TOWARDS A EUROPEAN SOFTWARE STRATEGY

REPORT OF AN INDUSTRY EXPERT GROUP

Open Source Software Work Group

March 2009

V2.4

Executive Summary

To be produced when the final OSS report is finished.

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1. INTRODUCTION

Context

To be provided as part of the OSS work group work and V2 of the EC document, while noting that the increasing use of OSS within mainstream commercial offerings and mixed-source software and solutions makes a distinct treatment of or preferences for OSS more difficult to define..

Purpose

This present document summarises the work of the OSS Workgroup.

It addresses mainly the following elements :

- Issues

- Trends

- Barriers

- Benefits

- Actions

Scope

In this document OSS covers :

- Open Source providers (OSS communities),

- Service providers for OSS integration and support,

- OSS as part of mixed solutions blending open and proprietary code.

2. STATE OF THE EUROPEAN OPEN SOURCE SOFTWARE SECTOR (OR INDUSTRY, OR MODEL ?)

This paragraph has been modified to prepare bringing it back to its original goal which to collect evidence about the OSS sector in Europe.

- *> Erwin to provide links to sources of data.*

2.1. Short reminder on OSS

Open Source Software (OSS), also known as Free Software, Libre Software, FOSS, or FLOSS, is a software model that was defined by MIT scientist and Mac Arthur grant winner Richard M. Stallman in the mid 80s.[1] After maturing in the scientific, university, and individual entrepreneurial environments, OSS has meanwhile established itself in the mainstream of the commercial software industry and has become a commercially and technologically viable alternative or complement to dominant proprietary products and services in some areas.[2]

OSS principles and benefits

The principles and benefits of Open Source Software are well known. For readers not familiar, complete papers can be found on Wikipedia here : http://en.wikipedia.org/wiki/Open_source_software

and here : http://en.wikipedia.org/wiki/Free_and_open_source_software

2.2. Type of actors in OSS

It can be useful to consider that there are three categories of actors in the OSS space :

- **Creators**, which split in :

    - Pure OSS vendors (ex : RedHat, Ubuntu, EBM, Websourcing, Exoplatform, …)

    - Communities (ex : Object Web, Morfeo, …)

    - Hybrid OSS and proprietary (ex: SAP, IBM, Sun, Novell,.)

    - And finally new actors such as Al Fresco, SugarCRM, JasperSoft, Pentaho, Compierre, Talent…. Their products are Open Source but

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[1] See http://fsfeurope.org/projects/wipo/fser for reference.

[2] *COMMENT: a) Free Software was never "hobbyist" or "garage" in origin. Its concepts are derived from science, and scientific progress and innovation through allowing co-innovation by all participants. I believe the true roots of Free Software are important, and a strength, so should be mentioned. b) It is important to avoid the false antonym "commercial" vs Free Software, because it falsely implies that the interest of the software industry in Free Software is not commercially motivated. The rephrasing also explicitly counteracts that misunderstanding by emphasising commercial Free Software.*

they are the only one to own the copyright. Therefore they can have a dual licensing model (free and not free).

Of course frontiers between categories are blurry, actors can belong to several depending on their product and can move from category to category.

- o **Software integrators** and IT service companies.

- o **Users** including private users and of course companies.

2.3. Open Source Software cannot be 100 % free

Open source "vendors" cannot operate for free : ~~As the quotes and the metrics in the appendix indicate,~~ It is important for the open source vendors to have a profitable and sustainable business model on their open source based products and services in order to ensure that open source projects will survive in the long-term. However, users typically do not pay money for software they can legally get and use for free unless they are forced or strongly encouraged to do so. Why pay for something that you can get for free as well? Therefore, open source vendors ~~have to find creative ways to encourage users to buy something from them anyway, this is exactly what successful vendors such as RedHat are doing~~ obtain revenue by offering services such as guarantee of API stability, support, training etc…

Users have to bare integration costs : Similarly due to the finer granularity at which Open Source Software becomes available to users, it requires special technical integration and maintenance effort which has to be not only paid for by users through support and integration services but which also requires special care and an appropriate organisation.

2.4. Europe OSS structural imbalance

Ideally suited for a model of open innovation and collaboration, according to some OSS has evolved faster in Europe than anywhere else in the world, possibly because its approach is well suited to an environment of diverse participants of varying sizes as it is predominantly found in Europe. But while much of the innovation and development is European in origin, and European experts and contributors are prominent and highly regarded in the OS community worldwide, Europe has yet to bring forth an Open Source champion of comparable size to those operating out of the US.[3]

Reasons for this structural imbalance can at least in part be found in the transformative process that several of the large US IT companies have entered in the late 90s when they began to develop their own OSS strategy. This

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[3] *COMMENT: Too strongly anti-American sentiments are most likely not helpful, so tried to rephrase to keep the notion of the problem intact, but rephrase it in a more diplomatic way.*

development brought about very large mixed-model companies that often become visible as champions of OSS, ~~all~~ most of which are based in the US. According to one estimate, 90% of the business derived from OSS is generated by non-European players.[4] Indeed, much of this business is generated by players who have mixed source business models, indicating how success for this ecosystem depends on a pragmatic approach towards both OSS and proprietary software.

In addition, most OSS consortia – the non-profit organisations managing OSS development and marketing – appear to be based in the United States and funded by US IT companies. At a second glance, it becomes apparent that a strong European ecosystem of organisations exists, but a lack of strategic focus on these organisations by European players is causing an imbalance of mind-share in favour of the US.

Europe must address this imbalance.

In order to maximise the benefits from OSS in Europe for European developers, users and entrepreneurs, our strategic focus needs to be on the better exploitation of OSS in Europe, the strengthening of the European ecosystem around OSS, and capacity building initiatives.

A pragmatic, market-based approach is key to Europe's competitiveness.

2.5.   But there is also a Europe / US interdependency

Even though many European systems integrators offer services and support for open source technologies, only a few of these smaller companies actively contribute code back to the open source projects. As a consequence, open source projects like Linux, Eclipse and OpenOffice.org thrive mainly based on the code contributions coming from larger US-based vendors. Thus, without the contributions of the US-based vendors, many European system integrators focussing on open source would not have a business. On the other hand, the addressable market for the contributing US-based vendors would be significantly smaller without the marketing and awareness creation by the European system integrators. Due to this close interdependency it is important to keep the dynamics and economics of the larger open source world in mind.

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[4]   *MS comment: NESSI figures, full reference needed. Is this consistent with CompTIA's claim: "an estimated €1.2 billion has been invested by European firms in open source software development" ??*
     FSFE comment: This number indeed seems high. It is probably true for large corporations, but may neglect the impact of SMEs?

3.   AN OPEN SOURCE SOFTWARE STRATEGY FOR EUROPE:

Issues

3.1.1.   Lack of 'market confidence'

A lack of 'market confidence' remains, however, due to 'concerns' such as availability of support, skill levels, understanding of licence terms, and liability. OSS tends to push the integration function into the hands of users as opposed to vendors, as is the case for commercial products. Users are then exposed to issues, problems and extra support and integration costs which can be off-putting.

Could this lack of market confidence be just a matter of perception ?

One could argue that on the other hand, service providers capitalise on their own skills to offer packaged solutions as well as granular services at every level of the software stack. Software communities develop the software and provide support at a community level on a usually often pro-bono basis. Open Source Software usually comes free of charge if one considers the code itself; where the generation of revenue takes place is at the scaling or deployment points of the market. Proprietary vendors charge their users twice, once at the deployment phase (through support contracts), and once at the procurement phase (through licensing fees). [COMMENT: PAPER SHOULD FOCUS ON OSS AND NOT DWELL INTO UNSUPPORTED AND UNNECESSARY STATEMENTS AGAINST PROPRIETARY SOFTWARE.] Could therefore the lack of market confidence be more a matter of perception than an ontological problem related to Open Source ?

No, we agree it is real, while recognising that integration of OSS in commercial products and services have mitigated the problem and allowed OSS market growth.

Although the state of the art can evolve and problems experienced by users can be overcome or transferred to OSS servicing companies it is not the case yet , there are real barriers (see § 3.3 below) which requires action (see § 3.5 below).

Patrick's comment : I suggest to suppress the above two paragraphs which, from the comments I got seem to be more controversial than useful

3.1.2.   European software companies often get acquired by larger US-based companies

Despite the difficulties that European software start-ups might have, there are indeed European software vendors including open source software vendors. yg power to acquire other software vendors (in the US, Europe or elsewhere). The acquisitions of European software companies like StarDivision, NetBeans, MySQL AB, VirtualBox and SuSE by US-based vendors show that successful

European software vendors often get acquired by US-based companies. Partly due to historic reasons, there are far more US-based IT companies with a large buying power than there are European IT companies who can afford to acquire other software vendors, which leads to the effect outlined in § 2.3 above. European IT companies also have fewer alternative growth strategies than their US counterparts due to smaller/more risk adverse venture capital community and fewer IPO opportunities. This is not an issue per se, but if the lack of Europe-based software companies is seen as an issue, it is important to understand the dynamics of the market.

On should question what are the consequences of this trend. It could impair the so called "Europe Digital Independence" and also impact jobs.

Regarding the "Europe Digital Independence" our group thinks it is, in general, not an issue. However there may be situation where a particular piece of software plays a key role in some economic activity or may create security related concerns under certain circumstances.

Regarding jobs we believe that ultimately what matters is where are jobs located. If European Software or OSS companies are acquired by non European firms but if the corresponding jobs stay in Europe (and if the threat on "Europe Digital Independence" is minimal) then the consequences on Europe are limited. Conversely we know that European Software companies can, just as well, while having their HQ in Europe, decide to grow or move R&D facilities to non European countries.

Trends

3.1.3. Growth of the mixed model

By mixed model we mean that more and more companies combine open source with closed source in order to optimize development costs on the one hand and to maximize differentiation on the other hand. Open source vendors use closed source elements to differentiate themselves from other open source vendors and to create a stronger incentive for open source users to actually buy something from them instead of just using the free software. Closed source vendors leverage open source in order to offer better standards support and to share development costs. Therefore, there is no clear distinction between open source and closed source anymore.

Since selling support (e.g. Linux) and advertising space (e.g. Google toolbar and homepage in Mozilla Firefox) are not feasible monetization strategies for all the different open source technologies, it is important that open source vendors who are keeping the open source projects alive through their contributions have the freedom to choose the business model that works best for them.

3.1.4. Growth of the mixed model but still uncertain future

Open Source Software represents a software model defined by a high level of user control over the software in combination with ~~unprecedented~~ often unequalled freedoms to study and innovate upon the software, allowing for rapid incremental innovation. These benefits have become so associated with the software model that OSS is often misunderstood as a new development or business model.

There is a wide variety of development and business models built upon OSS, ranging from traditional approaches, such as custom development or COTS to service based approaches and SAAS. Most of the large players have incorporated OSS into their strategy, resulting in a mixed model approach (see § 3.2.1 avove). Considering that almost none of these companies had significant OSS offerings only 10 years ago, it is possible to observe a clear trend towards integration of OSS in commercial products and services.

At the current point in time it is impossible to predict ~~when and if that trend will come to an end~~ the future of mixed mode. New companies enter the market with models spanning the entire range of proprietary models over mixed models to OSS models. ~~Only time will show which models will be most successful in Europe.~~ The economic success of firms based on mixed model, however, suggests it is a promising model for the future.

~~However~~ Additionally, as the Information Economy Report 2007-2008 of the United Nations Conference on Trade and Development (UNCTAD) highlights, the ICT sector itself is a remarkable source of innovation and economic growth, but there is strong evidence that ICT-enabled innovation in other sectors has an even larger impact on the overall economic situation.

Key factors identified by UNCTAD ~~for~~ as part of this process are the commoditisation of software, along with open innovation approaches, based on OSS. While OSS itself has remarkable innovation benefits, it appears necessary to include the broader software industry and ICT-enabled sectors into the assessment to understand OSS's full potential for European innovation and economic growth.

One usually look at OSS models in the pure Software space. But this is changing. More and more companies offer products and services which are not software but rely on software and on Open Source Software in particular. Google is probably the most visible example. Software is not its primary source of revenue, but Google both uses OSS produced by others and releases its software as Open Source and then collects numerous improvement created by others.

- *Erwin, and Charlotte to look for some measured evidence of Models market share*

3.1.5. Company funded OSS support is gaining momentum

Having evolved from it's original academia origin to a viable option for research and development OSS has attracted more and more companies to fund and drive communities. This will ~~definitely~~ accelerate, primarily in the area of building eco systems, as we see ~~this today~~ in initiatives as e.g. Android. If existing projects demonstrate real returns on investment, companies will allocate more of their research and development spending in open source ~~communities as return on investment will increase dramatically~~.

3.1.6. The "mixed model" is also true for OSS users

OSS users are companies, administrations, public institutions, schools and universities, SOHO enterprises, end users : they usually have to integrate and use different software components to meet their needs, proprietary or open source.

-> *Charlotte to provide a few lines about "unnoticed" download and use of OSS by companies employees without the top management really knowing.*

3.1.7. OSS contributes to Software Commoditisation

Commoditisation trend : generic software follows an evolutionary trend toward commoditisation (due to intense competition that level functionalities and added value) and open source is generally a key factor of this evolution. Even domains with very hard constraints such as telecommunication systems or embedded systems requiring expertise and know-how is now subject to this commoditisation.

Commoditisation benefits users and integrators and pushes competitors to innovate more rapidly and/or lower prices. ~~or imperils pure non-innovative software vendors : the opposition of these types of actors on the OSS subject is understandable~~.

Examples [COMMENT: EXAMPLES OF WHAT? COMMODITIZATION IS THE OPPOSITE OF INNOVATION, AND THESE AREAS ENJOY INNOVATION, EVEN IN THE PRODUCTS LISTED BELOW.]:

- o OS with Linux, Android, Symbian,

- o databases with MySQL and PostGress,

- o office suites and desktop tools

- o internet tools such as servers, browsers, editors, Content Management Suites, blog and wiki engines, ….

- o languages and IDE.

3.1.8. Mixed model is moving from "infrastructure" to "application" layers

Mixed models are understood as ~~the prevalence of infrastructures~~ making Open Source and proprietary software coexist and interact together.

Open Source Software is however seen as making strong inroads in terms of customer adoption in areas previously thought as strongholds of proprietary software: business intelligence, high performance relational databases, ETL (ex: Talent), CMS (ex: Al Fresco), etc.

3.1.9. OSS accelerates dissemination of de jure standards

Open source, just as is the deployment of any software implementing agreed specifications, is a way to promote standards either de facto or de jure. A lot of de facto standards disseminated through open source implementation (early IETF standards, W3C, …). Open source implementation can be a way to accelerate discussion and dissemination of de jure standards. An open source implementation can help consolidate a standard by pointing the inconsistencies or lack of precisions of some specifications (it's especially true for interoperability standards).

Barriers

3.1.10. Need for OSS European Digital Entrepreneurship

The very first step to capture the current Open Source trends is to have a coherent ~~trend~~ and ~~also a~~ global vision of trends. At the moment this is not always the case. Most of the ~~proprietary~~ commercial software vendors do have a strategy, a roadmap and a vision (functional and technical).

Open source is often perceived mainly as an alternative to proprietary software. Hence the vision is reduced to an implementation roadmap, trying to compete with closed source software in terms of features to implement. One should think of OSS as a global phenomena to define a strategy in terms of impact and role of OSS in the service economy.
Instead of being perceived as "running after a proprietary solution" or as an alternative, Europe should try to lead and to push an innovative technical vision implemented in Open Source. As this implementation will be in Open Source, all IT players, promoting or not, using or not using Open Source, will then be able to use it as they want, without any business discrimination.

The Commission is not the owner of this vision. The various actors, creators, integrators, users, are. For it to grow it requires what we could call an "Open Source Digital Entrepreneurship" attitude, meaning that the various communities and actors could maybe better share a common roadmap of who does what for which goal in the three aspects (creators, integrators, users).

3.1.11. OSS European space fragmentation

Note the following applies to European OSS communities not OSS vendors

The Open Source software communities do not have the critical mass and are not enough organized to cooperate and share issues, infrastructure, etc… In Europe there are a number of different Open Source communities or consortium. They all suffer the same issues: Lack of money, lack of reliable infrastructure, lack of European visibility, fragmentation of OSS foundations between countries (ex OW2 in France, Morfeo in Spain,..) etc…

Furthermore relationships between Communities and enterprises and among Communities are not always effective yet. In that respect the US show a better example. There is an understanding by US entities that supporting such entities is useful "ecosystem maintenance" for their commercial environment. Europe has a very healthy ecosystem of organisations, some of which are larger than their US counterparts, but there tends to be very little strategic understanding in European players that a focus on collaboration with these players would initiate a positive feedback cycle for the European area.

3.1.12. "Technical" barriers

Awareness and knowledge (of legal aspects) about open source software leaves much to wish for. Successful companies utilising open source in their business models have the knowledge of how to incorporate open source, and its legal obligations, ~~in their~~ often combined with proprietary software, in their products and services. Unless awareness of the included open source software and the effects thereof are known, a company would either be reluctant in using open source software or simply use it without any governance.

As the awareness and knowledge of open source software grows, the understanding of how to monetize open source will also evolve, with new business models and opportunities for companies.

Quality and security barriers : ~~Open Source will never be THE solution which will modify the whole economy and the IT world. Open Source is not magic. The solution will come from an intelligent cohabitation and mix of proprietary and open source components. Then, it raises issues for users, services providers and industries.~~

I propose to suppress the above it can create endless debase which do not add to the point which is quality verification.

How can we be sure that with Open Source, the quality will be at the same level that proprietary solutions are pretending they are? This question brings another one which is the definition of quality. If we take the point of view of the NESSI and Industry, quality is:

- Technical support and maintenance. Integrating or using Open Source in a critical environment, or application, comes with specific constrains such as the ability to react when a technical problem happens into the component. Who can bring the needed support? How the maintenance can be done?

- Security. Let's take the security as a whole without trying to come with a specific definition. When proprietary software is used, we ~~only~~ principally trust what the editor will say. The solution is secured. What about the Open Source components? How can we be sure the same level of security is implemented? Who can check this security?

The above "Technical" barriers are already covered by those OSS vendors who have legal compliance guarantees and IPR risk management and protection as part of their offering, and sometimes as part of a global packaged service including certification, indemnification, support and service.

3.1.13. OSS is not part of high education

Regarding the research and high education, in Europe there is no real official programs where Open Source is specifically mentioned. Some suggest the Open Source could be included in some technical and layer school. Others believe education should cover the broadest possible range of development and licensing models and focus on students' ability to become a strong work force for the European marketplace.

As part of their curricula, students should become familiar with ~~here is a need to encourage greater use of OSS software in high education and support~~ OSS ~~curricula definition~~ to prepare students to support OSS engineering growth in IT industry and research.

3.1.14. Not best "capitalisation" of OSS delivered as part of EC R&D projects

From a funding point of view, the Commission already funded a large number of projects. What to do when the projects stop? What will be sustainability of all the productions (documents, and software)?

Is there a way to federate what was already achieve in order not to reinvent the wheel in each project?

Why all the benefit from Open Source is mainly for non-European countries?

3.1.15. Fear of openness obligations and limitation of committed resources

Using open source software and participate in the development of it forces companies to open up to a certain degree, working in an open source community requires open communication which can be hard to overcome initially for a proprietary company. In addition there is a belief that contributing the code without resources and funding to open source is enough.

3.1.16. Fair procurement

[COMMENT: THIS SECTION ENCROACHES ON THE WORK OF WG 4 AND WOULD BEST BE DELETED. ALTERNATIVELY, IT SHOULD BE NUANCED AND EXPANDED INCLUDING OUR EDITS BELOW]

~~Experience suggests that lack of interoperability consumes around 30-40% of IT budgets in both the private and public sector (this is not limited to OSS but applies to software in general).~~ [COMMENT: UNDOCUMENTED, CONTESTED AND IRRELEVANT, SHOULD BE DELETED]. ~~Since~~ In instances when procurement calculation ~~generally~~ does not account for "decommissioning" or "exit" costs from a particular solution a procurement decision for a specific solution ~~often~~ can establish~~es~~ a strong bias in favour of the vendor of the first solution for all consecutive tenders. ~~This violates European legislation which mandates vendor neutrality based on transparency and non-discrimination.~~[5] [COMMENT: SUCH A GENERAL STATEMENT IS UNDOCUMENTED, DISPUTED AND IRRELEVANT FOR THE PURPOSE OF THE PAPER, AND SHOULD BE DELETED. INSTEAD WE PROPOSE]:

Such practices, like tenders preferring or mandating OSS or narrowly defined open standards, can be in conflict with European public procurement legislation neutrality and transparency requirements and should be examined more closely.

~~Examples for this practice were highlighted by~~ a recent study[6] of Open Forum Europe (OFE), which scanned 136 tenders for trademarked names concluded that 25% of these tenders were specifically requesting trademarked products, in the authors' view violating the principle of vendor neutrality.

On the other hand, tenders preferring or mandating open source software or narrowly defined open standards, according to the view of leading software trade associations, can be in breach of the same neutrality principles.

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[5] http://www.osor.eu/news/hidden-cost-of-proprietary-standards-may-lead-to-illegal-tenders

http://www.osor.eu/news/it-open-source-group-protests-proprietary-software-deals

[6] See http://osacademy.hosting.amaze.nl:8060/repository/media-centre/articles/procurement/ofe_procurement_monitoring_report.pdf

Experience suggests that many such cases remain undetected due to lack of translations, which themselves can constitute a violation of EU procurement rules.

Tenders should diligently express an administration's functional requirements, while allowing all equivalent solutions to compete, regardless of the development and licensing model, in full compliance with the neutrality principle and other public procurement law obligations.

3.1.17. Lack of committed roadmap and lack of "fine grain" integration support

Lack of committed development roadmap is in fact a barrier of OSS that may prevent potential users to integrate them in their "mission critical" software systems. In the other hand, theses users may also suffer from "forced migration" dictated by software editors roadmaps (migration costs due to incompatibilities between versions, lack of support for old versions, …) or from delays in the delivery of the product roadmaps (the industry suffers chronically from "slideware roadmaps" that sometimes transforms into "vapourware"! In the other hand, OSS users may decide which version of a software component they'll use and later decide its migration at their own pace (although it may then be difficult to find support or to adapt to new functions).

Long term maintenance commitment and lack of "strong" integrators.

Creators of Open Source Software are no less willing to provide long term maintenance commitment but because of the voluntary nature of OSS contributions this is less easy. This is a barrier for adoption.

Even though they have access to the source code, users and specially corporate users do not necessarily want to have internally dedicated organisation (developers) in order to maintain components which are no more supported by their original creators, or the cost of it, if not shared among users may become prohibitive.

The same happens with "integrated solutions". What we mean by "integrated solution" is a full solution addressing a complete user functional need and made of several OSS components released by several very different contributing organisations. As stated above this requires a special integration effort due to the "finer grain" nature of the components. This sort of effort is less visible by users of proprietary solutions because it is performed by the vendors as part of the product development.

This in turn creates a "maintenance issue" since the integration of finer grain components must be tested when a new releases of components are included in

the integrated solution. Having an organisation taking responsibility for the maintenance of the integared solution is not easy. Components creators cannot because they are responsible of individual components. Users often cannot or do not want to do it for the same reasons as above. Therefore the most likely good candidates for it are the integrators. This is obviously part of their mission and they usually offer such services but they are usually weak in providing long term commitments for a competitive cost. This weakness is in part linked to the lack of long term visibility they have on the individual components provided by others.

In summary a number of barriers to wider adoption of OSS are linked to the "integrator" side of OSS. We lack stronger OSS integration services companies and mechanisms by which they could provide the long term commitment requested by users.

3.1.18. IPR related issues

There were heated debates about patent licensing schemes. We provide the following point as an input to Workgroup n°3

Exclusion from standards implementation (*amoung the workgroup SAP and CompTIA did not agree to the following*) : The procurement issue is aggravated by discrimination against OSS in the licensing conditions for some IT standards. Over the past years it has become clear that specific patent licensing schemes, most importantly the so-called "RAND" [7] terms, discriminate against OSS implementation. This issue complicated the recent antitrust cases in Europe and was subject of a specific workshop on "IPR in ICT standardisation"[8] organised by DG Enterprise.

The workshop revealed a fundamental incompatibility of RAND models with OSS implementations, as well as a very controversial debate around this issue. From the perspective of OSS adoption,[9] it could be said that RAND conditions fall short of the Common Patent Policy of ITU-T, ITU-R, ISO and IEC, which states that "*a patent embodied fully or partly in a Recommendation | Deliverable must be accessible to everybody without undue constraints.*" [THERE IS NO FUNDAMENTAL INCOMPATIBILITY. SEE FOOTNOTE 15]

Examples of such exclusions can be found in various areas. One of these areas are the MPEG standards in multimedia, where innovation has been dramatically reduced before the recent development of the Dirac codec by the BBC as OSS provided a high-quality modern alternative that is not patent encumbered.[10] /

Unsubstantiated use of IPR threats . It is important that effective measures are implemented to protect the interests of both open source and proprietary software

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[7]   RAND: 'Reasonable And Non-Discriminatory'

[8]   http://ec.europa.eu/enterprise/ict/policy/standards/ws08ipr_en.htm

[9]   http://ec.europa.eu/enterprise/ict/policy/standards/ws08ipr/contributions/20081203FSFE_en.pdf

[10]   http://www.bbc.co.uk/opensource/projects/dirac/

~~both as a software development and as a business model. Governments should ensure a level playing field for both software development models.~~

~~While we recognises the legitimate rights of intellectual property rights owners, we regret recent incidents of patent holders abuse and unsubstantiated use of their rights against open source/free software developers.~~

~~A recent development, which deserves the careful attention from the Commission, is the use of unsubstantiated threats of intellectual property rights infringements against those who attempt to develop interoperable software products. As an example, a major software company has publicly stated that it believes Linux and other open source software infringes 235 of its patents, but has never identified any of these patents.~~

~~Vague claims by patent holders that open source software may infringe their patent rights should be obliged to identify supposedly infringed patents or cease to make unsubstantiated allegations. This would prevent patents from being invoked to spread fear, uncertainty and doubt ("FUD") against open source software products in the minds of both developers and users. The behaviour of creating FUD against open source software solutions should not be tolerated, as it amounts to an anticompetitive strategy aimed at distorting conditions in the marketplace to the detriment of OSS products.~~

[COMMENT: WE DISAGREE WITH SEVERAL POINTS IN THIS SECTION. THIS PAPER SHOULD NOT ENCROACH ON THE WORK OF WG 3, SO THE SECTION WOULD BEST BE DELETED. AS AN ALTERNATIVE, IT SHOULD REUSE LANGUAGE FROM THE ICT TASK FORCE IPR REPORT ON OSS, STANDARDS AND IPR, IN PARTICULAR:]

There is a general perception that most standards organisations have been successful in establishing *IPR Policies* promoting the participation of a maximum number of companies to their work and then covering a huge majority of all IPR essential to standards under their *RAND IPR Policy* (e.g. ITU-T, ISO, IEC, ISO/IEC JTC1, IEEE, ETSI, DVB, OMA, ANSI). This prevalent IPR licensing model for standards organisations require participants to voluntarily commit to license their patent claims.

But, recently, a debate has emerged about the definition of Open Standards provoked in part by an EU initiative which defined Open Standard in a specific eGovernment context. The debate also stems from an industry-driven environment involving the adoption and/or revision of IPR policies by some internet standards organisations such as OASIS, UN/CEFACT and the W3C[11]

11

See http://www.w3.org and its IPR policy http://www.w3.org/2004/02/05-patentsummary.html, please note that the W3C policy allow any participant to opt out from the commitment to license its patents at royalty free conditions, see the OASIS IPR policy: http://www.oasis-open.org/who/intellectualproperty.php ; see the UN/CEFACT IPR policy at www.unece.org/cefact/cf_plenary/plenary06/trd_cf_06_11e.pdf

The most controversial point raised in these discussions involved the idea of a royalty-free IPR Policy. A *RAND IPR Policy* mandates any licensing of essential intellectual property at reasonable terms, including either a reasonable fee or at no cost, at the discretion of the IPR holder. This debate has created the need for certain standards organisations to clarify their understanding and definition of *"Open Standards"*, on the basis of the definitions set out by the ITU-T TSB ad-hoc IPR Group[12], and then by the Global Standards Collaboration (GSC), initiative to which many ICT sector standards organisations participate (ACIF, ARIB, ATIS,
CCSA, ETSI, ISACC, ITU, TIA, TTA, and TTC)[13]. It appears that a large number of companies have supported the adoption of the ITU-T or the GSC definitions.

Several products in he market already incorporate Open Source implementation of RAND-based standards without any evidence of difficulties or insurmountable barriers for such vendors.[14]

Mandates for OSS can harm OSS : *On the contrary SAP and Comptia argue that mandates for OSS can harm OSS.*

~~Open source has created an interesting opportunity for entrepreneurs as they can start a business on top of something that is already available. For example, many companies~~[15] Open source entrepreneurs take advantage of the opportunity to offer services and support around popular open source software packages.

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[12]

http://www.itu.int/ITU-T/otherGroups/ipr-adhoc/openstandards.html

[13]

For a general presentation, < http://www.gsc.etsi.org/Presentation.htm > for the specific definition, see resolution 23, http://portal.etsi.org/docbox/Workshop/GSC/GSC10_Closing_Plenary/gsc10_closing.zip

[14] For example, Motorola's open source Linux smartphone phones. These products implement the following RAND-based standards: WLAN (IEEE 802.11b/g), WLAN Access (IETF), MP3 (ISO/IEC 11172-3), MPEG-4 (ISO/IEC 14496-2), MMS (Open Mobile Alliance), and WAP (Open Mobile Alliance); D-Link Corporation's open source-based Media Player products implement the following RAND-based standards: 10/100 Ethernet (IEEE 802.3), WLAN (IEEE 802.11b/g), MP3 (ISO/IEC 11172-3 Layer 3), MPEG-4 (ISO/IEC 14496-2:2001), and CD-DA ("Red Book" or IEC 60908) and CD-ROM ("Yellow Book" or ISO/IEC 10149 and ECMA 130). – Red Hat and Suse sell Linux distributions that include support for the following popular and widely deployed standards that were adopted by standards organizations with RAND-based IPR policies:
http://www.redhat.com/software/rhel/details/
http://www.opensuse.org/Product_Highlights

[15]   The exact same thing can be said of proprietary and mixed source software ecosystems. Therefore we suggest deleting.

Note by Patrick : I have suppressed the following two paragraphs as the argument sounds very controversial.

Due to the services of these vendors the overall adoption of open source grows which is good for the various open source technologies as well as the vendors offering products and services for these technologies. However, the services offered by these entrepreneurs can also be problematic if they cannibalize the business of the main code contributors.

For example, if a small system integrator who does not make any code contributions and a vendor who contributes heavily to an open source project both participate in a public tender, the non-contributing vendor might win the deal simply because it can offer the services at a much lower price as it does not have to carry the overhead of the code contributions. As a consequence the losing vendor might reduce or stop code contributions which would jeopardize the future innovation of the open source technology.

Note by Patrick : I have shortened the following paragraph as the nature of the Mixed model is already described in the "Trends" section.

Potentially as a consequence, many open software vendors are following a hybrid / mixed approach these days since closed source features increase a stronger incentive for users to actually buy something from a particular (e.g. code contributing) vendor. Thus, Due to the mixed model growth software vendors are combining open source with closed source, and as a consequence, the line between open source and closed source increasingly blurs. Therefore, any preferences or mandates favouring open source may be harmful for all software vendors including most open source vendors.

For example, if an open source vendor monetizes its open source contributions by selling closed source add-on components and closed source enterprise editions, such a vendor will be discriminated or excluded during such public tenders. This is particularly true when the closed source "enterprise editions" have been productized under a different brand name and thus are not recognized as an open source product anymore. Thus, even though it might sound paradoxal, preferences or mandates for open source may harm open source, because they reduce the opportunities for the contributing open source vendors to get a return on their open source contributions. Therefore, open source preferences or mandates could be counter productive in growing the European software industry.

(end of the SAP and CompTIA statement).

3.1.19. Other barriers common for all software proprietary or OSS

The European market is still fragmented compared to the US market

It is often easier for software start-ups to succeed and grow in the US than in Europe. One of the reasons is the fact that the US offers a very coherent and homogeneous market whereas Europe is still very fragmented due to language, legislation and cultural issues. The introduction of the Euro as a common currency has definitely helped a lot, but compared to the US it is still more difficult for new software vendors to grow in Europe. Typically software companies with similar ideas grow much faster in the US than they do in Europe.

The success of the various social networking platforms might be an indicator considering that LinkedIn and Facebook are well known internationally whereas the XING platform founded in Germany seems to be known far less outside of Germany.

The Silicon Valley provides excellent networking opportunities

The Silicon Valley in California has become the place to be when it comes to networking and partnering in the IT industry. Most IT companies have an office in the Silicon Valley and therefore it is easy to connect with potential business partners. Europe does not have a similar "networking hub" and it is probably difficult to create one from scratch artificially.

Starting a new company seems to be easier in the US

In the US there seems to be a strong culture of entrepreneurship, and thus more people try to start their own business at some point in their life. In addition, the required processes for starting a new business seem to be more streamlined and automated in the US than they are in many places in Europe.

Most venture capital firms are located in the US

Software start-ups often need external capital in order to grow. However, most venture capital firms are located in the US and thus also understand the US market much better than the European market. Therefore, US-based start-ups often find it easier to find investors than European software companies.

The US seems to be more attractive to immigrants from India, etc

Most larger software companies have development and support organizations in places like Russia, India and China. Apparently more people with IT skills from Russia, India and China are immigrating to the US than they are immigrating to Europe. As a consequence stronger ties seem to develop between these countries and the US than between Europe and these countries, which potentially gives US-based software vendors an advantage over Europe-based software vendors.

Benefits

3.1.20. OSS is a growth opportunity for the European ICT sector

The following applies to Software and ICT in general

It is important to understand the need for Europe to embrace and promote Open Source not for its own sake, but for the sake of developing a full-blown ICT industry. Lifting the barriers above will help Europe maximize its competitiveness arguments while developing a sustainable ICT sector.

The absence of the barriers mentioned above will also help the ICT sector gain an edge in key areas and create credible industry players as an alternative to the ones existing on the market today.

Software innovation can foster economic growth in Europe - New innovation in the software sector, including in the area of open source software, has the potential to contribute significantly to Europe's economic growth and job creation.

Innovation in the software sector can flourish, creating jobs, new start-up companies and underpinning economic growth in Europe if the right policies to promote ICT investment, skills development and competition will be put in place. As a natural consequence of market forces, Open standards and open source software do and increasingly will play an instrumental role in facilitating the development of new products and arrival of new entrants into the marketplace.

Service economy is now a tendency for IT in general. Open Source fits very well in this paradigm and it has much to offer and contribute in software as a service domain. One concern, however, is that service-based ICT businesses are more vulnerable to the forces of globalization and competition from BRIC countries.

~~Global economical crisis represents a challenge for Open Source, since it helps to reduce costs~~ [COMMENT: THIS SEEMS CONTRADICTORY].

Innovation and economic As demonstrated also in the UNCTAD Information Economy Report 2007-2008, OSS ~~is~~ can be an innovation enabler in the ICT sector, and even more so in the even larger ICT-enabled sector. As such, OSS provides ~~unique~~ opportunity for economic development which specifically countries in transition are getting ready to harness for their development to leapfrog their economic development based.

Not entirely unlike countries in transition. the European economy is based upon Small and Medium Enterprises (SME), which are key to innovation and employment. For this sector, OSS can translate~~s~~ into ubiquity of cost-effective software that combines a high level of control for the company with rapid innovation and the ability to innovate in all parts of the value chain.

The software model of OSS is characterised by a high level of user control over the software in combination with ~~unprecedented~~ freedoms to study and innovate upon the software, allowing for rapid incremental innovation.

These benefits can be ~~particularly~~ relevant to the public sector, which often has specific needs of sovereignty over its own infrastructure and strict auditing requirements for security and confidentiality reasons.

~~These strategic benefits are essential, and unique to OSS~~. COMMENT: DISPUTED, SEE BELOW.

Examples for OSS deployment on these grounds can be found in various public bodies in EU member states, e.g. Germany, where the agency for IT security (BSI) has been recommending OSS on these grounds for several years and worked on projects to address specific needs. Deployment has taken place not only in the BSI, but also the foreign ministry and is ongoing in the city of Munich.

On the other hand, Europe has to be wary not to fund OSS loosely under schemes that would continue to result or even increase the problem of third countries being the ultimate beneficiaries.

For a broad range of innovations resulting from labour-intensive and costly research and development, proprietary or mixed models are and will continue to be more akin to contribute to Europe's competitiveness.

On the demand side, both private and public bodies in a majority of instances select commercial or mixed solutions, because they represent the best value-for-money proposition in response to their needs.

Public policy should avoid interfering with, and on the contrary encourage competition and choice among, all various market-based approaches and solutions.

3.1.21. *Maturity of IT ecosystem*

Growing maturity of the IT ecosystem can be observed in the form of commoditisation of software and a growing relevance of interconnectivity as demonstrated by the discussions around interoperability and Open Standards. As observed in other industries (e.g. car manufacturers), these trends ~~will inevitably~~ can lead to an increased reuse and recombination factor, where only differentiating components are produced in-house while generic components are being reused or co-developed.

A well-developed OSS ecosystem is an ideal breeding ground for such an economy. The increasingly well-developed legal infrastructure around OSS, also thanks to initiatives such as the European Publlic License (EUPL), provides a

solid and reliable foundation for public and commercial activity with clearly established ground rules that fall into no more than three basic categories.

While these trends and their impact seem largely inevitable, Europe is perhaps in the uniquely favourable position of already having a healthy OSS ecosystem in place that it can build upon.

3.1.22. *Growth of skilled labour pool*

Whereas proprietary software education is necessarily restricted to schooling in the use of the particular product but is generally supported by education of programming languages and other basic IT skills, OSS may contribute to deeper analysis, facilitating both traditionally education and autodidactic training. The strategic use of OSS for education in some EU member states[16] is beginning to show first results, and provides good examples for increased social cohesion and equality of chances facilitated through OSS. On the other hand, it is essential not to foreclose students from learning the skills they need to become the work force Europe needs, including education about leading commercial software solutions.

3.1.23. Understanding integration costs

More and more readily available economic analysis of the integration cost can help to avoid unforeseen complications and cost on the user side, while increasing demand for professional integration services for OSS, fostering growth of the commercial adoption in Europe.

3.1.24. Standards increase interoperability

The following two lines suppressed because we agree to group the OSS mandate debate in one paragraph only.

As mentioned above, open source mandates would be more harmful than useful for the overall software industry including open source software vendors.

Fortunately, the increasing standardization in the IT world creates a level playing field for all vendors. A good definition of standards and interoperability can be found in the following EICTA white paper:

http://www.eicta.org/index.php?id=242&id_article=81

As the IPR modes chosen at W3C and OASIS show, transparent and inclusive participation rules most times already lead to royalty free IPR modes:

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[16]   i.e. Spain

OASIS IPR Mode	Number of OASIS TC's
Royalty-Free on Limited Terms Mode	57
Royalty-Free on RAND Terms Mode	13
RAND Mode	0

The more parties (including competitors and users) participate in a standardization effort, the more the different players push for royalty free terms because nobody wants to be put into a disadvantageous position. Therefore, open participation and transparent development processes are a base recommendation for standardization.

Since the reality shows that the large majority of technology standards is being defined under royalty free terms anyway (due to the negotiations of the involved parties) there is no need for regulatory intervention. [COMMENT: THIS SECTION ENCROACHES ON THE WORK OF WG 3 AND SHOULD BE DELETED. IF NOT, IT SHOULD BE REPLACED WITH THE FOLLOWING LANGUAGE FROM THE ICT TASK FORCE IPR WG REPORT:]

There is a general perception that most standards organisations have been successful in establishing *IPR Policies* promoting the participation of a maximum number of companies to their work and then covering a huge majority of all IPR essential to standards under their *RAND IPR Policy* (e.g. ITU-T, ISO, IEC, ISO/IEC JTC1, IEEE, ETSI, DVB, OMA, ANSI). This prevalent IPR licensing model for standards organisations require participants to voluntarily commit to license their patent claims.

But, recently, a debate has emerged about the definition of Open Standards provoked in part by an EU initiative which defined Open Standard in a specific eGovernment context. The debate also stems from an industry-driven environment involving the adoption and/or revision of IPR policies by some internet standards organisations such as OASIS, UN/CEFACT and the W3C[17]

The most controversial point raised in these discussions involved the idea of a royalty-free IPR Policy. A *RAND IPR Policy* mandates any licensing of essential intellectual property at reasonable terms, including either a reasonable fee or at no cost, at the discretion of the IPR holder. This debate has created the need for certain standards organisations to clarify their understanding and definition of *"Open Standards"*, on the basis of the definitions set out by the ITU-T TSB ad-

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[17]

See http://www.w3.org and its IPR policy http://www.w3.org/2004/02/05-patentsummary.html, please note that the W3C policy allow any participant to opt out from the commitment to license its patents at royalty free conditions, see the OASIS IPR policy: http://www.oasis-open.org/who/intellectualproperty.php ; see the UN/CEFACT IPR policy at www.unece.org/cefact/cf_plenary/ plenary06/trd_cf_06_11e.pdf

hoc IPR Group[18], and then by the Global Standards Collaboration (GSC), initiative to which many ICT sector standards organisations participate (ACIF, ARIB, ATIS,
CCSA, ETSI, ISACC, ITU, TIA, TTA, and TTC)[19]. It appears that a large number of companies have supported the adoption of the ITU-T or the GSC definitions.

Several products in he market already incorporate Open Source implementation of RAND-based standards without any evidence of difficulties or insurmountable barriers for such vendors.[20]

Actions

Foreword

The current market is already highly regulated through intellectual property laws. It is therefore important that the European Union is mindful of such regulation when considering further regulative steps. An over-regulated market tends to bring inefficiency, and there are indicators that the current market may already be over-regulated.

Any regulative action would therefore require appropriate change management to give established players sufficient time to adapt and grow. At the same time, European competitiveness depends upon reduced barriers to entry into the

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http://www.itu.int/ITU-T/otherGroups/ipr-adhoc/openstandards.html

19

For a general presentation, < http://www.gsc.etsi.org/Presentation.htm > for the specific definition, see resolution 23, http://portal.etsi.org/docbox/Workshop/GSC/GSC10_Closing_Plenary/gsc10_closing.zip

[20] For example, Motorola's open source Linux smartphone phones. These products implement the following RAND-based standards: WLAN (IEEE 802.11b/g), WLAN Access (IETF), MP3 (ISO/IEC 11172-3), MPEG-4 (ISO/IEC 14496-2), MMS (Open Mobile Alliance), and WAP (Open Mobile Alliance); D-Link Corporation's open source-based Media Player products implement the following RAND-based standards: 10/100 Ethernet (IEEE 802.3), WLAN (IEEE 802.11b/g), MP3 (ISO/IEC 11172-3 Layer 3), MPEG-4 (ISO/IEC 14496-2:2001), and CD-DA ("Red Book" or IEC 60908) and CD-ROM ("Yellow Book" or ISO/IEC 10149 and ECMA 130). – Red Hat and Suse sell Linux distributions that include support for the following popular and widely deployed standards that were adopted by standards organizations with RAND-based IPR policies:
http://www.redhat.com/software/rhel/details/
http://www.opensuse.org/Product_Highlights

market in combination with specific support and incentives for new, innovative players.

3.1.25. European Digital Independence

Should we suggest some actions related to protecting "European Digital Independence". Although we know it is potentially very rare, there may be sectors where a key software plays an essential role in the European economy or security up to the point where authorities could consider that they need an alternative ?Actions could such as calling for the development of European OSS alternatives for some critical software functions.

3.1.26. Licensing and IPR

Promoting European OSS Licensing schemes

About the issues related to licenses. For most Industries, implementing or using software is always done with a legal analysis. At the moment there is no European and officially validated Open Source license. There is some initiatives, like the EUPL, or some European equivalent of the Apache license or CeCILL project, but here, the European Commission definitely should play a more active role. A political impulsion and decision will have to be taken and implemented, for example, by all the next Open Source projects funded by the Commission in the FP7.

Gregory to add   OSI alignment and to work with Georg to improve this paragraph.

IPR sanity checks

Setting a clear agenda on IPR sanity checks and the ability to deliver legally binding decisions by a transparent body is a much needed action item. [COMMENT: WHAT DOES THIS MEAN?]

According to some, Open Source will therefore strongly benefit from

- ex-ante disclosure on patents

- transparency of the judiciary in charge of software IPR rulings

- acknowledgement and full integration of alternative IPR modes aside the RAND types by Standards Development Organisation, research projects, public procurement, and public/private European entities delivering IPR-related assets.

- Alignment of e-procurement processes to ~~demand software free from~~ ensure the risk of vendor lock-in is evaluated.

-Systematic "prior art" research on open source projects as a step of new patent analysis

Voluntary Licences of Right regime

~~Furthermore, we believe that~~ Still according to some, a balanced intellectual property system which accommodates the need for interoperable products in the software sector is a prerequisite to an effective European software strategy. This camp favors a licensing regime that would ensure wider access to technology essential to achieving software interoperability and that would sufficiently protect access to open standards, such as for example a voluntary Licenses of Right regime. The patent litigation system should in turn provide the appropriate safeguards to avoid the abusive use of injunctions by patent rights holders against other companies, which may effectively distort competition.

Noted by Patrick : I have not changed the above since after discussion with Charlotte I now understand it

Others believe the current IPR framework essentially provides a sound basis to encourage innovation under and deployment of all software models, and that market-led standardization is working well also for OSS.

The following lines were suppressed because we agree to group the OSS mandate debate in one paragraph only.

~~No preferences or mandates for a particular software development and licensing model~~ ~~(this is a view rather specific to SAP and CompTIA)~~

~~As explained above, open source mandates can have a negative effect on open source vendors. Therefore, there should be no mandates or preferences for a particular software development and licensing model.~~

3.1.27. Interoperability and standards

[COMMENT: SECTION ENCROACHES ON WG 3 AND WOULD BEST BE DELETED. IF NOT, PUT IN CONTEXT OF BROADER SOFTWARE INDUSTRY VIEWS, SEE OUR EDITS BELOW.]

Protect OSS implementation of Standards against abusive exercise of IPR

According to some, in addition, it is fundamental to ensure that open source/free software developers and distributors enjoy adequate protection that allows them to implement standardised technologies protected by patents in a way compatible with open source/free software licenses. The language of licensing terms and conditions for patents essential for the technical implementation of standardised technologies should be drafted in such a way as to ensure

compatibility with open source/free software licenses and to prevent the abusive exercise of patent rights against open source software developers.

According to that view, the barriers to entry are particularly harmful in the area of interoperability, where inability to implement standards leads to increased cost and reduces the reuse and recombination factor, which will be essential for the future IT industry.

For this camp, the European Union therefore needs to which extent it can bring European standardisation bodies into line with the stated goals of the Common Patent Policy of ITU-T, ITU-R, ISO and IEC.

Others believe the current standardisation environment is already technology neutral, and that standardisation should continue to be voluntary and market-led.

Promote open source reference implementation of critical standards

Some believe mandatory open source reference implementation of critical standards on architectures, data format or protocols : the implementation must validate the functional aspects of the standards but may not be usable regarding no functional requirements such as performance or resource optimisation.

Others disagree with mandates and support market-based competition.

Promote the use of open formats for public administration

Some advocate in favour of mandatory open formats for documents and data provided by administrations to the citizen especially when dealing with security, privacy, transparency of processes,…. Promote open source solutions to process theses open formats.

Others support open document formats but not mandates.

Recognition of consortia-led standards

Standards (if defined correctly) can foster competition and innovation As explained above, ~~most~~ technology standards when appropriate are being defined under RF terms anyway and thus there is no need for regulatory intervention in this area.

The following has been updated during the Brussels meeting :

However, it would be good if global standardization consortia like ECMA, IETF, OASIS, W3C and WS-I were officially recognized in EU standardization policy, as recommended by the ICT Standardisation Steering Group and currently considered by the Commission under the review of its ICT standardisation policy. ~~It would be good if from that starting point the list of recognized consortia would be regularly reviewed and updated but EU.~~

3.1.28. Commission's own involvement

~~**DG Infso and European Commission's**~~

~~Lastly, we believe that DG Information Society and Media should closely focus on open source software both as a software development path and a business model. It is important that open source/free software developers and distributors enjoy adequate protection in order to prevent the abusive exercise of patent rights against them. DG Information Society and Media should also consider any compatibility issues that exist between the open source/free software licensing model and the licensing of patents essential for the technical implementation of standardised technologies.~~

~~(ECIS) strongly welcomes the efforts of DG Information Society and Media to develop a European software strategy with respect to intellectual property and standards setting issues arising in the software industry. This work should not be regarded as duplicating efforts which other relevant Directorates-General of the Commission are undergoing. The software industry has entirely different requirements in terms of how the patent system or the standards setting develop to other industry sectors. Hence, it is important that DG Information Society and Media focuses more on the special needs of the software industry.~~

~~In addition, it is important that the Commission actively work on developing a balanced IT policy across Europe encompassing all relevant policy areas effecting the software sector in close cooperation with other relevant Directorates General in the following areas: the Future Internet, IPR, Standards and Interoperability, Public Procurement, Skills and Lifelong Learning and Open Source Software.~~

==*-> We proposed to suppress the above paragraphs since this is either developed elsewhere or they suggest inner Commission allocation of roles which is beyond the mission of our group.*==

As mentioned above, Europe has already done valuable work in this area, and the specific research and development efforts of DG INFSO in the field of OSS have contributed in various ways to the growth of a healthy European IT ecosystem.

This work should be built upon and projects supporting innovation under all development and licensing models intensified, as the public benefit from these projects both in form of available products and services, as well as increased reuse and recombination factor, are significant.

==*Patrick to put it elsewhere in the document (introduction). Patrick's new note: I am waiting for Gregory's contribution for § 3.5.7 to 3.5.9 to move it there.*==

3.1.29. Procurement policy review

Some are of the view that there is currently no reliable way to assess decommissioning exi~~s~~t costs from ~~an~~ existing proprietary solutions or proposed

open/mixed source solutions[21]. Being able to calculate these costs would bring transparency and allow a truly non-discriminatory evaluation of the competing offerings.

According to that view, providing guidance and metrics on how to assess this cost in combination with recommendations on how to reflect strategic goals for the IT infrastructure in tenders would help reduce one of the largest barriers to OSS adoption. /

For Charlotte ? : Exit cost. Suggest research on how to calculate the exist cost. Rephrase the section above.

Others are of the view that tenders should specify functional requirements regardless of its software development and licensing model, and allow all equivalent solutions to compete.

3.1.30. Mandating Open Source

Governments or public bodies have the right to mandate Open Source for their own use. The Workgroup does not recommend that this freedom be limited. Conversely the Workgroup does not recommend that Open Source mandates become an obligation for public bodies internal use in Europe.

Gregory : The three <u>following</u> paragraphs to be merged into a single one with three aspect

3.1.31. Promote OSS consortia

To avoid this barrier, OS communities often organise themselves around consortia that provide the end users with a single point of contact and a critical mass of actors that are involved in a given OS software. These consortia generally include major actors of the industry that are committed in developing et using the OS products developed by the community at large

Examples

- o Apache for web infrastructure

- o Eclipse for IDE

- o OW2 for middleware

- o Limo for mobile OS

- o Open Handsed Alliance behind Android

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[21]   To make appropriate comparisons, we must be able to evaluate exit costs for proprietary, mixed source, and open source solutions. We cannot simply assume that there are no exit costs for open source solutions.

o   Mozilla Foundation /

3.1.32. A European OSS 'Forge'

If we take the main issues listed above, solutions can be seen as actions which should be taken or promoted by the Commission.

About the lack of support and maintenance, it can only be done by System Integrators or Open Source Communities. In any case, the "fork" phenomena should be avoided. European Commission cannot really influence or put a specific action on it, but could try to put in place a organisation and an infrastructure where, for example, all the European Open Source components are listed which will foster collaboration and exchanges between actors (ie a European OSS Forge).

3.1.33.   A European OSS Testbed

About the quality, even if this notion is very subjective, the Commission can propose an environment, a framework, which will be available for each Open Source communities (and also proprietary) and act as a test bed which will give a testing environment. Industry can bring their own use case which would be available to qualify components and applications.

Open Source is still a very sensitive subject. The European Commission will have to take a very strong decision to really promote it's view and strategy./

3.1.34.   Tax reduction similar to research foundations

Recommend member states to grant tax reduction for companies that participate or at least donate to open source consortia, similar to the ones that encourage the participation to research foundations

3.1.35. Encourage OSS education

Encourage education based on open source software that enable students to really understand the inner architecture of complex software systems and thus be able to innovate in their field (rather than be able to simply use complex software systems). Have software engineering schools and universities organise their student projects as open source forge and encourage them to support their best production to progressively transform them in OS products (to the educational benefits of the students involved in this kind of projects). Open source is a way to focus e-skills on real technical and scientific skills rather than a mere proficiency on some packaged software.

Charlotte (with the help of Erwin) will provide an addition on: what sort of curriculum + OSS communities not involved enough in OSS education + business and technical skills combination + OSS driving license .

3.1.36. OSS delivery as a service(OSSaaS)

Delivery of OS software as a service could be beneficial for two reasons.

- o It would let new entrants concentrate on the service delivery using software provided by other organisations or communities.

- o It would remove part of the lack of 'market confidence' since the software components management would not be the users ultimate responsibility

However some barriers related to fragmentation remain which should be removed :

- o European countries do not always allow individual or company data to be stored outside of the country. The Commission could recommend the member states to align their rules and allow for hosting anywhere within Europe, provided that some security and privacy criteria be met.

- o There is also a business fragmentation and very few European actors are able to provide a credible pan-European infrastructure to host such SaaS services. Some mechanism yet to be designed could help the emergence of such actors.

3.1.37. Other actions common for all software proprietary or OSS

<mark>*Include references to AnnLee Saxenian work*</mark>

Turning Europe into a larger, coherent market

Actions that will lead to a larger, coherent European market will make it easier for entrepreneurs to grow their businesses quickly within Europe. In addition, the easier it is for non-European investors to understand the European market, the more they will make investments in European software start-ups.

Continued inclusion of IT topics in European research programs

In order to make the development of IT skills a priority for education, future research programs like the FP programs should continue to include IT research topics. In addition, the participation in European research programs should be easier (e.g. less paper work), so that small software companies can afford to participate as well.

Driving up demand for software within Europe

The EU can help to drive up the general demand for software for example as part of e-government strategies. At least in theory, European software vendors should understand the European requirements better than non-European vendors and therefore the (increased) European demand for software should also foster a European software industry.

Fostering networking by leveraging the existing European software vendors

For software start-ups it probably would be useful if the European Commission fostered networking between European software vendors and thus created something like a virtual "Silicon Valley". The solution could be a combination of an online networking platform plus annual networking events. The platform could connect existing European software vendors, European software start-ups, non-European software vendors, hardware vendors, system integrators and venture capital firms.

Further simplifying the process for the foundation of a company

In order to encourage more entrepreneurs to start their own business, the initial company foundation process should be as simple and fast as possible. In addition, it would be helpful if software start-ups could be connected with venture capital firms, e.g. via a virtual platform.

Simplifying studying in and immigrating to Europe

Europe most likely would benefit if more IT experts and students would want to work in Europe, at least for a number of years. As explained above, employees from foreign countries often create interesting links to their countries of origin which then can be leveraged for partnerships etc. Therefore, it should become easier and more attractive for IT experts and students from non-European countries to live and work in Europe at least for a number of years. /