

## The Importance of Open Standards in Interoperability

Open standards is a strategic issue for industry, governments and users. Open standards enable industry to provide software and services that meet customer requirements today and in the future. In a networked ecosystem there is the need for end-to-end solutions with pieces of software from different vendors working seamlessly together. Hence, the concept of open standards is generally accepted in industry. To customers, on the other hand, open standards guarantee a high degree of flexibility and choice. Open standards prevent single vendor lock-in by facilitating interoperability.

Government is an important customer and adopts open standards policies and practices for the same reasons: flexibility, choice and efficiency. The European Commission is a long standing supporter of open standards. Denmark and the Netherlands are two Member States that strongly endorse them through preference mandates. Actors who endorse globally developed, open standards, begin building the open ecosystem that industry, governments, and users need – and thereby foster fair competition and facilitate new innovation for the future. Openness is both wise and current.

*“Choosing open standards is a very smart business decision indeed”*

Competition Commissioner Kroes, European Commission

Software interoperability standards are open when they are developed in an open, transparent and collaborative process and are freely available and implementable within any business model. Open standards are typically made in global standards setting organizations which practice due process and rough consensus. Global reach is key to wide implementation. In fact, open standards should be developed in a transparent process open to all interested parties worldwide. Moreover, open standards must be supported and maintained over time by an organisation which enjoys trust among a wide set of relevant stakeholders.

Open standards are platform independent and vendor neutral. Calling a standard “open” makes a clear distinction against so-called “closed”, “de facto” or “proprietary” standards which may favour a single vendor or a small group of vendors only. Open standards must be subject to full public assessment and use without constraints in a manner equally available to all parties.

Openness itself is in some sense a spectrum rather than an absolute criterion. There might be some exceptional instances where full openness can't be achieved, where some concessions need to be made, and a less than fully open standard may need to be adopted. Should in such cases some piece of technology not be available royalty free, it is important that the terms and conditions under which the essential technology is contributed to a standard are transparent up front. Some standards setting organisations have introduced processes like voluntary or mandated

ex ante declaration in order to facilitate or enforce this. On such a base, all contributors can make rational business decisions about whether or not they want to go forward.

In practice, openness is actually a perpetual challenge for formal standards organisations such as CEN, CENELEC and ETSI in Europe or ISO, IEC and ITU internationally, as well as for fora/consortia such as W3C and OASIS. Best practice means having a policy in place that counters vendor capture and allows participation of all interested stakeholders. As in all other governance systems, checks and balances must be carried out.

Making a standard and contributing technology to a standards project is an important business decision. Sharing pieces of technology and turning them into a standard facilitates global market access. And, as a matter of fact, such pieces of technology may contain patents. The business considerations are in balancing the patent rights and the royalties that can be drawn from them against the benefits of having an open global standard that facilitates global market access and achieves interoperability. If patented technology is included in software standards, the question of license conditions arises. IPR can be an obstacle to Open Source business models. Charging royalties for patents included in software interoperability standards is counter-productive. It may hamper the adoption of the standard and creates a barrier to interoperability. An open standard for interoperability will be either free of patents or they will have been irrevocably declared free of royalty.

*“The Internet is fundamentally based on the existence of open, non-proprietary standards”*

Vint Cerf, “the father of the Internet”

Open standards have proven to be an important facilitator for innovation. By providing an agreed, reliable and globally valid base of technology, open standards allow innovators to develop highly competitive, innovative technologies and solutions “on top” of the standard. At the same time they have got some safeguards regarding the potential for global market outreach. The most prominent example from the last decade is the World Wide Web. Having open standards, publicly available on royalty-free terms was the base for a wide wave of innovation which has, in fact, revolutionised the way in which we live, operate, and communicate. Open standards have boosted innovation and growth.

In conclusion, choosing open standards is highly strategic. Their benefits and positive impact are debated and seen at the highest decision making levels. Interoperability is a major requirement for the ICT sector as societies, governments and industry increasingly move towards global collaboration and integration. Open standards built on the principles of openness, transparency and consensus lay the grounds for innovation and growth, for flexibility and choice, for global market success and fair competition. In other words, open standards is where society, government and industry align and where everyone is sure to benefit.