting authorities to award the contract; '*

As interoperability is a functional requirement and deviation from compliance with an interoperability specification or standard would clearly prevent the functional requirement being met.

OFE would also highlight content of draft recital 27 :

'*The technical specifications drawn up by public purchasers need to allow public procurement to be opened up to competition. **To that end, it must be possible to submit tenders that reflect the diversity of technical solutions so as to obtain a sufficient level of competition.** Consequently, technical specifications should be drafted in such a way to avoid artificially narrowing down competition through requirements that favour a specific economic operator by mirroring key characteristics of the supplies, services or works habitually offered by that economic operator. Drawing up the technical specifications in terms of functional and performance requirements generally allows this objective to be achieved in the best way possible and favours innovation.'*

Again OFE would submit that restriction free open standards fulfil this intent and that there is an inherent bias against including royalty bearing standards as that favours a specific economic operator.

OFE Conclusions

4. **The UKG Policy – and most notably the requirement for open standards – is in line with the overall EU strategy.**
5. **The European Commission itself has expressed that the criteria listed in Annex II of the new Standardisation Regulation are a minimal set that needs to be met. The UKG policy focussing on software-interoperability is right in defining more specific requirements that are essential in the area of software interoperability and for ensuring compliance with open source development models.**
6. **The UKG policy also furthers the EU guidelines on ICT procurement which aim at increasing competition, reducing the risk of lock-in and ensuring implementation by all interested suppliers.**

4. Open Standards for use in Public Procurement

Like the EIF V2, the definition of an open standard and the 'FRAND vs. RF debate' has achieved the maximum controversy and lobbying. But the UK definition seeks three distinct areas of refinement, building on that of EIF itself. Firstly clarity on the openness of the development and maintenance process, which clearly supports acceptance of the role of fora/consortia as well as formal SDOs, but providing they meet specific criteria on independence and transparency. Secondly the openness of access, both through availability of the specification and reference implementations. Finally the openness in the way that the standard can be adopted in the market. It appears to be only the latter that there is any dissension!

Similar to the EIF which recognised the definition related to "the principle of openness when applied in full", the UKG Policy reflects the need for pragmatism when open standards are not available or when business reasons can be proven - the commonly used 'comply or explain' approach adopted in many countries.

4.1 Is FRAND really the norm, as sometimes claimed?

The debate would suggest that in the area under discussion, that FRAND is in common use. In fact the opposite appears to be true, and based on standards under development, the groups are freely choosing non assert, royalty free by preference, due to the wish to maximise market adoption.

In a recent press article[11] the BSI confirmed, *"We publish a lot of standards. Very few of them have proprietary rights in them," Bell[12] told Computer Weekly. "It's going to be less than 1%."*
A BSI spokeswoman backed him up. "That's not even [just] in IT," she said. "That's across the board - all 30,000 [BSI standards]. It's a minuscule amount."

"We actively discourage the inclusion of patents in standards," BSI later said in a statement. "It is only in exceptional circumstances that this happens. We are not aware of any embedded patents included in British Standards in the last five years."

As also reported[13] at the latest Cabinet Office workshop,
Andrew Watson, technology director of the Object Management Group from the Object Management Group was reported as confirming *"We have a policy that in theory allows either free licences or reasonable and non-discriminatory licences," he said. "In practice, in almost 20 years we have almost never published a specification that requires any money to be paid for a licence. We maintain about 177 specifications. One of them is encumbered by two patents. The holders agreed to licence them royalty free," he added.*

In the past OASIS have reported that out of all 60+ standards under development all but two were being proposed under Royalty Free terms.

Microsoft themselves whilst opposing the UKG policy adopted precisely this strategy on OOXML confirming[14] " *Microsoft believes that it is in everyone's interest for this open file format to be available freely and easily for document exchange and preservation.*" having defined Freely-Implementable' as an attribute of an open standard as "*Any required Microsoft patent rights are available on a royalty-free, perpetual basis to all implementers".*

And of course the best exemplar is W3C through its work in maximising innovation built on internet standards. W3C have allowed no debate whatsoever in their commitment and the terms of their licensing seem to fully support the UKG definition:
'W3C seeks to issue Recommendations that can be implemented on a Royalty-Free (RF) basis. Subject to the conditions of this policy, W3C will not approve a Recommendation if it is aware that Essential Claims exist

11 http://www.computerweekly.com/news/2240115080/Government-takes-on-proprietary-software-lobby-in-open-standards-battle
12 David Bell, head of external policy at the British Standards Institution
13 http://www.computerweekly.com/blogs/public-sector/2012/05/software-industry-reclaims-ope.html
14 Glyn Moody reported on MS input to UKG based on FOI request. http://blogs.computerworlduk.com/open-enterprise/2012/04/how-microsoft-fought-true-open-standards-ii/index.htm

which are not available on Royalty-Free terms.' and *'As a condition of participating in a Working Group, each participant (W3C Members, W3C Team members, invited experts, and members of the public) shall agree to make available under W3C RF licensing requirements any Essential Claims related to the work of that particular Working Group. '*

There are more examples as you move higher up in the technology stack where software-interoperability is the prime objective of standards work, e.g. OAGi (Open Application Group), the OSGi Alliance, or RosettaNet.

In IT, and even more in software standardisation, Royalty-free is THE dominant model.

The patent encumbered Mpeg audio and video compression format has been put forward as an example of a 'thriving market'. But as that same workshop evidenced, this is far from the truth. Mpeg had originally been specified with hardware patents, but were later implemented in software. As reported[15] one attendee at the Workshop with first hand knowledge commented that in fact *"The patent thicket around video has prevented progress in that for at least 20 years," said Kevin Marks, vice president of open cloud standards at Salesforce.com, who had implemented Mpeg4 in Apple's QuickTime player while working there at the turn of the millennium".*

The same issue is in current discussions on video codecs in HTML5. As also reported at the Workshop *Phil Archer, eGovernment consultant for the World Wide Web Consortium, told the meeting confirmed its HTML5 standard had that problem. "HTML5 has a video tag in it. And there have been arguments back and forward about which standard we should choose. We ended up deciding to choose none of them. Because we can't," he said".*

Exploitation of patent portfolios is currently very much the news of the day, as are patent litigation, and the growth in patent 'trolls' purely seeking to gain revenue from litigation, having bought up patents. It is, however, essential to identify behind the rhetoric the difference between patents used in products, and those contained in standards, and in particular in standards used for interoperability between software. FRAND typically is the term used to describe the former approach, but there is no general definition of the term, no common use within standards organisations, and currently nothing to stop the later exploitation of a patent via 'patent ambushes'. The EC, within the Horizontal Guidelines, wish to encourage adoption of ex ante rules prior to standards adoption, but without such formal and contractual agreements, it remains the patent owner who has unilateral control over its usage and royalty fee. OFE is not commenting on the use of patents outside the area of software interoperability.

4.2 FRAND and Open Source

OFE would like to reiterate the position that FRAND and Open Source development and business models are incompatible.

OFE is aware of a number contrary statements that deserve the opportunity for a direct reply. There are a number of highly limited cases where encumbered specifications and open standards have come to an compatible approach in a limited legal sense.

Every case that has been publicly disclosed has, on investigation, turned out to have specific and specialised circumstances that could not be regarded as non discriminatory and are not subject to generalization. Examples that have been covered include: extending the support for the standard in open source software when support has already been included in hardware or other software and therefore already licensed; only associated where the software in question is subsidiary to a hardware sale and associated licensing; or where there has been a bilateral settlement between open source vendor and patent holder for a universal or general open source developer and distributor licence beyond the FRAND requirements (also known as the 'fairy godmother' approach).

OFE would further point out that these highly specific legal examples hide the overall issue of simple

15 http://www.computerweekly.com/blogs/public-sector/2012/05/software-industry-reclaims-ope.html

incompatibility between Open Source and FRAND. Whilst it is true that only a sub set of Open Source licenses are explicitly legally incompatible with Open Source (albeit the common variants in particular) the more important issue is the compatibility with the open development and open innovation models that open source licences support. This includes two specific 'process' incompatibilities:

- the general issue of allowing anyone to use, inspect and contribute to the code, to fork the code, to distribute the code and, ultimately, generate economic benefit an any sense not just monetisation is incompatible with the compulsory registration and fee collection agency that would be required to support FRAND payment collection and ensure licence compliance. Consider by way of illustration, allowing free distribution of music but requiring the collection of a fee whenever it was put on a device capable of playing it.

- the intent of many permissive licences, especially Apache and BSD, is to allow for code to benefit from the open development model whilst being allowed to re-adopt it in other more prescriptive licensing models at a later stage - including both licences like GPL and proprietary models. Inserting encumbered standards would mean that due diligence would have to be undertaken as to whether the encumbrance prevented licence migration that is otherwise well understood and relatively easy. For example BSD covers all rights to the code so it can then be used in GPL projects - BSD with encumbered standards could not, as GPL specifically bans patent licences and there would be no way of retroactively checking the original contribution arrangements leaving unknown legal liabilities.

For more information we would refer the Government to the **Legal Opinion[16] published in 2011 in the International Free and Open Source Software Law Review by Iain Mitchell QC, and Stephen Mason, Barrister.** OFE thanks the two authors for permission to extensively use this work in its submission and indeed wishes the UK Government to consider this document in full as part of the formal responses to the consultation.

4.3 Confusion Between the Proposed Scope and Hardware Markets.

OFE is aware of the claims that the intended scope will cause interpretation issues in converged environments.

OFE believes such claims are a simple case of obfuscating the scope and misdirection. The scope of software interoperability can be simply checked by understanding whether information has transferred in a way that is independent of the underlying communication system. For example an email is not affected by whether it is transferred over a wired or wireless link. If no permanent transfer of a physical device or permanent physical connection is required then software interoperability is involved.

This is compatible and concurrent with general use of virtual goods like data as being non-rivalrous and non-excludeable (ie their use by one person in no way affects the simultaneous use by another) in the economic sense - apart from avoiding confusion with the 'artificial' creation of exclusion or rivalry via other means such as licensing, legislation or DRM.

This highlights the fact that the debate over whether you can or cannot differentiate between hardware and software is rather irrelevant. Should it be of concern, there are ways of handling even that. In particular one characteristic of software is that it is available separately and able to run on any general purpose computing device, At the most fundamental level this is the basic definition of computer science - software is a set of instructions usable by the ultimate definition of a computer – the Turing Machine. Again this is entirely compatible with the fact that in practice software tends to be sold and marketed as software, licensed as software, is separable from the hardware and is generally regarded as a different market than hardware from a legal and competition point of view. There are some complications were software instructs elements of hardware (software drivers for example) but by definition those are related to interoperability between software and hardware and not software to software.

16 International Free and Open Source Software Law Review in 2011, authored by Iain Mitchell QC and Stephen Mason , Barrister. www.ifosslr.org/ifosslr/article/view/57

Finally in practice even much more subtle and nuanced distinctions have been made commonplace by legally distinguishing between commercial and non-commercial use or between developer and end-use scenarios for licensing purposes.

OFE Conclusions

7. **For software standardisation and in the area of software interoperability standards, Royalty-free – or better: Restriction-free – is the dominant model agreed on by the stakeholders in global standards bodies.**
8. **FRAND is incompatible with Open Source business and development models.**

5. Implementation Process including Mandation and Treatment of Competing Standards

The Policy makes in our view sensible and pragmatic proposals on how standards will be evaluated and considered for inclusion. The government appears to have has recognised the need to take a balance between taking a strong line in definition and a pragmatic process for recognising the status quo and the need for continual monitoring and progression.

5.1 Selecting and mandating Open Standards

We view it as essential that there is a clear and transparent process that evaluates which standards are to be selected and whether and to what degree their use is mandated. However, we do believe this is an essential step if the long term objective of freedom from lock-in and a level playing field is to be achieved. OFE believes that having such a list of selected open standards is important but that they be prioritised based on common need and impact across all sectors. Many other countries have found that it is preferable to start with a small list (15-30) and build up from there. They also introduced different classifications mandating only very few which are absolutely critical for achieving interoperability while using classifications like "recommended" for less critical functionalities. Clearly there is an assumption that standards chosen will be fully conformant to the definition.

It should, moreover, be recognised that if open standards are required then the concept of mandation will only arise when there are two open standards that fulfil the definition that are intended to do the same thing in very different ways. This is, under the proposed definition, a minor scenario and will generally occur only as a symptom of wider market shift, for example the shift to cloud computing.

5.2 What are the consequences of avoiding Competing Standards?

Some commentators during the Roundtables and consultation have urged that there are benefits to permitting competing standards, particularly where an open standard competes with an encumbered standard. Based on our experience, and the political goals sought by the Government, this is an unsubstantiated argument.

We recall the research paper[17] published by Delft University (funded by the Dutch Standardisation Forum and supported by OpenForum Academy) that took up the question of of whether selecting competing standards or not has impact both on the market and, in especially (given the context of this consultation) on public procurement. Most important to this consultation, the Delft study recognised the specific issue related to standards for interoperability and the network effect used.

17 http://www.openforumacademy.org/library/ofa-research/Competing_Standards_Report_Final_3-1-12.pdf

The conclusion from Delft, which is relevant to the Government's consultation is that in general competing standards should be avoided since they will lead to:

- reduced market transparency
- decreased overall interoperability, decreased network externalities and decreased ease of use
- a fragmented market, possibly leading to submarket lock-in and – in case of insufficient competition per submarket – to vendor lock-in and monopolies (i.e. welfare loses, higher costs and less technology diffusion) and
- increased transaction costs (e.g. including the costs of converters and converting barriers to exit/switching costs)

Long term TCO including exit costs should be one way that Government assesses the cost of competing standards within its supported portfolio. Equally if competing standards for any of the reasons above are to be considered, then there should be a planned development/transition route towards a position where a fully conformant standard can be adopted and mandated if appropriate.

Key to success is that Government should not second guess the market by premature endorsement by mandating a standard which has not reached credibility or acceptance.

OFE Conclusions

9. **Mandation of an initially limited but growing list of conformant, open common standards is an essential step to delivering change.**
10. **Competing standards should be avoided unless there are measurable business need reasons, and when a transition plan is in place.**
11. **Underlying both the whole policy and the element of mandation should be a clear and accountable process by which standards can be identified as conforming with the definition.**-
12. **A classification scheme should be developed taking into account that not all standards need to be mandated, but some could have lesser requirements for implementation like "recommended" or "optional".**

6. Procurement Practice

OFE has earlier shared with both UKG and the EC its finding on procurement practice of software as part of its continual monitoring[18] of tenders across Europe. The experience in UK may not be as extreme as in parts of Europe who have a less developed policy, but there is great commonality.

Overall, the latest OFE Monitoring Report found that 16 percent of IT tenders issued in the final three months of 2011 made specific reference to a supplier's trademark. This is an increase from 13 percent recorded in a similar OFE monitoring report published six months earlier. Lack of understanding amongst procurement officials is the most common reason given for these failings which are likely to be only the tip of the iceberg. The lack of knowledge and understanding is a common feature of OFE discussions on IT procurement.

OFE's findings in the UK include the following which are relevant in this consultation:

- Each IT group works independently
- Everyone believes their requirements are unique.
- Rapid scaling and innovation investment are not shared between departments.
- Status quo is easy option

18 http://www.openforumeurope.org/press-room/press-releases/Procurement%20Monitoring%20Report%20Feb%202012_FINAL.pdf

- Legacy technology skill sets dominate senior IT positions
- Few public sector case studies on open source as opposed to conventionally licensed technology make assessment difficult.
- Perception that existing ICT infrastructure based on conventionally licensed technology will interoperate better with technology from the same supplier, which tends to favour pre-selection of conventionally licensed solutions.
- Existing network effects (e.g. training, mutual support between IT departments, skill sets of contractors, knowledge of end-users) favour incumbent solutions, which are typically proprietary.
- Belief that if an issue arises in relation to interoperating components, a single supplier is better placed to resolve then if the components are supplied by different entities, which tends to favour project tenders being monolithic.
- Legal issues little understood (indemnities, warranties). Patent infringements seen as barrier
- No comeback if procurement legislation/guidelines not followed
- It's easier to prepare a tender for a monolithic project, as opposed to a number of smaller interoperable projects with the same overall functionality.
- It's easier to manage a tender process for a monolithic project.

It must be questioned, therefore, what chance there is of the majority of procurement officials understanding the complexity and nuances behind a Procurement Notice announcing the final policy? Such a Policy does of course need to be documented but it is likely that not only a parallel education programme will be necessary but a more simple set of steps provided which points at the standards actually recommended.

Recognising the current focus of central government contracts the 10 or so leading systems integrators who are implementing the top 60% of revenue must be a prime focus.

But as well as the carrot, provided by education and skills training, the monitoring process undertaken within the projects review process will be fundamental to success. Major Projects will be an early priority but Government may wish to consider a more transparent process under which smaller projects may be opened up for peer review and challenge.

The term 'comply or explain' is worthy of adoption and has proved successful elsewhere. However, we would strongly suggest that this be expanded to 'comply or explain publicly BEFORE procurement goes ahead'. In this way not only will full transparency be achieved but also the opportunity for alternative scenarios to be proposed.

OFE Conclusions

13. **The UKG policy will strongly help In providing remedy to the numerous violations of procurement rules.**
14. **Comply or explain is a good approach regarding procurement practice, however, it needs to be ensured that comply is a strong requirement and "explain" requires strong reasons for diverting from the policy.**

7. Governance

The Government has already declared provision of an Open Standards Hub to encourage information transfer and exchange, and an Open Standards Board in order to steer the implementation of the policy.

OFE would endorse such steps which will encourage transparency and full discussion. We trust, however, that the Board will be given the mandate to implement strategy, not to reinvent it at every turn. It would be beneficial if the TORs for the Board are published asap in order to allow debate prior to initiation, rather than after.

It will be vital that the governance and execution of this policy handles several matters essential to successful

implementation that realises the policy objectives:

- A clear authoritative process for decisions on both whether any given standard complies with the definition of open standard and whether it is in the scope of software interoperability, document and data formats. In effect a contact and advisory service for procurement officials.
- A clear decision process for project pre-approvals that appeal to allowable exceptions to the policy by a body that is able to publicise exceptions and the rationale before they are implemented.
- Decisions on handling non-compliant solutions, exceptions and legacy issues.
- Identifying and maintaining issues of competing standards where mandation should be considered.

We would further note that any exception, whether new or legacy, that is not limited to a closed or gated user community of any scale could seriously undermine the policy objectives owing to the network effect.

OFE would recommend that the Open Standards Board be tasked with these issues in its terms of reference so that suitable appointments can be made. The board should also be able to handle appeals, and requests for advice and exception approval from both public procurement and vendor communities without prejudice.

But probably the most valuable input will be from the specialist teams working in particular areas of standards focus. These teams will be pivotal in not only monitoring progress in development of existing standards, of the development of new or replacement standards but also the verification of implementation experience in the market. We would recommend that UKG consider taking a more active role in standardisation process, not as a standards setter, but as a user. This means in particular active participation in the phase of defining requirements.

An advantage of fora and consortia is that that they tend to operate in shorter time scales, lighter admin, and greater use of online consultation. We would also observe the opportunity to share experiences and workloads with colleagues from other EU Member States operating collegiately as part of the EC's ISA initiative.

OFE Conclusions

15. **OFE supports the set up of an Open Standards Hub and the Board as advisory functions.**
16. **UKG should take a more active in the standardisation process, especially including the phase of requirement gathering.**

Appendix 1 – Attendees at Meeting on 27.04.12

Cabinet Office:

Liam Maxwell	Deputy Government CIO
Linda Humphries	Assistant Director, ICT Futures

Invited By OpenForum Europe:

Jochen Friedrich	Elected chair of the OFE Task Force on Open Standards. He has been a member of the EC Select group working on the reform of ICT standardisation, and is OFE's nominee to sit on the multi-stakeholder Platform. He is head of IBM's Technical Relations team in Europe.
Mark Bohannon	Vice President, Corporate Affairs & Global Public Policy at Red Hat, Inc., (the first Open Source Company to break the $1 Billion revenue barrier), and works extensively with Governments worldwide.
Chris Francis	Technical Relations at IBM in the UK, and is closely involved in UK Government policy debates, both directly and through OFE and EURIM.
John Newton	Chairman and CTO of Alfresco, the largest privately owned Open Source company worldwide.
Iain Mitchell QC	specialises in IT and Intellectual Property law, represents FSFE on their legal network, and last year published a Legal Opinion on 'Compatibility of the Licensing of Embedded Patents with Open Source Licensing Terms'
Sebastiano Toffaletti	**D**irector of NORMAPME, and Secretary General of PIN-SME, the association representing the voice of some 50,000 ICT SMEs across Europe.
Simon Phipps	a well known individual within the Open Source community, is a Board member of the Open Source Initiative, and is an OFA Fellow.
Graham Taylor	CEO of OpenForum Europe

Appendix 2 - OpenForum Europe

OpenForum Europe's mission is to encourage an 'open competitive choice for IT users' by actively supporting the employment of Open Standards, wider use of Open Source, adoption of Open Software business models, and the avoidance of lock-in. 'Not for profit' and independent, it draws membership support from both supply and user communities across Europe. In the UK it chairs jointly with the Cabinet Office the UK Public Sector Group which focuses on supporting the Government in its implementation of the Strategic Implementation Plan relating to Open Standards and Open Source.

OpenForum Academy is the think tank established by OFE, in partnership with academia, to provide innovative new thinking into the area of Openness. It incorporates a network of peer nominated Fellows to facilitate debate and research.

OpenForum Europe acknowledges all the input received from its supporters in the compilation of this document. However, OpenForum Europe does not seek to represent any specific community nor present its opinions as being unanimously supported by its full membership. References given are fully attributed and every effort made to ensure they have been taken in true context.

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