Probing political correctness: EU policy on users in ICT standardisation

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Users of standard-conform products and services are hardly represented in standards committees. This is even less so in the ICT area, on which this paper focuses. But is this a problem? Should users always be involved? Do users always want to be involved? These are questions we need to answer if we are to determine whether current user-related European policy on ICT standardisation needs to be changed.
The paper concludes that a more differentiated ICT standards policy is needed, i.e. one that distinguishes more sharply between the necessary involvement of users in public interest standards and their desirable involvement.

1. Introduction

ICT is permeating all areas of society and sectors. The number of application areas is increasing. This development affects not only large organisations and companies. The number of Small- and Medium-sized Enterprises (SMEs) and consumer-citizens that use ICT is vastly growing. The stakes of these user groups in ICT and therefore in ICT specification and standardisation processes are also becoming higher.

> "Standardization is one of the essential building blocks of the Information Society. (…) The development and use of open, interoperable, non-discriminatory and demand-driven standards that take into account needs of users and consumers is a basic element for the development and greater diffusion of ICTs and more affordable access to them, particularly in developing countries. International standards aim to create an environment where consumers can access services worldwide regardless of underlying technology." (WSIS, 2003, article 44)

However, overall users and, in particular, consumers and SMEs are absent in ICT standardization (Jakobs, 2005). Usually ICT producers dominate standards processes. They dominate in number of representatives and influence on standard's content, and in the committees of formal standards bodies as well as consortia. In view of the desirability to take all stakeholder interests into account in standards, the absence of users could be said to create a democratic deficit (Egyedi, 2003; a legitimacy deficit, Werle & Iversen, 2006)
At present a European project is taking place that reviews the European Commission's ICT standardisation policy, including its policy regarding the role of users therein (DLA Piper, 2005). The Commission recognises the lack of user involvement in European standardisation (e.g. European Commission, Challenges, 2004), and views this as a severe problem. It is partly a problem because the EU sometimes refers to European standards in legislation, in which case democratic accountability of the standards process becomes highly important (legal policy); partly because SMEs are an important economic factor in Europe and need to be catered to (industry policy); and partly because user involvement is desirable in general (social policy, implicit). More about this later.

If we were to follow this line of reasoning, this paper would attempt to explain why users are absent in European standardisation and work straightforwardly towards recommendations that strengthen the inclusion of users in European ICT standardisation.
In this paper, however, we challenge the widely shared and seemingly self-evident nature of 'democracy' and user involvement in ICT standardisation. (Should users always be involved? Why involve them?) The 'democracy' assumption is challenged together with six other policy assumptions of the Commission, such as the assumption that users always *want* to be involved. We try to challenge these assumptions without giving up on the WSIS and European social policy objectives.
In the following sections, first, 'the user' is specified into categories. Next, current EU policies relevant to user inclusion in standardisation are discussed, i.e. legal, industry and social policies. Then, the views of two European user organisations are summarised, namely those of the consumers and the SMEs. Against this background the paper analyses and challenges the main policy assumptions embedded in current EU standards policy. In the final section the implications for the EU ICT standardization policy are discussed and recommendations are made.

2. Users, a categorisation

The danger of talking about 'user involvement' is that it gives the impression that users are a homogeneous group. However, there are significant differences in kinds of users of ICT standards and their influence in standardisation. We adopt the two distinctions made by Jakobs (2005, 2006, 2007). He distinguishes, firstly, between direct users of standards (i.e. standards implementers) and indirect users of standards (i.e. users of standard-compliant products and services). Companies who produce ICT products or services or whose core-business is closely tied to ICT are direct users of standards. Those who buy these products are indirect users of ICT standards.[1]

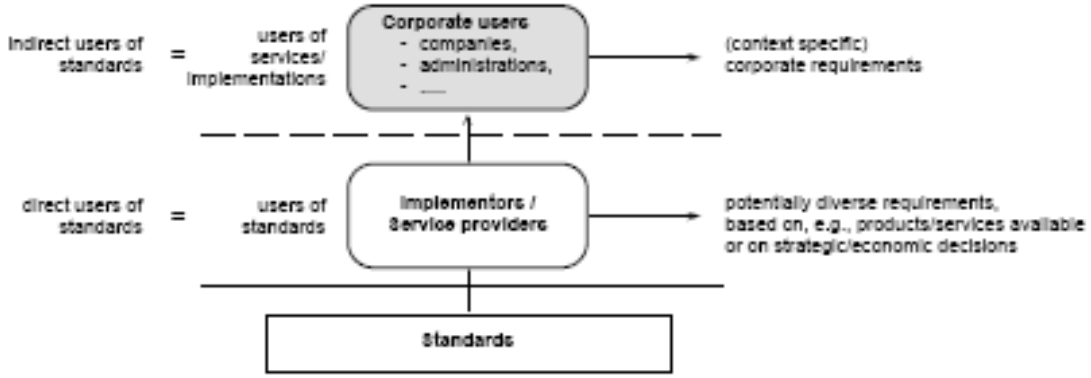

Figure 1: Two levels of users (source: Jakobs, 2005)

Secondly, Jakobs distinguishes between large users and SME users "as they differ considerably in terms of requirements on ICT systems, available resources, and relevant knowledge" (Jakobs, 2005)

[1] "Unfortunately, the boundary between 'direct' and 'indirect is increasingly blurred," Jakobs notes (2007, p.7), and illustrates his point with the automotive industry which builds electronic systems into modern cars. In this example, we would argue, the indirect user has become a direct user of standards.

Two further user categories relevant to EU standards policy are the consumers of ICT products and services, and the authorities[2] who, as large ICT procurers at the local, provincial, national, and European level, are theoretically a factor to be reckoned with. Both fall within the category of indirect users.

Categories of users (i.e. ICT stakeholders)			**Europe**
Direct users of ICT standards (implementers)	ICT producers	Large companies	
		SMEs	600.000 enterprises
Indirect users (users of standard-compliant ICT)	ICT users	Large organisations	
		SMEs	23.000.000 enterprises
		Consumers	450.000.000 consumers
		Authorities	

Table 1: Categories of users (i.e. ICT stakeholders).

Table 1 summarises the relevant user categories (i.e. ICT stakeholders) and indicates, where the data is available, the amount of people or companies at stake in Europe. Per stakeholder category the implications of involvement in standardisation may strongly differ. Clarity about user categories is therefore important. For example, EU policy documents regularly mention too little SME involvement but make no distinction between the 600.000 ICT-SMEs (i.e. SME producers of ICT) and the roughly 23 million SMEs (i.e. potential ICT users) – a difference which is e.g. highly relevant for the question whether EU policy should focus on developing and/or implementing standards.
Moreover, groups which are underrepresented in standardisation, i.e. the 'political' minorities, do not only include the four categories of ICT users – ICT-SMEs are also a 'political' minority in this sense. See Table 2. Table 2 estimates the proportional representation (%) of companies/people currently involved in ICT standards committees in Europe (orange). All large ICT producers that have a stake in ICT standards will participate in the process (100%). Whereas only a small minority of ICT-SMEs, large ICT users and public authorities participate. SME ICT users and consumers hardly participate.
In the following the 'political minorities' are focused on, that is the different categories of indirect users, notably those with little influence, i.e. SMEs and consumers. We will explore if and in what manner EU policy needs to address these stakeholders.

3. Current EU Policy

There are close ties between the European Commission and the three European Standards Organisations (ESOs) of CEN, CENELEC and ETSI. The Commission uses European standards to support legislation (i.e. the so-called 'New Approach' standards) and certain policies (e.g. pan European e-government). For example, the ESOs produced many of the

[2] More refined use categories could be identified. However, we do not need this level of refinement to make our main argument.

harmonized standards needed to meet the 1992 objective of a European common market. At present, for example, the ESOs are asked to take aboard environmental and consumer issues when standardising. "High levels of environmental and consumer protection have become fundamental objectives under the EC Treaty. Subsequently, environmental and consumer considerations need to be systematically integrated into (…) European standardisation." (Commission, General guidelines, 2003)

Category ICT stakeholders		**Involved in Standards Development**
ICT producers (Direct users of ICT standards)	Large enterprises	100
	SMEs	15
ICT users (Indirect users of ICT standards)	Large organisations	(e.g. e-business) 10-20
	SMEs	5
	Consumers	5
	Authorities	25-30

Table 2: Estimated [3] proportion of companies/people currently involved in standards development in Europe (orange).

The Commission provides funds for the ESOs. These are very limited[4], and it intends to increase them (Commission, Decision, 2006). The Commission also provides funding for specific mandates, projects, and programmes. E.g. CEN and ETSI were funded to develop a Standardisation Action Plan (2000-2002, 2003-2005) in support of the eEurope initiative. The aim was to accelerate standardisation in support of public interest areas such as: Design for all and assistive technologies[5], eLearning, secure and rapid access to Internet, smart cards, electronic signatures and road transport applications. The aim was to do so in an open, transparent and inclusive manner, better involving users and widely disseminating the results.[6]

Irrespective of whether standards are used for legislation, policy support (including market policies), or public procurement, European standardisation is a voluntary process "based on consensus amongst different economic actors (industry, SMEs, consumers, workers,

[3] Estimations of a representative of the European SME organisation (private communication, F. Posthumus, 2007).

[4] E.g. annual reports of CEN and ETSI, 2006. E.g. in the year 2000 EU/EFTA contributed only 2 % of the funding of the CEN/CENELEC/ETSI standards system (Ronald Berger & Partners GMBH, December 2000) "Given the role played by European standardisation in supporting European policies, the Commission undertakes to co-finance European standardisation activities and European infrastructures." (COM(2004) 674 final, Financial viability of European standardisation, p.9) A new single basic legal act is needed to enable the Commission to provide such financial support. (Commission, Challenge, 2004, p.8)

5 "standards for accessibility of information technology products, in particular to improve the employability and social inclusion of people with special needs."
http://ec.europa.eu/information_society/eeurope/2002/action_plan/eaccess/eu/targets_2001_2002/index_en.htm

[6] http://ec.europa.eu/enterprise/ict/projects/esap.htm

environmental NGOs, public authorities, etc)"[7]. European standards should therefore reflect a balance of interests of all European stakeholders (Commission, SEC(2001) 1296).

European standardisation needs to be accountable, in particular where it supports European policies and Community regulation. The procedures must be *open* and transparent, and the views all interested parties in Europe must be adequately taken into account. (e.g. Commission, General Guidelines, 2003)

There are two levels at which stakeholders can be involved. They can either be represented indirectly via a balance of interests at the member state level. Their input at this level is coordinated by the national standards body (NSB) in the case of CEN and CENELEC[8]; in the case of ETSI stakeholders can participate directly. Or, stakeholders can be represented at the European level via organisations like NORMAPME (the umbrella organisation for standardisation interests of European SMEs) and ANEC (the organisation of European consumers) in all three ESOs. Next to NORMAPME and ANEC, the Commission financially supports two other European organisations to participate as associate members in the ESOs, i.e. the TUTB - worker interests, and ECOS - environmental interests (Commission, Challenges, 2004).

The desired level of democratic accountability by means of a balanced representation of stakeholders at the member-state level and user representation at the EU level is seldom achieved. In particular the virtual absence of SMEs in European standardisation is presently a cause of concern (Commission, Günter Verheugen, 2006). Several initiatives have been taken on the matter. For example, an EU project was asked to improve contact between ESOs and SMEs (Jakobs, 2003). More recently, a Decision has been issued which focuses on SMEs to implement European standards. These standards "should therefore be designed and adapted to take account of the characteristics and environment of such enterprises". It therefore designates as eligible for financing "the drawing up of documents to explain, interpret and simplify standards, as well as the drawing up of user guides and best practice documents" (Article 5 and 3, 1e; Commission Decision, 2006).

The *New Approach* [9] is widely seen as a success because it was very effective in speeding up the process of completing an internal European market (Liikanen, 2000; Verheugen, 2005). Liikanen refers to it as a successful mix between government regulation and self-regulation by the private sector. He speaks of co-regulation and suggests that it can usefully be applied in other areas as well:

> "(…) in the framework of co-regulation the legislator has to be sure that the decisions taken by the private sector[10] in achieving the targets set by him are taken in a transparent, open and consensus-based structure. He has to be sure that the democratic process will be kept intact. These criteria of transparency, openness and consensus already existed -they were "built-in"- in the standardisation structures and this allowed the New Approach to work and to enjoy the necessary confidence.

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[7] http://ec.europa.eu/enterprise/standards_policy/index_en.htm

[8] "Standardisation in Europe is based on the principle of national representation. Therefore, it is primarily the task of the national members of the ESOs to ensure that all relevant, interested parties have the opportunity to contribute to the development of European standards." (Commission, Annex to COM (2004) 674 final, p.5)

[9] "Instead of detailed technical harmonisation, the New Approach proposed to define a clear legal framework, based on requirements essential to guarantee a high level of protection for the collective interest at issue. The New Approach also proposed to leave the definition of the detailed rules, which would be one way of assuring the compliance with the essential requirements, to the economic actors in the framework of the European Standardisation structures. Not to regulate for the sake of regulation, but to harmonise only when and where necessary." (Liikanen, 2000)

[10] "What I mean by the private sphere here is of course the private sector, but also other stakeholders." (Liikanen, 2000)

> In the broader area of Co-regulation these structures have, most probably, to be defined case by case." (Liikanen, 2000)

Again, in co-regulation the inclusiveness and accountability of the process is considered a cherished good.

4. Stakeholders: Users

In the following we take a closer look at two categories of ICT users, that is, indirect users of ICT standards: consumers and SMEs. Both interest groups have very little presence in European standardisation committees (both an estimated 5%), and standardisation overall. Of interest is here how they see their involvement and in what manner they would like to see the 'democratic deficit' in European ICT standardisation addressed. As noted, on the European level these stakeholders are represented by ANEC (consumers) and NORMAPME (SMEs).
In the following their views about the involvement of their members in standardisation are summarised.

4.1 Consumers

To indicate that consumers have a real stake and that their involvement is not merely a matter of 'democratic legitimacy', an impression is given of the core issues which concern consumers in ICT standardisation. The generic consumer requirements for developing ICT standards are (ANEC, 2005): Accessibility/Design for All, Adaptability, Child safety issues, Comprehensible standards, Consistent user interface, Cost transparency, Easily adaptable access and content control, Ease of use, Environmental issues, Error tolerance and system stability, Explorability, Functionality of solution, Health and safety issues, Information supply for first-time user set-up procedure, Interoperability and compatibility, Multi-cultural and multi-lingual aspects, Provision of system status information, Privacy (especially with regards to Internet) and security of information (e.g. spam and Radio Frequency Identification matters, RFID), Quality of service, system reliability and durability, Rating and grading systems, Reliability of information and Terminology. These requirements, which are further specified in e.g. ANEC (2005, 2006b), already provide an impression of what kind of consumer interests might be at stake.
ANEC has two main concerns regarding the influence of consumers on ICT standards. Firstly, industry representatives dominate European standards committees, which reflects an imbalance in the representation of interests in many national standards bodies.
Secondly, ANEC objects in principle to the reference of New Deliverables (i.e. pre-standards and documents other than formal standards developed within the ESOs) and consortium standards in European legislation, in particular when dealing with health, safety, environment and the basic legal and economic interests of consumers because they do not require full stakeholder participation. It does, however, recognise the potential importance of some non-formal deliverables and is qualifying its standpoint on this issue. [11] (ANEC, 2005c, p.5)
In particular in standards work related to the public interest and where the New Approach principles are to be extended to new policy areas, ANEC recommends, for example,

[11] E.g. despite its objections, it does recommend cautious use of New Deliverables and non-formal standard setting fora (ANEC, 2005), which keeps the door open towards their use.

- a balanced representation at the EU level. To improve the balance between public interests and business interests ANEC proposes that the principle of 'balanced representation' be added to the list of standardisation principles of the ESOs. (ANEC, 2006a)
- improved representation of public interests in standards by strengthening the role of public authorities when elaborating detailed specifications. (ANEC, 2006c)
- monitoring consumer involvement, e.g. by setting up a quality control system to evaluate the process and the content of mandated standards of public interest (ANEC, 2006a).

4.2 SMEs

NORMAPME represents the SME interests of direct and indirect users of ICT standards. The following focuses on indirect SME users.
Where the standards content is at stake, SMEs want simple, cheap and practical standards (NORMAPME/ANEC, 2007). They want standards that

- Simplify life by allowing one to work with the same format all the time,
- Reassure that what they use is safe and suitable for purpose,
- Simplify their business operation,
- Reduce costs and time losses,
- Allow to go cross-border with reasonable assurance that the same standard is used there also,
- Create interoperability

A survey held in 2005 specifies some of these needs (NORMAPME, 2005). It indicates which aspects of ICT products indirect users of ICT standards find most important, i.e.: cost transparency (which refers to the costs of upgrading and replacing their IT systems), ease of use of IT, unambiguous standards, error tolerance, system stability, system reliability and durability, quality of service, privacy and information security.
Where the standards process is at stake, NORMAPME is concerned about

- SME access to the process of ICT standardisation (bottlenecks of available experts, financial resources and time).
- the accessibility of standard content (i.e. understandable language)[12], and suggests involving users in designing user guides.
- SME influence on standard content (e.g. voting right procedures and balanced representation)
- the cost of standards purchase (The initial purchase costs can rise significantly due to "must read" standard references.)
- the cost of use (standards need to bring advantages and cost reduction)
- lack of support for implementation.

NORMAPME (2004) therefore recommends
- Better inclusion of the SME needs at the design stage of the standard
- A check of the suitability and viability of standard solutions by a screening mechanism, e.g. a platform that represents real SMEs and their needs.
- The development and financing of implementation programs involving all market players.
- Because there are no regular courses in education: Support for training SME standardisation experts.

[12] Standards extracts are often vague and can easily lead to buying the wrong one.

4.3 Differences between user categories

Notably, the NORMAPME (2005) survey also shows that the needs of SMEs and societal needs like those of consumers differ. The former show little interest in e.g. accessibility/ design for all, adaptability, environmental issues, and health and safety issues. This finding indicates that standards policy must recognise and take into account the differences between users groups.

5. Analysis of assumptions

The Commission's current ICT standardisation policy is shaped by a number of powerful basic assumptions, norms and arguments which make change difficult. In the below, they are examined more closely and where possible challenged to better highlight where there is leeway for policy change.

5.1 Fiction of balanced national representation

An important element of openness and democratic feature of the formal standardisation system is its inclusiveness towards minority stakeholders (Commission, Challenges, p.14; Commission, Annex to COM (2004) 674 final, p.5). Where CEN and CENELEC are concerned inclusion plays a role at two levels, at the European level and at the level of their members, the national standards bodies. The latter coordinate the 'balance of national interests' and the voting on European standards.

> "The national standards bodies (…)contribute on a national level to consensus, in many cases provide support to the technical work, are a permanent link between market players, in particular SMEs, consumers and environmentalists, and provide access to, and advice on, both international and European standards. The official adoption through public enquiry and formal vote on European standards (ENs) is carried out by the national standards bodies." (Commission, Guidelines, 2003)

Therefore, the inclusiveness of the European system largely hinges on whether or not minority stakeholders participate and have a say in determining the national position.
In reality consumers and SMEs hardly participate in national standardisation (Commission, Annex to COM (2004) 674 final, p.5). ANEC's experience is that "the national opinions are often determined by business interests and minority views (e.g. from consumers) are "filtered out" by the system. These national imbalances are further amplified at the European or international levels." (ANEC, 2006c, p.14).
The same lack of user representation is true at the European level despite the efforts of NORMAPME and ANEC .[13] For the moment, we can therefore conclude that the 'balance of national interests' cannot serve as a 'democratic legitimation' of European standardisation. Worse, such rhetoric covers up the reality that the national layer cannot be used as a fall-back option for lack of minority participation in European standards committees.
The 'fiction' of a balanced representation (Werle & Iversen, 2006, p.28) raises two questions. Firstly, why does the official Commission uphold the rhetoric and sustain the policy on which it is based? This question will be addressed when discussing the default regulatory angle of the Commission. Secondly, is lack of balanced representation at the national level really a

[13] E.g. http://www.etsi.org/ictroadshow/presentations/ug_ presentation_karine_iffour_cph.ppt

problem, and if so, why? This question will be addressed in the section on 'normative representative democracy'.

5.2 Default regulatory regime for ICT

The answer to the above question, why the Commission sustains policy based on the 'balance of national interests', partly lies in the need for political respectability in situations where standards are needed for regulatory purposes. Moreover, since the regulatory regime is adopted as default for standardisation in the ICT area, as we will argue below, the rhetoric of a balanced national interest is also more difficult to change.
Apart from the use of standards for public procurement, the Commission identifies the three standards application contexts:

- Standardisation in support of regulation/legislation (including New Approach standards)
- Standardisation in support of EU policies in the *ICT area* (e.g. Information Society)
- Standardisation in support of the *European market* (e.g. removing barriers to trade and increasing the competitiveness of European industry; Commission, Annex to COM (2004) 674 final, p.16)

In the regulatory context, accountability and political legitimacy of the European standardisation system are important. The New Approach "delegates powers from the legislator" to the ESOs (ANEC, 2005b, p.2-3). To acquire democratic legitimacy , the standardisation process must be open to interested parties. The necessity of democratic accountability is clear. "The participation of societal stakeholders in the standardisation process has a strong and important dimension of accountability**.** It (…) makes the standards more representative." (Commission, Annex to COM (2004) 674 final, p.5)

But (a) is the necessity of democratic accountability equally clear for the setting of policy and market support? And (b) how relevant is the European regulatory context in the field of ICT standardisation anyway? The first question (a) will be discussed in the section about normative democracy.
Regarding the second question (b), there are different ways of assessing the current situation. On the one hand, according to the Commission there is "a whole set of new legislation in which Europe-wide codes of conduct under the aegis of the ESOs are being used" such as the Directive on Data Protection, the Directive on Electronic Signatures, the Directive on E-invoicing, and the new regulatory framework for electronic communications networks and services (Commission, Challenges, 2004, p.12). Indeed, standardisation mandates[14] are used to support these Directives.
On the other hand, in the area of ICT few New Approach mandates are issued. Examining the Commission's database on mandates in the policy area of ICT, of the twelve mandates none are New Approach mandates[15]. That is, the regulatory context is hardly relevant for ICT standardisation.

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[14] In the framework of European standardisation the word 'mandate' used as 'request' (it stems from the French word 'mandate' and is not related to the English word 'mandatory'). That is, the resulting standards are voluntary.

[15] The database was consulted 9-3-2007. "This database contains all mandates issued by the European Commission to the European Standards Organisations since June 2002. It also has a significant number of earlier mandates in the numbering system M/xxx. No mandates with other numbering systems are in this database." http://ec.europa.eu/enterprise/standards_policy/mandates/ The only New Approach mandates in the field of ICT are on Radio and telecommunications terminal equipment (1999) and, if one wants, on Electromagnetic compatibility (1989). (http://www.newapproach.org/Directives/DirectiveList.asp)

Despite its lack of relevance for ICT overall, the default regulatory regime not only requests political accountability of formal standards outside the regulatory context, but also of other, non-formal new deliverables (see e.g. Commission, Decision, 2006).

5.3 Normative representative democracy

At present the ESOs have democratic procedures in place for developing formal standards regardless of the expected context of standards use. The Commission, which in the past years prompted the ESOs to develop new deliverables in response to the rise of consortia, presently encourages them to extend the inclusive approach to the non-formal and New Deliverables and discusses their possible use in regulatory contexts. There is some inconsistency among these manoeuvres. We focus in this section on the side effects of the Commission's normative stance towards inclusion.

The Commission treats democracy as a self-evident, desirable governance regime for standardisation. However, in the mostly non-regulatory area of ICT, the desirability of democracy is a normative assumption. Democracy needs to be argued.

What do we mean by democracy? In the context of this paper, it suffices to define the involvement (i.e. participation and influence) of political minorities as the essence of democracy in standardisation. Several explicit and implicit arguments in favour of democracy have already been noted, namely

1. involvement of minorities for the purpose of democratic legitimacy in regulatory settings of standards use
2. involvement of minorities because the potential economic and societal impact of ICT standards on indirect users is vast; taking into account the requirements of these minorities will improve standards and diminish the negative consequences[16]
3. involvement of minorities in standardisation will increase their support for and implementation of standards, an assumption that will be examined in more detail further on.

The first argument has been discussed sufficiently. Standardisation is here a derivative regulatory activity and therefore requires the same political legitimacy as regulation would, namely democratic legitimacy. Indeed, in these situations a less inclusive approach would seem questionable (e.g. New Deliverables; Jakobs, 2006b).

However, the necessity of 'democratic procedures' is less clear where standards are used to support other EU policies (e.g. e-government or industry policies). As a non-evident policy decision, it needs to be argued. On the one hand, it can be argued. The second and third argument above are examples. The second argument holds that those who are affected by a standard should have a say in its development. As Jakobs (2005, p.5) puts it: "users (…) are the ultimate sponsors of standardisation (the costs of which are included in product prices). (…) Moreover, users will suffer most from inadequate standards that will leave them struggling with incompatibilities". Democratic procedures would help advance societal interests (i.e. notion of 'democratic technology' applies here; Iversen et al., 2004).

Arguments in favour of minority involvement can also be of a pragmatic nature, as is the case with the third argument. Here, participation of (sizeable) minorities is viewed as a vehicle for wider standards implementation. However, this argument illustrates the optionality of user

[16] Closely related, it is of interest which societal values are embedded in standards (the argument of 'democratic technology').

involvement. For, if there were another vehicle to better achieve wide implementation, minority involvement would likely be by-passed.
On the other hand, there are also arguments that are indifferent to or against a pro-active approach to user involvement. An implicit but often heard argument at the turn of the century was that user involvement weighs down the standards process and makes consensus more difficult. A stronger argument would be that the user interests are already championed by industry, because their livelihood depends on taking user requirements into the process. For example, EICTA, an organisation that represents the ICT and Consumer Electronics Industry located in Europe, closely links their business interest to user expectations. "Interoperability is achieved when the expectations of the user to exchange and use information among various devices and software applications from multiple vendors or service providers are met." (EICTA , 2006, p.5)
Moreover, reality also shows that standards which originally developed as specifications in a closed, not particularly democratic environment, may still work very well in addressing user needs (e.g. TCP/IP).
The current gap between democratic standards procedures and standardisation practice needs to be bridged where regulatory use of standards is concerned (i.e. *active democracy*: extra effort must be made to realise democratic aims). But, for other uses of standards, such as procurement and policy support, where the democratic route is not explicitly chosen no change of policy is needed in this respect. *Passive democracy* suffices - by which we mean easy access to participation by minorities (e.g. no membership fees, no hurdles) without putting in any extra effort to increase user involvement. In the latter case a distinction between types of standards, such as new deliverables, consortium standards and formal standards, is counter-productive (Jakobs, 2006b).
Whatever choice the Commission makes, ICT standards policy must take into account the actual field of forces such as

- Europe's dependency on dominant stakeholders. Industry shoulders most of the standards work.. It needs to understand and to a degree support the Commission's arguments.
- dominant stakeholders' access to other standards settings. In practice the ESOs only develop a select part of the ICT standards relevant to Europe. The remainder is either developed in committees of the formal international standards bodies and ICT consortia, or are *de facto* standards. If dominant stakeholders do not support the EU's argument in favour of standardisation-wide user involvement, they will back out.
- the Commission's influence on ICT standardization internationally should not be overestimated.[17]
- most indirect standard users do not want to participate in standardisation (see below); even direct standard users, e.g. ICT-SMEs, who are aware of what standards are and of their benefits, do not enter when the ESOs open their doors for participation[18].

Indiscriminate normative democracy reinforces symbolic user representation.

5.4 Do users always want to participate?

Users sometimes want to participate in standardisation but are excluded in a passive way (e.g. too high costs for joining) or actively (e.g. closed group). However, more commonly indirect

[17] E.g. the feasibility of integrating consortia in the European standards system, as was suggested, is highly unlikely (Commission, Annex to COM (2004) 674 final, p.16)
[18] Workshop Discussion, 1 March 2007.

users, that is, individual consumers and SMEs, do not want to participate, or at least not in all standards areas (Jakobs, 2003). The EU hardly addresses this issue, assuming, apparently, that users would want to participate – and if not, this is due to lack of awareness, which can be created, and interest, which can be raised.

Awareness

Incidental EU projects to raise user awareness have little impact. A more structural approach is needed. This is recognized by many Asian countries (e.g. APEC countries) but is neglected by Europe. Europe dearly needs education about standardization, starting with regular education (e.g. primary school, secondary school, vocational training, university students including e.g. MBA students, PhD students and post-docs, teachers and university professors), but including job training (e.g. for standards developers, implementers, corporate managers, managers of functional units, researchers, policy makers, public administration, lobbyists e.g. for an industry sector, and media people), and education for the wider public (de Vries & Egyedi, 2007).

Select user involvement

"EAN [i.e. the 'barcode organisation'] *cooperates with users on standards. We distinguish two kinds of standards: technical standards (e.g. XML) and conventions about how to deal with technical standards. We address the latter. Together with user organisations we explore what users want to use these barcoding standards for and how to deal with them (functional specifications). (…) We help SMEs to specify their needs, to model processes for which interoperability is required, and to develop agreements. The contribution of these companies should be restricted to what they need and do. The translation of these specs into technical options should be assigned to technical people. (...) We want to separate technology (…) as much as possible from the requirements of companies."* (Ir. O. van Mecghelen[19])

Not in all areas

"Consumers or end-users do not in general choose to participate in the standards process for all of the goods they might consume or use." (ICT Standards Board, 2005, p.24) IT users, like IT producers, must perceive a direct stake in the standards process to participate. For example, why would the majority of SMEs, who only use IT to support their primary business process participate? Participation is only worthwhile if a particular standard content is crucial for a company's product or organisational process. SMEs whose core-business lies elsewhere should therefore probably not participate in technology-oriented IT-standardisation (e.g. standards like the basic XML or EDIFACT standards). However, their involvement is crucial for e.g. information content-oriented standards (e.g. XML applications for a particular domain). See box 'Select user involvement'.[20]

Participate during the whole standards process?

What can users contribute to standardisation? There are two genuine user domains, requirements and operating experience (Jakobs, 2006b, p.33) If users have little inclination to participate because their immediate stake is not clear but a user view is desired, there are three specific periods in standardisation relevant for user participation: the requirements setting

[19] Extract from the round-table debate of the seminar "SME frustrations using IT: Is standardisation the solution?" 25th of October 2002, Delft University of Technology, the Netherlands.

[20] These findings confirm the success of what Markus et al. call vertical standards. 'Vertical standards' are "user-led development of voluntary, open, industry-specific inter-organizational coordination standards" (Markus et al., 2006). They are believed to be developed quicker and to diffuse more easily because their development is more focused and involve more dedicated stakeholder interests. (Fomin & Pedersen, 2006)

stage, the final validation process (ICT Standards Board, 2005, p.24), and the standards maintenance stage. Their participation could be restricted to these periods.
That is, although participation in standardisation is usually understood as partaking in the whole standard's trajectory, select participation which focuses on specific moments may better suit the interests of these indirect users and of the standards committees.
There is one caveat concerning the requirements stage, which applies to users as well producers: "meaningful requirements are not necessarily available prior to system use" (Jakobs, 2006b, p.33) Neither stakeholder group has any experience up front, and therefore the expected and stated users requirements may be off target.

5.5 Delegating responsibility for the public interest to stakeholders

It is salient that in EU documents related to standardisation, ICT policy included, hardly any reference is made to the European Commission's and Member-States' responsibility to argue public interest issues themselves in standards committees – irrespective of the context of use of these standards (regulation or not). The same applies to the authorities own interests as a large ICT user. This responsibility is delegated and externalised to the European standards bodies and to 'minority' stakeholders. The latter two stakeholder categories are called upon to defend e.g. environmental concerns in standardisation. This is well-illustrated by the following quote:

> The ESOs must "(…) provide a mechanism for economic and social partners in Europe and other relevant interest groups, (…) to be involved in the process of standardisation. This constitutes a means for them to play an active role in relation to public interests such as protection of the environment, workers, and consumers. It allows them to contribute to sustainable development and to safeguard the public interest in areas where co-regulation or self-regulation is considered preferable to outright regulation." (Commission, General guidelines 2003.)

The ESOs are requested to provide the right institutional conditions for full participation of all stakeholders (Commission, Decision 2006). For this reason the EU has recently decided to provide more substantial financial support to CEN/CENELEC/ETSI. But it also means that the Commission's approach of strengthening the institutional conditions rather than participate and support on standards content (e.g. expertise and influence) will be continued.
Does this delegation strategy suffice to promote public interest issues in standardisation? Probably not. Inherently the political negotiating position of minority stakeholders is weak to start with. Furthermore, their lack of presence and influence in standards committees indicates that also in practice the current strategy is a flawed one.
In sum, strengthening the conditions for minority stakeholder participation only partly assuages the problem of weaving public interests into standards. Where clear public interest issues are concerned the input and participation of EU and Member-State level representatives is needed to secure the societal value of resulting standards.

5.6 Participation implies acceptation and implementation?

A main argument for participation of any stakeholder but in particular direct standard users in standards development is that it increases the acceptance of these standards and makes their implementation more likely (EU ESAP objective; Commission, Annex to COM (2004) 674 final, p.5; ICT SB, 2005, p.24).

However, there are practical factors, obstacles related to each of the core elements of (a) participation, (b) acceptance, and (c) implementation, which raise doubt about the causality in this line of reasoning:

(a) There are more forceful reasons than participation to support a certain standard. For example, where competing standards exist, the standard may be chosen by other , important players in the company's value chain; or, the market dominance of a *de facto* standard or the rising popularity of a competing committee standard may determine a standard's use;
(b) acceptance of a standard and commitment to implement is more likely to depend on the awareness of a standard's importance and on its usability (e.g. simplicity and ease of implementation) than on participation;
(c) the implementation of standards concerns, in particular, the direct standards users. In EU policy documents direct and indirect standards users are often not distinguished. Therefore, no clear distinction is made between standards implementation and market adoption of standard-compliant products. The "participation – acceptance – implementation" type of reasoning may work for direct standards users, but hardly for indirect standards users. For the latter the link between participation and the adoption of standard-compliant ICT depends too much on intermediate, contingent factors (i.e. participation …- ….-….- adoption).

In other words, the logic of 'participation in order to increase implementation' has its vulnerabilities. To strengthen the link between participation and implementation, these vulnerabilities would need to be addressed in unison. Moreover, a distinction needs to be made between direct and indirect users, and standards implementation and the adoption of standard-compliant products, respectively. Distinct policies are needed for the two.

5.7 Overemphasis on standard development in Europe

Many of the previous assumptions lead to an overemphasis of EU standardisation policy on standards development - to the detriment of attention for standards implementation. For example, in the previous section 'participation in development' is a door towards securing implementation, which distracts attention from specific implementation-oriented measures. Likewise, the implicit adoption of a regulatory regime for ICT standardisation overly draws attention to representation issues in standards development. User issues related to standards *implementation and maintenance* have received very little attention from policy makers. Moreover, since Europe preferably develops ICT standards at the international level the emphasis on developing standard in Europe seems misplaced. This, too, is a reason to focus more on an implementation-oriented ICT standards policy.

6. Conclusions

There is a large gap between, on the one hand, the inclusive aims of European standardisation policy and, on the other hand, the low level of actual user participation (i.e. indirect users: IT consumers and SMEs). Users generally do not want to participate. The gap is one between principle and practice. To bridge this gap, attempts have been made to mould practice to fit the standardisation principles. These attempts have largely failed because, firstly, the assumptions on which these principles have been built are questionable, such as user awareness and willingness to participate in standardisation, and the inclusion of user interests at the national level (i.e. the pillar of CEN and CENELEC standardisation).

Secondly, the EU applies inclusion principles indiscriminately. Europe may be too tied up in a politically correct rhetoric and 'democracy *per se*' in regard to standardisation. Democracy needs to be argued and rooted in standardisation practice if policy is to go beyond reinforcing symbolic user representation.
This paper's main recommendation for user-related EU ICT standardisation policy is that policy should specify the circumstances under which democracy is necessary and under which it is desirable but optional. Furthermore, standardisation policy should specify the aspects of democracy which European standardisation wants and needs (e.g. representation or influence?), which standards fora these aspects preferably apply to (i.e. realistically and focused), and in what manner and at what moment user involvement is required (e.g. user representation in requirements, validation and maintenance phase?).

7. Recommendations

Necessary or desirable user involvement
Where user involvement is necessary, a more substantive and active inclusive approach is needed. From the European point of view, a focus on strengthening indirect user participation at the European level would seem most effective. Examples of policy focus that strengthen the participation of political minorities in European standards committees and their position are (e.g. ANEC, 2006c; NORMAPME/ANEC, 2007; Jakobs, 2005; Egyedi, 2003; EICTA, 2004):

- support user groups in selecting standards committees dealing with issues of user/public interest (drawing the line between mandated and not-mandated work may be too crude)
- strongly improve the financial conditions for minority participation, and more so where the European Commission delegates responsibility for public interest issues to the European standards bodies and 'minority' stakeholders
- provide for a more active input and participation from the EU and Member-State government representatives to secure the public interest in standards[21].
- support ESOs in allowing user representatives to participate free of charge in all technical committees dealing with standardisation work of public/ SME interest
- support ESOs in making draft standards dealing with subjects of public/ SME interest available free of charge on the Internet.
- implement monitoring of national and EU level 'balanced representation' in European standards committees where user involvement is necessary [22]
- Where user involvement is desirable but optional a passive approach to user inclusion suffices. That is, users must be able to participate but no norms need to be met for representation and influence (e.g. no monitoring takes place). In this area of ICT the distinction between standards source and status is irrelevant (e.g. ESOs formal and new deliverables, consortia, proprietary standards). The Commission may want to mediate for European users with standards consortia on whether free membership can be provided for the umbrella organisations of consumers and SMEs.

[21] As a constituency for standardization public administrations should actively engage with industry in both de jure and ad-hoc standards making activities in order to make their user needs known. (EICTA, 2004, p.18)
[22] ANEC, 2006c, p.3; e.g. record data, such as the percentage of the different stakeholder groups attending; ANEC, 2006a) .

Awareness and education

If the conditions for user participation were favourable, would there still be a lack of users in standardisation? Lack of participation by direct as well as indirect users is caused to a large degree by lack of awareness of the importance and benefits of standards. This is a general problem that is reflected in the shortage of standardisation experts internationally. The shortage of experts will become even more acute as those who at present participate, i.e. mostly older people, retire.

To address this shortage of experts and want of users, the overall level of awareness, knowledge and expertise needs to be raised. The European body of expertise needs to be strengthened and disseminated in a structural way by introducing standardisation in regular education from the primary school upwards and expanding training for standards professionals.

One ICT standardisation policy?

Lastly, ICT standards policy will need to differentiate much more than before. ICT standards policy measures must distinguish between direct and indirect users, and between implementation and adoption of standard-compliant products, respectively. It must take into account the differences between categories of users (e.g. the interests of SMEs and consumers diverge on the importance of design for all), and between standards development and implementation (e.g. in respect to the needs of ICT-SMEs). For the sake of argument, effective policy on standards *implementation* may ultimately be more decisive for the European information society than involving users in their development.

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References

ANEC (2005a). Consumer Requirements in Standardisation relating to the Information Society, January 2005, ANEC2003/ICT/008rev, http://www.anec.org/attachments/it008-03rev1.pdf

ANEC (2005b). *The New Approach from the consumer perspective*, Dr Fabisch, ANEC2005/GA/044, 30 November 2005, New Approach: A case of better regulation at the service of European Competitiveness, 30 November 2005, Brussels.

ANEC (2005c). ANEC position on the future challenges of ICT standardisation, ANEC2005/ICT/035, April 2005.

ANEC (2006a) ANEC Proposals for Improving Public Interest Stakeholder Participation in CEN and CENELEC, ANEC-GA-2006-G-004, 10 March 2006, http://www.anec.org/attachments/ANEC-GA-2006-G-004.pdf

ANEC (2006b). Spam research http://www.anec.org/attachments/ANEC-R&T-2006-R-003.pdf

ANEC (2006c). ANEC Position Paper on the Revision of the New Approach Commission Working Document - Certif 2005-16 Rev. 2: Elements for a Horizontal Legislative Approach to Technical Harmonisation, ANEC-GA-2006-G-036, 26 July 2006.

CEN (2006). CEN Annual report, Brussels.

CENELEC (2006). CENELEC Annual report, Brussels.

Commission - Challenges. Commission Staff Working Document, "The challenges for European standardisation", 18 October 2004, Challenges, 2004. http://ec.europa.eu/enterprise/standards_policy/role_of_standardisation/doc/staff_working_document_en.pdf

- COM(2004) 674 final . Communication from the Commission to the European Parliament and the Council on the role of European standardisation in the framework of European policies and legislation, Brussels, 18.10.2004 COM(2004) 674 final.
- Decision No 1673/2006/EC of the European Parliament and of the Council of 24 October 2006 on the financing of European standardization
- General Guidelines for the Cooperation Between CEN, CENELEC and ETSI and the European Commission and the European Free Trade Association 28 March 2003.
- Günter Verheugen, Vice-President of the European Commission responsible for Enterprise and Industry European standardisation – a key for the success of SMEs, skilled crafts and trades, World Standards Day Brussels, 16 October 2006, Reference: SPEECH/06/599, Date: 16/10/2006
- Opinion of the European Economic and Social Committee on the Proposal for a Decision of the European Parliament and of the Council on the financing of European standardisation (COM(2005) 377 final — 2005/0157 (COD))
- Report from the Commission to the Council and the European Parliament on actions taken following the resolutions on European standardisation adopted by the Council and the European Parliament in 1999, COM(2001) 527 final, Brussels, 26.09.2001
- SEC(2001) 1296. European policy principles on international standardisation. Commission Staff Working Paper.

DLA Piper (2005). EU Tender, Study on the specific policy needs for ICT standardization, ENTR/05/09, DLA Piper Rudnick Gray Cary, Brussels, 19 September 2005. Egyedi, T.M. (2003). Consortium Problem Redefined: Negotiating 'Democracy' in the Actor Network on Standardization. *International Journal of IT Standards & Standardization Research, 1(2),* 22-38.

EICTA (2004). EICTA Interoperability White Paper. www.eicta.org

EICTA (2006). EICTA White Paper on Standardisation and Interoperability Brussels, November, 2006.

ETSI (2006). ETSI Annual report 2005.

Fomin, V. V., & Pedersen, M. K. (2006). *Open standards and their early adoption: Implications for the government policy. A Delphi survey* (Working paper). Copenhagen: Copenhagen Business School.

ICT Standards Board (2005). *Critical issues in ICT Standardization,* Discussion Paper from the ICT Focus Group for further consideration by ICT Standards Board member organizations, Version: 27 April 2005

Iversen, E., Th. Vedel, R. Werle (2004). Standardization and the Democratic Design of Information and Communication Technology. In: Knowledge, Technology and Policy 17 (2), 104-126.

Jakobs, K. (2003). Helping SDOs to reach users. Final Report, 17 February 2003.Contract No 20010674.

Jakobs, K. (2005). The Role of the 'Third Estate' in ICT Standardisation. In: Bolin, S. (ed): The Standards Edge: Future Generation, The Bolin Group, 2005.

Jakobs, K.(2006a) Shaping User-side Innovation Through Standardisation - The Example of ICT. *Technological Forecasting and Social Change, vol 73, no 1,* pp. 27-40.

Jakobs, K.(2006b). ESOs, Open Standards, and New Deliverables. Bolin, S. (ed): The *Standards Edge: Unifier or Divider?* The Bolin Group, 2006.

Jakobs, K.(2006c). Shaping user-side innovation through standardisation: The example of ICT. *Technological Forecasting & Social Change, 73*, 27-40.

Jakobs, K. (2007). ICT Standards Development - Finding the Best Platform. In: Doumeingts, G.; Müller, J.; Morel, G.; Vallespir, B. (Eds.), *Enterprise Interoperability: New Challenges and Approaches.* Springer Publishers, pp. 543-552.

Liikanen, Erkii (2000). Erkki LIIKANEN, Member of the European Commission responsible for Enterprise and the Information Society, Co-Regulation: a modern approach to regulation, SPEECH/00/162.

Markus, M. L., Steinfield, C. W., Wigand, R. T., & Minton, G. (2006). Industry-wide information systems standardisation as collective action: The case of the U.S. Residential morgage industry. *MIS Quarterly, 30*(Special Issue. Standard Making: A Critical Research Frontier for Information Systems Research), 439-466.

NORMAPME (2004).Training Needs of SMEs for Standardisation Experts, Outcome of an IFAN-NORMAPME workshop, 22-23 March 2004, Stuttgart, hosted by Daimler-Chrysler.http://www.normapme.com/Publications/2004/TRAINING%20needs%20sms%20exp.pdf

NORMAPME (2005). SMEs as ICT users – Standardisation perspective, Karine Iffour, 2005-06-14 – Brussels.

NORMAPME/ANEC (2007). NORMAPME contribution to Steering committee document on EU ICT standardisation policy, 1 March 2007, Breydel Building, Brussels.

Tender Specifications (2005). General Invitation to Tender N°. ENTR/05/059 *Study on the specific policy needs for ICT standardization, Specifications.*

Verheugen (2005). Günter Verheugen, Vice-President of the European Commission, responsible for Enterprise and Industry, 20 Years New Approach, SPEECH/05/748.

Vries, H.J. de & T.M. Egyedi (2007). Education about Standardization: Recent Findings. *J. of IT Standards & Standardization Research, 5(2),* 1-16, July-December 2007

Werle, R, & E.J. Iversen (2006). Promoting legitimacy in Technical Standardization. *Science, Technology & Innovation Studies, 2*, 19-39.

WSIS (2003). Declaration of Principles: Building the Information Society: a global challenge in the new Millennium, Document WSIS-03/GENEVA/DOC/4-E, 12 December 2003.