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The business school that thinks  
and lives in the future

# Why industry standards are pivotal

by Henk de Vries and Jan van den Ende

**History is strewn with products – some even technically superior – that markets have eventually rejected because they lacked industry acceptance and approval. What can businesses do to prevent this?**

We are all familiar with the ubiquitous USB plug and socket that allow us to easily connect devices, such as external hard drives, memory sticks, printers and cameras, to our PCs. Now, if there was no industry standard, manufacturers may not have had the necessary economy of scale to make it financially viable to have their products USB-ready and we would have all lost out. That is the power of industry standards.

A standard is a set of requirements that specifies how entities should interact to enable them to function together. Standards vary in complexity, scale and span, from dealing with safety, quality or environmental issues, to dictating how the various physical and logical components in a road-pricing system communicate with each other. Crucially, multi-stakeholder-supported (versus proprietary) standards have a better chance of being accepted and deployed.

There are exceptions. As we have seen with IBM and Microsoft in the past, “monopolies” can use their influence and dominance to impose

their company standards as de facto standards. Then there are industries where proprietary standards co-exist, such as in the games market where Nintendo, Sony and Microsoft dominate, and the smart phone market – with Apple’s own standard competing with Android – an open one.

## Be flexible

The process of establishing a product standard and getting it formally accepted by industry starts with creating a network of interested stakeholders to design, develop and promote the particular standard. Which network finally wins will depend on the amount of industry support and the willingness of manufacturers to apply the standard to their products, and customer interest in them.

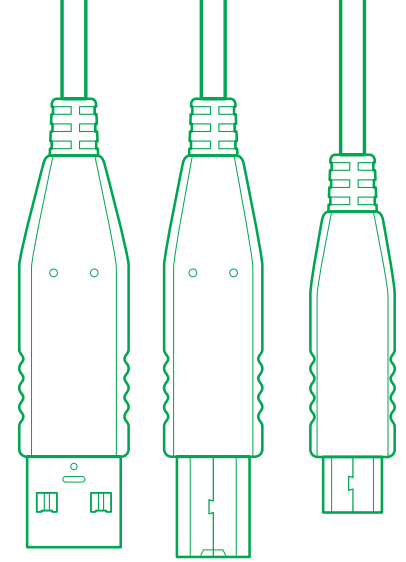
Our recent research shows that it is important to also involve a variety of manufacturers and sometimes professional customers in the development of the standard, and, if necessary, to adapt it to their requirements. This can be done to attract new participants. It is also

recommended to maintain this flexibility, allowing participants to propose modifications, such as upgrades. Importantly, adaptations of standards over time should not be considered an unwanted side-effect, but an integral part of the standardisation process – a part that should be carefully managed.

This concept of flexibility is paradoxical since standards aim at creating sustained compatibility between different technologies, and therefore stability in the markets – while flexibility creates instability. However, this flexibility can also stimulate pro-standard support, thus promoting stability in the longer term. In addition, flexibility can enhance both network size and diversity, which in turn will further affect this flexibility.

A case where flexibility played a decisive role is in the standards battle involving Blu-ray and HD-DVD. In 1998, the market introduction in Japan and the USA of commercial, high-definition television created the need for a commonly accepted, inexpensive way to record and play high-definition content.

Two standards competed for dominance: Blu-ray and HD-DVD. In 2008, Blu-ray became dominant. The size and diversity of the two competing networks were initially similar, but the dynamics of the processes and the market shares of the network



members in their respective industries were different. Some of Blu-ray's new members requested several substantial changes to the standard. These changes also served to attract new members, particularly IT and film companies, with significant market share in their respective industries. Specifically, the substantial changes that Blu-ray made to accommodate the requirements of the film studios created higher commitment and support in that sector, and helped Blu-ray win the contest.

## Phased approach

Good timing is also critical. Being early to incorporate changes appears to be important for success, and potentially more important than just early timing of market-entry. Experience has shown that a standards project is ideally conducted in three phases: 1) pre-formation phase, 2) formation phase, and 3) lock-in phase.

Start with just a few industry players with essential know-how and create an initial design. Of course, a larger, more diverse group is essential to prepare for broad market acceptance and to prevent key stakeholders from joining a competing alliance. Thus, the process of expanding the initial network and adapting the standard (phase 2) should be started early. The network can then be gradually extended further (the

required speed also depends on what the competing standards alliances, if any, do).

Creating a layered network structure, in which activities related to modifying the standard are separated from promotional ones, keeps the processes manageable. Now, flexibility in a standard's design may be hindered by inherent technical limitations. Initial choices should therefore be based on the possibility of future modifications. This may be a disadvantage in the beginning (higher costs), but an advantage in later phases. In the final phase revisions may still be required, but they will be few and their implications less significant.

Reviewing the benefits, standards make companies more efficient and cost-effective. Furthermore, participating in standards' development exposes businesses to the expertise and research of their peers, which can in turn lead to improved designs and new ideas. Reasons enough to be well-prepared and involved: you cannot, after all, afford leaving to others to determine what is pivotal to your own business. ■

This article is partly based on the paper *The Paradox of Standard Flexibility: The Effects of Co-evolution between Standard and Interorganizational Network*, which was written by Jan

van den Ende, Geerten van de Kaa, Simon den Uijl and Henk J. de Vries and published in *Organization Studies*, (2012), 5, 705-736.

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RSM is holding a two-day seminar on International Standardisation on 22-23 August, which will provide insights into achieving business goals through involvement in international standardisation. Further information can be obtained from: Michael Smith, Programme Advisor

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