

## **Interoperability, Competition and open standards: The Keys to a Software Strategy for European Citizens and Consumers**

Our “Information Society” is supported by an infrastructure consisting of various types of ICT technologies. The development of these technologies has a direct impact on our daily lives, as technological innovation brings with it new products and lower costs for existing products and shapes both the structure of the Information Society and the way we use it. Today, with the advent of web-based software and the exponentially growing digital content offerings, it is of the utmost importance that innovation in the sector be allowed to flourish, free from hindrance of any kind. This is where both ICT policy and competition policy play a key role.

### **Interoperability as an enabler of innovation and competition in the ICT sector**

These days we are all heavily dependent on ICT in our daily lives. A key element of these technologies is that they need to be able to interoperate, *i.e.*, to work together with other products and technologies, in a way that makes it possible for us to use all the functionality we require. Whether we are creating word-processing documents, e-mailing, or accessing services over the Internet, we are dependent on interoperability to ensure that everything works as it should. Interoperability should not be limited to a specific technology platform, but should extend across platforms offering businesses and consumers choice at all levels of the technology value chain.

Unfortunately, although interoperability in today’s ICT world is the norm in those areas where competition exists, instances of certain dominant vendors attempting to gain a commercial advantage via the prevention or limitation of interoperability are all too common. The incentive for such misuse arises from the presence of network effects in most of the ICT markets, particularly in the operating systems or middleware markets. In such markets, dominant companies are protected by an *applications barrier to entry*.<sup>1</sup>

There are two key ways how dominant companies can take advantage of the applications barrier to entry to both protect and strengthen their dominance:

- *First*, by bundling products with its dominant platform, the company can reinforce the applications barrier to entry by coercing consumers into using the applications that are tied to its platform. A prime example of this is Microsoft’s tying of Internet

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<sup>1</sup> An applications barrier to entry arises when a software platform becomes so widely used that it makes commercial sense for developers to target only that platform. This increases the number of applications available for the platform, which in turn increases its usage. The increased usage reinforces the commercial incentives of the developers to target the platform exclusively, which in turn again increase the demand for the platform. It creates a self-enforcing loop that gives the dominant platform vendor significant market power.

Explorer with Windows, which resulted in Microsoft increasing its browser market share from the region of 10-15% to over 75% in only three years.<sup>2</sup>

- *Second*, by preventing interoperability with its platform and the key applications that form the applications barrier to entry, or by providing limited interoperability solutions that are limited only to its own platform (known as *intraoperability*), the dominant company ensures that no competitor can pose an effective competitive threat to its products.

This kind of an anticompetitive behaviour is not acceptable from a competition standpoint, as *it directly harms consumers* who are offered limited choice and less innovation. To prevent such consumer harm, it is important that the Commission proactively implements effective ICT and competition policy enforcement, focused on protecting interoperability. If interoperability is protected, vendor lock-in is much less likely, as it is easier for companies to create products that operate across platforms and are not dependent on any one specific, underlying platform.

### **Means for protecting interoperability**

There are two key methods by which interoperability in the ICT sector can be promoted. Both are important, the first being a preventive and the second a curative measure.

The first is a proactive ICT policy encouraging and, in some cases, mandating the use of open standards. Commissioner Reding and DG Information Society have often expressed support for open standards. Any policy designed to promote an innovative, healthy and competitive European software sector should place open standards at its core. Only open standards permit all potential vendors to enter a market, develop innovative competitive interoperable products and offer choice to consumers in Europe.

The second is an efficient antitrust enforcement policy aimed at curing market failures resulting from anticompetitive behaviour. The European Commission has been vigilant in addressing abuses of dominant positions in the software sector. Indeed, the EU has been a leader in this sector where other parts of the world, including the US, Korea, Japan and Norway have also been active.

#### *Open standards as a part of an innovation-driving ICT policy*

If the industry were to use common, openly implementable standards in ICT products, interoperability between products from various vendors would be guaranteed. As a result, consumers would not need to purchase products on the basis of whether they will work together with the products they or their friends or colleagues already have, but could decide on the basis of which product offers the most suitable features and the best price.

These common standards, or “open standards” as they are known in industry parlance, already exist for most of the key areas in which interoperability is required. For communications, implementation of protocols such as TCP/IP and the Hyper Text Transfer Protocol (“HTTP”) guarantees that products implementing the protocol can interoperate. For documents, implementing support for formats such as the OpenDocument Format (“ODF”) ensures that

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<sup>2</sup> For estimates of IE's market share in 1996, see [http://en.wikipedia.org/wiki/Usage\\_share\\_of\\_Web\\_browsers](http://en.wikipedia.org/wiki/Usage_share_of_Web_browsers). For 1999 figures, see WebSideStory (1999), Global Browser Usage Share Report.

such documents created are accessible and editable via all applications supporting the format. In both cases, the standards are freely available and thus implementable by all vendors.

What is lacking in some areas, however, is the economic incentive to implement these standards. In competitive markets, vendors have the incentive to ensure interoperability between as many products as possible, as it increases the value their product offers to the end-user. However, in markets dominated by a single vendor, the vendor in question might not see an incentive in enabling multi-vendor interoperability. As a result, the undertaking in question succeeds in maintaining its dominance, not because its products are better, but because consumers only consider purchasing products that can interoperate with those of the vendor, and will thus not consider third party products.

It is thus important to ensure that these incentives are created, and in this regard the public sector has an important role to play. The public sector is not only one of the most significant users of ICT, they are also in a position to influence the purchasing of private sector customers who need to interact with public authorities. Thus, the public authorities have a duty to follow a procurement strategy that encourages innovation and competition. They can do so by ensuring that the products they purchase are interoperable with products from other vendors, thereby ensuring that (i) the authority is not locked into a single vendor's product, and, more importantly, that (ii) consumers and companies dealing with the authority are not forced to use the same software as the authority.

This duty to promote interoperability can be discharged by the public authorities by insisting that their suppliers implement open standards in their products. By so doing, the authorities will create incentives even for dominant companies to become more open, as a decision not to do so would cost the company the significant revenues it gains from the public sector. After the dominant companies adopt open standards, competition will be reinvigorated as it becomes possible to gain market share and revenue by offering customers innovative new products that are differentiated from those of the competition.

#### *Competition laws*

If widely implemented, the use of open standards will go a long way towards helping to ensure that innovation and competition thrive in the European ICT sector. In some cases, however, it will still be necessary to tackle existing problems via competition law enforcement.

The Commission has shown great courage in directly tackling the significant market failures in the sector resulting from abuses of market power committed by dominant companies.

It is of utmost importance that in the future the Commission does not back away from this exemplary track record.

A recent development, which deserves the careful attention from the Commission, is the use of unsubstantiated threats of intellectual property right infringements against those who attempt to develop interoperable software products. Microsoft is a prime example of a company that has adopted this strategy. It has publicly stated that it believes Linux and other open source software infringes 235 Microsoft patents, but has never identified any of these patents.<sup>3</sup>

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<sup>3</sup> See Fortune, *Microsoft Takes on the Free World*,  
[http://money.cnn.com/magazines/fortune/fortune\\_archive/2007/05/28/100033867/](http://money.cnn.com/magazines/fortune/fortune_archive/2007/05/28/100033867/)

These unsubstantiated threats create fear, uncertainty and doubt in the minds of those customers who might consider switching from Windows to Linux. Such behaviour should not be tolerated, as it amounts to yet another anticompetitive strategy aimed at ensuring Linux does not emerge as an effective competitor to Windows.

### **Need to take action now**

As explained above, there are clearly two separate strategies that need to be pursued in order to ensure thriving innovation in the ICT sector. Both are equally important, and the Commission should not shy away from either one. More work is still needed in formulating a proactive ICT policy plan, based on open standards, which will hopefully ensure that there will be less need for antitrust investigations in the future.

We respectfully suggest that the Commission's forthcoming policy to promote the software sector in Europe should consider, as a next step, three important methods for promoting interoperability in the ICT sector:

- First, the Commission needs to ensure that open standards are truly open. Guidance on characteristics of open standards can be drawn from the Commission document "open standards in the ICT domain" distributed at the November 5, 2007 meeting of the ICT Standardization Steering Committee. This document captures most of the criteria usually associated with best practices in standardization and open standards.

In ECIS' view, open standards are characterised by :

- collaborative and democratic development and management processes;
  - transparent evolution and management processes open to all interested parties;
  - approval through due process arriving at consensus among participants;
  - implementations which interoperate among each other;
  - platform-independence, vendor-neutrality, and unrestricted numbers of competing implementations;
  - open and complete publication of specifications and documentation sufficient for fully independent implementations; and
  - royalty-free or FRAND licensing terms that do not discriminate against the open source software development or licensing model.
- *Second*, once defined, public authorities in Europe should be asked to require such open standards to be supported in the products they acquire, regardless of what type of ICT products they are purchasing, be it office applications, server computers, accounting software or web application subscriptions.
  - *Third*, the Commission needs to remain vigilant in its antitrust enforcement, ensuring that dominant companies attempting to hinder competition are swiftly investigated and that proper and effective remedies are imposed to deal with the problem.